Man smoking, Istanbul, Turkey (2009). Copyright: WHO

THE CRITICAL ROLE OF RESEARCH IN TOBACCO CONTROL

Research and monitoring for tobacco control programmes are crucial to counter the continually changing strategies the tobacco industry employs to sell its deadly products, contends ***Priscilla Reddy***.

Tobacco is the second-leading cause of death and disability in the world after high blood pressure. The World Health Organization estimates that in 2012, tobacco killed six million people worldwide, of whom 600 000 were non-smokers, by inhaling environmental tobacco smoke.

Tobacco does not only shorten a smoker's life by an average 10 years, it also causes suffering and disability during life because it is a major risk factor for heart attacks and heart failure, strokes, chronic bronchitis, diabetes, lung cancer and tuberculosis – the leading cause of death in South Africa.

There is also an economic cost in terms of the number of days smokers take off work due to sickness, the cost of treating sufferers of tobacco-related disease, and the loss to the economy by the premature deaths of economically active citizens.

The human suffering and economic losses caused by tobacco therefore vastly outweigh any economic benefits from job creation in growing or marketing tobacco, or sponsorship from tobacco companies.

Tobacco control research

Research and monitoring are vital for tobacco control programmes to measure the scale of the problem. The HSRC has been active in tobacco control research for decades, beginning with questions on tobacco use included in the household surveys in the 1990s and culminating in the South African National Health and Nutrition Examination Survey (SANHANES-1) of 2011. SANHANES-1 was the first nationally representative bio behavioural study of tobacco product use in South Africa.

The data derived from this research played a key part in the formulation of a whole raft of tobacco control legislation since 1994. The author has also conducted research on smoking in adolescents through the Global Youth Tobacco Surveys (GYTS) in 1999, 2002, 2008 and 2011 among nationally representative samples of Grade 8–10 school learners in South Africa.

In addition, the author also conducted three nationally representative Youth Risk Behaviour Surveys (YRBS) in the years 1998, 2002 and 2008. These YRBS studies of more than 10 000 school learners aged 12–18 years revealed how health risk behaviours such as smoking tended to cluster with other health risk behaviours such as alcohol abuse and drug taking.

These studies have demonstrated the success by government in halving smoking rates among adults.

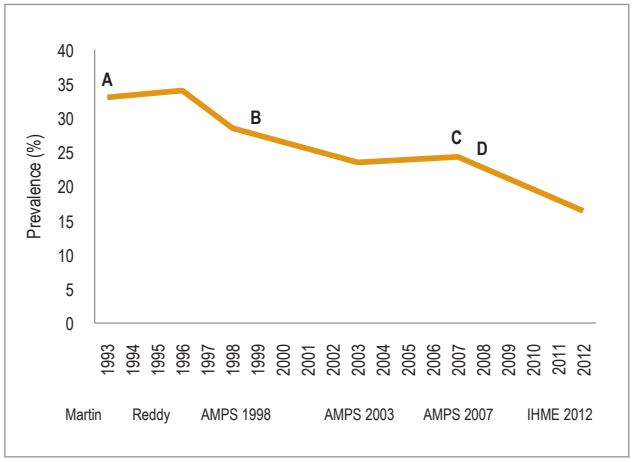
Research results

These studies over the past 20 years have demonstrated the great success by government in halving smoking rates during this period among adults from 32% to 16%, and in decreasing rates among school learners from 23% to 17% (Figure 1).

These changes occurred during a period when the government was introducing a comprehensive set of health promotion measures to curb tobacco use, including the banning of smoking in public places, banning the advertising of tobacco products, and increasing the cost of smoking by hiking excise duties on cigarettes to 52% of the total price of a pack of cigarettes.

Interventions were also made at an individual level through education in schools about the harmful effects of smoking on human health, and through declaring nicotine a drug of addiction in the school curriculum.

Figure 1: Decline in tobacco smoking over 20 years in South Africa



A. Tobacco Products Control Act of 1993
B. Tobacco Products Control Amendment Act No. 12 of 1999
C. Tobacco Products Control Amendment Act No. 23 of 2007
D. Tobacco Products Control Amendment Act No. 63 of 2008

Source: Compiled by the authors from Martin et al. 1992; Ng et al. 2014; Reddy et al. 1996 and Van Walbeek 2005

References: Martin G, Steyn K & Yach D (1992) Beliefs about smoking and health and attitudes towards tobacco control measures. South African Medical Journal 82(4): 241–245.

Ng M, Freeman MK, Fleming TD, Robinson M, Dwyer-Lindgren L et al. (2014) Smoking prevalence and cigarette consumption in 187 countries, 1980–2012. Journal of the American Medical Association (JAMA) 311(2): 183–192. Accessed June 2014, http://www.healthmetricsandevaluation.org/gbd/news-events/news-release/despite-declines-smoking-ratesnumber-smokers-and-cigarettesrises#/overview.

Passive smoking

SANHANES-1 estimated passive smoking by measuring cotinine levels in blood samples taken from participants in the study. Cotinine is a compound formed by the breakdown of nicotine in the bloodstream; nicotine that has been absorbed from cigarettes smoked in the weeks before the blood sample was taken, or nicotine absorbed by the passive inhaling of smoke by non-smokers.

Government should implement its planned legislation to ban smoking in cars with children under the age of 12.

Although 23% of participants in SANHANES-1 reported using tobacco products, 30% had cotinine in their bloodstream, suggesting that a considerable proportion of South Africans were exposed to damaging environmental tobacco smoke at home and in public places. This leads to a recommendation that the government should introduce and implement its planned legislation to ban smoking in cars transporting children under the age of 12, as young children are less able to persuade adults not to smoke in their presence.

49% of smokers had considered quitting as a result of reading warning labels.

Health warnings labels and plain packaging

The government introduced health warning labels on packs of cigarettes in the mid-1990s. SANHANES-1 showed that 49% of smokers had considered quitting as a result of reading such labels, indicating that health warning labels were effective. The government's intention to introduce plain packaging could also be an effective method of helping smokers to quit, a measure which has had great success in Australia.

Smoking rates increased from 2008 to 2011, particularly among girls.

Smoking and adolescents

SANHANES-1 revealed that young people were taking up smoking at earlier ages than in the past. The GYTS studies showed after initial success in reducing smoking rates among school learners by 29%, smoking rates began to increase again from 2008 to 2011, particularly among girls.

This evidence shows that the tobacco industry is having considerable success in recruiting young people to smoking. Once addicted to nicotine, the industry then has a customer for life – a life that will be shortened by on average 10 years as a result of this destructive habit.

Novel methods such as social media and cellphones could be used to reach these groups – especially girls – and portray the image that smoking 'is not cool'.

Young girl smoking, Lao People's Democratic Republic (2008). Copyright: WHO

Attitudes to smoking

The GYTS and YRBS studies have also shown that the government tobacco control programmes have resulted in a profound shift in attitudes towards smoking in both adults and children, and in smokers as well as non-smokers. This is important to sustain and deepen the reductions in smoking over the years.

Electronic cigarettes

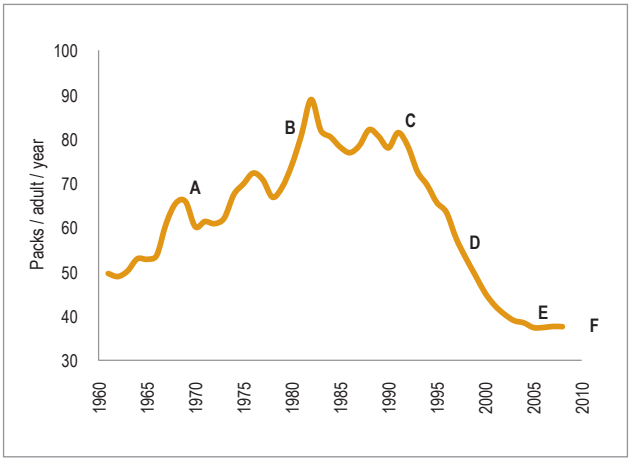
Electronic cigarettes deliver nicotine to the lungs on an inhaled carrier that is not tobacco. Research such as YRBS has shown that young people become addicted to nicotine even when they smoke only a few cigarettes a week. They would therefore readily become addicted to electronic cigarettes, which serve as a gateway drug to smoking cigarettes or using other drugs. Advertising of electronic cigarettes should therefore be banned and legislated as a prescription drug for use by smokers who are attempting to quit and wish to avoid the harmful effects of inhaled tobacco smoke.

Conclusion

Research in tobacco control has played an important part in guiding the formulation and implementation of tobacco control in South Africa over the past 20 years. Tobacco control has had considerable success in reducing smoking rates in adults and adolescents over that period (Figure 2).

Research and monitoring is still needed in order to assess the efficacy of tobacco control programmes in reducing smoking rates, and in order to develop new methods for tobacco prevention and cessation to counter the ever-changing methods the tobacco industry uses to market its deadly product – particularly to young people and girls.

Figure 2: Changes in smoking consumption in South African adults from 1960 to 2012



A. 1970s – local governments banned smoking in cinemas
B. 1980s – restrictions on smoking on domestic flights
C. Tobacco Products Control Act of 1993
D. Tobacco Products Control Amendment Act No. 12 of 1999
E. Tobacco Products Control Amendment Act No. 23 of 2007
F. Tobacco Products Control Amendment Act No. 63 of 2008

Source: Van Walbeek 2003; Reddy et al. 2013

References: Reddy P, James S, Sewpaul R, Yach D, Resnicow K et al. (2013) A decade of tobacco control: The South African case of politics, health policy, health promotion and behaviour change. South African Medical Journal 103(11): 835–840 Reddy P, Meyer-Weitz A & Yach D (1996) Smoking status, knowledge of health effects and attitudes towards tobacco control in South Africa. South African Medical Journal 86(11):1389–1393.

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