

# Tobacco smoking in Scotland:

## an epidemiology briefing

### Key points

- More than a million adults in Scotland were cigarette smokers in 2005/06: 26% of men and 25% of women.
- By age 15, 12% of boys and 18% of girls are regular smokers. By age 25–34, 35% of males smoke and 28% of females.
- The percentage of adults who smoke has reduced by about half since the early 1970s. The rate of decrease slackened in the late 1980s and 1990s. It has picked up again recently, with over 30,000 fewer smokers each year from 2004 to 2006.
- Between 1972 and 2004, the gap in smoking rate between those in the lowest and highest skilled occupations increased from 5% to 19%. Smoking rates decreased faster among Scots in the most skilled occupations (from 45% to 14%) than among the least skilled Scots (from 50% to 33%).
- More than half a million Scots want to stop smoking to protect their health.
- 24% of Scotland's deaths in 2004 were attributable to smoking. The life expectancy gap between smokers and never-smokers is greater than that between higher and lower social classes.
- Smoking behaviour is driven by addiction to nicotine, but personal, social and economic influences are often critical in determining who starts smoking, who gives up and who continues.
- Reducing smoking requires a comprehensive package of public health interventions delivered through a co-ordinated tobacco control programme, including public education, professional education, smoking cessation services, regulation and economic strategies.
- The number of smokers in Scotland is declining steadily. Maintaining this downwards trend will make a major contribution to achieving a healthier and fairer Scotland.

## Introduction

Tobacco is the leading cause of preventable deaths worldwide and kills one person every 6.5 seconds.<sup>1</sup> Between 1950 and 2000, 374,000 Scots aged 35–69 died prematurely from smoking-attributable causes – 34% of all deaths in this age group (44% of male and 19% of female deaths).<sup>2</sup> Despite this, one-quarter of the Scottish adult population (25%, 1,048,000) currently smoke.<sup>3</sup> Through its *Tobacco Control Action Plan* (2004),<sup>4</sup> the Scottish Government aims to reduce Scottish adult smoking rates to 22% and smoking rates among 12–15 year olds to 11% by 2010, with additional targets set for smoking in pregnancy, and smoking and deprivation. This briefing looks at how tobacco impacts on the population health of Scotland, why people take up smoking and continue to smoke, and what might be done to curb the epidemic.

### What is the problem?

It has been known for over fifty years that smoking is associated with lung cancer.<sup>5</sup> Since then, *‘tobacco has been unmasked as a wolf in sheep’s clothing: a lethal combination of a highly addictive drug, and, when smoked, a host of toxic chemicals capable of causing a wide range of serious diseases’*.<sup>6</sup> The World Health Organization estimates that

one in every two smokers is destined to die prematurely as a result of their habit.<sup>7</sup> Smoking is also *‘a major contributory factor to the gap in mortality and healthy life expectancy between the most and least advantaged’*<sup>8</sup> in Europe.

Tobacco use can be defined in various ways. Although the most common use of tobacco in Scotland is by smoking manufactured cigarettes, it can also be smoked in hand-rolled cigarettes or pipes, as cigars, or chewed. This briefing is focused on cigarette smoking.

### What is the size of the problem?

More than a million Scottish adults were current smokers in 2005/06. A slightly greater proportion of men (26%) than women (25%) smoked.<sup>9</sup> Among Scottish young people in 2006, 12% of 15-year-old boys and 18% of 15-year-old girls were regular smokers.<sup>10</sup> Smoking prevalence rises from adolescence into early adulthood and declines in later adulthood (Figure 1). There is a clear peak for men in the 25–34 age group, whereas for women rates are similar across the age groups from 16 to 59 years.

## Definitions of tobacco use

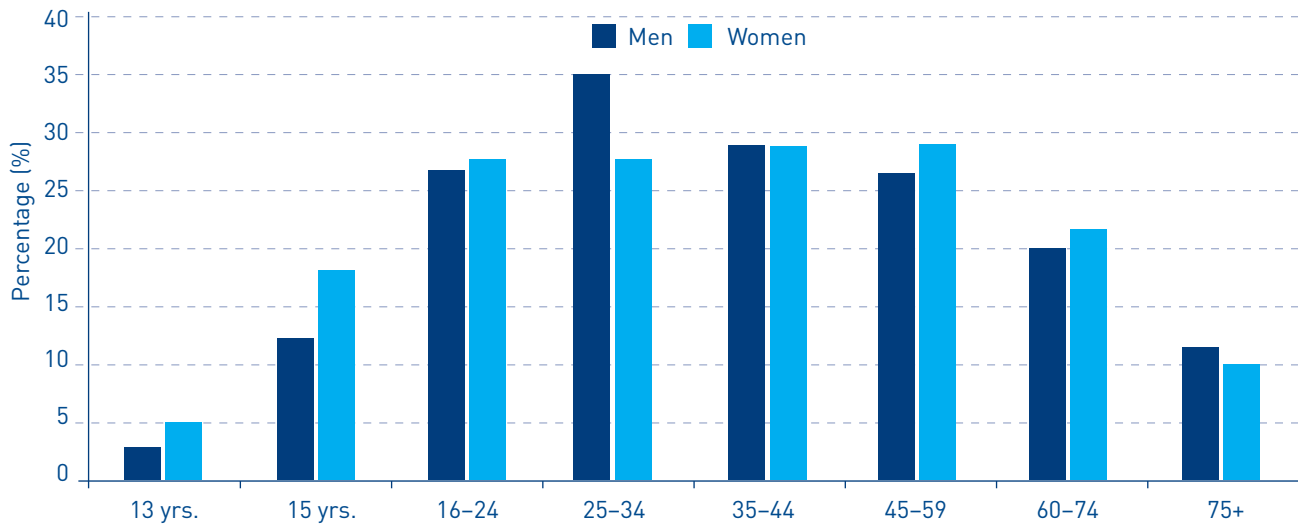
**Young person, regular smoker: someone who usually smokes at least one cigarette a week**  
*Scottish Adolescent Lifestyle and Substance Use Survey, 2006*

**Adult, current cigarette smoker: an adult (aged 16+) who smokes cigarettes at all nowadays**  
*Scottish Health Survey 2003*

**Adult, current smoker: an adult (aged 16+) who smokes cigarettes at all nowadays**  
*Scottish Household Survey; General Household Survey*

**Passive smoker: someone who is exposed to second-hand tobacco smoke on an involuntary basis**  
*World Health Organization*

**Figure 1: Smoking prevalence (%) by age group and sex, Scotland, 2005/06**



Sources: Scottish Household Survey 2005/06 (for 16+ age group); Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) (for 13- and 15-year-olds)

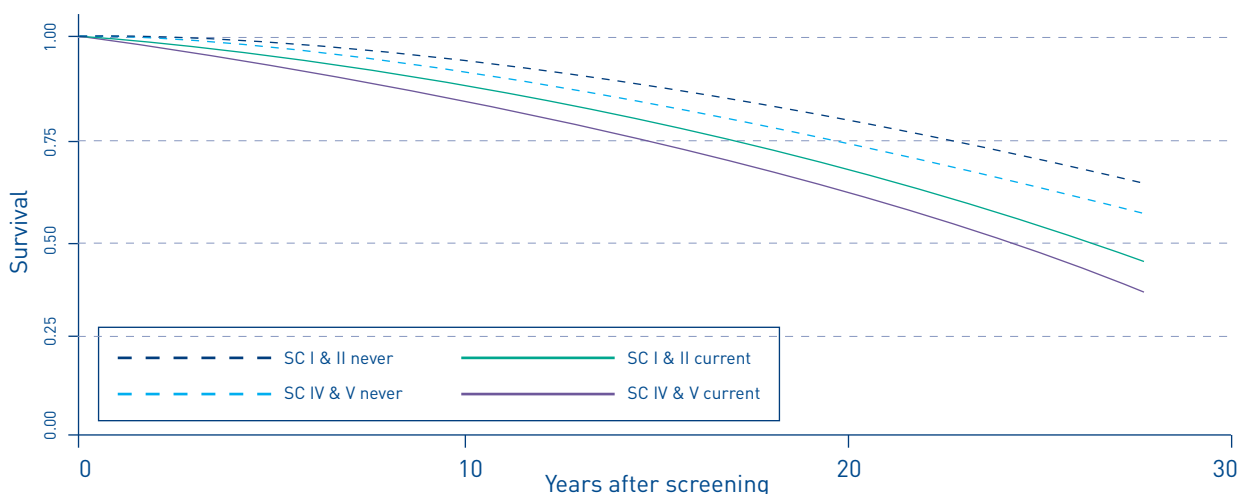
### Why does it matter?

Over two-thirds (69%, 723,000) of Scottish adult smokers report that they would like to stop smoking completely.<sup>11</sup> The most common reason cited, by 73%, is concern about their own health.<sup>12</sup> So more than half a million of Scots smokers want to quit for health reasons.

These health concerns are well founded. In Scotland, nearly a quarter (24%, 13,473) of Scottish deaths in 2004 were attributed to

smoking.<sup>13</sup> Among Scots who died of smoking-attributable causes between the ages of 35 and 69 years in 2004, an average of 22 years of life were lost per death.<sup>14</sup> The Renfrew/Paisley MIDSPAN study found that lifelong non-smokers from the lowest social class (SCs IV and V never) have better survival rates than smokers in the highest social class (SCs I and II current) (Figure 2).<sup>15</sup> The findings are similar for both men and women, and for area deprivation and social class.

**Figure 2: Survival rates of female smokers and non-smokers in the MIDSPAN study, by social class**



Source: Gruer et al, 2008<sup>15</sup>

Stopping smoking completely at any age reduces the risk of dying prematurely. Quitting at the age of 30 appears to almost completely offset the risk of premature death, while stopping at the age of 50 will reduce it by half.<sup>16</sup> However, cutting down the number of cigarettes smoked or switching to low-tar cigarettes fails to deliver tangible health benefits, as smokers adjust the way they smoke (inhaling more deeply) to maintain the same level of nicotine in their body.<sup>17</sup>

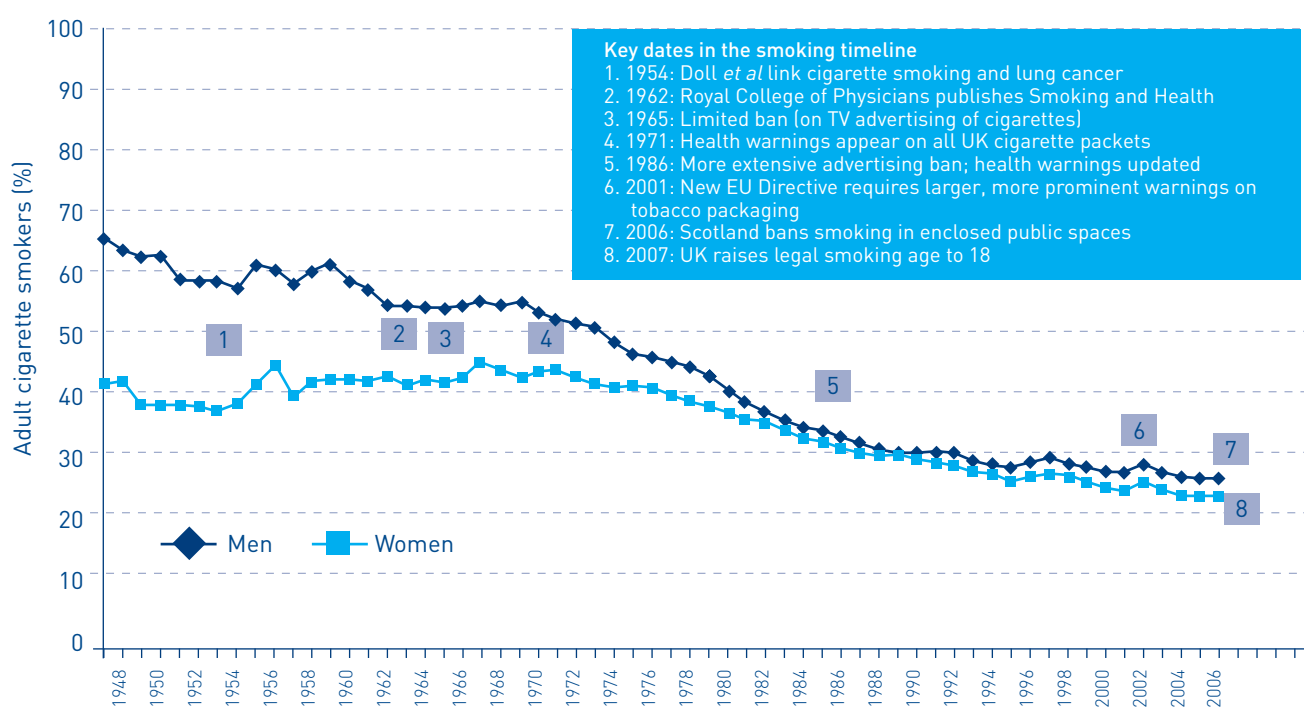
Tobacco use also reduces general health. Among Scots aged 35–59 in 2005, 89% of non-smokers reported good/fairly good health but only 77% of smokers provided this report.<sup>18</sup> Smokers are at increased risk of developing a range of illnesses, from angina and cataract to depression and pneumonia.<sup>19</sup> There is also evidence that smoking lowers fertility and reduces the immune system's capacity to fight disease.<sup>20</sup> Symptoms of ill health such as asthma are more common and the impact of diseases (including pneumonia) is more severe among smokers.<sup>21</sup> Non-smokers are also affected through 'passive smoking', which is linked to diseases such as lung cancer, heart disease, asthma and chronic bronchitis.<sup>22</sup>

Smoking costs the Scottish economy £837m each year, through the direct costs of treating smoking-related diseases,<sup>23</sup> lost output and productivity to employers,<sup>24</sup> and reduced consumer expenditure through premature deaths.<sup>25</sup> This is equivalent to 1% of the total Scottish economic output in 2005.<sup>26</sup> The average smoker spends over £1,500 on cigarettes annually, representing a large proportion of the disposable income of the lower paid in particular.<sup>27</sup> Smoking thus imposes large costs on both individuals and society as a whole.

### Trends over time

Over the last 60 years, smoking has gone from a social norm to a minority activity. In 1948, 65% of British men and 41% of women were cigarette smokers.<sup>28</sup> In total, 82% of men smoked when pipes and rolled tobacco are included.<sup>29</sup> By 2005, 25% of men and 23% of women in Britain were cigarette smokers.<sup>30</sup> The steepest fall in smoking prevalence occurred between 1970 and the early 1990s, with the rate of decrease more marked for males (Figure 3).

**Figure 3: Cigarette smoking timeline in Britain: prevalence and key events, 1948–2007**



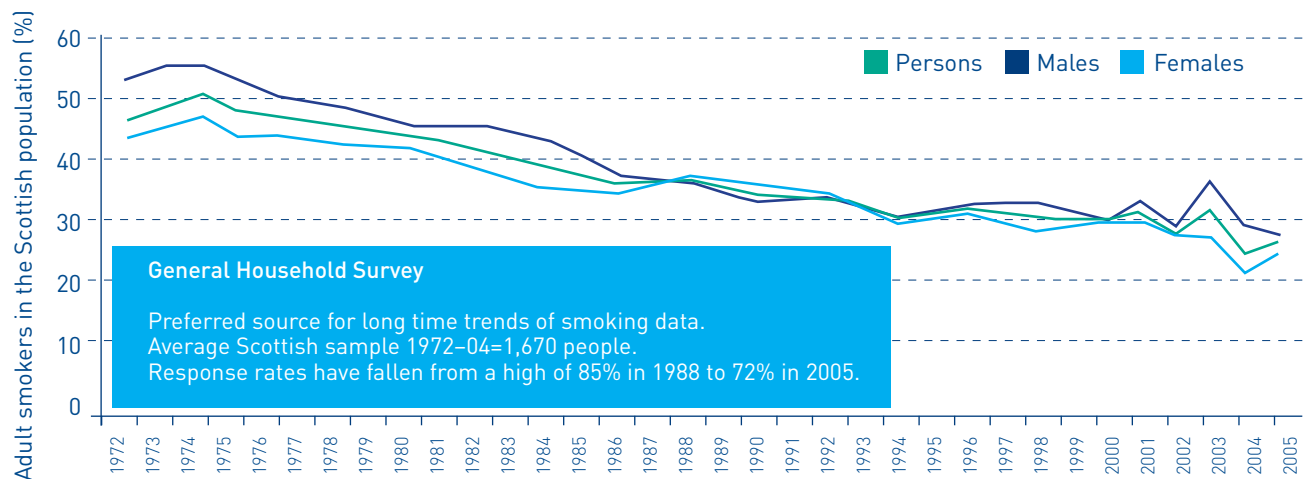
Source: 1948–1970 Tobacco Advisory Council; 1972–2002 General Household Survey

British smoking trends have evolved alongside public health initiatives, as shown in Figure 3. Although the first British research (by Bradford Hill and Doll)<sup>31</sup> linking lung cancer and smoking was published in 1954, it was not until 1965 that a limited ban on TV advertising of cigarettes was introduced. Almost another decade passed between the 1962 publication of *Smoking and Health*<sup>32</sup> by the Royal College of Physicians and the introduction of health warnings on cigarette packets (1971). Stricter limits on advertising and blunter health warnings on cigarette packaging were introduced fifteen years later (1986), with Scotland introducing smoke-free

public places twenty years after this (2006). The impact of the latter has yet to be seen in routine statistics.<sup>33</sup> Early signs are promising,<sup>34</sup> although the direct impact on prevalence may be muted.

Consistent data on adult smoking prevalence in Scotland is available for 1972 onwards in the General Household Survey. Between 1972 and 2004, the proportion of Scottish adults (aged 16+) smoking daily fell from 47% to 25% (Figure 4). Prevalence fell from 52% to 29% among men and 43% to 22% among women.<sup>35</sup> However, the rate of decrease slowed in the late 1980s and slowed further in the 1990s.

**Figure 4: Adult smoking prevalence, Scotland, 1972-2005**

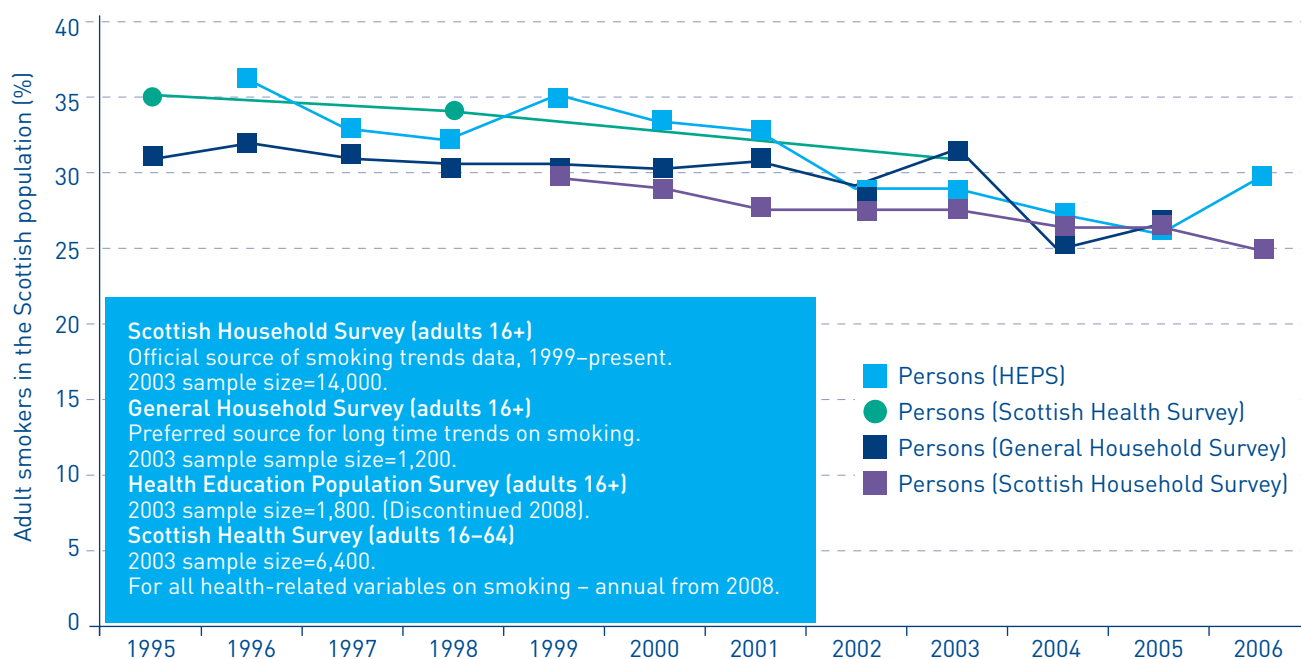


Source: General Household Survey

The slower decline of Scottish smoking rates has continued over the last decade, although the figures differ in detail depending on the survey used (Figure 5). When interpreting

these graphs, the focus should be on the overall trend. Figures for individual years, no matter how well conducted the survey, can be volatile, not least because of sampling issues.

**Figure 5: Adult smoking prevalence, Scotland, 1995–2006**

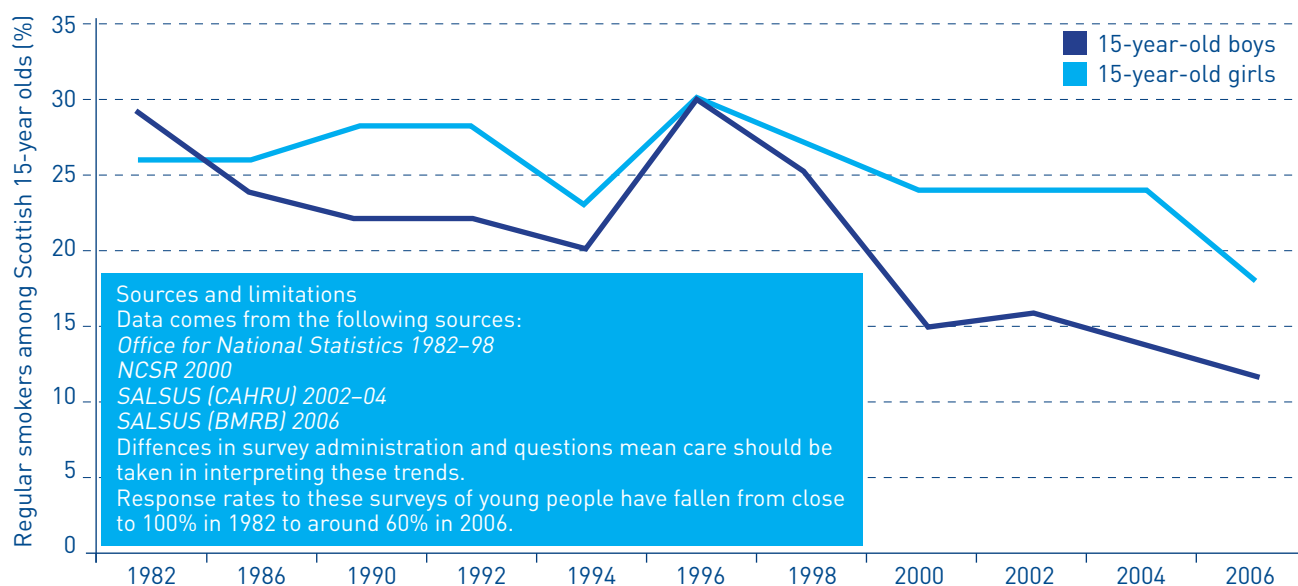


Sources: General Household Survey; Health Education Population Survey (HEPS); Scottish Household Survey

Among younger Scots the trend is slightly different (Figure 6). After reaching a peak of 30% in 1996, reported smoking rates among 15-year-old boys dropped to 12% by 2006. The trend for 15-year-old girls remained

essentially flat between 1982 and 2004, but the latest SALSUS data suggest an improvement, with a reduction to 18% of 15-year-old girls smoking in 2006.<sup>36</sup> Figure 6 contains ‘health warnings’ about interpreting these trends.

**Figure 6: Trends in smoking among Scotland’s young people, 1982–2006**

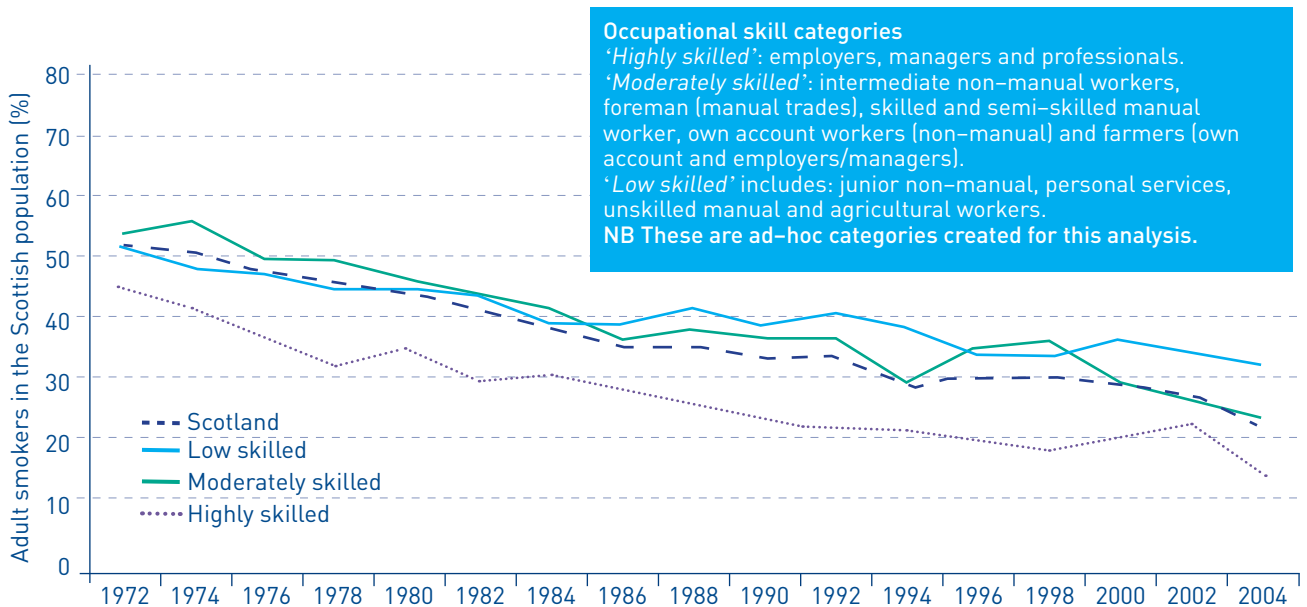


Sources: ONS 1982–1998; NCSR 2000; SALSUS 2002, 2004 and 2006

Smoking is strongly patterned by social class. Social classifications have changed in the last 30 years but we can construct a trend analysis by combining socio-economic group (SEG) categories from the Scottish sample of the General Household Survey. Figure 7 shows smoking prevalence for three broad groups of

Scottish adults between 1972 and 2004: the highly skilled, the moderately skilled and the low skilled<sup>37</sup>. Excluded from this analysis are the unemployed and the economically inactive, both groups with higher smoking rates than the general population.

**Figure 7: Smoking prevalence (%) by occupational skill level, Scotland, 1972–2004**



Source: General Household Survey

#### Between 1972 and 2004:

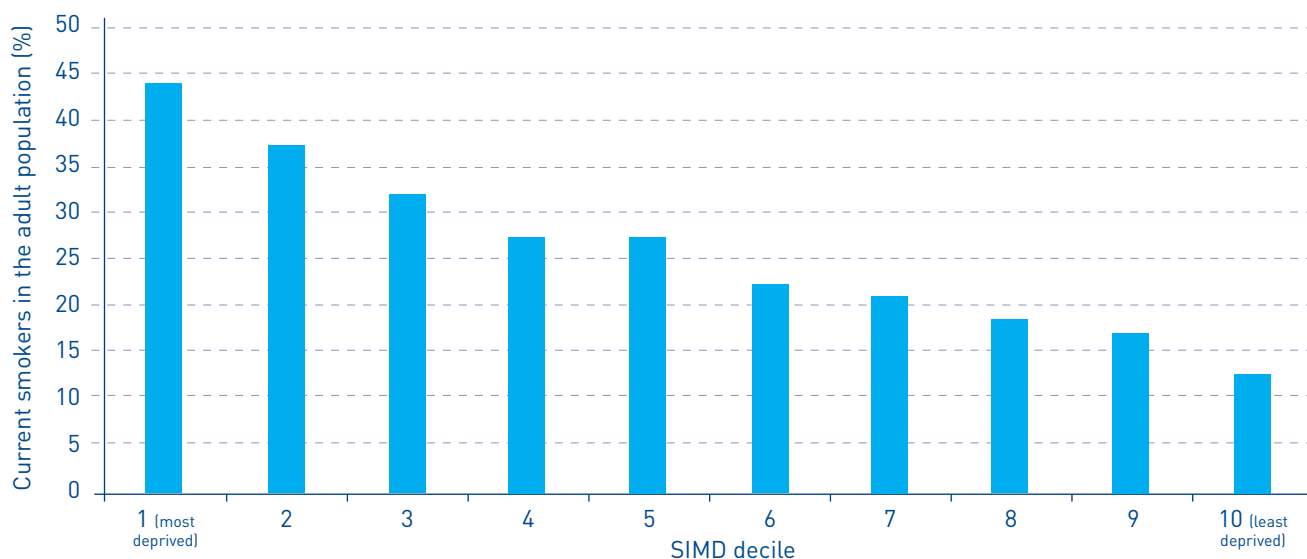
- the proportion of highly skilled Scots smoking rates fell from 45% to 14%
- smoking rates among moderately skilled Scots fell from 53% to 24%
- but among low-skilled Scots smoking rates fell less steeply: from 50% to 33%
- the gap in smoking rates widened from 5% to 19%.

#### Who is affected by smoking?

More than a million Scots smoke, but the impact is unevenly distributed between population groups and across different parts of the country. Factors linked to this are described below.

**Deprivation:** There is a strong gradient in smoking prevalence across deprivation deciles (Figure 8). In 2005/06, nearly 45% of Scottish adults smoked in the most deprived tenth of data-zones (as measured by the Scottish Index of Multiple Deprivation 2006) compared with just 13% of adults living in the least deprived tenth.<sup>38</sup> In the most deprived communities, smoking prevalence rates are similar to those last seen nationally in the 1970s.

**Figure 8: Smoking prevalence by deprivation decile, Scotland, 2005–06**

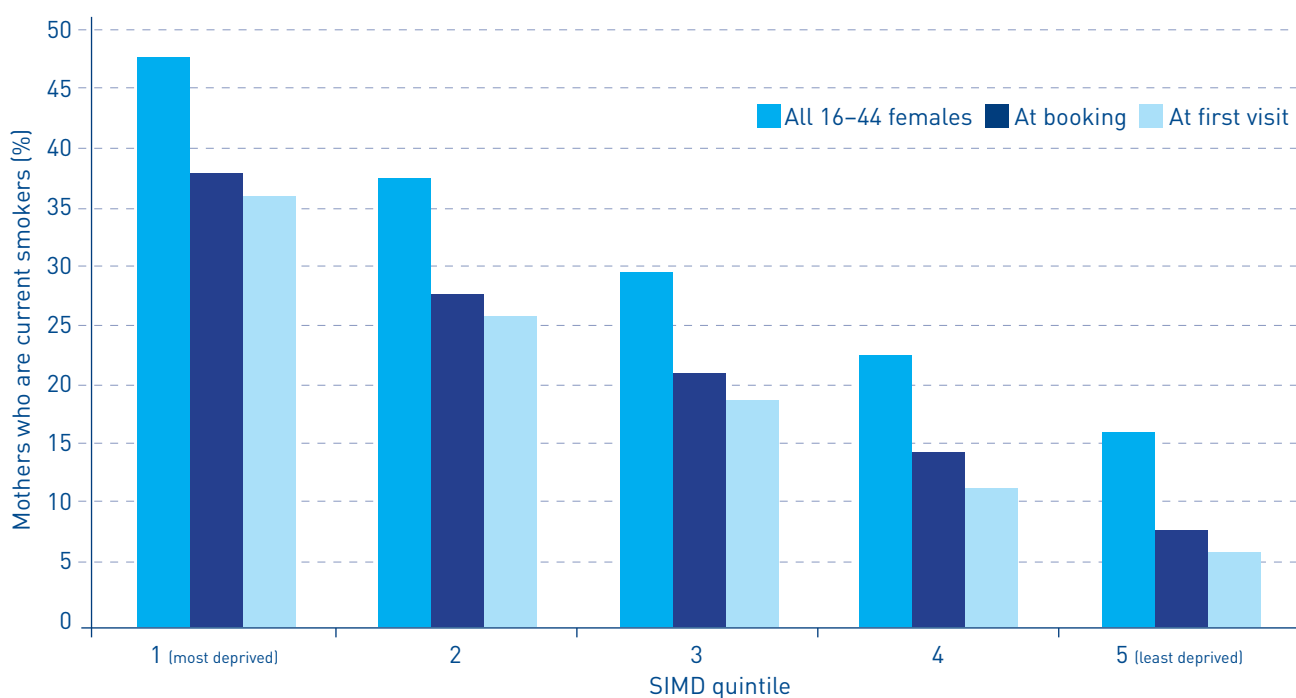


Source: Scottish Household Survey

A similar gradient exists for smoking among pregnant women (Figure 9). At the antenatal ‘booking’ visit in 2005, 6.3% of women living in the least deprived quintile (fifth) smoked compared with 35.8% of those in the most deprived quintile.<sup>39</sup> Prevalence is only slightly lower at the first domiciliary post-natal visit: most smokers smoke throughout their pregnancy and some who give up restart

immediately after birth.<sup>40</sup> At every deprivation quintile, pregnant mothers appear less likely to smoke than all females aged 16–44,<sup>41</sup> but this is more pronounced in less deprived areas. These figures may understate smoking in pregnancy, since smoking status of the mother was missing in around 1 in 20 cases in 2005, with West of Scotland and some rural boards most likely to lack this data.

**Figure 9: Smoking rates in pregnancy, by deprivation quintile, Scotland, 2005**



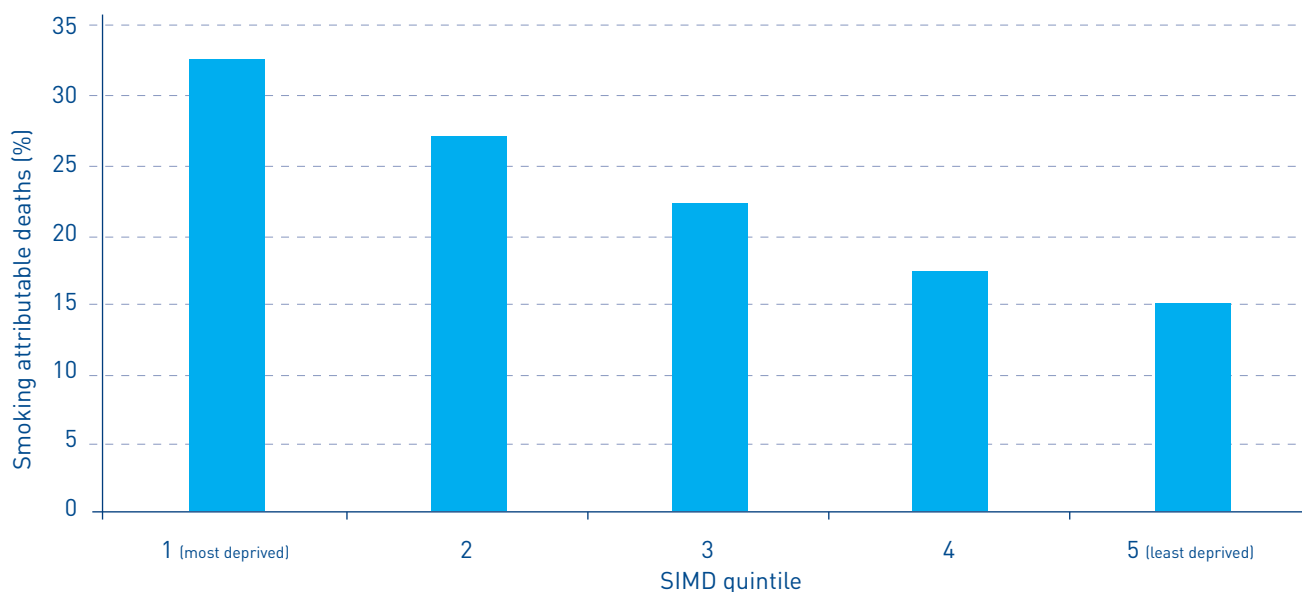
Sources: ISD Scotland SMR 02; ISD Scotland CHSP-PS; Scottish Household Survey



Smoking-attributable mortality is strongly associated with relative deprivation (Figure 10). In the period 2000–04, 15% of deaths in the least deprived quintile were from smoking-attributable causes compared with 32% in

the most deprived quintile.<sup>42</sup> This inequality could increase in coming years, reflecting the increasing inequality of prevalence seen in recent decades and the lag between starting smoking and its effect on mortality.

**Figure 10: Proportion of all deaths attributable to smoking, by deprivation quintile, Scotland, 2000–04**

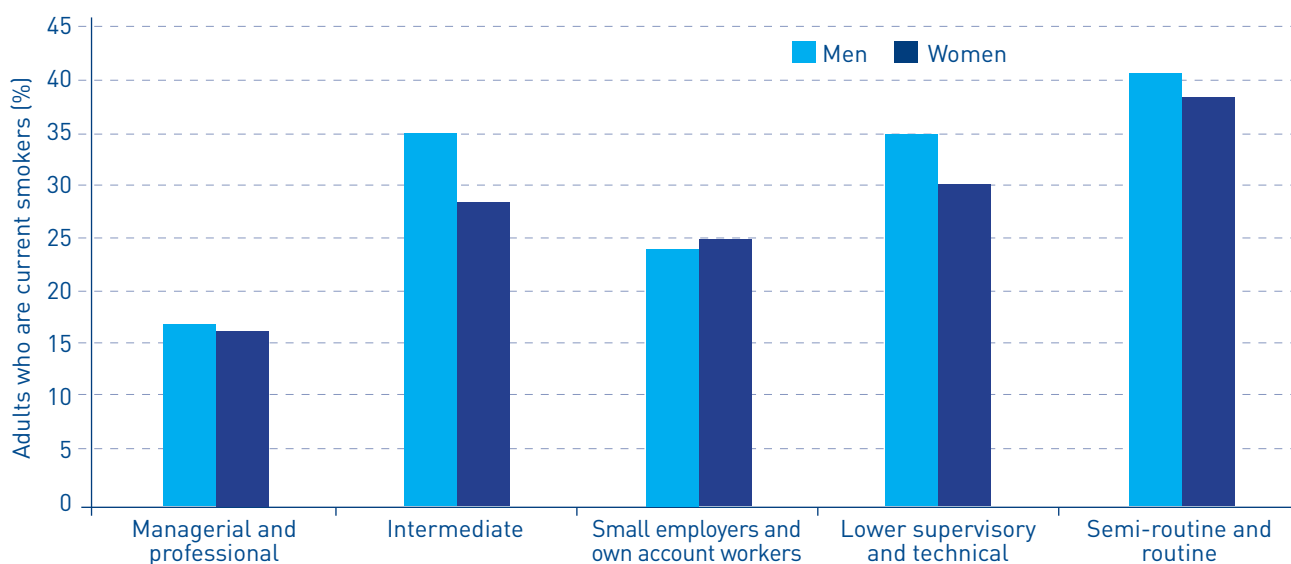


Source: Jillian Boreham, CTSU, University of Oxford and General Register Office for Scotland (GROS). Estimates created applying method of Peto et al, Lancet 1992, to GROS data.

**Occupation:** Smoking prevalence rates are lowest among those in managerial and professional occupations and small employers

and own account workers, and highest among those working in routine/semi-routine and intermediate occupations (Figure 11).<sup>43</sup>

**Figure 11: Age-standardised current smoking rates by NS-SEC occupation grouping and sex, Scotland, 2003**

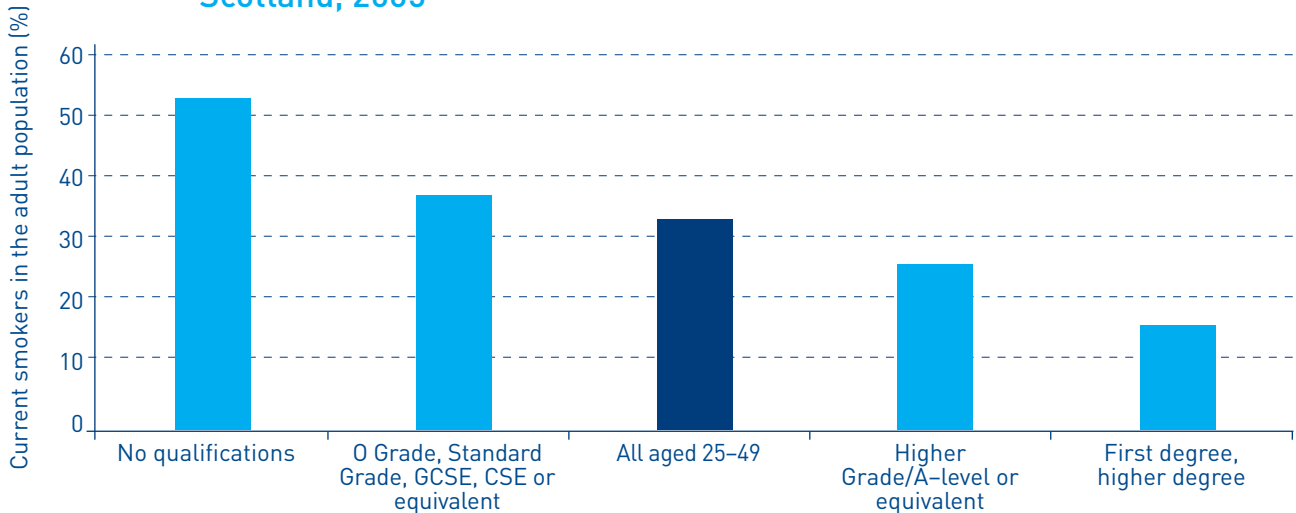


Source: Scottish Health Survey 2003

**Education:** There is also a smoking gradient for education (Figure 12). In 2005, half of adults aged 25–49 with no qualifications (52%)

smoked, compared with one-quarter (25%) of those with Higher Grade/A-level or equivalent and only 16% among those with a degree.<sup>44</sup>

**Figure 12: Smoking prevalence by highest educational qualification, age 25–49, Scotland, 2005**

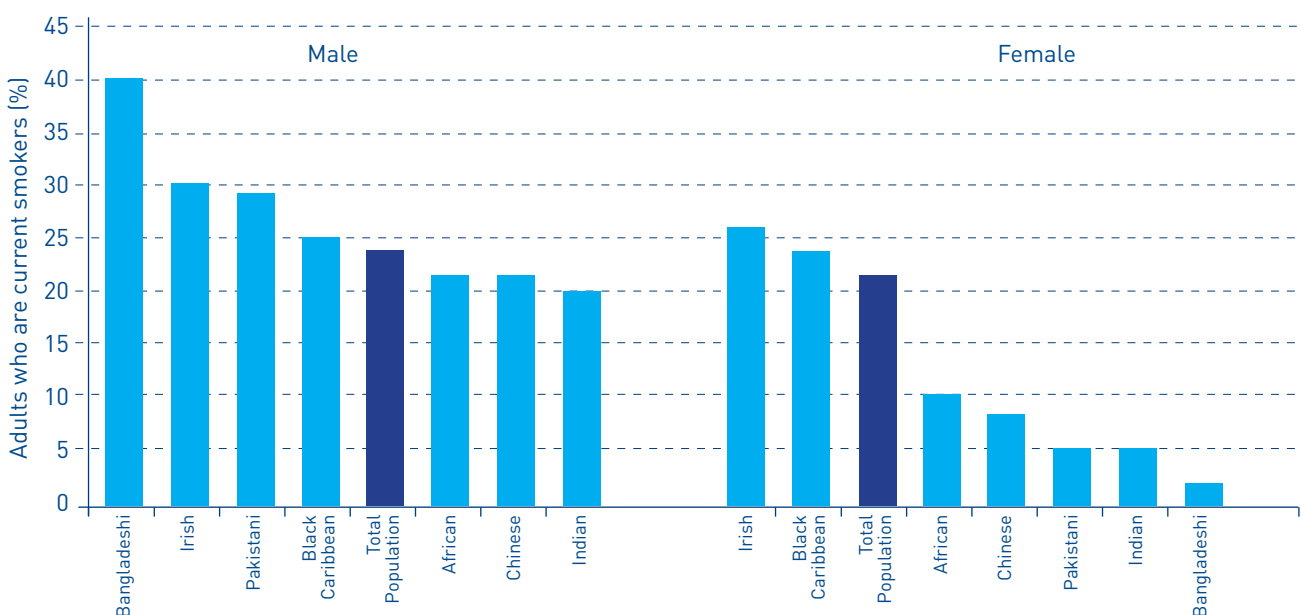


Source: Scottish Household Survey 2005

**Ethnicity:** Data on the health of Scotland's ethnic minorities are currently very limited. Data for England shows the smoking prevalence to be higher than the average for men of Bangladeshi (40%), Irish (30%), Pakistani (29%) and Black Caribbean (25%) origin and for women of Irish (26%) and Black Caribbean (24%) origin (Figure 13).<sup>45</sup> On the other hand, smoking prevalence was much

lower among women of African (10%), Chinese (8%), Indian, Pakistani and Bangladeshi origin (5% or less). Recent migration to Scotland has included many Poles. Smoking prevalence was higher in Poland in 2002 for men (38% vs 29% in Scotland) and similar for women (26% vs 28%).<sup>46-47</sup> Whether migrants reflect this pattern is uncertain.

**Figure 13: Smoking prevalence in selected ethnic groups by sex, England, 2004**

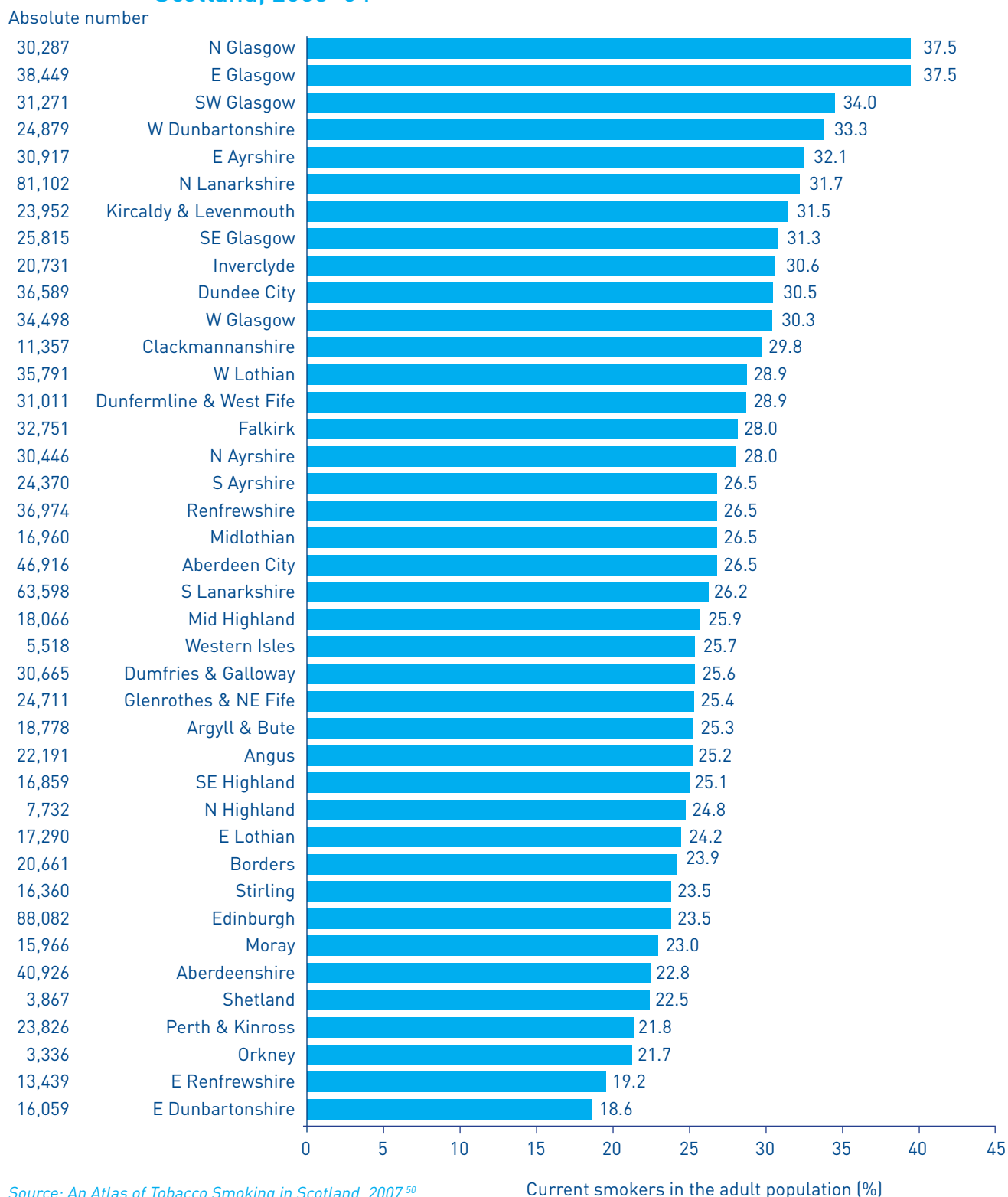


Source: Health Survey for England, 2004

**Place:** There is a wide variation in prevalence at Community Health Partnership (CHP) level (Figure 14). The estimated proportion of current smokers in East Renfrewshire and East Dunbartonshire CHPs (18.6%) is half that of North Glasgow and East Glasgow CHPs (37.5%).<sup>48</sup> However, in absolute

terms this still amounts to 13,000 smokers in East Renfrewshire and 16,000 in East Dunbartonshire. At CHP level, simple linear regression suggests the proportion of ‘income-deprived’ people is strongly associated with local smoking prevalence rates (R square = 0.847).<sup>49</sup>

**Figure 14: Smoking prevalence (percentage and absolute numbers) by CHP, Scotland, 2003–04**



**Non-smokers:** Smoking also affects non-smokers, through exposure to environmental tobacco smoke (also known as second-hand smoke). Prior to the implementation of smoke-free enclosed public spaces in 2006, up to 1,000 lifelong non-smokers (three-quarters of whom were women) died in Scotland each year because of this, largely through increased risk of lung cancer, heart disease and stroke, and respiratory disease.<sup>51</sup> A recent Scottish study of primary schoolchildren found that nearly one-fifth were still being exposed to second-hand smoke in the home,<sup>52</sup> although there are also some encouraging signs that social norms and consideration for others (especially children) can be mobilised to change smokers' behaviour and reduce non-smokers' exposure.<sup>53</sup>

## How does Scotland compare with other countries?

Scottish smoking prevalence for women lies in the top third of a range of European and Scottish-settled countries (Figure 15). Depending on the Scottish survey used for comparison, male prevalence rates lie in the top half to one third.

For young people, the 2000/01 Health Behaviour in School-aged Children (HBSC) survey shows Scotland in a more favourable international position, with low smoking prevalence for boys and moderate prevalence for girls (Figure 16).

**Figure 15: Scotland's international position: adult smoking prevalence, 2002–05**

COUNTRY	MALE (%)	COUNTRY	FEMALE (%)
Latvia	47	Germany	31
Estonia	42	Scotland (SHeS) 2003	31
Hungary	41	Belgium	30
Lithuania	39	Hungary	28
Poland	38	Scotland (GHS) 2003	28
Germany	37	Scotland (SHoS) 2003	28
Scotland (GHS) 2003	35	Northern Ireland	27
Spain	34	Poland	25
Scotland (SHeS) 2003	32	Netherlands	25
Czech Republic	31	Norway	25
Italy	31	Wales	25
Netherlands	31	Ireland	24
France	30	Denmark	23
Malta	30	New Zealand	23
Scotland (SHoS) 2003	28	England	23
Denmark	28	Spain	22
Finland	27	Estonia	21
Norway	27	France	21
Australia	26	Czech Republic	20
England	26	Finland	20
Wales	26	Australia	20
Belgium	25	USA	19
Northern Ireland	25	Sweden	19
Ireland	24	Latvia	18
USA	24	Malta	18
New Zealand	24	Italy	17
Canada	22	Canada	17
Sweden	14	Lithuania	14

Sources<sup>54</sup>: GHS = General Household Survey; ShoS = Scottish Household Survey, SheS = Scottish Health Survey

**Figure 16: Scotland's international position: daily smokers (%) at 15-years-old, 2000–01**

COUNTRY	BOYS	COUNTRY	GIRLS
Lithuania	27	Germany	29
Germany	26	Finland	23
Estonia	23	Spain	23
Finland	22	Czech Republic	23
Latvia	22	Wales	22
Poland	21	France	20
Hungary	21	Australia	20
Czech Republic	20	Norway	20
France	20	Netherlands	20
Netherlands	19	England	20
Belgium (Flemish)	18	Scotland	19
Spain	17	Belgium (Flemish)	19
Italy	16	Belgium (French)	18
Belgium (French)	16	Hungary	18
England	16	Ireland	17
Norway	16	Italy	16
Australia	15	Denmark	16
Ireland	15	New Zealand	15
Denmark	14	Latvia	14
Scotland	13	Sweden	14
Canada	13	Poland	12
Wales	12	Estonia	12
USA	12	Lithuania	11
New Zealand	12	Canada	11
Malta	9	Malta	8
Sweden	6	USA	8

Sources: HBSC 2000/01; ASH Year 10 Smoking Survey New Zealand (14- to 15-year-olds); Australian Secondary School Students Alcohol and Drugs Survey 2001 data. Northern Ireland data unavailable

## Why do people smoke?

*‘Social, economic, personal, and political influences all play an important part in determining patterns of smoking prevalence and cessation. Although drug effects underpin the behaviour, family and wider social influences are often critical in determining who starts smoking, who gives up, and who continues.’<sup>55</sup>*

Smoking habits generally begin with experimentation in early adolescence, motivated by a desire to assert adulthood or escape perceived failure against their own or society’s expectations. As young people appear less likely to perceive addiction as something that affects their age group,<sup>56</sup> they may not regard this experimentation as risky until they become addicted. Young people with low self-esteem, poor academic achievement or who are overweight seem particularly vulnerable.<sup>57</sup> In addition, young people living in deprived areas, or where smoking is the norm, are more likely to start smoking.<sup>58</sup> Among young people in Scotland, family structure, parental occupation and local area deprivation are all associated with increased risk of smoking.<sup>59</sup> At both age 13 and 15, young smokers of both sexes have been found to be more likely to report lower levels of life satisfaction than non-smokers.<sup>60</sup>

Once addicted, chemical dependency appears to be reinforced by social factors. West and Hardy have produced a model of addiction that captures the individual and social mechanisms triggering and sustaining smoking, which may help us to understand this. Their model details how emotional state, personal beliefs and resources, habit and chemical dependency interact to trigger and sustain addiction.<sup>61</sup> However, it is also important to embed this in a broader socio-economic context: global capital and markets and local culture shape the environment within which tobacco use takes place.

At a structural level, *global capital and markets* drive a neo-liberal, consumerist culture. This influences tobacco use directly, through advertising, taxation and pricing policy on tobacco<sup>62</sup> and the trade in illicit tobacco,

and, indirectly, through the uneven distribution of income and rationing of resources through price mechanisms. Culture more broadly involves expectations and perceptions, for example perceived levels of smoking at a community and national level. There are clear links between deprivation and smoking, as already shown, but these interact in unexpected ways as well as reflecting lower income alone. For example, Scots who think their neighbourhood is ‘nicely landscaped with pleasant open spaces’ are less likely to smoke at every deprivation quintile.<sup>63</sup>

Together with *social resources* (family and friends, personal traits), *economic resources* can influence people’s *emotional states* (stress, self-esteem) and the way that they cope with emotionally turbulent situations (*coping mechanisms*). With low levels of mental health and well-being it may be more difficult for people to take a longer term view, and more challenging for them to quit smoking (as they wrongly perceive tobacco to be an effective self-medication). Individual coping mechanisms also matter. Young smokers are less likely to take part in regular weekly activities (hobbies, music or art, sports or reading) than their non-smoking peers.<sup>64</sup> Financial constraints might be perceived to limit the ability to relax through healthy or positive leisure activities, so that smoking is perceived as a substitute.<sup>65</sup>

Smokers often cite the stresses of daily life as a barrier to quitting – in 2006, 42% of unsuccessful UK quitters mentioned this<sup>66</sup> – but the ‘stress-relieving’ properties of smoking might simply come from the relief of nicotine withdrawal symptoms achieved by smoking another cigarette. Symptoms include irritability, aggression, restlessness or depression, as well as increased appetite.<sup>67</sup> At the age of 29 in 1999–2000, British smokers of every social class were more likely to report often feeling miserable and depressed than non-smokers.<sup>68</sup> Smoking also appears to be associated with lower levels of pleasure and poorer quality of life, with levels of pleasure for smokers from less advantaged backgrounds lower still.<sup>69</sup>

All these aspects come together to create and reinforce *beliefs*. There is evidence that young males start smoking in order to look ‘hard’, whereas young girls do so to look more attractive to the opposite sex.<sup>70</sup> Whether smoking is seen as ‘the norm’ in the culture(s) to which an individual relates,<sup>71</sup> having friends or a partner who smokes, and living in neighbourhoods with higher concentrations of smokers may make it more difficult for people to quit.<sup>72</sup> In addition, the *perceived* level of smoking in society at large (overestimated by young people and those in lower socio-economic groups) might perhaps encourage more smoking initiation in these groups.<sup>73</sup> Motives (wants) in relation to smoking are most obviously shaped by explicit and implicit advertising. They are also conditioned by social ‘wants’, such as a desire to maintain or lose weight, and (in some cases) pleasure associated with smoking.<sup>74 75 76</sup> The non-chemical habits of smokers, including ‘having something to do with my hands’, also play a role.<sup>77</sup>

Once an individual starts smoking, nicotine addiction rapidly takes hold: *‘cigarette smoking should be understood as a manifestation of nicotine addiction ... the extent to which smokers are addicted to nicotine is comparable with addiction to ‘hard’ drugs such as heroin and cocaine’*.<sup>78</sup> Smoking impulses/inhibitions typically include cravings: in 2006, 16% of male and 8% of female UK smokers who tried but failed to quit in the previous year said they *‘couldn’t cope with the cravings’*.<sup>79</sup> Smokers also report the indirect consequences of cravings, with mood swings and short temper having a detrimental effect on their relationships.<sup>80</sup> This often means that when smokers attempt to quit, they face a complex web of factors – beliefs, chemical addiction and habits – that reinforce each other and are underpinned by the wider economic, social and cultural factors outlined above.

In short, people smoke for a variety of reasons. Successful interventions therefore need to address *‘the interacting constellation of factors – personal, family, socio-economic, and pharmacological’*.<sup>81</sup>

## What can be done?

Reducing smoking requires a package of public health interventions delivered through a co-ordinated tobacco control programme, including education programmes, professional education, smoking cessation services,

regulation and economic strategies.<sup>82</sup> Policymakers at European, UK and Scottish level acknowledge this. This is underscored by the 10 conclusions that emerged from the *Towards a Smokefree Scotland Conference* held in September 2007 (Figure 17).

**Figure 17: Towards a smoke-free society – 10 conclusions**

1. Second-hand smoke	Second-hand smoke causes disease, disability and death No level of exposure can be considered safe
2. Legislation	Everyone has the right to health People should be protected from second-hand smoke As voluntary policies are ineffective, legislation is necessary to protect people Legislation must be simple, clear and enforceable
3. Implementation	There is evidence that the <i>Framework Convention for Tobacco Control</i> (FCTC) guidelines are robust Good planning and preparation are important Majority public support has followed good communication
4. Demonstrating the impact	Evaluating the impact of the legislation has great value Research provides the evidence base for tobacco control policies
5. Benefits	Smoke free legislation can: <ul style="list-style-type: none"> <li>• greatly improve indoor air quality</li> <li>• reduce exposure of non-smokers to second-hand smoke</li> <li>• reduce cases of myocardial infarction</li> <li>• reduce respiratory symptoms in bar-workers</li> <li>• change social attitudes and behaviour.</li> </ul>
6. Beyond Scotland	All parties to FCTC should implement smoke free legislation within five years WHO will support all other countries to implement strong smoke free policies EC will propose how to promote legislation in all EU countries and take global lead There is a need for an active programme of research at EU and national levels EC will monitor achievement of FCTC obligations
7. Tobacco Control	Smoke free legislation is one part of a comprehensive tobacco control strategy, which should also: <ul style="list-style-type: none"> <li>• protect people from second-hand smoke at home and in private vehicles</li> <li>• provide affordable smoking cessation services and products</li> <li>• reduce the availability, affordability, visibility and attractiveness of tobacco to young people.</li> </ul>
8. Regulation	All governments should: <ul style="list-style-type: none"> <li>• monitor the tobacco industry</li> <li>• consider tighter regulation of tobacco production and marketing.</li> </ul>
9. Prevention	All governments must protect and discourage all children and young people from starting to smoke
10. The vision	We now know how dangerous tobacco is. Let us all commit ourselves to reducing tobacco-related harm in Europe and across the world



The Framework Convention for Tobacco Control<sup>84</sup> is an international treaty developed under the auspices of the World Health Organization and is supported by the UK and Scottish Governments. It binds its signatories to the process of regulating the tobacco industry via tobacco advertising and sponsorship, controls on labelling of products, tackling smuggling and measures to reduce availability and promotion of tobacco to young people. The UK white paper on tobacco, *Smoking Kills*, sets out a comprehensive tobacco control programme.<sup>85</sup> The Scottish Executive responded by driving forward its implementation in a Scottish context through *A Breath of Fresh Air for Scotland*.<sup>86</sup> It focused on protection and controls, prevention and education, provision of smoking cessation services and second-hand smoke. Examples of measures linked to each type of public health intervention are shown below.

**Protection and controls:** Both supply (e.g. the trade in smuggled tobacco) and demand (the prohibition of advertising at the point of sales) interventions play a role.<sup>87</sup> In terms of price, the World Bank estimates that a 10% ‘sustained and real’ increase in price would reduce tobacco consumption by around 4% in the general population, and by around 6% in the under-25s age group.<sup>88</sup> Such increases should form part of a package of interventions and be sensitive to context. There is, however, new evidence that higher prices disproportionately discourage young smokers from more affluent backgrounds, who have less access to tobacco from family, friends and local ‘grey’ markets.<sup>89</sup> Throughout the UK, the age at which cigarettes could be legally purchased was raised to 18 on the 1 October 2007, and this is likely to be accompanied by tougher enforcement of the law on tobacco sales to under-age groups.<sup>90</sup> Price increases and other restrictions on tobacco sales have been recommended in *Towards a Future Without Tobacco*<sup>91</sup>.

**Prevention and education:** As the main source of new smokers, young Scots in particular could be targeted through school- and university-based programmes, as outlined in *Towards a Future Without Tobacco*. The new UK requirement to include graphic

photographs of smoking-related diseases on cigarette packets (due to become law on 30 September 2008) may also reduce the cigarette’s attractiveness.<sup>92</sup>

**Smoking cessation:** There is good evidence on interventions to support smoking cessation.<sup>93-94</sup> These include behavioural and pharmaceutical interventions, such as brief advice and counselling, intensive support and the administration of nicotine replacement therapy (NRT), bupropion and varenicline. Smoking cessation recommendations and practical guidance for the effective planning and delivery of smoking cessation services were made in the *Smoking Cessation Guideline for Scotland: 2004 Update*<sup>95</sup> and the *2007 Supplement*.<sup>96</sup>

**Second-hand smoke:** Since the introduction of legislation prohibiting smoking in enclosed public spaces in Scotland in March 2006, there has been a reduction in exposure of both adults and children to second-hand smoke<sup>97-98</sup>. There may be scope to provide further encouragement and support to smokers to go ‘smoke free’ in their homes and cars.<sup>99</sup>

**Broader determinants:** Underlying individual behavioural decisions are the structural factors that make smoking more likely, especially the demotivating effects of relative poverty, the spatial concentration of smokers in particular neighbourhoods and the pervasive but socially differing effects of consumer culture.

Much of the evidence-based detail that is needed to combat the smoking epidemic has been initiated. In 2005, based on the Tobacco Control Score (a measure of the scope and scale of public policies to control tobacco), the UK was the second highest scoring nation<sup>100</sup> – and this was before the introduction of smoke-free public spaces.

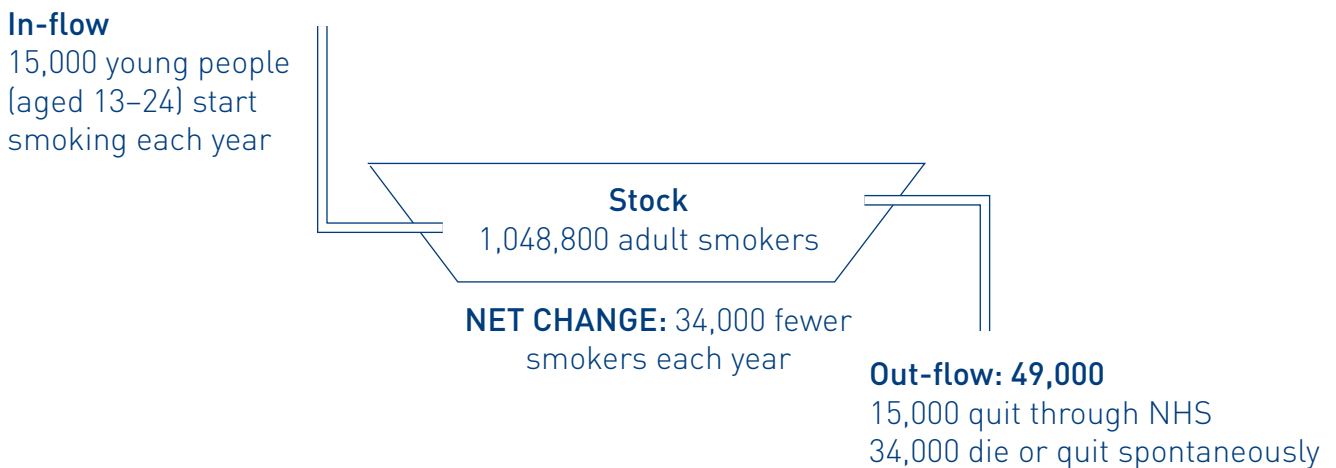
Incremental progress towards the goal of eliminating tobacco smoking is likely to continue. Faster progress, especially among more deprived populations, may require a more direct challenge to the ‘consumption culture’ that underpins the current disregard for health, and which reinforces inequality, in Scottish society.

## Conclusion: the continuing challenge

Smoking prevalence is steadily reducing in Scotland. It reduced by one percentage point per year over the period 2004–06 according to the Scottish Household Survey. This represents around 34,000 fewer smokers each year. In five of the last seven years, the number of smokers has reduced by this order of magnitude (a 3% year-on-year reduction), while in the remaining two years change was negligible.

Using data for 2005 and 2006, we estimate that each year around 15,000 Scots quit smoking using NHS cessation services<sup>101</sup> but a similar number of young people take up the habit (Figure 18).<sup>102</sup> The net reduction of over 30,000 smokers is attributable to ‘spontaneous’ quitting and deaths. Sustaining this substantial reduction in the smoking rate in Scotland, especially among young people, while reducing inequalities, will continue to pose a major public health challenge.

**Figure 18: Smoking in Scotland: stock, annual in-flows and out-flows, c. 2005–06**



The scale of the problem, with a million adult smokers in Scotland, means that it is a population-wide health issue, although it impacts most heavily upon the more socio-economically disadvantaged in society. Reducing levels of current smoking still further may require more than re-emphasising its negative health impacts. At least half of Scots who smoke already want to quit for health reasons but addiction, social habit and context, and perceived utility as a coping strategy are major barriers to quitting.

Reducing smoking prevalence in Scotland requires a multi-stranded approach, at individual, population and environmental levels, with a particular focus on population groups with the highest levels of smoking. In Spring 2008, the Scottish Government will publish a five-year plan, drawing on the recommendations made in *Towards a Future Without Tobacco*,<sup>103</sup> which advocated such an approach. Maintaining the downwards trend in smoking prevalence will make a major contribution to a healthier and fairer Scotland.

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## Acknowledgments

- Kerry McKenzie of Health Scotland, for policy background and commentary on interventions
- Jillian Boreham of Cancer Trials Support Unit (CTSU), University of Oxford, for analysis of smoking attributable deaths by Scottish Index of Multiple Deprivation (SIMD) deprivation quintile
- John Glen (Tobacco Control Team) and Karen MacNee (Health Analytical Services Division) of the Scottish Government, and Colin Fischbacher of ISD Scotland for comments
- Other colleagues in Health Scotland for comments.

