Counting the costs of children's smoking

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The recent publication of the 1994 OPCS survey of smoking among secondary school children confirmed that the Health of the Nation target for children's smoking (a reduction in regular smoking from 8% in 1988 to less than 6% in 1994) has not been achieved. In 1994, 12% of English schoolchildren aged 11-15 were regular smokers (as were 12% in Scotland, 9% in Wales, and 12.5% in Northern Ireland). In 1994 the government spent around £10 million on initiatives to prevent smoking, but received around £8643 million in tax receipts from tobacco sales, about £108 million of which was tax receipts from the illegal sale of cigarettes to children under 16 years old. The tobacco industry spent an estimated £100 million on promotional activities. Improving current trends in children's smoking by the year 2000 will require decisive action by the government. The government should legislate to ban tobacco advertising and should use the £108 million taken each year in taxes from smoking children to fund smoking cessation and prevention initiatives.

One of the main Health of the Nation targets for smoking is a reduction in the prevalence of regular smoking (defined as smoking one or more cigarettes per week) among 11-15 year olds in England from 8% in 1988 to less than 6% in 1994.¹ The detailed results of the 1994 Office of Population Censuses and Surveys' survey of children's smoking, published recently, confirmed that the proportion of English secondary school children smoking regularly has actually increased to 12%.²

Figure 1 shows the smoking rates for girls and boys in England from 1982 to 1994. This shows that children's smoking has remained fairly stable over the past 15 years, with 1988 having the lowest rates and 1994 one of the highest (the highest rates of current smoking in girls since this series of surveys began). Over the past 10 years there is a consistent pattern for more girls than boys to be regular smokers (13% versus

10% in 1994). Figure 2 shows the pattern of regular smoking by age and indicates that by the age of 15 about a quarter of young people are smoking every week. Thirty per cent of 12 year olds and 69% of 15 year olds had tried smoking in 1994. A similar pattern of children's smoking exists in the other home countries, with 12% of highschool pupils under 16 smoking regularly in Scotland, 9% in Wales, and 12.5% in Northern Ireland.^{2,3}

FIG 2—Percentage of English boys and girls aged 11-15 who smoke cigarettes regularly (source: OPCS surveys of smoking among secondary school children, 1982-94)

In 1994 Professor Richard Peto and his colleagues predicted that about 4-5 million of the children and teenagers in the United Kingdom today will become regular smokers. Of these, about 1 million will be killed by their addiction in middle age, losing about 22 years of non-smoker life expectancy, and a further million will die prematurely in old age due to their smoking.⁴ The current failure to reduce children's smoking means that these dire predictions remain on target.

Government spending on smoking prevention

In 1993-4 the government spent about £10 million on all activities specifically designed to reduce smoking, the largest single item being around £5 million to the Health Education Authority to run a mass media antismoking programme; £2.7 million of this was for activities specifically designed to reduce children's smoking. The Children and Young Persons (Protection from Tobacco) Act 1991 has also considerably strengthened the existing legislation making it illegal to sell tobacco to any child under 16. This may seem like a considerable amount of money and effort, and when coupled with the disappointing results on children's smoking may lead to the conclusion that nothing can be done to solve this serious public health problem. However, the actual size of the government's commitment to reduce children's smoking should be assessed in relation to other factors. One of these is the size

FIG 1—Percentage of English school children who smoke cigarettes regularly, by age (source: OPCS surveys of smoking among secondary school children, 1982-94)

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of the marketing efforts expended by the tobacco industry to promote tobacco consumption.

Tobacco industry spending on smoking promotion

The tobacco industry does not publish a detailed breakdown of its marketing expenditure, but it is known that the annual marketing budget for tobacco in the United Kingdom is over £70 million (in 1993 the industry spent £38.5m on press and media, £25m on posters, and £9m on sponsorship).⁵ When the numerous other promotional activities (shopfronts, direct marketing, competitions, etc) are included, the industry's annual budget probably exceeds £100 million. Thus the tobacco industry typically spends about 10 times as much money promoting tobacco consumption as the government budget for smoking prevention activities.

It is perhaps not so surprising that children's smoking has not declined over the past 15 years, when the budget for smoking prevention activities is dwarfed by the tobacco industry's marketing activities. There exists a weakly enforced "voluntary agreement" between the government and the tobacco industry, which asserts (among other things) that tobacco advertising must not appeal more to children than to the population as a whole. There is good evidence that cigarette promotion activities that are apparently designed to reinforce adult smoking have similar effects on smokers under 16,⁶ and some tobacco advertising has been shown to be much more appealing to children than to adults.⁷ A review commissioned by the Department of Health concluded that advertising does have a positive effect on consumption and that in each country in which advertising has been banned there was a reduction in tobacco consumption which could not be attributed to other factors.⁸

It is one thing to allow a highly addictive substance to be legally sold. For a government to do so when that substance is the single largest cause of premature death in that country might be regarded as negligent. However, it is even worse to allow such a substance to be widely advertised, particularly when much of that advertising appeals to children and therefore helps recruit another generation of addicts. A number of surveys of public opinion on this issue have been carried out, and these consistently find that the majority of both smokers and non-smokers are in favour of a ban on advertising of tobacco products in virtually every country in Europe. One such survey found 67% of smokers and 73% of non-smokers in Britain in favour of a complete advertising ban, compared with 64% and 78% in Europe as a whole.⁹

Government income from taxes on tobacco

The government's current commitment to reducing children's smoking can be put in context by examining the amount of money the government receives in duties

and taxes on tobacco sales. English children's favourite brand of cigarettes (Benson and Hedges)¹⁰ was priced at £2.34 per pack of 20 in July 1994, with the government receiving a total of £1.87 (80% of the retail price) for every pack sold. In 1994, 92 460 million cigarettes were consumed (total value £10017m) and the government received £8463m from all taxes on all tobacco products.¹¹

It might be useful to estimate how much children spend on cigarettes and how much revenue accrues to the government from this expenditure, using the recently published survey results. These estimates depend on the brands that are smoked by children and the price charged for these cigarettes. It may be thought that children who are short of money would seek out the cheapest cigarettes. However, research suggests that the young people are more likely to recognise the most advertised brands, and in the past decade children have consistently chosen these moderate to high priced brands, with one particular brand (Benson and Hedges) consistently being favoured by the majority of children.^{10 12}

In the table the figures from the new surveys are combined with population estimates for the United Kingdom to yield estimates of consumption and expenditure by children. This shows that in 1994 children spent about £135 million on cigarettes, yielding the government around £108 million in tax revenue from illegal sales. This estimate may be conservative: the children may have underestimated their consumption in the surveys; it does not include smoking by children under 11; and it assumes a cigarette price slightly below average. This revenue yield is more than 30 times the amount spent by the government to try to reduce children's smoking in 1994.

The present government has been particularly active in strengthening legislation designed to ensure that no one should be able to profit from criminal activity. It has strengthened the powers of the police and the courts to investigate the financial accounts of those involved in drug dealing and to confiscate money that has clearly been gained from this illegal activity—even if this money has been passed on to a third party (Drug Trafficking Act 1994). The same principle (that no one should be allowed to keep the proceeds of criminal activity) has been applied to other types of crime in the Proceeds of Crime Act (1995), which received all party support and becomes law on 1 November. The government should itself follow that principle and make a commitment to ringfence all of its income from tax on illegal sales of tobacco to children and dedicate that money to smoking prevention activities.

Ringfencing of income from tobacco taxation for use in smoking prevention initiatives already occurs in the United States and Australia. A detailed analysis of the effect of such legislation (increasing taxes and using the money to fund an antismoking campaign) on tobacco consumption in California found that it tripled the rate of decline of tobacco consumption (from 46 million packs per year to 164 million packs per year).¹³

What more could be done?

The Royal College of Physicians concluded its 1992 report, *Smoking and the Young*, with 59 recommendations for action, including raising to 18 the legal age at which tobacco can be sold (as it is in many other countries—for example, Australia), banning all forms of tobacco advertising, and ensuring that smoking prevention and cessation is an important part of the work of all healthcare professionals.¹⁴

One important point made in the royal college's report is that interventions oriented to children are unlikely to be effective while the prevalence of adult smoking remains high, and so there is a need to help

Annual cigarette consumption in British high school children under 16 in 1994, and estimates of total tobacco spending by children and tax revenue

	Mean annual cigarette consumption per child*	No of children aged 11-15†	Total cigarette consumption by children (thousands)‡	Total annual tobacco spending (£m)§	Total annual tax revenue (£m)¶
England	321	3005	965	112.9	90.3
Scotland	337	324	109	12.8	10.2
Wales	262	187	49	5.7	3.1
Northern Ireland	236	132	31	3.6	2.9
United Kingdom	316	3649	1154	135.0	107.9

*Averaged over all children, including non-smokers, based on authors' calculations from 1994 surveys.¹⁵

†Figures for mid-1994 resident population aged 11, 12, 13, 14 or 15 supplied by OPCS.

‡Based on detailed original figures, will not necessarily agree with multiplication/addition of rounded figures.

§Calculated on the most popular brand price, £2.34 for a pack of 20 in mid 1994.

¶Using tax yield per pack of £1.87 (£1.05 excise, 47 ad valorem tax and 35p VAT).

more adult smokers to quit. Other benefits are likely to arise from a concentration on reducing smoking among adults with children. Reduced smoking by parents is likely to directly improve the health of non-smoking children and may reduce the estimated £149 million extra healthcare costs among these children.¹⁵ Recent tactics have focused on mass media publicity (the John Cleese advertisements, for example) and self help initiatives (such as National No Smoking Day). There is little doubt that these interventions are cost effective methods of encouraging more smokers to attempt to stop.¹⁶ However, there may be an overdependence on such self help or motivational approaches, and a lack of specialist help for addicted smokers. In Britain today the vast majority of smokers know that smoking is bad for their health; two thirds want to stop smoking, and 81% have already tried to stop smoking unsuccessfully.¹⁷ Effective treatments for tobacco addiction are now available¹⁸ and can produce reasonable long term abstinence rates (22% abstinence for five years, compared with 5% in an untreated control group¹⁹), but these treatments are not generally provided by the NHS.

Until more active measures are taken to reduce smoking prevalence throughout the population (such as banning advertising and increasing smoking cessation services) then probably the best hope of reducing smoking by children comes from more active enforcement of existing legislation. In spite of legislation (introduced in 1991) banning tobacco sales to those under 16 years old, only 35% of pupils aged 11-15 who had attempted to buy cigarettes in 1993-4 had been refused.² There is good evidence from the United States and Australia that simply informing tobacco retailers of the law has little effect, but that active enforcement (by test purchases and prosecutions) can be very successful in reducing sales to children.^{20 21} Unfortunately, fewer than half of the local authorities in England and Wales carried out test purchases in 1993-4.²² One of the main requirements for a reduction in children's smoking is a shift in public attitudes, such that a street corner newsagent selling cigarettes to children is perceived in the same way as a street corner dealer selling crack cocaine. The main difference between the two is that the tobacco sale is more likely to lead to a lifelong addiction and premature death.

Conclusion

The government has an important part to play in

encouraging changes in smoking behaviour and attitudes. This includes taking corrective action when its own targets have not been met. Banning tobacco advertising and using the £108 million receipts from illegal tobacco sales to children for smoking prevention initiatives are the kinds of decisive action that will be required if children's smoking is to be reduced to under 6% by the year 2000.

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WAYS WITH WORDS

Abbreviations

I was delighted to hear that the *BMJ* (*British Medical Journal*) had accepted an advertisement for the *BMJ* (*Builders Merchants Journal*). It confirmed a long held belief in the abomination of abbreviations and the arrogance of those who use them, expecting others to know what they are talking about.

Over the years I have collected many examples with a similar potential for confusion. A simple case might be BP: to most doctors this represents blood pressure, but if one of them was interested in the stock market it could equally well be British Petroleum, and if he (not she in this case—note how careful I am about PC!) had been a boy scout, Baden Powell.

A particular stumbling block is the differing usage by specialists, which ensures that they cannot communicate with one another: CVS for cardiovascular system or chorionic villus sampling, MS for mitral stenosis or multiple sclerosis, SMR for standardised mortality ratio or submucous resection, etc. The *Times* had a headline, "Are doctors failing to recognise PID?" which I took to be

prolapsed intervertebral disc until I read the article—about pelvic inflammatory disease.

But my real grouse is that the titles of books (*The BFG* by Roald Dahl¹), journals (*ARD* for *Annals of Rheumatic Diseases* is the latest, not particularly attractive, and too like ARDS²), and titles of articles are increasingly subject to arbitrary and unexplained abbreviation. It is frustrating if you have to scan lists of contents to come across something like "Current thinking on PVD" (*Practitioner*). Peripheral vasodilator drugs, postviral depression . . . ? No, peripheral vascular disease. Of course; anyone would have known that.

I am still looking for the answer to an advertisement in the *TLS* (sorry, *Times Literary Supplement*) headed "BNB on CD-ROM" and described as a "new mouseable and network friendly software." Yes, really. I think I know what CD-ROM means³ (do you?) but I haven't solved BNB yet. I am actively wasting my time trying to find out, so please do not send a PC.⁴—ALEX PATON is a retired physician in Oxfordshire

- 1 Political correctness, postcard, personal computer.
- 2 The Big Friendly Giant.
- 3 Adult respiratory distress syndrome.
- 4 Compact disc—read only memory.