FEATURE

Strategies to Curb the Tobacco Epidemic in the Philippines: Experiences from Other Countries

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ABSTRACT - *The use of tobacco is one of the leading causes of death worldwide. The Philippines, which adopted legislation for curbing smoking in 2003, could learn effective strategies from the experiences of countries around the world that have had more years of experience and research as to what works and what does not. Strategies which are more effective include taxation, legislation of designated non-smoking areas, clear information as to the dangers of smoking on cigarette packages, selling cigarettes only in packs, and counter-advertising campaigns. An extensive international review of these and other strategies for curbing cigarette consumption is offered, considering how this information might be useful to the Philippines at this time.*

The Philippines is a tropical country composed of 7,100 islands, with a population of 85,237,000, according to the National Statistics Coordination Board (NSCB, n.d., section 1).

There are many different health issues affecting the Philippines. The four leading causes of morbidity are infectious diseases: diarrhoea, bronchitis, pneumonia, and influenza. The fifth cause of morbidity is hypertension, a noncommunicable disease. However, deaths in the Philippines are mainly due to noncommunicable diseases: diseases of the heart, diseases of the vascular system, pneumonia, malignant neoplasms and accidents are the five leading causes of mortality (World Health Organization, Western Pacific Regional Office [WHO WPRO, 2001], 2001).

There is sufficient evidence that most noncommunicable diseases like the ones included in the five leading causes of mortality in the Philippines, are lifestyle-related diseases. Lifestyle behaviors such as sedentarism, high consumption of saturated and/or hydrogenated fats, consumption of foods with concentrated amounts of sugars, lack of

consumption of fruits and vegetables are, among others, responsible for the epidemic of noncommunicable diseases in high and low income economies. There is one risk factor that also contributes to the development of these diseases. According to a study published in *The Lancet* in 2003, this behavior was responsible for 4.83 million premature deaths in the world during the year 2000 (Ezzati & Lopez, 2003). We are talking about the habit of smoking tobacco.

Ezzati and Lopez found that half of these premature deaths occurred in developing countries, and that the leading causes of death from smoking were cardiovascular diseases, chronic obstructive pulmonary disease, and lung cancer (the first, seventh, and fourth leading causes of death in the Philippines, respectively).

Smoking is the number one preventable cause for premature death from noncommunicable diseases in the world; half of all long-term smokers will be killed by tobacco and half of these will die in middle age, losing 20 – 25 years of life (Ezzati & Lopez, 2003).

Based on convincing evidence of the relation between tobacco and noncommunicable diseases, the World Health Organization (WHO), in its plenary meeting on March 1, 2003, adopted the WHO Framework Convention on Tobacco Control (FCTC) because they were "determined to protect present and future generations from tobacco consumption and exposure to tobacco smoke" (WHO, 2003, p. 1). The FCTC is the first and most decisive step in controlling use of tobacco. The framework comprises a variety of topics including measures relating to the reduction of demand for tobacco as well as measures relating to the reduction of the supply of tobacco (see Figure 1). In this article we discuss selected measures that could be relatively easy to implement in the Philippines.

Price and Tax Measures

In spite of the addictive nature of smoking, the demand for cigarettes is highly affected by price. The extent to which smokers can afford to purchase cigarettes (affordability) has a major influence on consumption. However, the demand is inelastic. It is not one to one, as a 10% increase in tobacco prices has been shown to reduce consumption in the short-term by 3% to 5% in high income, developed countries and by 8% in low- and middle-income countries. Increasing prices through taxation is considered to be the most effective single tool to control tobacco use. Reductions are most effective in children and in lower-income groups (World Bank, 1999).

WHO Framework Convention on Tobacco Control

Measures relating to reducing the demand for tobacco

·   Price and tax measures
·   Protection from exposure to environmental tobacco smoke
·   Regulation and disclosure of the contents of tobacco products
·   Packaging and labeling
·   Education, communication, training, and public awareness
·   Comprehensive ban and restriction on tobacco advertising, promotion, and sponsorship
·   Tobacco dependence and cessation measures

Measures relating to reducing the supply of tobacco

·   Elimination of the illicit trade of tobacco products
·   Restriction of sales to and by minors

Figure 1. Measures relating to reducing the demands for tobacco.

A number of econometric analyses reviewed the impact of an increased tobacco tax on tobacco consumption in California (Hu, Xu, & Keeler, as cited in Abedian, Van der Merwe, Wilkins, & Jha, 1998). These studies showed a significant reduction in *per capita* cigarette consumption, directly associated with the implementation of a tobacco tax increase (instituted under California Proposition 99). From January 1989 through December 1992, the tobacco tax increase was estimated to have reduced cigarette consumption by 1.3 billion packs of cigarettes (Hu et al., as cited in Hu, Sung, & Keeler, 1998). Although there was a significant reduction in cigarette sales due to the tax increase, California's revenues also increased dramatically since the percentage increase in tax, reflected by the increase in retail price, was higher than the percentage decrease in demand (sales). A 10% increase in price reduced the demand by 4%.

Within the European Union, cigarette prices vary both absolutely and relative to incomes. Townsend (as cited in Abedian et al., 1998) published in the British Medical Journal a research study based on price and consumption data from 22 European countries taken from a cross-sectional study of smoking and price conducted in 27 European countries. The study reported a price elasticity of demand for

cigarettes in Europe of -0.4 (a 1% rise in relative cigarette price results in about a 0.4% drop in the amount consumed).

Young people tend to be very responsive to the increase of cigarette price and tend to cut down on their consumption as price increases. Figure 2 shows the cigarette smoking prevalence among Canadians aged 15–19 years from 1979 to 1991 and the price of cigarettes relative to the price of all goods and services adjusted for inflation. As the price increases, consumption decreases.

Surveys performed in other countries have shown similar results. In fact, in the United States of America, the Surgeon General's 1986 report states that an increase of 10% a year in cigarette price can decrease consumption among adolescents by 14% (Mélihan-Cheinin & Hirsch, 1997). Similarly, among low income smokers, with every 1% price increase, consumption drops about 1% (World Bank, 1999).

Figure 2. Real cigarette prices and cigarette smoking prevalence among Canadians aged 15-19 years.

Researchers for the World Bank modeled the potential impact of a 10% tax increase worldwide and its impact on the number of smokers persuaded to quit and lives saved. Using very conservative assumptions, this model shows that even modest price increases could have a strong influence on the prevalence of smoking and tobacco-related deaths among smokers. According to this model (see Table 1), measures that would raise the real price of cigarettes by 10% worldwide would cause 40 million smokers alive in 1995 to quit, and therefore prevent ten million tobacco-related deaths. Nine million of these deaths would be prevented in low- and middle-income countries
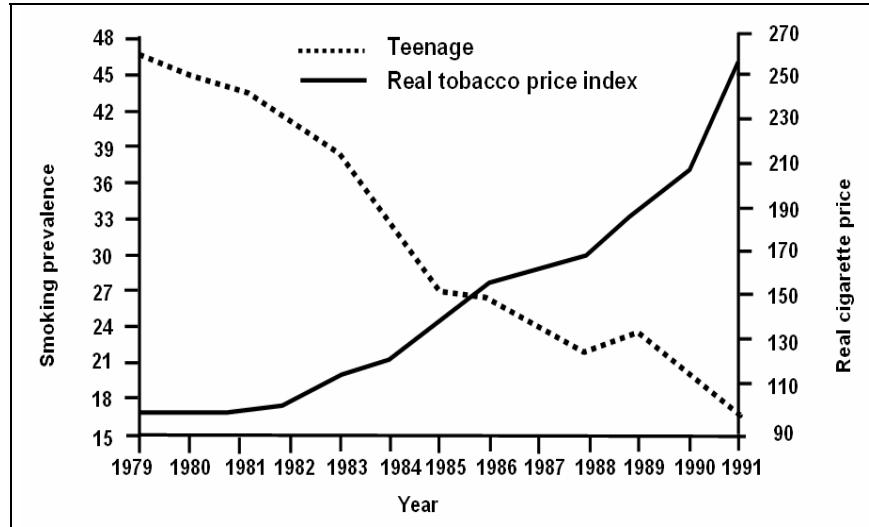
(World Bank, 1999).

Table 1

Potential Number of Smokers Persuaded to Quit, and Lives Saved, by a Price Increase of 10%

Region	Change in number of smokers (millions)	Change in number of deaths (millions)
East Asia and the Pacific	- 16	- 4

Eastern Europe and Central Asia	- 6	- 1.5
Latin America and the Caribbean	- 4	- 1.0
Middle East and North Africa	- 2	- 0.4
South Asia (cigarettes)	- 3	- 0.7
South Asia (bidis)	- 2	- 0.4
Sub-Saharan Africa	- 3	- 0.7
Low/middle income countries	- 36	- 9
High income countries	- 4	- 1
World	- 40	- 10

Note. Numbers have been rounded.

Comprehensive Ban and Restriction on Tobacco Advertising, Promotion, and Sponsorship

Tobacco companies use a broad range of advertising, sponsorship and promotional activities to boost tobacco sales. Advertising media include point-of-sale, television, magazines, journals and billboards, among others. Sponsorship of events and organizations allows the industry to place their brand logos on race cars, in stadiums and on athletes' uniforms, which often gets the company further television coverage (often in spite of television advertising bans). Promotion is a broad category that encompasses the use of coupons redeemable for tobacco products; giveaways; 'sale' of non-tobacco products such as baseball caps, bags, and T-shirts emblazoned with brand logos (these can often be purchased with empty cigarette packs); and placement of tobacco products in films and videos.

The tobacco industry often fiercely contests policies to restrict or ban tobacco advertising, and finds creative ways to get around bans to keep their brand names and images in front of the public. Although the industry maintains that advertising is targeted at getting current smokers to switch to their brand, their own internal documents show that they clearly rely on advertisements, especially the kind that can affect young people, to attract new customers. According to J. W. Hind: "the successfully tested 'Meet the Turk' ad campaign and the new Marlboro-type blend is another step to meet our marketing objective: to increase our young adult franchise. To ensure increase and longer-term growth for Camel Filter, the brand must increase its share of penetration among the 14–24 age group which have a new set of more liberal values and which represents tomorrow's cigarette

business" (R. J. Reynolds Tobacco Co. internal memorandum, January 23, 1995).

A longitudinal study conducted in California showed that between 1993 and 1996, 34% of all cigarette experimentation by teenagers could be attributed to tobacco promotional activities (Pierce, Choi, Gilpin, Farkas, & Berry, 1998).

Tobacco advertising is still prevalent in many countries. Billboards are often considered to be among the most egregious of the advertising media. A survey conducted in the UK reported that almost 40% of 8–13 years old said they most often saw cigarettes advertised on billboards (Levin, 1992). When billboard advertising was successfully banned by Baltimore City, Maryland (USA), 'rolling billboards' (a truck pulling a large billboard on a trailer) were seen cruising the streets of the city.

Studies have shown that adolescents smoke the most heavily advertised brands and that their brand choice is influenced by advertising and promotion. The most effective strategy, therefore, is a comprehensive ban on all forms of tobacco advertising, sponsorship and promotion.

Protection from Exposure to Environmental Tobacco Smoke

The primary objective of clean indoor air regulations in schools, workplaces and public places is to protect non-smokers from involuntary exposure to tobacco smoke. Clean indoor air policies have been shown to be highly effective in decreasing involuntary exposure, but have also been shown to decrease both consumption and smoking prevalence. In a study conducted by Ron Borland and colleagues, over 7,000 adult non-smokers were interviewed as part of the 1990 California Tobacco Survey. Respondents were asked whether anyone had smoked in their work area within the past 2 weeks. Among non-smokers, exposure to tobacco smoke were as follows: 9.3% for those who worked in smoke-free worksites, 23.2% for those whose workplaces only had a work-area restriction, 46.7% for those whose workplaces had policies that did not include the work area, and 51.4% for those whose workplaces had no policy on smoking. The authors concluded that a smoke free worksite is necessary to provide adequate protection of non-smokers from environmental tobacco smoke exposure (Borland et al., 1992).

A publication by Chapman et al. (1999) reviews 19 studies on the impact of smoke-free workplaces on cigarette consumption and prevalence. Of the 19 studies reviewed, 18 reported reductions in

daily smoking rates and 17 reported reductions in smoking prevalence, although the authors noted that outside the healthcare setting, the impact on prevalence was not as clear.

Excluding the potential impact on prevalence, and focusing only on consumption, the authors concluded that "if workplaces were universally smoke-free, the number of cigarettes foregone annually would increase to 1.14 billion (3.4%) in Australia and 20.9 billion (4.1%) in the US" (Chapman et al., p. 1022).

Tobacco Dependence and Cessation Measures

Studies performed in the United States of America show that, although most smokers (about 70%) want to stop smoking at some time, only a minority (about 15%) are ready to stop smoking at any given time.

Prochaska, DiClemente and Norcross (1992) developed a model of the structure of people's efforts to change their own addictive behavior. The basic constructs of their 'stages of change' theory are

- · **Pre-contemplation stage:** not seriously thinking of a change in smoking behavior within the next 6 months and a tendency to avoid information designed to help bring about change.

- · **Contemplation stage:** seriously thinking about changing behavior, and expect to do so within the next 6 months but not immediately. Very ambivalent and can become stuck in 'chronic contemplation.'

- · **Preparation stage:** planning to stop smoking within the next 30 days and have made previous attempts for at least 24 hours in the last 12 months. Taking significant steps towards quitting.

- · **Action stage:** have quit smoking and are at great risk of relapse.

- · **Maintenance stage:** have not smoked for more than 6 months.

Most people change through a cyclical process, with relapse being a normal part of the process. Tobacco control policies and interventions can more effectively influence people not to smoke by segmenting the public according to stages in the tobacco control addiction cycle. Tobacco companies know this and base their

marketing decisions in a given market on the prevalence of consumers at the different stages in that market.

Restriction of Sales to and by Minors

Policies to restrict access to tobacco for minors can include the elimination of self-service displays, mail-order sales, and vending machines (forcing a face-to-face transaction); enforcing a minimum package size of 20; and prohibiting the distribution of free samples (Anderson & Hughes, 2000). Many countries have attempted to impose restrictions on the sale of cigarettes to minors using these strategies. However, most have not been shown to be successful. Youth restrictions are difficult to enforce because retailers often take advantage of sales to minors. Studies performed in the US, where legislation exists that prohibits tobacco sales to minors, have shown that most teenagers have no difficulty in obtaining cigarettes and buy them in small stores, gas stations, and vending machines (Barovich, Sussman, & Dent, 1991; Foster, Hourigan, & McGovern, 1992; Kim, 1987; Klonoff, Fritz, Landrine, Riddle, & Tully-Payne, 1994).

Self-service displays give minors easy access to tobacco products. A study by the Institute of Medicine in the United States of America found that more than 40% of grade-school students who smoked daily had, at some stage, shoplifted cigarettes from self-service displays (Institute of Medicine, 1994).

In general, as the cost of cigarettes increases, young people become less likely to purchase cigarettes. However, when cigarettes are taken out of the pack and sold singly and inexpensively (relative to the price of a pack), young people are more able and thus more likely to buy them. A study published in 1994 shows that single cigarettes were sold in almost 50% of the 206 surveyed retail outlets located in the middle-class and lower-class metropolitan areas of San Bernardino and Riverside counties in California. Single cigarettes were more likely to be sold to minors, who paid more for them than adults (Barovich et al., 1991; Klonoff et al., 1994).

Education, Communication, Training, and Public Awareness

In the US alone, the major tobacco companies spend US$5.6 billion each year to advertise their products. Tobacco industry documents have shown that the industry targets young people as a source of new customers, and research has shown that these investments in advertising and promotion are effective. In fact, 86%

of the young people in the US that smoke prefer Marlboro, Camel and Newport, the most heavily advertised brands (Centers for Disease Control and Prevention [CDC] 1994). A survey released in April 2000 by the Campaign for Tobacco Free Kids showed that more than 70% of 12–17 year olds, and only a third of adults, recalled seeing tobacco advertising in the past two weeks.

Counter-marketing campaigns are an important and effective component of comprehensive tobacco control programs. These campaigns often utilize television, radio, and billboard advertisements, as well as media advocacy techniques like holding local events to generate news coverage. Their overall goal is to reduce tobacco use, but the campaigns use different strategies to achieve this goal. These strategies can include providing information on the health risks of tobacco use, changing social norms around tobacco use, and encouraging quit attempts, among others. There is currently a debate in the literature as to the best messages and message types to use in counter-advertising campaigns. For example, in a US based review conducted by Goldman and Glantz, (1998) five message types were considered and researched (primarily focus group research) and their relative effectiveness was reviewed. The study concluded that the most effective message types for denormalizing tobacco use are those that use the themes of tobacco industry manipulation and second-hand smoke, and that 'aggressive' strategies are more effective at reducing tobacco use. Since the effectiveness of a given message is likely to vary across countries and across populations, however, pre-testing of campaign messages is critical. The implementation of a large-scale paid media campaign in Australia was associated with reduction in prevalence in both males and females (Reid, Killoran, McNeill, & Chambers, as cited in Reid, 1996).

Since the 1960s, many governments have required cigarette manufacturers to print health warnings on packages. Studies conducted in Australia, Canada, and Poland suggest that health warning labels, when prominent, and containing specific information, can be effective.

A study conducted in Australia showed that the implementation of stronger warning labels resulted in a 27% increase in the percentage of people noticing the labels, and a 7% increase in people foregoing smoking due to the labels (Borland, 1997).

According to Health Canada (2000), in order to be effective, information required on labels should be "noticeable (stand out and be

large enough to read), believable (relevant and factual), and recallable (location and color should influence the ability to remember)" (¶ 4).

The Canadian government recently implemented new packaging regulations that started appearing in January 2001 and are considered to be the strongest in the world. They require graphic health warnings and cover the top half of the front and back of tobacco product packages.

Requiring manufacturers to place longer health messages inside the packet is another innovative health promotion opportunity targeted directly at tobacco users that offers a cost-effective health education program.

While warning labels can be effective and convey significant health information to consumers, the tobacco industry has historically used the warnings to shelter themselves from legal liability. They have argued that the warnings are proof that smokers know of the health hazards of smoking. These arguments do not consider, however, the critical element of addiction, which is a central impediment to a smoker's ability to quit in response to information on the hazards of smoking.

According to the WHO, since 80% of the young people in developing countries are enrolled in schools, and 60% complete at least four years of education, the school is a place of special importance for the implementation of prevention campaigns (WHO, 1998). Research performed in the US has shown that merely informing teenagers about the health effects of smoking has no effect on their smoking prevalence. However, programs that include the 'life skills' approach to substance-use prevention have been shown to reduce smoking initiation between 25% and 87% at 1 – 6 years follow-up (Botvin, Baker, Dusenbury, Botvin, & Diaz, 1995). Life skills include assertiveness, critical thinking, decision making, and problem-solving abilities. These skills boost protective factors in students such as self-confidence, self-esteem, autonomy, and self-control.

The CDC have developed 'Guidelines for School Programs to Prevent Tobacco Use and Addiction' based on an extensive review of research and practice. These guidelines suggest that school programs to prevent tobacco use and addiction are most effective if they "prohibit tobacco use at all school facilities and events, encourage and help students and staff to quit using tobacco, provide developmentally appropriate instruction in grades K-12, address the social and psychological causes of tobacco use, are part of a co-ordinated school

health program through which teachers, students, families, administrators, and community leaders deliver consistent messages about tobacco use, and are reinforced by community-wide efforts" (CDC, 1994, ¶ 1).

Media literacy programs encourage students to critically analyze the techniques used by the mass media. They aim to increase students understanding and enjoyment of how the media works, how they produce meaning, how they are organized, and how they construct reality (Media Literacy Online Project, n.d.). Media literacy has been incorporated into school-based tobacco control programs to critically assess the normalization and glamorization of tobacco use through advertising. Analysis through 'deconstructions' of tobacco and other types of advertising encourages students to become more critically aware of underlying messages and the techniques used to convey these messages. A good example of media literacy tools are those developed by the CDC, and the New Mexico Media Literacy Project (n.d.).

Youth participation in tobacco control programs takes many forms. Students can be the best spokespersons for policy change, especially in areas that directly affect them. In a number of programs, young people have become actively involved in advocating for changes in the law (e.g., to eliminate vending machines or to keep advertising from targeting children). In other programs, young people have monitored merchant compliance with laws against selling tobacco to minors, or served as peer leaders in educating their classmates and friends. Active participation in the development of program materials targeted to youths can be critical to their effectiveness.

Conclusion

The Framework Convention for Tobacco Control outlines different effective strategies to be implemented in the Philippines. These strategies are based on solid evidence, and are the product of the experiences and research in developed and developing countries. Following these recommendations will, without doubt ,result in a curb of the tobacco epidemic in the Philippines. The facts are clear enough. It is time to lobby at different levels of society for tobacco control. Legislation is not the only solution: there is a need to get involved at the community level. The battle against the tobacco epidemic can be won if everybody combines their efforts toward a common goal.

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