Effectiveness in Tobacco Control

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"Seek simplicity, and distrust it." Alfred North Whitehead [1]

Thus, the task is, not so much to see what no one has yet seen; but to think what nobody has yet thought, about that which everybody sees. Erwin Shrödinger [2]

Medicine and science have often sought the "magic bullet" in efforts to prevent disease and enhance health. However, there is significant challenge and major barriers to change in several of the key areas for non-communicable disease: nutrition, alcohol and tobacco. Recently some have commented on the lack of change in several areas of lifestyle behaviour. There are difficult areas, because they involve social, political and economic issues as well as the vested interests of companies and states. In addition, in the case of tobacco and to some extent alcohol, these involve addictive human behaviours. This presentation aims to review the effectiveness of various measures to control and reduce the use of tobacco. These strategies and programs are available for implementation by governments, agencies, communities and individuals.

Background

Much of the developed world has gone through various transitions.

Transition 1. – The age of education and promotion of harm

The first was characterised by education and community awareness in the 1960's and early 1970's. The publication of the Royal College of Physician's Report in 1962 and the first US Surgeon General's Report on Smoking in 1964 were milestones that heralded a change in the level of consumer information. These reports showed tobacco use, as not merely a social behaviour, but as a cause of significant disease. It is unfortunate that we cannot list smoking as the cause of death on death certificates, as smoking is the risk factor that for many diseases contributes to the early and premature death. But the causes are often heart disease, cancer or other vascular disease. At the time of these reports, smoking rates among adult males in many Western countries were in the 60 and 70 percent range. The information would have been thought to lead to a change in practice, and slowly it did. But this change was to a large extent sabotaged by actions of the major tobacco companies, a fact that did not become apparent until 1994.

Transition 2.

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1 Quoted in W H Auden and L Kronenberger *The Viking Book of Aphorisms* (New York 1966).

2 Erwin Shrödinger, of Shrödinger's Cat fame.

In the early 1970's Kjell Bartveit in Norway along with a number of other countries took action to limit the advertising of tobacco. This process of limiting the advertising and promotion of an inherently damaging product has been long and tortuous. In the late 1970's and early 1980's agencies in higher income countries began legislative change, including smoke-free environments, health warnings added to the bans on tobacco advertising. The use of health warnings has progressed in many countries to a more advanced stage, and it is now recognised as an effective means of informing consumers of the risks.[3]

Transition 3.

From the mid-1980's the word tobacco control became increasingly prominent and a shift in emphasis occurred towards at least three other areas, those of litigation, economics and addiction.

Transition 4

The most recent transition was marked by two activities. The first was the initiation in the 1990's of the Framework Convention on Tobacco Control. This has led to the most concerted international approach to networks and publications. The World Health Organization has taken more seriously the burden of disease from smoking, and as a result there is now much greater awareness, activity, surveillance and country plans than at any previous stage. This includes the support to non-government agencies, the development in collaboration with CDC of the country specific and global youth tobacco surveys, the media activities highlighting the role of the tobacco companies, the inquiry into the role of the tobacco companies.

At the same time, in 1994 the first documents from the tobacco industry archives became available, regarded by many as the most significant case "in the annals of business or health".[4]

This paper categorises the following areas to be looked at in terms of effectiveness:

1. Regulation of the Market

Interventions in the market can take place through price measures and non-price measures.

Price or tax measures

Increasing the real price of cigarettes or tobacco products is regarded as the most significant measure to curb or reduce tobacco use.[5] A number of key documents

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3 ....*Smoking: Risk, Perception and Policy,* Sage Publications, New York, 2001.

4 Philip Hilts, *Smokescreen – The truth behind the tobacco industry cover-up,* Addison Wesley, New York, 1996, p 6.

5 Guindon E., Tobin S., Yach D., *Trends in Affordability of Cigarette Prices: Ample Room for tax increases and related health gains,* Tobacco Control, 2001.

have been produced by leading global agencies on this topic.[6,7,8] Over the years the data from Canada, the U.K and other developed countries has been used. Recently however, evidence has become available from other locations. Monitoring of economic measures in South Africa and in Cambodia provide additional insight into the effectiveness of such measures.

In 1999 during a visit to the Minnesota Tobacco Documents Depository, I unearthed one of the key industry statements on tobacco control from the BAT files that stated:

> *"Of all the concerns, there is one – taxation – that alarms us the most. While marketing restrictions and public and passive smoking do depress volume, in our experience taxation depresses it much more severely. Our concern for taxation is, therefore, central to our thinking about smoking and health."* [9]

The evidence on taxation is very consistent. Estimates from numerous studies show that the price-elasticity of cigarette demand in high-income countries rages from –0.25 to 0.5, implying that tax increases raising the price by 10% will reduce consumption by up to 5%. This impact is often greatest in youth and young adults for whom such changes appear to be up to three times more sensitive. In lower and middle income countries increases of 10% have shown that the impact can be double of that in high-income countries. Thus an increase of 10% in taxation may lead to up to 10% reduction in tobacco use. The consistent result from most studies is that about 50 percent of the change generated by price increases is due to a reduction in consumption among remaining smokers.

WHO has recently indicated that that there is considerable room to use the means of reducing tobacco consumption more effectively. Tax increases are a means of generating increased revenue, of reducing inequity, as an appropriate way of promoting economic efficiency, and most importantly as a means of improving public health. Jha and Chaloupka indicated that "price increases of 10% would be the most effective and cost-effective of three interventions examined."[10]

A neglected area is that of duty free purchasing. The removal of duty-free tobacco from sales in the European Union and Singapore, heralds the approach that needs to be adopted. Fortunately, this is included in the provisions of the

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6 World Bank, *Curbing the Epidemic: governments and the economics of tobacco control,* Washington, DC. 1999. Available on the World Bank website at: http://www1.worldbank.org/tobacco/reports.htm

7 Iraj Abedian, Rowena van der Merwe, Nick Wilkins, Prabhat Jha, *The Economics of Tobacco Control – Towards an optimal policy mix,* Applied Fiscal Research Centre, University of Capetown, 1998.

8 Prahbat Jha, Frank Chaloupka, *Tobacco control in developing countries,* Oxford University Press, on behalf of the Human Development Network, the World Bank and the World Health Organization, 2000.

9 Excise Taxation of Tobacco Products (Bingham) – Public Affairs International Conference, 12-16 July, 1992, BAT (Bates File No. BA 0462. 502649609 – 796).

10 Jha and Chaloupka, (2000) ibid, p 439.

FCTC. Another important area is that of using tobacco taxes to fund health promotion activity. This has long been the case in some countries, but has recently been adopted in Thailand.[11]

2. Interventions by Health Care Providers and Professionals

Much of the excess risk of mortality associated with smoking is reduced if smoking is stopped before middle age.[12] Professional agencies have produced information on the most effective interventions.[13] The European Partnership Project has produced guidelines.[14]

The developing work in this area is significant. In addition, WHO has recently undertaken a committee to review global cessation measures that met in Moscow from 14-15 June 2002.[15] Prabhat Jha has shown that the use of self-funded medication would save something like 32 million deaths in the next 30 years.

3. Education, Consumer Awareness and Information Interventions

This area covers a range of interventions including health warnings, package inserts, media approaches and counter advertising. There is strong evidence to support the use of health warnings that a clear, direct and confronting.[16]

It has often been assumed that if people are provided with information, this will lead to change in behaviour. The effectiveness for many interventions such as information leaflets is that although they can increase the knowledge, they rarely influence behaviour change.[17]

The advocacy and information that appears to work best is aimed at using "affect" language and messages. Thus the focus of media and other interventions is most effective when campaigns using some emotion content. One clear example of this is in the recent strategy in Korea, where a most famous comedian and humourist, Mr Lee Joo-Il, who is dying of lung cancer was presented on television with oxygen tubes inserted in his nostrils and indicating that if Korean men keep smoking, they will end up like this too. This has had a powerful impact in motivating many smokers to quit.

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11 Holman CD., Donovan RJ., Corti B., Jalleh G., Frizzell SK., Carroll AM. *Banning tobacco sponsorship: replacing tobacco with health messages and creating health-promoting environments.* Tobacco Control, Vol 6, pp 115-121.

12 Doll R., Peto R., Wheatley K., Gray R., Sutherland I. *Mortality in relation to smoking: 40 years observations on male British doctors.* British Medical Journal, 1994; 309:901-911.

13 Most effective measures in Preventive medicince..... (Details)

14 These may be downloaded at the website of the WHO European Regional Office at http://www.euro.dk

15 WHO Global meeting on Smoking Cessation, Moscow, 14-15 June 2002.

16 Recent Canadian evidence... Thailand evidence....

17 Reid D., *Tobacco control: An overview*, British Medical Bulletin, 1996; 52:108-120.

The tobacco industry has used terms such as 'light', 'mild', 'smooth' to deflect the toxic nature of by-products from tobacco smoke. Efforts by a number of countries to remove use of these descriptors has resulted in litigation from the tobacco industry, one of the surest sign of effectiveness. The scream test has long been a litmus for real concerns of the tobacco industry.

4. Home based Interventions

People who live in homes where they are exposed to passive smoke suffer particle pollution two to three times higher than those who live in smoke-free households. Passive smoke is a cause of ill-health, sudden infant death and contributes significantly to the additional burden of disease from cardiovascular disease and cancer. The International Agency for Research on Cancer released a new report in which they show much greater impact of passive smoking than had been previously acknowledged. Some leading countries have implemented policies aimed at smoke-free homes. Educating and encouraging non-smokers to advocate and require smoke-free environments is an important and necessary part of effective strategy for the home, the school, the workplace and the social environment.

5. School-based Interventions

The evidence on tobacco use is that the younger it is started, the more likely it will adversely impact health, and the use will be longer and the ability to quit more difficult. While there has been considerable investment of resources into school-based interventions, the evidence on attitudes and behaviour is somewhat uncertain. The period of adolescence is a time when youth are seeking to establish their own set of values and behaviours distinct from parents, and influenced by other peers. Thus tobacco use is often seen as a "rite of passage" because it is regarded as an adult behaviour. The overwhelming majority of smokers begin smoking during adolescence and the tobacco industry targets this area with the knowledge that much of this focus will have benefits to their industry carrying into adult life. Thus the tobacco industry has sought to focus much of its energy and funding in this area of youth smoking prevention by promoting programs such as "Smoking: Its You Choice" or "Think: Don't Smoke". The results have been disappointing with the research showing that industry based programs actually end up with more young people smoking than if nothing had been done.[18]

Two areas deserve attention in school-based interventions. Education needs to be integrated into life-skills and development courses on the risks and harm associated with tobacco use and the ability to use messages that enable adolescents to make their own choices in peer pressure situations. While this does not appear to show greatly reduced smoking rates it does provide important education. Further, there is evidence that the

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18 Farrelly MC, Healton CG, Davis KC, Messeri P, Hersey JC, Haviland ML. *Getting to the Truth: Evaluating National Tobacco Countermarketing Campaigns,* Am J Public Health 2002;92:901-907.

period of trial and early experimentation that is associated with smoking can be reduced. One study in New Zealand showed that the use of "convenience advertising" or advertising in high-risk situations where peer influences are often greatest for young people reduced the rate at which young people both experimented with smoking and went on to become longer term smokers. This type of approach deserves further study.

The other area is to ensure that the school setting has policies and procedures that support strong tobacco control policy. Minimally, this would involve a tobacco and smoke-free policy for the school premises. In many developing countries tobacco companies seek to advertise their products close to school premises. In this connection, it is hoped that the FCTC will act to remove all tobacco advertising. In addition, the

6. Work-place Interventions

7. The Community Approach

Several other issues to be covered will include the social and economic disadvantage often associated with smoking. Another most crucial factor is the importance of obtaining support from key political and decision makers.

Health is a powerful political platform and yet tobacco is often seen as a difficult area to effect change. This is becoming most evident in the development and support for the WHO Framework Convention on Tobacco Control FCTC. To be effective this process will require willingness on the part of some countries to change some of their current practices.

None of the interventions are as effective in isolation, but when implemented as a comprehensive package, such interventions can lead to sustained reduction in smoking and an improvement in 'Health for All'.

The world has recently been focussed on the events of the World Cup. In November 2000 I visited the Korean Organising Committee for the FIFA 2002 World Cup in Korea/Japan. The result was the achievement of substantial progress in the creation of smoke-free stadiums, and a long term relationship with FIFA. However, of greater significance were the developments taking place in the Korean community. With support from the President, the "blue house" was made smoke-free in 2000. The Ministry of Health was encouraged to adopt stronger measures, and support was received from the highest levels of government. Advertising was banned. Then in 2001 the tax on cigarettes was raised from 2 won to 150 won or around US $1.50. Senior executives from a number of world known brand name companies died of lung cancer. The most well known humourist and comedian in Korea, Mr Lee Joo-il was diagnosed with lung cancer at the age of 60 and was willing to go public about the cause. As a result of these comeprehensive measures, the smoking prevalence among men in Korea has fallen in just 12 months from 68% to 55%, the most significant short term reduction in smoking

prevalence ever recorded. It is hoped that this leadership can be continued, and that another 12 months will see a sustained reduction in tobacco use. In both Korea and Japan, lung cancer is now the leading cause of cancer in the country, and the tobacco industry references to them as examples of high smoking rates and low lung cancer rates, that was prevalent in the 1970's and 1980's is no longer heard.

Coordinated implementation of measures known to be effective in reducing tobacco use do work. It is to be hoped that more countries will continue to implement such measures.

We can reduce the burden of disease and death from tobacco, if we work on this together.