Smoking
and tobacco-related disease in NSW
an agenda for control

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Summary

This report provides an overview of the evidence supporting the Cancer Council and its partners’ case for a substantial enhancement of efforts in tobacco control. The evidence demonstrates that substantial improvement can occur in overall smoking prevalence and consumption of tobacco by applying existing knowledge and techniques. Failure to apply this knowledge threatens to erode gains achieved over the last two decades in tobacco control.

The evidence effectively despatches myths supported by the tobacco industry that question the effectiveness of tobacco control measures and promote ineffective measures.

Although the production and sale of tobacco involve significant economic activity, the benefits are overstated by the tobacco industry. There is no compensation for the epidemic of premature death caused by tobacco.

Assertions that the implementation of effective measures to control tobacco will lead to adverse effects on industries such as hotels and other hospitality industries not involved in tobacco production and marketing are without foundation and are refuted by the evidence. Furthermore, the tobacco industry can reduce the impact of control in the early phases by adjusting prices. In subsequent phases, active assistance for industry adjustment will need to be considered.

Accordingly, the Board of the NSW Cancer Council adopts the following position statement on tobacco control.
The significance of tobacco for health
The Board of the NSW Cancer Council reaffirms the status of smoking prevention as its leading priority in cancer control.

Goals and targets in tobacco control
The Board of the NSW Cancer Council:

- regards a smoking prevalence of less than 15% as a feasible first phase target in tobacco control
- believes that currently available measures, applied effectively, can increase by 50% the proportion of young people who never smoke
- calls upon the NSW government to develop a new tobacco and health strategy and action plan that achieves these goals by 2005
- calls upon the NSW treasury, in collaboration with public health professionals, to undertake and publish studies into the benefits and costs of declines in smoking beyond this first phase target, and the appropriate economic measures to facilitate further declines.

The effectiveness of tobacco control
The Board of the NSW Cancer Council regards the following elements as essential to the reduction of smoking:

- a level of funding in excess of $3.00 and up to $7.00 per capita in NSW
- well executed, sustained mass media and community-based campaigns to promote quitting, discourage uptake and help people to limit their exposure to environmental tobacco smoke
- strong, independent and multidisciplinary research and evaluation
- effective regulation and enforcement to ban promotion of smoking, regulate nicotine and other constituents of tobacco products, and eliminate exposure to environmental tobacco smoke
- evidence-based, accessible addiction services to help child and adult smokers to quit smoking
- marketing and outreach services with a particular focus on sub-populations of high smoking prevalence
- substantial penalties for businesses that break the law controlling the marketing of tobacco or the making of false claims about tobacco.
The need to sustain tobacco control in the long term
The Board of the NSW Cancer Council regards these elements as essential to sustaining an effective tobacco control campaign:

- legislation that guarantees an adequate appropriation and stability of funding for tobacco control
- a specific appropriation by Parliament for the tobacco control program, and mechanisms to review its adequacy and vary it if necessary
- management of the tobacco control program by an independent community agency committed to tobacco control
- rigorous and independent evaluation and reporting to Parliament of program performance
- ministerial oversight that is at arms length and transparent.

The need for immediate specific actions
The Board of the NSW Cancer Council calls on the State government to give effect to and act on the following as a matter of urgency:

- provide a level of funding for a State tobacco control strategy equivalent to the revenue that the government receives through the illegal supply of cigarettes to children in NSW
- put an end to all forms of tobacco advertising, in particular at point-of-sale, through the making of point-of-sale regulations already drafted under the Public Health Act
- amend the Smoking Regulation Act to ensure smoke free public places in line with the recommendations of the Ministerial Task Force on Passive Smoking by 1 July 2000.

Actions by the NSW Cancer Council
The Board of the NSW Cancer Council commits the Cancer Council to public advocacy, partnership and research to achieve the aims of this position statement.

The Board of the NSW Cancer Council will review this position statement annually.
Background

There are now over 70,000 scientific studies documenting the adverse impact of tobacco on health. Each year, more than 6,000 people in NSW die from using tobacco, over a quarter of these from lung cancer alone. Tobacco ranks well ahead of other risks to health. Tobacco control also presents a genuine opportunity to reduce health care spending, because tobacco use has wide-ranging effects on morbidity and mortality involving almost every organ.

The protection of public health is a key constitutional role of State government. This involves regulating and managing, by all the means at its disposal, those risks to health that have an impact on the vigour, productivity and life expectancy of the community; regulating the actions of those exposing others to health risks; and reducing the financial burden to governments of funding to hospitals and health care.

There has been considerable success in Australia, and some other developed countries, in reducing the prevalence of smoking. This is the result of significant legislation in the control of tobacco advertising, restrictions of sales to minors and other public policy, and long term work in public education over a 20 year period.

We are currently at risk, however of eroding these public health gains through reductions in government expenditure and therefore in public health activity on tobacco control and preventive measures. We have not achieved, nor even approximated, the national goals and targets for reduced smoking prevalence or reduced passive smoking that were set in 1994. Goal setting and measurement are really only meaningful when accompanied by the implementation of an action strategy with the capacity to achieve set targets.
1. Health effects of tobacco smoke

In 1995, a report commissioned by the Commonwealth Department of Health and Family Services for the National Drug Strategy provided estimates for the impact of alcohol, tobacco and illicit drugs on mortality and morbidity in Australia. Tobacco came in well ahead of other drugs as a cause of death, with over 18,000 deaths annually.¹

**Tobacco and cancer**

Cancer is by far the leading underlying cause of death in productive adult life, accounting for 50% more years of life lost before the age of 75 than heart disease.² There has been a progressive reduction in heart disease deaths since the peak of the epidemic in the mid 1960s. The incidence of cancer has continued to rise, and improvements in treatment have only been sufficient to prevent a parallel increase in mortality.

**Lung cancer**

Lung cancer accounts for 10% of reported cancer cases in NSW (2,531 cases in 1996) and 20% of cancer deaths. Cancer Council survival data suggest that improvements in survival rates through better treatment are possible. However, even with world's best practice, survival rates at one year would not much exceed 15%. Lung cancer is highly preventable; active smoking causes 85% of cases in men and 75% in women. Environmental tobacco smoke (ETS) causes a number of the remaining cases.

The one positive in lung cancer has been the 15% decline in male lung cancer rates since 1973-77. This decline is entirely attributable to reduced rates of smoking among adult men. Conversely, lung cancer rates in women have more than doubled because of the rise in female smoking.

Recent research has shown that women may also be more susceptible to the carcinogens in tobacco smoke. Furthermore, cancer registry studies in the US and Switzerland have shown that the incidence of adenocarcinoma, especially in women, has been rising dramatically and is becoming more strongly associated with smoking. This probably reflects unregulated changes in the composition of cigarettes and the pattern of deeper inhalation of “light” cigarettes.³

The incidence of lung cancer in young adults is unexpectedly high, reflecting the uptake of smoking at progressively younger ages (Figure 1).

The vigour with which governments have attacked other significant causes of lung cancer, for example asbestos, by effectively closing down whole industries, is in stark contrast to its action on tobacco.

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**Figure 1**

Lung cancer in NSW men—comparison of actual and projected rates

Source: NSW Central Cancer Registry (unpub. data)

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Other cancers
Although the lung is the primary target organ for the many carcinogens in tobacco smoke, tobacco also accounts for a large percentage of cancers in other organs (Table 1).

Emerging evidence
Environmental tobacco smoke is recognised as a Class 1 human carcinogen. Several expert bodies, including the National Health and Medical Research Council, have implicated ETS as a cause of lung cancer and, more recently, cancer of the nasal sinuses. Although the effect is small on a population basis, significant exposure occurs in spouses of smokers and in hospitality workers.

Of potential concern is the recent report of a single study on the effect of active and passive smoking during childhood and adolescence on the later incidence of breast cancer. This study found an up to sevenfold increase in risk from passive and active exposure in early life. If confirmed, this would outrank all other known or suspected risk factors for breast cancer and add urgency to the drive to address teenage smoking and the control of ETS.

Tobacco and heart disease
Cigarette smoking is a major cause of heart attack, stroke and peripheral vascular disease. Smokers have a 70% greater risk of death from coronary heart disease than non-smokers.

Nearly 40% of all the people who die from smoking die from heart and blood vessel disease. In 1992 there were 7,265 deaths due to smoking-related cardiovascular disease (CVD) out of 54,912 deaths. The risk of developing and dying from coronary heart disease is directly related to total tobacco smoke exposure.

<table>
<thead>
<tr>
<th>Cancer site</th>
<th>Annual cases (NSW)</th>
<th>Number caused by smoking</th>
<th>Percentage due to smoking</th>
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<tbody>
<tr>
<td>Cervix</td>
<td>326</td>
<td>62</td>
<td>19</td>
</tr>
<tr>
<td>Bladder-male</td>
<td>589</td>
<td>253</td>
<td>43</td>
</tr>
<tr>
<td>Bladder-female</td>
<td>193</td>
<td>69</td>
<td>36</td>
</tr>
<tr>
<td>Mouth/throat-male</td>
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<td>57</td>
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<tr>
<td>Mouth/throat-female</td>
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<td>Oesophagus-male</td>
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<td>Stomach-female</td>
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<td>11</td>
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<tr>
<td>Pancreas-male</td>
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<td>65</td>
<td>24</td>
</tr>
<tr>
<td>Pancreas-female</td>
<td>277</td>
<td>53</td>
<td>19</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3358</strong></td>
<td><strong>1181</strong></td>
<td><strong>35</strong></td>
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Source: English DR et al, 1998

Table 1 Cancers other than lung caused by active smoking in NSW in 1995
Tobacco use accounts for a large proportion of heart attacks among younger cigarette smokers who are otherwise at low risk of coronary heart disease. In men and women under 65, smoking accounts for more than 40% of all coronary heart disease deaths (45% in men, 40% in women). Women who both smoke and use the contraceptive pill have a ten times increased risk of heart attack.

Although public awareness of the health consequences of smoking has increased, only 34% of people freely recall that heart disease is related to smoking and 7% recall that stroke/vascular disease is related to smoking, compared to 62% recall for lung cancer.

A higher rate of CVD among indigenous men and women is consistent with higher smoking and obesity rates. Similar rates of premature death from CVD are seen for men and women with socioeconomic disadvantage.

The link between smoking and CVD provides a compelling case for an aggressive approach to encouraging cessation. A smoker’s additional risk of heart disease is reduced by 50% after only one year of abstinence. Fifteen years after stopping smoking, a person’s risk of heart disease is about the same as if they had never smoked.

There are short term economic and health benefits of smoking cessation in terms of both dollars saved on medical costs and CVD events avoided. Economic arguments are supported by data which show that despite a decline in deaths from CVD, there has been a 44% increase in hospitalisation for CVD over the past seven years.

**Passive smoking**

The risk of heart attack or death from coronary heart disease is about 25% higher in non-smokers living with a smoker. The effect of passive smoking on cardiovascular health is very important in terms of public health because environmental exposure to tobacco smoke, and disease of the heart and blood vessels, are both very common in many populations. This means that even a small increase in risk through passive smoking would translate into a large number of additional cases of heart attack, stroke and premature death.

Few reports have examined the reversibility of the deleterious cardiovascular effects of passive smoking. Raitakari et al demonstrated that healthy young adults show improved arterial function after two years away from smoke-filled environments. This data supports individual and public health policy initiatives in the home and workplace.

**Tobacco and stroke**

The relationship between smoking and stroke is similar to that between smoking and heart disease. Among people under 54, 44% of stroke in men and 39% in women is caused by cigarette smoking. Cigarette smoking also contributes to the development of peripheral vascular disease. In fact, 90% of patients with peripheral vascular disease are cigarette smokers, and successful management of the disease in these cases involves smoking cessation.
**Tobacco and chronic lung disease**

**Asthma**
The prevalence of asthma has been rising inexorably over the last three decades. Although this trend is not driven primarily by smoking, cigarette smoke has a significant effect both on inducing the mechanisms that establish asthma and in precipitating and exacerbating asthma attacks.

**Chronic bronchitis and emphysema**
The impact of smoking on chronic lung diseases is almost as profound as its impact on lung cancer. Smokers are 700-1000% more likely to develop these diseases. Eighty-two per cent of chronic lung disease cases among men, and 76% among women, are due to smoking.1

**Tobacco, pregnancy and infancy**
The effects of tobacco on pregnancy outcomes and early infant health are profound.1 Maternal smoking causes one quarter of cases of low birth weight and thus imposes very high costs on neonatal services. Thirty-four per cent of sudden infant deaths are attributable to maternal smoking, and a wide variety of pregnancy complications including spontaneous abortion, ectopic pregnancy, ante partum haemorrhage, premature rupture of the membranes and stillbirth, are more common in smokers.

**Other conditions caused by smoking**
For reasons of space, this overview has focused on conditions that have a high impact on health and on costs to the health system. However, several other serious health conditions are related to smoking, including peptic ulcer, Crohn's disease, ulcerative colitis, peripheral occlusive vascular disease and pulmonary embolism.1

**Health effects of ETS**
The effects of active smoking provide an overwhelming justification for governments to act decisively to control smoking. There is now strong and growing evidence that ETS has a distinct impact on population health. Children are particularly vulnerable to ETS, and a large proportion of childhood respiratory infections, asthma and serous otitis media are caused by ETS in the home. The impact of smoking on a non-smoking spouse is also significant, with a 25% increase in the incidence of lung cancer for spouses of one pack-per-day smokers, and a similar increase in the incidence of coronary heart disease.15

Studies on ETS are still in their infancy. The recent study indicating a powerful relationship between exposure to ETS in childhood and adolescence and subsequent breast cancer has already been discussed, and it is likely that more numerous and more powerful effects of ETS will be disclosed as methods improve and studies multiply. Another outcome of these studies may be to revise upwards the risks of active smoking.

Of particular concern is exposure to ETS in the workplace. For instance, in the hospitality industry concentrations of ETS are often much higher and exposure more continuous than in homes.
2. Economic cost of smoking in Australia

The National Drug Strategy has commissioned two reviews of the cost of drug abuse in Australia which were published in 1991 and 1996. They covered costs incurred in 1988 and 1992.\textsuperscript{18}

The 1991 review was followed by tobacco industry-funded reports disputing its conclusions and estimating that tobacco provided strong net benefits to the Australian economy. The tobacco industry case has two main flaws:\textsuperscript{19}

- it assumes that the resources devoted to tobacco growing, processing and distribution have no opportunity cost, that is, no alternative economic use
- it values consumption benefits to smokers at unrealistically high levels given that surveys demonstrate that an overwhelming majority of smokers (more than 80%) regret that they smoke and want to quit. The National Drug Strategy review attributed a consumption benefit only to non-addicted tobacco users, estimated at around 20% of smokers.

The arguments of the tobacco industry can be applied equally to the heroin trade and, in former times, the opium trade.

Criticisms of the 1991 study were considered by an international symposium, resulting in the publication of international guidelines for estimating the economic costs of drug abuse. These guidelines were used in the approach adopted in 1996.\textsuperscript{18} The 1996 review estimated the total economic cost of tobacco use to be $12.74 billion dollars, or 67.3% of the total cost of drug and alcohol abuse in Australia.

Key components of these costs included:

- $1.37 billion in paid production costs
- $5.44 billion in unpaid production costs (based on ABS estimates of the value of unpaid work)
- $832.5 million in health care costs
- $2.02 billion in addictive consumption costs.

The authors declined to compute costs for tobacco use where there was inadequate data. Hence there are no estimates of the costs to industry or others of environmental tobacco smoke, or other externalities. Furthermore, the estimate of health care costs was based on hospital use and not on direct measures of the use of medical and other health services outside hospitals. This is a particularly important issue given the declining length of stay in hospitals. Finally, no account is taken of the reduced productivity of smokers at work.
3. Natural history of smoking

Triennial school surveys undertaken by the NSW Cancer Council have tracked the prevalence of smoking among children in NSW since 1984. The most recent school survey shows not only that there has been no reduction in the 1990s of the proportion of school children who are regular smokers, but also that children are taking up smoking at progressively younger ages. By the age of 15-16, the prevalence of smoking among both boys and girls has reached adult levels (Figure 2).

These trends, if unchecked, indicate a growing problem with long term implications for health and health service provision.

Tracking data from the US National Household Drug Survey describe youth smoking trends over the past three decades. These have fluctuated, largely in response to industry advertising directed at youth. The data also show that, after experimentation, regular tobacco use follows with a lag of about one year. Furthermore, a high proportion of regular youth users are addicted. Eighty per cent of school children who have smoked one hundred or more cigarettes will still be smokers four years later.

Early addiction is confirmed by data from market research by Imperial Tobacco submitted to the Canadian High Court in 1996. This reveals that at the age of 16, most teenage smokers admit they would find it difficult to quit.

Health studies also show that the earlier smoking starts, the greater the difficulty of quitting. Further, it increases the likelihood of dying prematurely from tobacco use. One in two smokers will die of an illness related to smoking, losing on average 12 years of life.

The tobacco industry relies on encouraging young people to experiment with smoking. Few persistent smokers start smoking in adulthood; without youth smoking, the tobacco industry would not be viable. The most potent way to encourage young people to smoke is the portrayal of smoking as an adult behaviour and the uptake of smoking as an entrance to a world of glamour and independence.

Once smoking is established, quitting is difficult. However, only a small percentage are committed smokers. The rest are variously disposed to smoking cessation, and many have tried to quit. Systematically enhancing the motivation to quit and the success of quitting attempts is a key objective of anti-smoking programs.

The path from non-use through experimentation to addiction provides several opportunities for intervention by an anti-smoking program.

Figure 2
Trends in regular smoking by age among NSW secondary school students 1996
Source: Self reported tobacco and alcohol use among NSW secondary school students, NSW Cancer Council and NSW Health Department, 1998
4. The role of the tobacco industry

The tobacco industry occupies a unique place in the modern market economy. It openly markets a product whose profound adverse health effects have been known beyond reasonable doubt, arguably since 1955, and certainly since 1959. The product is highly addictive and has no known health benefits. Although the industry is restricted in advertising its product, it enjoys all the other protections of a modern regulated market economy. Unlike pharmaceuticals, including nicotine, and even alcohol, it is subject to virtually no restrictions on sales, and the formulation of the constituents of cigarettes is entirely at the discretion of the manufacturer. Cigarettes are as widely available as sweets and biscuits.

The only parallel for the tobacco industry is the opium trade, once an acceptable commercial endeavour but now universally despised the world over for its exploitation of addiction and human suffering.

The tobacco industry has exhibited an alarming lack of responsibility in its pursuit of commercial interest. Company documents have shown that, despite the evidence of its own scientists, it has repeatedly denied that its product is addictive or carcinogenic. Changes to the formulation of cigarettes have been made to expand the market behind a facade of health protection. It is now recognised that the tests used by manufacturers to report tar and nicotine levels are misleading, that congeners have been used to increase the addictiveness of cigarettes, and that compositional changes have introduced more carcinogens into the smoke stream, driving the modern lung cancer epidemic.

The tobacco industry has shamelessly vilified the work of scientists studying the effects of active and passive smoking, seeking to stigmatise it as “junk science”. Furthermore, industry documents reveal a consistent strategy of commissioning work from scientists known to be well disposed to the position of the tobacco industry, censoring and releasing their work for the express purpose of disinformation and creating a climate of uncertainty around the results of mainstream science.

Of perhaps the greatest concern is the clear evidence from company documents that the tobacco industry has deliberately sought to market its products to children, creating brand images that specifically appeal to them and formulating cigarettes that are more acceptable to the taste of experimenting young smokers. Brand success in the last three decades has been predicated on achieving success in the youth smoking market.

Although cigarette companies publicly deny targeting children, industry papers provide strong evidence that they do. In Australia, the tobacco industry seeks to subvert advertising bans through in-store promotions, product placement in cinemas, the development of “education” resources for schools, the distribution of free cigarettes by hostesses and alignment with media and fashion.
5. Economic and social benefits of a smoke free Australia

Meetings between the Cancer Council, the National Heart Foundation and a wide range of NSW politicians leading up to the 1999 State elections revealed that political reluctance to act decisively against smoking is partly related to a belief that the tobacco industry furnishes economic benefits that would be jeopardised by declining consumption.

The tobacco industry counts as its economic contribution the employment, production and consumption associated with tobacco. To extend this argument, it should also include economic activity associated with the adverse effects of consumption. This includes increased insurance premiums, premature use of funeral services, hospital services for tobacco-related disease, cleaning services for clothes contaminated by tobacco smoke, and increased expenditure on ventilation systems to alleviate the discomfort caused by ETS.19

Public policy may be influenced by these considerations. A government may also be inclined to ignore the intangible costs of consumption foregone by premature death, considering these essentially private costs. Finally, it may be influenced by perceptions about the feasibility of diverting resources, for example, workers engaged in tobacco production and consumption, to other economic activity, particularly when unemployment is high.

Given the significance of tobacco consumption for public health, it is important for government itself to clarify any economic and social concerns that stand in the way of determined action to reduce tobacco consumption. However, some information is already available to measure the impact on the economy of reduced tobacco consumption.

**Impact on health sector outlays**

Reduction or elimination of smoking has substantial public health benefits. Data from Holland show that at any age, health care costs among smokers are up to 40% higher than among non-smokers, and that cessation of smoking leads to a 2.5% reduction in health care expenditure in the short term. It would take 15 years or longer for this effect to be reversed by the aging of the population.23

This effect is greater among people from lower socioeconomic groups. As Figure 3 illustrates, there is a two-fold difference in smoking rates between social classes as measured by occupation.

This flows through to a significantly higher incidence of tobacco-induced diseases in poorer areas of NSW. For example, the incidence of all smoking-related cancers (lung, cervix, head and neck, bladder, pancreas, and stomach) studied in a recent NSW Cancer Council report is higher in areas of low socioeconomic status. The difference between the highest and lowest area rates for lung cancer is over 80%.28 Thus, effective smoking control will reduce inequalities in health status, which is a major goal of the State government.
**Impact on other drug use**

It is regrettable that national drug policy has effectively severed the link between tobacco and other drug use, with separate funding initiatives for illicit drugs and for tobacco and alcohol. Tobacco use is highly associated with other drug use. In fact, people with alcohol dependency are at least as likely to die from tobacco-related causes as from alcohol-related causes.

There is now considerable evidence that tobacco use among young people forms part of a general drug use pattern, and that young people who use tobacco are far more predisposed to use illicit drugs or to drink hazardously than those who do not. A 1992 Statewide survey of 20,629 Indiana students in grades five through twelve showed a strong dose-dependent relationship between tobacco use, and binge drinking and use illicit drugs. A longitudinal cohort study in New York also documented cigarettes as a pathway to later marijuana use and illicit drug taking; and a review of national trends in drug use by high school students and young adults over two decades by the US National Institute on Drug Abuse showed that young people who try marijuana are almost five times more likely to be smokers than non-smokers. A similar pattern was shown to exist for cocaine (a tenfold difference), illicit drugs generally (almost fourfold), and daily drinking (tenfold).

These associations are not insufficient to prove a “gateway” effect for tobacco; nevertheless there are several reasons why tobacco may be a gateway drug to other drug use. These include its accessibility as an initiation drug, the role of tobacco in developing the skills of inhaled drug administration, and its role in the induction of young people into a drug subculture.

No intervention research has been carried out to test the theory that preventing tobacco use increases resistance to other drug use but there are several things that make this plausible. For instance, recent US data derived from regular household drug surveys show a close correlation between changes in tobacco experimentation and regular use among young people, and changes in subsequent marijuana use.

While marijuana use will not be eliminated by reducing tobacco use among young people, it is reasonable to suppose that the prevalence of marijuana and other illicit drug use would be reduced by effective tobacco control. Given the importance of the drug issue, research into this possibility is a compelling priority.

![Figure 3](image_url)

**Figure 3**
Smoking rates by occupation in Australia, 1995
**Economic activity**

The reluctance of governments to act against the tobacco industry in accordance with public health evidence is partly due to the concerns that elimination of the tobacco industry will have a negative effect on economic activity. The tobacco industry has pressed this case vigorously, supporting it with reports from consulting firms that estimate the industry’s contribution to employment, incomes and tax revenues.

This analysis fails to acknowledge the point, obvious to economists, that it is not the gross economic contribution attributed to tobacco that is important, but the net contribution; that is, the benefit of tobacco-related economic activity after the implications of redistributing the same resources to other uses has been taken into account. Using the REMI model (Regional Economic Models Inc.), researchers at the University of Michigan studied the effect on the economies both of that State and of the nine regions in the US of a decline in tobacco consumption of twice the current US rate. They reached the following conclusions.28

- In the State of Michigan the net economic effect would be positive, because of the redirection of consumption from imported goods to locally produced goods and services.

- In the nine regions of the US, the net effect would be positive in eight. In the tobacco growing region an exceedingly small (0.2%) decline in employment would occur.

Similar results have been found for other countries by other researchers—Canada, the UK, and South Africa. This point is also explicitly acknowledged in one consultant report prepared for industry.29

The industry has also used the potential impact of specific tobacco control measures to dissuade governments from implementing them. It recently orchestrated opposition to the banning of smoking in restaurants and bars in California with notable vigor, setting up industry “front” organisations and publishing reports predicting adverse effects for the hospitality industry. In fact, several rigorous studies have not demonstrated any such effects.30,31,32

This is to be expected in a community where the vast majority of people are non-smokers and where most smokers are sympathetic to the need to reduce the impact of ETS.

A similar industry strategy was highly effective in NSW in preventing any meaningful government response to the 1997 Report on Passive Smoking in the Hospitality Industry by the NSW Passive Smoking Taskforce.

**Tax revenues**

The direct contribution of taxes on tobacco to the NSW government amounted to $900 million in 1996. It has been possible to sustain this rate in the face of substantial declines in consumption by increasing excise tax rates because of the price inelasticity of demand for tobacco.

In the medium term, declines in consumption may be offset by further increases in excise, limited only by future changes in price elasticity or by reaching the point at which smuggling becomes attractive. In the long term, governments will need to find alternatives to tobacco excise. This will result in a
redistribution of taxation but no increase in the aggregate tax burden. Indeed, it would be useful to investigate whether a dividend may be payable to the community for the elimination of smoking.

The NSW government has been sensitive to industry arguments that tobacco excise is a regressive tax. This claim has not been tested in the Australian environment, but research in the US concludes that the effect of a tobacco excise, though not progressive, is at worst neutral. This is because price elasticity of demand varies inversely with income.\textsuperscript{28}

As tobacco excise is now collected by the Commonwealth and its redistribution to the States may in future be submerged within an overall Commonwealth-State tax sharing agreement, the NSW government may have less of a stake in the impact of declining consumption on excise revenues.

Although the aggregate economic effects of reducing tobacco consumption are likely to be neutral or positive, and decidedly positive for some sectors such as health, governments will not be able to ignore the importance of tobacco sales to large constituencies such as the retail sector. Although adjustment will be gradual, a tobacco control plan should factor in the compensation that may need to be paid to businesses abruptly and adversely affected by government action on tobacco. Tobacco taxes are a legitimate source of revenue for such industry adjustment schemes.
6. Achieving success in tobacco control

Status of tobacco control in NSW

NSW has been a global leader in tobacco control since the launch of the first Australian QUIT campaign in NSW in 1983 by the then Minister for Health, Laurie Brereton, which was followed by major anti-tobacco campaigns in Western Australia and Victoria. Large public awareness campaigns resulted in a significant decline in smoking rates. Trends measured before and after the commencement of the Sydney and Melbourne campaigns (in 1983 and 1984) showed an immediate 2.6% drop in overall adult smoking rates and a continued 1.5% decline annually among men. Before the campaigns there had been no observable change in smoking prevalence in either city.

Comprehensive tobacco advertising bans

The finishing touches required to achieve the comprehensive banning of tobacco advertising are the abolition of point-of-sale advertising and stock displays, and the elimination of residual sponsorship in sports deemed by the Federal Minister for Health to be of international significance.

Legislation in the ACT and Tasmania most nearly approaches the point-of-sale standard.

A study of tobacco advertising in OECD countries recently undertaken by the National Bureau of Economic Research\(^3\) concludes that comprehensive bans contribute around six percentage points to the reduction in tobacco consumption, while limited bans have little effect. This is because limited bans simply shift advertising expenditure to unrestricted media.

The study provides strong scientific justification for NSW to complete the elimination of point-of-sale advertising by expediting the NSW tobacco advertising regulations, and to take a national leadership role in promoting the final elimination of advertising from such events as the Victorian Grand Prix motor race. NSW Health must also be vigilant in ensuring that no tobacco promotion occurs in association with the Olympics.

Workplace smoking bans

An estimated 70% of all Australian workers enjoy smoke free workplaces, with the major expectations being attributable to small business, of which roughly 60% are smoke free. Occupational health and safety legislation, and activities such as the NSW Cancer Council’s workplace consulting service, have been major drivers of this change. Although the immediate objective was to eliminate exposure to ETS, a recent international review estimated that restrictions on workplace smoking have reduced cigarette consumption by active smokers by 22%.\(^4\)

Smoking, and ineffective smoking controls, remain commonplace in the hospitality industry. Given the persuasive evidence of the adverse health effects of ETS and the impact of bans on active smoking, it has become clear that the Smoking Regulation Act must be implemented as a matter of urgency, in accordance with the recommendations of the NSW Passive Smoking Taskforce. The Cancer Council is concerned at the lack of visible action on the development of an air quality standard by the Department and the resulting indefinite delay in the legislation coming into effect.
Media and community-based health promotion campaigns

The centrepiece of smoking control in NSW in the 1980s was a coordinated Statewide media campaign, with complementary local activities delivered through regional health services. Under the generic banner of QUIT, the campaign also included the objectives of discouraging uptake by young people and promoting the elimination of ETS.

Since 1990 however, the QUIT campaign has been scarcely visible, and residual activity has been devoted to promoting compliance with regulatory changes and to limited youth-focused activities. The Cancer Council believes that this has effectively neutralised the most powerful tool available for tobacco control because sales of cigarettes and social tolerance of smoking rely on positive images created around smoking by the tobacco industry. All the evidence from past QUIT campaigns shows that counter-advertising is a powerful mechanism for shaping personal and social perceptions of smoking and quitting behaviour.

The position of the NSW government closely reflects the stated position of the tobacco industry: that media campaigns are ineffective, and that the proper focus of tobacco control should be on youth. This position ignores the outcomes of anti-smoking campaigns in Australia and flies in the face of the unanimous conclusion of ten international studies that counter-advertising has a strong positive effect on reducing tobacco use and the prevalence of smoking. It also abandons the field of social influence to the tobacco industry.

Industry advice on counter-advertising is in stark contrast to its own marketing assessments in 1970. These estimate that one dollar spent on counter-advertising was equivalent in effectiveness to three dollars spent on cigarette advertising.

Control over sales to minors

Cancer Council school surveys have shown the ease with which children obtain cigarettes from retailers (Figure 4). Restrictions on the placement of cigarette vending machines and amendments to the Public Health Act that increase the penalties for the sale of cigarettes to minors have been positive contributions to reducing young people’s access. However, there is no convincing evidence that such legislation is effective in everyday circumstances. In California the passage and enforcement of similar legislation, the so-called STAKE Act, had no effect on young people’s perception of the ease with which cigarettes could be purchased nor on the type of establishment from which cigarettes were purchased.

<table>
<thead>
<tr>
<th></th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not bought</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
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<td>84</td>
<td>73</td>
<td>61</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Females</td>
<td>94</td>
<td>88</td>
<td>85</td>
<td>76</td>
<td>61</td>
<td>47</td>
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<tr>
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<td>NSW estimated n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>2814</td>
<td>4858</td>
<td>7714</td>
<td>8671</td>
<td>8164</td>
<td>6674</td>
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<td>Females</td>
<td>2205</td>
<td>4847</td>
<td>8120</td>
<td>10838</td>
<td>9667</td>
<td>8692</td>
</tr>
</tbody>
</table>

Table 2 Whether the last cigarette smoked was bought. NSW secondary students by age.

Source: Self reported tobacco and alcohol use among NSW school students, NSW Cancer Council and NSW Health Department, 1998
Teenagers in NSW are more likely than Californian teenagers to obtain cigarettes by purchase than from other sources. Although NSW has been more successful than other States in prosecuting retailers for selling cigarettes to minors, the Cancer Council believes that the State will not commit sufficient resources to the policing of sales-to-minors legislation to affect youth smoking. Even if the legislation is effective, the supply of cigarettes through adults and friends may increase from its current level to compensate.

Although this initiative has been a major focus of the government in recent years, it can only ever play a small contributory role to more effective measures, such as a credible counter-advertising campaign. It merely creates the illusion of tobacco control action while potentially enhancing the status of cigarettes as a symbol of entry into the adult world. It is for this reason that the tobacco industry strongly supports measures to reduce youth access to cigarette purchases.

The Cancer Council gives a mixed report card on the achievements of the NSW government in tobacco control. It took bold and effective action in controlling advertising, increasing the effective price of cigarettes, and promoting workplace controls at a time when the evidence for the effectiveness of such measures was much less substantial than it is today. It made a commitment to a strong counter-advertising and community promotion campaign in the 1980s. More recently, however, it has failed to sustain its public campaign for a new generation of smokers, has deferred the abolition of smoking in the hospitality industry and has concentrated on actions supported by the tobacco industry that are ineffective at best and counterproductive at worst.

Under these circumstances, it is probably only advertising bans that have stood in the way of a relapse in smoking rates, although youth trends show that the situation is gradually deteriorating. The challenge is to rekindle commitment to proven measures and to incorporate new initiatives. Governments are the key to developing, trialing and evaluating such innovations.

**Accelerating trends in the decline of tobacco consumption**

Although declines in smoking prevalence from 25% to 18% have been obtained in some countries, adult smoking rates nationally and in NSW have flattened out at 25%, and smoking rates for children have either stalled or are rising. The Cancer Council believes that this is directly attributable to the failure of State governments to maintain commitment to tobacco control since 1990, and that there is no intrinsic reason why a reduction in consumption cannot be achieved. There is much evidence to support the Cancer Council’s contention that substantial improvements are possible.

<table>
<thead>
<tr>
<th>Education to stop kids smoking</th>
<th>Total n=654</th>
<th>Smokers</th>
<th>Ex-smokers</th>
<th>Never smokers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education to stop kids smoking</td>
<td>96%</td>
<td>96%</td>
<td>98%</td>
<td>95%</td>
</tr>
<tr>
<td>Programs and products to help people quit</td>
<td>92%</td>
<td>94%</td>
<td>92%</td>
<td>92%</td>
</tr>
<tr>
<td>Other medical research</td>
<td>89%</td>
<td>84%</td>
<td>81%</td>
<td>78%</td>
</tr>
<tr>
<td>Paying for the health effects of smoking</td>
<td>80%</td>
<td>84%</td>
<td>81%</td>
<td>78%</td>
</tr>
<tr>
<td>Sponsorship of sporting activities</td>
<td>51%</td>
<td>44%</td>
<td>52%</td>
<td>52%</td>
</tr>
</tbody>
</table>

Source: Anti Cancer Council of Victoria, 1998

Table 3 Public support for various uses of tobacco tax revenue, Australia 1998
Strong public support for tobacco control

Population surveys have repeatedly demonstrated that the Australian community is far in advance of its political leaders in its support for tobacco control.

This is reinforced by recent studies that indicate strong public support for funding of tobacco control activities (Table 2). More than 89% of those surveyed supported using tobacco tax revenue to prevent smoking and 96% approved spending it on education to stop children smoking.

A 1999 poll conducted by the Cancer Council and the National Heart Foundation (NSW) found that 85% of respondents are in favour of State government revenue from cigarette sales to children being used to fund programs to discourage children from smoking (Table 3). Of the respondents in favour of tax revenue being spent on anti-smoking campaigns, 66% wanted all State government revenue from sales to minors, estimated at $13.5 million a year, used for this purpose.

It is clear that reducing smoking rates among young people in particular is a community concern with implications for political parties. Over 35% of respondents indicated they would be more likely to vote for a political party if it announced it intended to use the tax revenue raised from cigarette sales to children for programs to discourage children from smoking.

There is also strong support for specific anti-smoking measures advocated by the Cancer Council and related health groups. For instance, the overwhelming majority support bans on smoking in restaurants and clubs, although opinion is more evenly divided on banning it in bars.

Anti-tobacco campaigns are effective, and effectiveness increases with expenditure

The vigour with which countries around the world are tackling the smoking epidemic is gathering pace. South Africa and Sri Lanka have recently committed themselves to bans on cigarette advertising. Tobacco litigation in the US has seen $US1.5 billion over five years committed to public education on tobacco use. The UK recently committed £100 million to anti-smoking programs over five years. In Australia, South Australia is the only jurisdiction to commit $3.00 per capita over the next three years to anti-smoking campaigns and programs (total $3.9 million).

<table>
<thead>
<tr>
<th>Gender</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
<th>18-24</th>
<th>25-34</th>
<th>35-49</th>
<th>50+</th>
<th>Sydney</th>
<th>X-City</th>
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<tbody>
<tr>
<td>n=</td>
<td>530</td>
<td>265</td>
<td>265</td>
<td>42</td>
<td>93</td>
<td>159</td>
<td>236</td>
<td>400</td>
<td>130</td>
</tr>
<tr>
<td>Total in favour</td>
<td>83.6%</td>
<td>83.3%</td>
<td>83.9%</td>
<td>80.7%</td>
<td>84.1%</td>
<td>90.9%</td>
<td>78.4%</td>
<td>84.7%</td>
<td>81.6%</td>
</tr>
<tr>
<td>Strongly in favour</td>
<td>65.4%</td>
<td>65.3%</td>
<td>65.6%</td>
<td>37.7%</td>
<td>71.8%</td>
<td>74.3%</td>
<td>64.5%</td>
<td>67.3%</td>
<td>62.1%</td>
</tr>
<tr>
<td>Somewhat in favour</td>
<td>18.2%</td>
<td>18.0%</td>
<td>18.3%</td>
<td>43.0%</td>
<td>12.4%</td>
<td>16.7%</td>
<td>14.0%</td>
<td>17.4%</td>
<td>19.6%</td>
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<tr>
<td>Total against</td>
<td>12.0%</td>
<td>13.6%</td>
<td>10.3%</td>
<td>14.5%</td>
<td>11.6%</td>
<td>6.2%</td>
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<td>15.4%</td>
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<tr>
<td>Somewhat against</td>
<td>4.4%</td>
<td>4.7%</td>
<td>4.1%</td>
<td>7.8%</td>
<td>6.3%</td>
<td>5.8%</td>
<td>2.9%</td>
<td>7.1%</td>
<td>7.1%</td>
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<tr>
<td>Strongly against</td>
<td>7.5%</td>
<td>8.9%</td>
<td>6.2%</td>
<td>6.7%</td>
<td>5.3%</td>
<td>6.2%</td>
<td>10.1%</td>
<td>7.2%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Neither/Don’t know</td>
<td>4.5%</td>
<td>3.1%</td>
<td>5.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Source: NSW Cancer Council, 1999

Table 4 Support for use of tax revenue from cigarette sales to children for programs to discourage children from smoking
The effectiveness of advertising bans and workplace smoking bans was discussed earlier. There are ten major studies in the literature on the effectiveness of counter-advertising and all confirm a definite effect on reducing consumption.\textsuperscript{33}

In the US, California and Massachusetts have made major investments in tobacco control and both States have experienced a sharp reduction in tobacco consumption and the prevalence of smoking. This is directly attributable to public expenditure on tobacco control.

In the first phase of the Californian tobacco control program (1989-93), the annual rate of decline in per capita cigarette consumption was 0.65 packs per person per month, a rate almost twice (1.9) that of the rate of decline in the rest of the US (1.9 packs per person per month). The prevalence of smoking in the same period fell by 1.09\% per annum, or 65\% faster than in the rest of the US. This drop from 21.13 to 18.6 is a 22\% reduction in smoking prevalence. (The crude reduction in prevalence was actually greater, but the figures were adjusted for demographic factors such as education level.)

In the second phase of the program (1993-96), the rate of improvement slowed to 0.22 packs per person per month, but remained ten times the general US rate, which had been affected by sharp reductions in the price of cigarettes. Likewise, the drop in the prevalence of smoking slowed to 0.16\% per annum, less than the national decline of 0.27\% per annum.\textsuperscript{7}

The difference between the phases was a sharp reduction in expenditure from an average of $3.35 per capita-year to $2.08 per capita-year, as well as an increase in tobacco company promotion expenditure. The tobacco companies outspent public anti-smoking expenditure by 10:1 in the second phase as opposed to 5:1 in the first phase. The population denominator was the population aged over 12 years. The equivalent NSW population is 5.425 million.

Australian data support the fundamental relationship between smoking rates and funding level for anti-smoking education campaigns and programs. Figure 5 shows that there is a temporal correlation between youth smoking prevalence and expenditure on anti-smoking campaigns.

\textbf{Figure 4}
\begin{center}
Anti-smoking expenditure from 1984 to 1997 with midpoint of 15 year-olds smoking weekly rate
\end{center}
The tobacco industry disclosure documents have exposed a sustained and multi-pronged campaign by the tobacco industry against the California Tobacco Control Program. This provides some corroboration for the Cancer Council’s view that anti-smoking campaigns are effective.

**Enhancing the efficiency of expenditure on anti-tobacco campaigns**

The prospects for effectiveness in NSW are greatly enhanced by tight controls over industry promotional activities, together with disincentives to smoke through the high real price of tobacco and bans on smoking in public places.

Californian data on uptake among young people reveal just how critical these controls are. Although the prevalence of smoking among young people in NSW is not declining, the second phase of the Californian program was accompanied by an increase from 9.5% to 12% in smoking prevalence among 14-17 year olds. Longitudinal analysis of the susceptibility of young people to cigarette advertising has concluded that 34% of youth uptake is attributable to advertising. Price reductions could also have contributed to these rises.

NSW has a clear advantage in achieving maximum return from its expenditure on tobacco control by the limits imposed on countervailing industry promotion. It is critical that this advantage be maintained by acting decisively against emerging industry promotions in film, television, fashion and hostess promotions, as well as by placing further restrictions on point-of-sale advertising.

**Government expenditure for effectiveness in tobacco control**

In California, where anti-smoking education has been funded at around US$60-$90 million per annum since 1989, smoking rates have declined significantly more than in the rest of the country. In Massachusetts, spending since 1993 on anti-smoking education has been around $US36 million, or around $US6.00 per head of population. This is more than 15 times the amount currently spent in Australia, but well short of the industry expenditure of $US20.60 per capita.

The Cancer Council believes that an annual expenditure of around $A7.00 per capita would maximise falls in tobacco consumption and that, with the exception of health care services for addiction, additional expenditure is unlikely to achieve proportional returns. This is based on the following considerations.

- There is a point of saturation beyond which increased advertising is of limited effectiveness.
- Expenditure on advertising by the tobacco industry ($US20.60 per capita) in the US is pitched to this point of saturation.
- Tobacco counter-advertising is three times as effective as pro-tobacco advertising.
- Mass media and other marketing expenditure is the largest item of expenditure in an anti-tobacco campaign.
These arguments assume purchasing power parity between the US and Australian dollars for media scheduling.

It follows that substantial benefit will be obtained from expenditure below this optimum, but well above the current ineffective baseline.

**A wide array of interventions within comprehensive tobacco control programs have been shown to be effective**

The relationship of exposure to elements of the Californian Tobacco Control Program and knowledge, attitudes and beliefs was examined by an external evaluation of the program conducted by the Gallup Organisation in 1996-735. The program consisted of several elements, including:

- a mass media campaign consisting of outdoor advertising, print media advertisements and paid advertisements on radio and television
- local programs which coordinated and implemented a wide range of individual, community and environmental level interventions including the enforcement of sales-to-minors legislation and local laws relating to ETS
- a competitive grants program to bolster the effectiveness of community groups in tobacco control, with specific emphasis on ethnic minority networks
- school tobacco control programs for smoking prevention, education and smoking cessation.

Ninety three per cent of young people and 87% of adults were exposed to at least one activity of the Tobacco Control Program.

Evaluation of the campaign reinforced many of the earlier conclusions in this paper. In particular:

- Among adults, exposure to either mass media or community programs was associated with anti-tobacco attitudes and behaviour. This support was higher among adults exposed to both.
- Youth exposure to either school programs or to media programs was associated with anti-tobacco attitudes and behaviours, but community programs resulted in mixed positive and negative behaviours among young people.
- Both adults and young people exposed to multiple program modalities had a more positive response than those exposed to fewer modalities. This suggests that a multi-pronged approach is more effective.
- The effectiveness of school programs was impaired by a lack of teacher training, inadequacy of resources, lack of time and low priority in the syllabus. Only 50% of students were exposed in the year of evaluation.
- Schools were more likely to provide effective anti-smoking education if they received a specific grant for it.
- Although the unit effectiveness of exposure to tobacco control activities was consistent across all counties surveyed, the program impact varied with the level of funding.
- The program was particularly effective in generating support for measures to control ETS.
Although the priorities in the California program are not exactly the same as the priorities the Cancer Council believes are appropriate to NSW, this evaluation provides strong evidence supporting the need for a multi-pronged approach to tobacco control. The balance between the various elements is a matter for further design and ongoing evaluation, but it is observed that the level of funding for local and Statewide media campaigns is low compared to that for other large scale public health interventions. The Cancer Council recommends that a media component should be a leading element of the control strategy.

**Promising new interventions that should be trialed at national or State level**

Mass reach and community-based campaigns to reduce both smoking prevalence and exposure to ETS, together with taxation and the regulation of advertising and smoking in public places, remain the core of a tobacco control program, because of the strength of the evidence for their effectiveness. However, there is considerable potential in emerging strategies.

- **The regulation of nicotine and other constituents of tobacco.** As evidence about the health effects of tobacco has mounted, the tobacco industry has marketed reduced tar and nicotine cigarettes, added filter tips, and made other changes to cigarette design under the guise of manufacturing a safer cigarette. There is now compelling evidence that these changes have enhanced nicotine delivery and addiction and introduced new carcinogens into tobacco smoke. This accounts for the dramatic rise overseas of adenocarcinoma of the lung.

  There is a fundamental flaw in the principle of allowing tobacco companies to control at will the constituents and design of cigarettes when far less dangerous products are subjected to close regulation. Moreover, there is an opportunity to achieve through regulatory means a progressive reduction in the addictiveness of cigarettes and in the toxicity of their constituents. Regulation would also provide public health authorities with substantial research information on the demand for and marketing of tobacco products.

  The Cancer Council has called on the Commonwealth government to implement a regulatory scheme for tobacco. The NSW government should use its position to press this case.

- **Regulation and licensing of tobacco retailers.** Point-of-sale promotion is now a major avenue for the tobacco industry to market tobacco products and large incentives are paid to retailers for this purpose. NSW school survey data show that small retailers are the most common source of cigarettes for children.

  The Cancer Council believes that a more comprehensive approach to the regulation of tobacco retailers is needed. This would have the benefit of further reducing the visibility of cigarettes in retail outlets, of providing detailed market information to assist public health and economic research and programs, and of removing non-complying retailers from the market. Licence fees would provide sustainable funding to make enforcement effective and contribute to the cost of industry restructuring as consumption falls.
Improving access to resources for smoking cessation. Helping smokers to quit is a key objective of tobacco control programs. Expenditure on smoking cessation would be strongly supported by smokers who are critical of the limited benefits they receive for their taxes. A robust model for managing smoking cessation has been developed, and the effectiveness of interventions such as nicotine replacement therapy has been confirmed in clinical trials.23

The Cancer Council believes that smoking cessation programs also need to be developed and delivered to children, given the widespread prevalence of addiction in this group. This would be a far more effective approach to managing individual drug use at school than presently exists.

Smoke free homes. Evidence confirming the adverse effects of ETS on the health of children and spouses of smokers is strong. Furthermore, smoking in the home is a powerful inducement to children to take up smoking. This is sufficient justification for a vigorous campaign to address the issue. American research also suggests that decisions taken by smokers to eliminate ETS at home promote successful quitting.

The size, if not the power, of the constituency opposing tobacco control measures varies with the prevalence of tobacco consumption and the level of dependence on the tobacco trade for personal income. The Cancer Council believes that, as consumption declines, additional tobacco control measures will become feasible.

NSW tobacco and health strategy is a good starting point
Over 100 stakeholders in public health participated in a process in 1995 that produced a comprehensive blueprint for a Statewide tobacco and health strategy over the ensuing five years. It represented an agreement between public health stakeholders on strategies and outcomes and established the role of the Drug and Alcohol Directorate as the leading agency responsible for the coordination, implementation and monitoring of the tobacco and health strategy.

Although some aspects of the strategy were completed, many were not, due to a lack of funding and political commitment. In 1998 non-government organisations, disappointed by the lack of progress, commissioned an assessment of the costs of implementing the strategy. It was estimated that a funding commitment of $21 million per annum was required, an amount more than ten times greater than that allocated by the State government and roughly equivalent to the revenue that children contribute to national and State governments from smoking.

The strategy for 2000-2005, due for development this year, provides an important opportunity to reassess the process and restore a strong and sustained commitment to tobacco control in NSW. The National Tobacco Strategy, launched in 1999, provides further opportunities for a more collaborative and equitable process in tobacco control.
Sustained action over a long period is needed

Tobacco control in NSW has suffered from marked variations in commitment from governments, often due to the competing priorities of NSW Health, or the particular views of the minister of the day (Figure 5). Funding for tobacco control reached its nadir in 1995.

The level of commitment among children to non-smoking declines rapidly after entry into high school, and each year there is a new group susceptible to peer pressure and tobacco industry marketing. It seems self-evident, therefore, that the level of exposure achieved by an effective campaign in one annual cohort needs to be sustained in order for tobacco consumption and smoking prevalence to fall continuously. Data from both Australia and California demonstrate the sensitivity of trends in smoking prevalence, uptake and quitting to fluctuations in program exposure.22

Well funded behavioural and market research will drive, defend and renew the strategy

The level of funding for tobacco-related research in Australia is miniscule compared to the scale of the tobacco epidemic. The lack of quality research has had several adverse effects, including the following:

- the basis for program innovation is inadequate
- there is a lack of data to verify effectiveness, which further exposes decision makers to industry criticism
- information to support appropriate strategies and funding levels is lacking
- there is limited understanding of changes in tobacco use and factors affecting smoking.

The Cancer Council believes that a strong independent research capacity on tobacco and tobacco use is essential to a well managed and effective strategy.
7. Funding a State tobacco and health strategy

The foundations of an effective anti-smoking strategy for NSW are:

- adequate funding to optimise the impact of the campaign on smoking prevalence and tobacco consumption
- funding sustained over a long period
- interventions that are evidence-based and of proven effectiveness
- a regulatory framework that reinforces the effectiveness of campaign strategies
- transparent management and accountability.

There are two significant issues in relation to funding; the appropriateness of the level of funding to ensure an adequate program, and a mechanism of funding allocation that ensures the program is sustained in the long term.

Sources of funding

NSW smokers contribute over $900 million in government revenue from cigarette sales, and it is estimated that of the total amount children contribute $13.5 million to the State treasury and $6.5 million to the Federal treasury. A study by the Cancer Council has shown that underage smokers on average contribute the equivalent of $80 each per year in State government revenue, while receiving as little as 14 cents in prevention measures.

This paper has provided two estimates of the appropriate level of funding required for a NSW tobacco strategy. One is the $7.00 per capita to achieve saturation impact; the other is the $21 million required to fully fund the 1995 NSW Tobacco and Health Strategy. The latter is almost equivalent to the revenue children in NSW contribute to governments from the illegal supply of cigarettes. The Liberal & National Party Coalition, before the March 1999 State election, announced a health policy commitment to allocate $13.5 million a year to fund the State strategy. It is our priority to convince the Carr Labor government to at least match this commitment.

There are various potential sources for funding tobacco control. They include:

- Consolidated revenue. This provides the largest source of funds. However, in the usual appropriations process and in subsequent agency spending, funding for tobacco control has become hostage to competing political commitments and agency priorities.

- Retail licence fees. Although potential funds from this source would not be enough to fund the entire strategy, it has the advantage that revenue would have to be dedicated to ensuring marketing compliance in order to be within the powers of the States under the Constitution. Revenue could be used for enforcement of the Public Health Act and Tobacco Advertising Prohibition Act, for tobacco-related research using industry and retail data and for some youth and parent campaigns. A $300 annual licence fee levied on a per outlet basis would raise around $5.1 million per annum (assuming 17,000 outlets).
• **Environmental levy.** Cigarette residue constitutes around 10% of litter and is the largest single item recorded on Clean Up Australia Day. This residue contains an array of toxic and durable materials. Revenue from an environmental levy could be quite appropriately committed to a demand reduction campaign.

• **Industry penalties.** The tobacco industry currently makes $6 million profit a year in NSW from the consumption of cigarettes by minors. Penalties on industry that recoup these profits to public revenue for the purpose of reducing smoking by young people have been proposed in the US and could readily be introduced in NSW.

**Sustainability of funding**
The Californian and Massachusetts models, in which a per-pack levy established by voter mandated legislation has been devoted in part to the tobacco control campaign, provide the best examples of a specific appropriations process that ensures sustained funding at dollars per person as opposed to cents per person.

In Australia, some jurisdictions have established health promotion foundations, some funded by hypothecation of a proportion of tobacco excise (Victoria, South Australia, Western Australia and the Australian Capital Territory) but this has not necessarily been translated into proportional funding for tobacco control. The legislation setting up foundations has mandated a range of activities rather than an exclusive focus on tobacco control and only Victoria ranks with NSW in its funding of anti-smoking programs. The South Australian foundation has been abolished, and substantial levels of funding for tobacco control have been provided through the Health Commission and the Drug and Alcohol Services Council. However, the ACT model is worthy of closer examination as a leader in the reduction of smoking prevalence and ETS exposure, and in point-of-sale advertising bans.

The Cancer Council favours a model where tobacco control is a specific appropriation item in the budget. In this model, adequacy and sustainability of funds would be achieved by legislation that empowers the collection of special revenues for tobacco control and establishes a minimum level of funding for the tobacco control program. It is opportune to introduce such a reform at a time when excise from tobacco will rise by over $400 million a year as a result of the changes to the method of computing excise introduced in the last Commonwealth budget. While the additional sources of revenue identified above are important, consolidated revenue is the only source of funds that can provide a realistic level of funding for the program.

**Tobacco control program management**
Because of the political strength of the interests aligned with the tobacco industry, tobacco control programs are extraordinarily vulnerable. This vulnerability increases when they are effective, because the industry will exploit all the means available to it to undermine the government commitment. Gun control legislation provides a recent visible analogy, but there is also a perception that the NSW government is constrained in its actions on tobacco control by an industry that has been assiduous in courting invisible influence. It is therefore essential that program decisions, expenditure, program design and
implementation, research and evaluation be at arms length from government, to shield the government from the political consequences of an effective program.

In California, the Tobacco Control Program operates under the Tobacco Education and Research Oversight Committee (TEROC) whose members are appointed by the Governor, the legislature, and the Superintendent of Public Instruction. The Cancer Council believes that even greater separation is required in NSW as the Californian program has been progressively limited as a result of industry lobbying. The legislation proposed would establish a separate body for program oversight, specify program objectives, limit the application of funds to tobacco control purposes, specify the structure and mechanisms for allocating expenditure to tobacco control initiatives, and prescribe performance measures and reporting requirements.

The Cancer Council believes that the program should be established under a Board, or its equivalent, made up of citizens chosen for their own, or their organisation's, credentials in tobacco control, and their ability to meet the requirements of the legislation. The Board would consult on key issues with the Minister for Health, and the Minister would be empowered to direct the Board in writing, subject to such direction being tabled in Parliament. The Board would be required to table a report on program activity and progress in tobacco control to Parliament each year. Competent local bodies to receive and administer grants for local tobacco control activities might also be established.

The Cancer Council further believes that a joint parliamentary committee should be set up to scrutinise the appropriation to the tobacco control program and reduce partisan positioning around the implementation of the legislation.
References


2. Armstrong BK. Personal communication.


