Adult cigarette smoking

8

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Summary

- This chapter describes smoking status and tobacco consumption in adults, in the context of previous data on smoking and national tobacco control policies. It also reports on adults' use of non-tobacco nicotine delivery products (NDPs), including e-cigarettes (vapourisers).The chapter presents both self-reported exposure to secondhand smoke and data on saliva cotinine, an objective measure of non-smokers' exposure to environmental tobacco smoke.

Smoking status

- About one in four men (24%) and one in six women (17%) reported they were current smokers.
- The average number of cigarettes smoked per day among current smokers was higher for men (12.5 per day) than women (10.8 per day); older smokers had higher consumption.
- Prevalence of current smoking varied considerably across regions; it was highest for men in the West Midlands and women in the North East and Yorkshire and the Humber.
- The proportion of current smokers in the lowest two income quintiles was double the proportion in the highest income quintiles (36%-40% for men in the lowest quintiles, 17%-18% in the highest: the equivalent figures for women were 22%-30% and 10%-14%). Similarly, those living in the most deprived areas had the highest proportion of current smokers.
- 31% of men and 24% of women who had a limiting longstanding illness were current smokers.

Trends in smoking

- Among women, there has been a steady decline in the proportion of current smokers since around 2003 (26% in 1993, 24% in 2003, 17% in 2013). Equivalent figures for men were 28%, 27%, and 24%; however, there have been fluctuations year on year for men since 2006 rather than a continuing downward trend.

Use of non-tobacco nicotine delivery products

- 3% of adults were currently using e-cigarettes (vapourisers); a further 2% of men and 1% of women were currently using other nicotine delivery products but not e-cigarettes.
- Among men, 29% of current smokers, 6% of ex-smokers and 1% of never smokers had ever used e-cigarettes. The proportions were similar for women.

Self-reported exposure to secondhand smoke

- Self-reported exposure to secondhand smoke was highest among those aged 16-24; over half of this age group reported at least some exposure. Exposure was most likely

to occur in outdoor smoking areas of pubs/restaurants/cafes or at home (including other people's homes).

Cotinine levels in smokers and non-smokers

- Almost all self-reported current smokers had cotinine levels of 12ng/ml or above (95% of men and 93% of women). Among ex-smokers not using nicotine delivery products, 6% of men and 7% of women had saliva cotinine levels of 12ng/ml or over, indicative of smoking or other personal use of tobacco. The equivalent proportions were 2% for men and 1% for women among never smokers.
- Geometric mean[1] cotinine among cotinine-validated non-smokers (never or ex-smokers) was 0.08ng/ml in men and women, and decreased with age. 74% of men and 76% of women who were non-smokers had undetectable saliva cotinine, indicating no exposure to environmental tobacco smoke.
- There was a relationship between household income and levels of undetectable cotinine, with those in the lowest income quintile faring the worst. People in this quintile also had the highest geometric mean cotinine (0.12ngl/ml for men, 0.11ng/ml for women), compared with those in higher income quintiles.

8.1 Introduction

8.1.1 Tobacco-related disease

Tobacco use is the leading cause of preventable illness and premature death in England and worldwide.[2] In England in 2012, around 79,100 deaths were attributable to smoking, accounting for 22% of deaths in men and 14% of deaths in women aged over 35. Annual hospital admissions because of a disease that can be caused by smoking among adults aged over 35 have increased from 1.1 million in 1996/1997 to 1.6 million in 2011/2012. About 462,900 (5% of all hospital admissions in those aged over 35) are estimated to be attributable to smoking. This includes around 25% of admissions for respiratory diseases, 15% of admissions for circulatory diseases, 11% of those for cancer and 1% with a primary diagnosis of diseases of the digestive system.[3] The cost to the NHS of treating illnesses due to smoking was estimated to be £5.2 billion in 2006, accounting for approximately 5.5% of total health care costs.[4]

8.1.2 Tobacco control policy

In 1998, *Smoking Kills: a White Paper on tobacco* was published, setting a target to reduce smoking among adults to 24% or lower by 2010, with a reduction in prevalence among routine and manual occupational groups that is similar to or greater than in non-manual occupational groups.[5] In 2004, a Public Sector Agreement (PSA) target was set to reduce smoking rates further, to 21% or less by 2010.[6,7] The proportion of current smokers among adults has declined from 28% in 1998, when the White Paper was published, to 20% in 2010 (and 2012),[8] having fallen from 33% in 1986.[9] As part of the government's long-term goal in improving public health, *Healthy Lives, Healthy People: A tobacco control plan for England* was published in 2011 setting a target to reduce prevalence of adult smoking to 18.5% or less by 2015, resulting in 210,00 fewer smokers.[10]

Smoking varies by socio-economic position, including occupational group. Smoking prevalence is higher in more deprived groups and lowest in the most educated groups; smoking is a major contributor to health inequalities. The 2004 PSA targets included reducing prevalence among routine and manual groups to 26% or less (from 31% in 2002).[7] In 2009, smoking levels remained highest among those living in the lowest income households, and lowest in the highest income households.[11]

A series of laws have come into force since the turn of the current century, aiming to reduce smoking and/or its health consequences. This included a ban on tobacco advertising on billboards and in printed publications in 2003, following *The Tobacco Advertising and Promotion* Act enacted in November 2002. In addition, tobacco displays at the point of sale have been prohibited in supermarkets and large shops since April 2012 (and will cease in small shops from April 2015).[12] To reduce exposure to the harmful effects of secondhand smoke, a smokefree law was implemented in July 2007, banning smoking in workplaces and enclosed public places.[13]

Findings from the Health Survey for England (HSE) showed a marked fall in objective and self-reported measures of exposure to secondhand smoke following the smoking ban in 2007.[11,14] For instance, both men and women reported around two to three hours less exposure per week to secondhand smoke in the two years after implementation of the smokefree legislation in 2007.[11,15] This chapter builds upon previous analyses assessing levels of smoking, variations among social groups and whether the lower levels of exposure to secondhand smoke post-legislation were maintained or reduced further.

8.1.3 Use of e-cigarettes

For the first time, participants in HSE 2013 were asked questions on their use of electronic cigarettes (e-cigarettes, also called vapourisers).[16] E-cigarettes deliver nicotine that is vapourised and inhaled from a liquid form via a battery-powered device that simulates cigarette smoking. Some are designed to resemble ordinary cigarettes.[17] Once sucked on, a sensor is activated which heats the liquid within the e-cigarette to create a vapour that

delivers nicotine to the individual.[18] E-cigarettes have been marketed as a tool to help stop smoking, which was identified as the most popular reason for use in an online survey carried out for Action on Smoking and Health (ASH).[19] Since e-cigarettes contain no tobacco and thus no tar, unlike ordinary cigarettes, they are considered to be less harmful than tobacco products,[20] emitting vapour containing nicotine and a few other compounds, rather than the environmental tobacco smoke that cigarettes produce.[21] However, it has not yet been scientifically established whether the nicotine and chemical uptake from e-cigarettes and the products are safe. For example, there is emerging evidence that e-cigarettes emit ultrafine/fine particles in their vapour which can be damaging to the lung.[22] E-cigarettes also contain the chemical propylene glycol, which has been linked to eye, throat and respiratory irritation.[23] The longer term effects of e-cigarettes have not been established.

Other public health concerns include the uptake of e-cigarettes by non-smokers. While some claim that e-cigarettes can be a useful adjunct to cutting down, others suggest that the co-use of e-cigarettes with tobacco cigarettes may reinforce the smoking habit by helping smokers when they are unable to smoke or may discourage cessation attempts.[24] Over the past few years, the availability and use of e-cigarettes has been rising.[19,25] Findings from the Smoking Tool Kit Study suggest that the rise in use of e-cigarettes has more than surpassed a decrease in licensed nicotine delivery products (NDPs).[25] This chapter provides results on the use of e-cigarettes on a sample that can be generalised to the national adult population.

8.2 Methods and definitions

8.2.1 Self-reported data

Questions about cigarette smoking have been asked of adults aged 16 and over as part of the HSE series since its inception in 1991. Participants aged 25 and over were asked about their smoking behaviour within the face to face interview.[26] The interview collected information about the use of various tobacco products including cigarettes, cigars and, among men, pipes. Those who reported smoking cigarettes were asked to estimate their daily consumption of cigarettes.

Questions at the interview also covered participants' current and previous use of nicotine delivery products including nicotine chewing gum, lozenges, mini lozenges, patch, inhaler, inhalator, mouth spray, nasal spray and other non-tobacco nicotine products. For the first time in 2013, information was also collected on current and previous use of e-cigarettes, as well as on other nicotine delivery products including nicotine chewing gum, lozenges, mini lozenges, patches, inhalers, inhalators, mouth spray, nasal spray and other non-tobacco nicotine products.

All participants aged 16 and over were asked to estimate the total number of hours they were exposed to other people's smoke, and to state the locations where this occurred.

For those aged 16-17, information about smoking status was collected through a self-completion questionnaire, to offer participants more privacy by allowing them to reply without disclosing their smoking behaviour to other household members. At the interviewer's discretion, those aged 18-24 could answer the smoking questions either through the face to face interview or through the self-completion questionnaire. In 2013, 20% of adults aged 18-24 answered the smoking behaviour questions through the self-completion questionnaire.

8.2.2 Smoking status

Only 2% of all adults, including 1% of non-smokers of cigarettes, reported currently smoking cigars or pipes. The focus of this chapter is on cigarette use among adults, and therefore cigar and pipe use is not considered in the definition of a current [cigarette] smoker.

8.2.3 Cotinine

Cotinine is a metabolite of nicotine. Cotinine levels in serum or saliva can provide an objective measure of smoking, where self-reported smoking status may not always be reliable. It is generally considered to be the most useful of various biological markers that are indicators of personal tobacco use.[27] When analysed in a specialist laboratory, as is done for HSE, low levels are also a sensitive marker of exposure to other people's smoke.

For this survey, cotinine levels were measured using saliva. As part of the nurse visit, participating adults were asked about their smoking status at the time (which might have changed since the interview), and about use of nicotine delivery products in the last seven days, and were asked to provide a small saliva sample, which was analysed for cotinine.[26,28] An additional weight has been applied to the cotinine data to account for differential non-response to the saliva sample (see Volume 2, *Methods and documentation*, Section 7[29] and the Quick guide to the HSE[30]).

Tables 8.14 and 8.15 show **geometric mean** cotinine values for self-reported and cotinine validated non-smokers aged 16 and over. Geometric means have been calculated as they take less account of extreme values that might distort the average or mean.[1]

8.2.4 Thresholds to indicate personal smoking

Cotinine has a half-life in the body of around 16-20 hours, which means that measurement of cotinine will detect regular tobacco use, but not occasional tobacco use if the last occasion was several days ago.[31] In previous reports, a level of 15nanograms per millilitre (ng/ml) was regarded as indicative of smoking. That has been revised in this report to a lower threshold of 12ng/ml, following research in 2008 using HSE data, that showed a lower optimal cotinine cut-point to be indicative of personal smoking in populations with lower smoking prevalence.[27,32]

A drawback of using a new cut-point is that the15ng/ml threshold has been used consistently in previous reports since 1995, and therefore caution is needed when analysing trends. However in 2013, few participants had cotinine levels between 12ng/ml and 15ng/ml. Using the lower threshold of 12ng/ml has categorised only 20 more adult participants as having a cotinine value consistent with personal tobacco use, resulting in an increase of 0.4 percentage points in the prevalence of smoking using the cotinine measure. Therefore it is unlikely that this new threshold will result in a difference in overall prevalence that is statistically significant.

The prevalence of cotinine levels of 12ng/ml or more is shown for men and women to provide an objective measure of smoking in the population, and is analysed by self-reported smoking status. As in previous reports participants using nicotine delivery products were excluded from the definition of a valid cotinine assay when establishing cotinine levels attributable to tobacco smoking.[28]

Cotinine levels less than 12ng/ml can be indicative of occasional smoking, particularly if the participants reported they smoked cigarettes only occasionally. However, in almost all cases, cotinine levels less than 12ng/ml indicate exposure to environmental tobacco smoke, particularly if the participants reported that they did not currently smoke.[27,33] Sensitive analysis which allows low levels of cotinine to be identified provides a useful measure to monitor levels of exposure to other people's smoke at both the population level and by sub-groups, as the only significant sources of detectable cotinine levels are personal tobacco use, nicotine delivery products, and breathing other people's tobacco smoke.[34]

8.3 Smoking status

8.3.1 Smoking status and cigarette consumption, by age and sex

Men were more likely to be [cigarette] smokers than women. 24% of men and 17% of women were current smokers. Current smoking was highest among those aged 25-34 and then declined with age (Figure 8A).

Among current smokers, men smoked a greater number of cigarettes per day than women on average (12.5 and 10.8 respectively). This pattern applied across all age groups (Figure 8B). The average number of cigarettes smoked per day increased with age up to the 55-64 age group.

Tables 8.1, 8.2, Figures 8A, 8B

Figure 8A

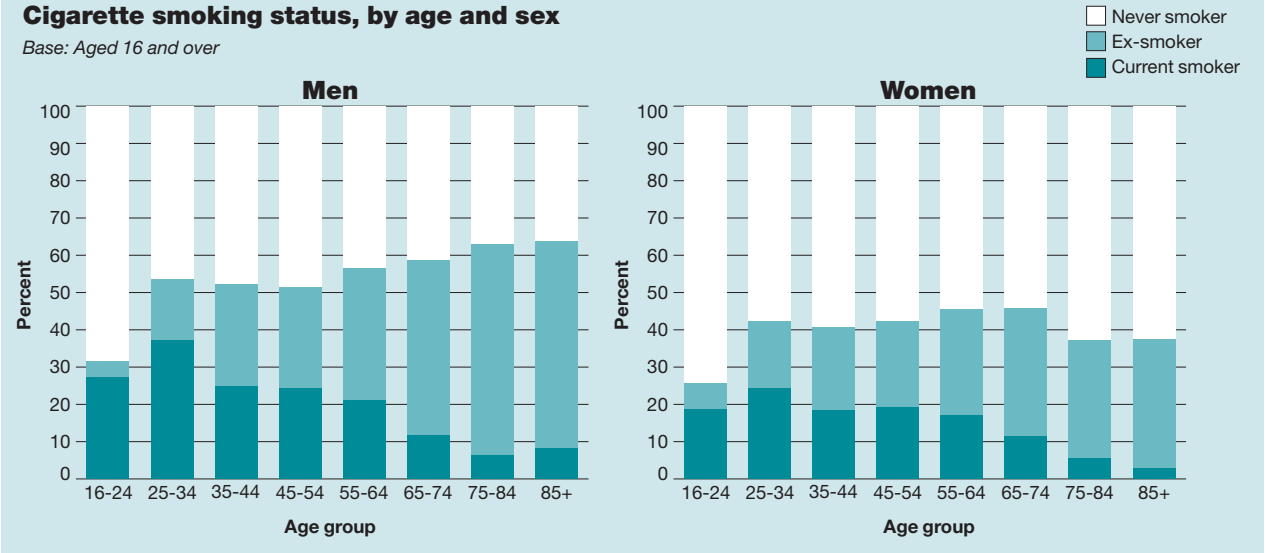
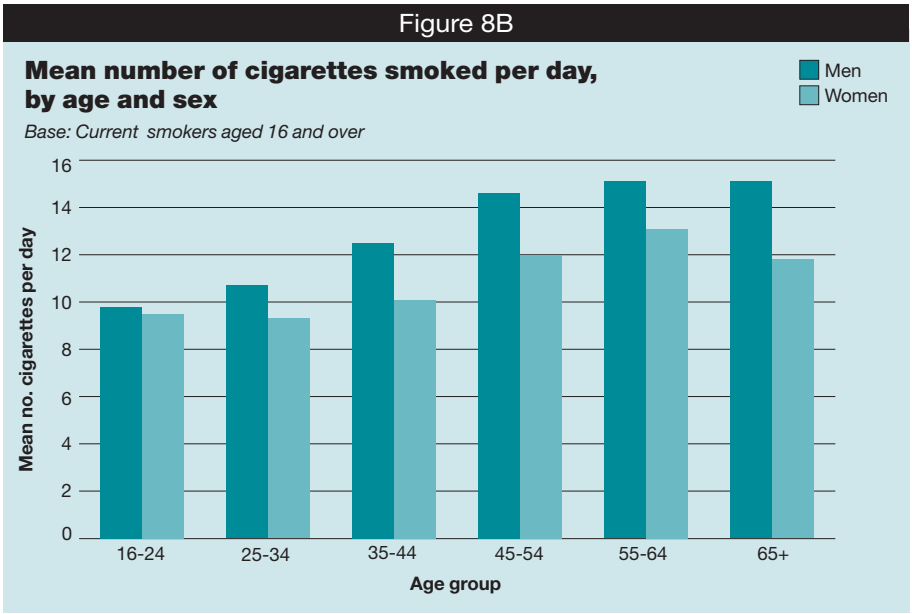


Figure 8B



8.3.2 Smoking status by region

Smoking status varied across regions, and the pattern was different for men and women, as shown in Figure 8C. Among men, the highest proportion of current smokers was found in the West Midlands and the lowest proportion in the East Midlands and South West. Among women the highest proportions were found in the North East and Yorkshire and the Humber, and the lowest proportion in the South East.

Table 8.3, Figure 8C

8.3.3 Smoking status by income and deprivation

There was a much greater proportion of current smokers in lower income quintiles than in higher quintiles. The proportion of current smokers in the two lowest income quintiles was at least double the prevalence in the highest quintile; see Figure 8D.

A similar pattern was found for quintiles of the Index of Multiple Deprivation, as shown in Figure 8E: those in the most deprived quintile had the highest proportion of current smokers.

Tables 8.4, 8.5 Figures 8D, 8E

Figure 8C

Prevalence of current smoking, by region and sex (age standardised)

Base: Aged 16 and over

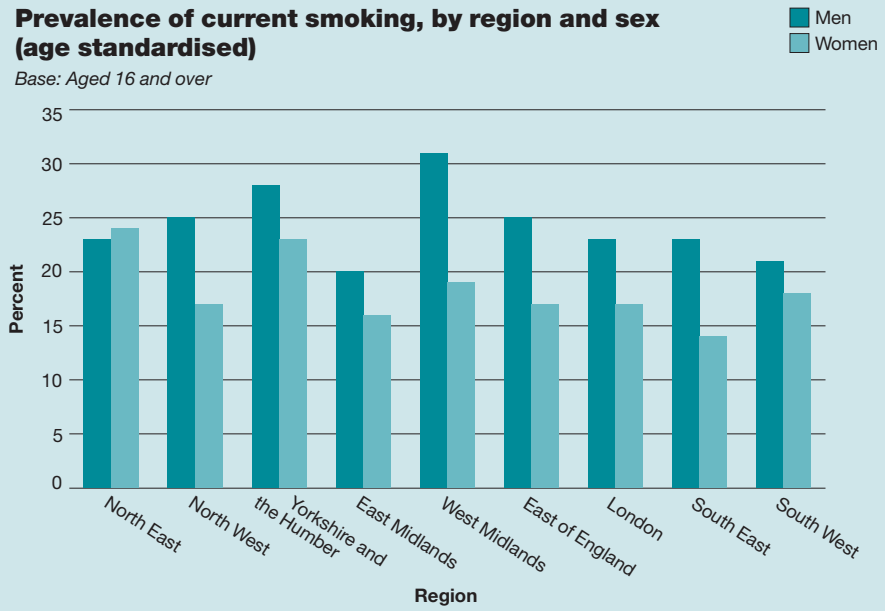


Figure 8D

Cigarette smoking status, by equivalised household income and sex (age standardised)

Base: Aged 16 and over

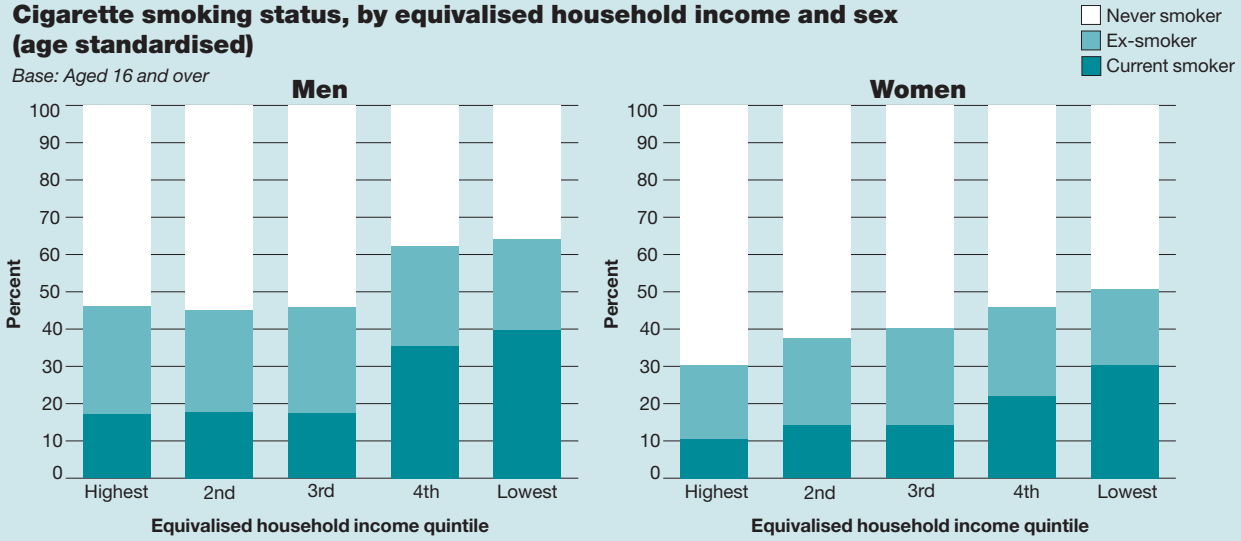
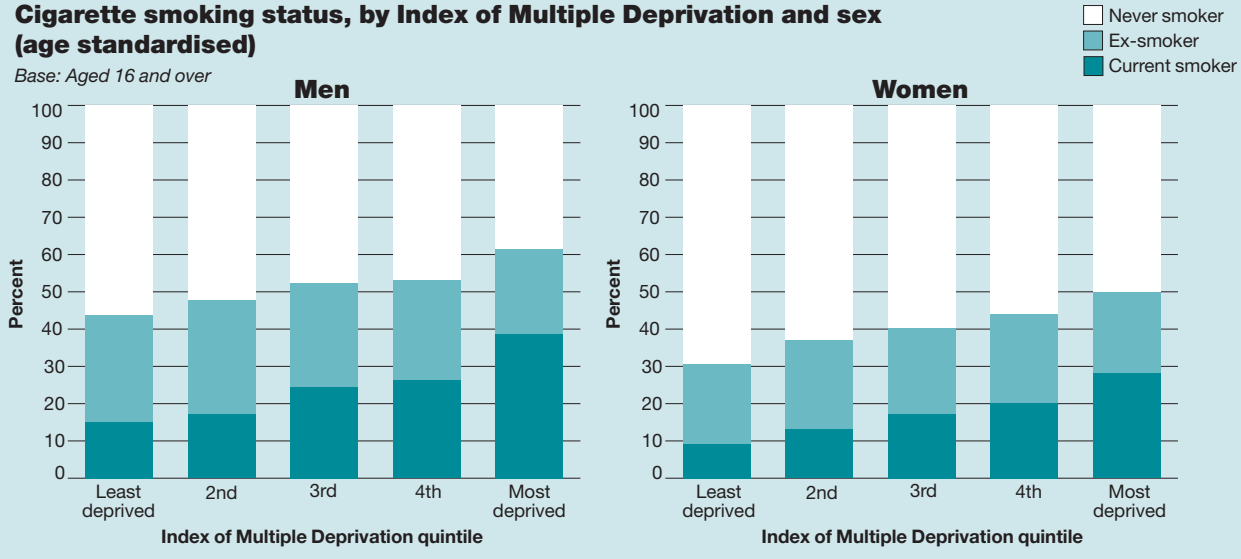


Figure 8E

Cigarette smoking status, by Index of Multiple Deprivation and sex (age standardised)

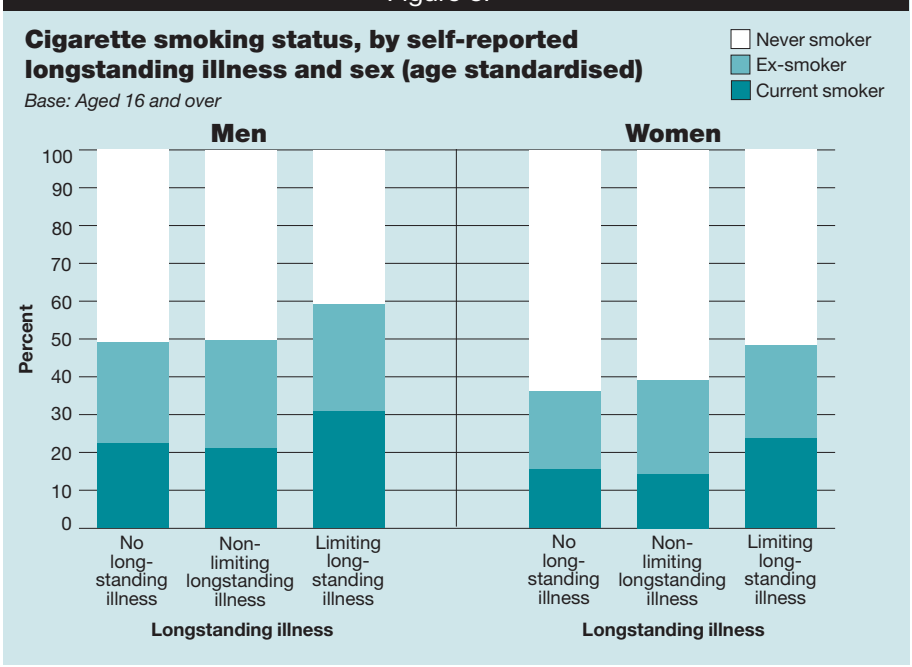
Base: Aged 16 and over



8.3.4 Smoking status by longstanding illness

Smoking status varied according to prevalence of longstanding illness. A higher proportion of those with a limiting longstanding illness were current smokers than those with no longstanding illness or with a non-limiting longstanding illness (Figure 8F). **Table 8.6, Figure 8F**

Figure 8F

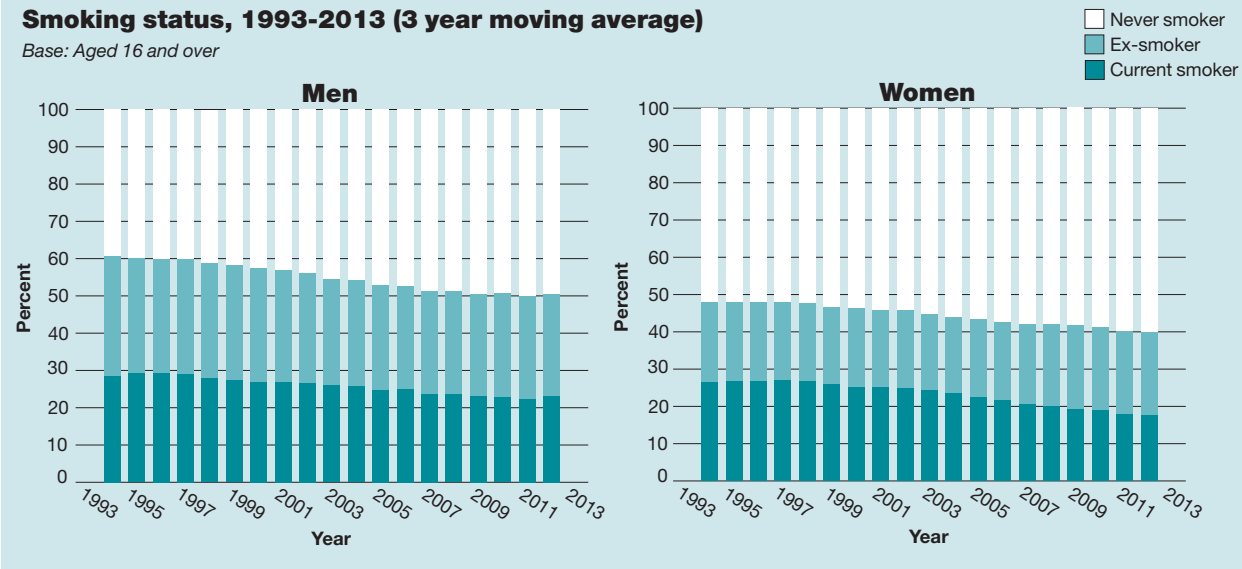


8.3.5 Trends in smoking status

Figure 8G shows trends in the proportion of current smokers, ex-smokers and never smokers for 1993-2013, the years for which HSE data are available. Three year moving averages are presented.[35] Current smoking among men declined slowly between 1993 and 2006, but since then the prevalence has been fluctuating with little overall change. The proportion of men smoking in 2013, at 24%, was similar to that in 2006 and 2007, and not significantly different from the proportion in 2012 (22%). Further years' data will be needed to see how the trend continues.

Among women, the decrease in current smoking has continued at a steadier pace. Correspondingly, the prevalence of never smokers has been on a steady increase. The prevalence of ex-smokers among men has been declining slowly since 1993; among women it has remained at a similar level. **Table 8.7, Figure 8G**

Figure 8G



8.4 Intentions to give up smoking

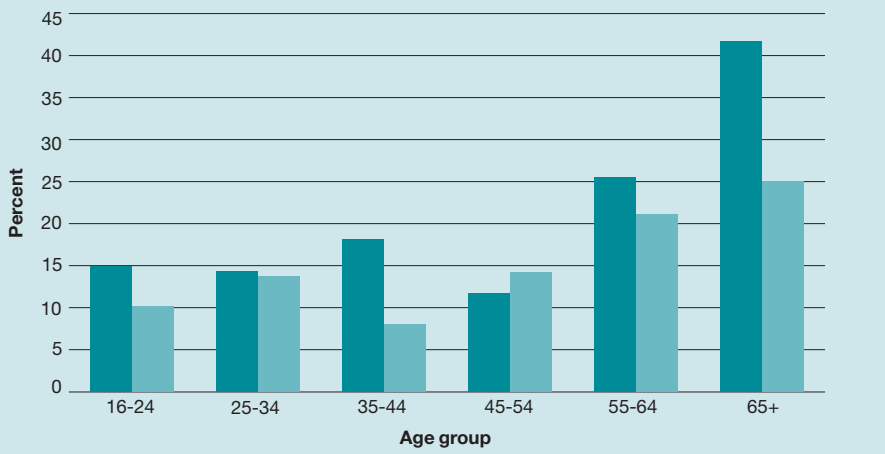
New questions on intentions to give up smoking were included for current smokers in 2013. There were differences between men and women, with a higher proportion of men than women reporting that they did not want to stop smoking (18% and 15% respectively). Older smokers were more likely than younger smokers to say they did not want to stop smoking, as shown in Figure 8H.

Table 8.8, Figure 8H

Figure 8H

Prevalence of current smokers reporting they do not want to stop smoking, by age and sex

Base: Current smokers aged 16 and over



8.5 Use of nicotine delivery products

3% of men and women reported that they currently used e-cigarettes, and 2% that they used other nicotine delivery products, with similar patterns in both sexes. As Figure 8I shows, current use of nicotine delivery products was highest among those aged 25-54, dropping to very low levels among those aged 75 and over.

Figure 8J shows the proportion of current smokers, ex smokers and never smokers who reported that they ever used nicotine delivery products.[36] Current smokers were more likely than ex smokers ever to have used e-cigarettes or other nicotine delivery products.

Tables 8.9, 8.10, Figures 8I, 8J

Figure 8I

Prevalence of current use of e-cigarettes and/or other nicotine delivery products, by age and sex

Base: Aged 16 and over

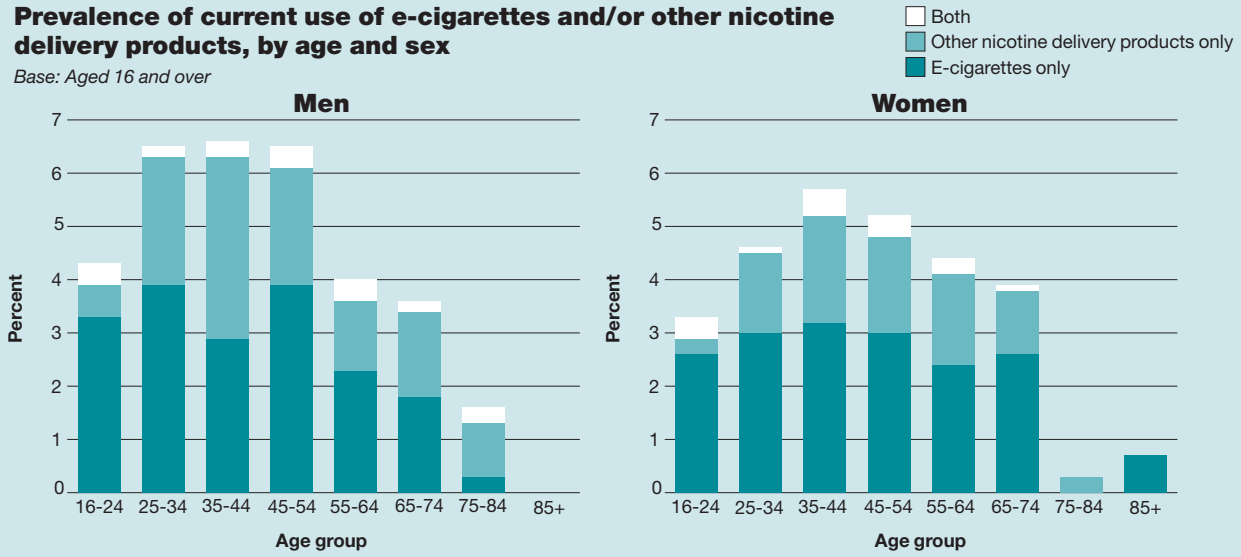
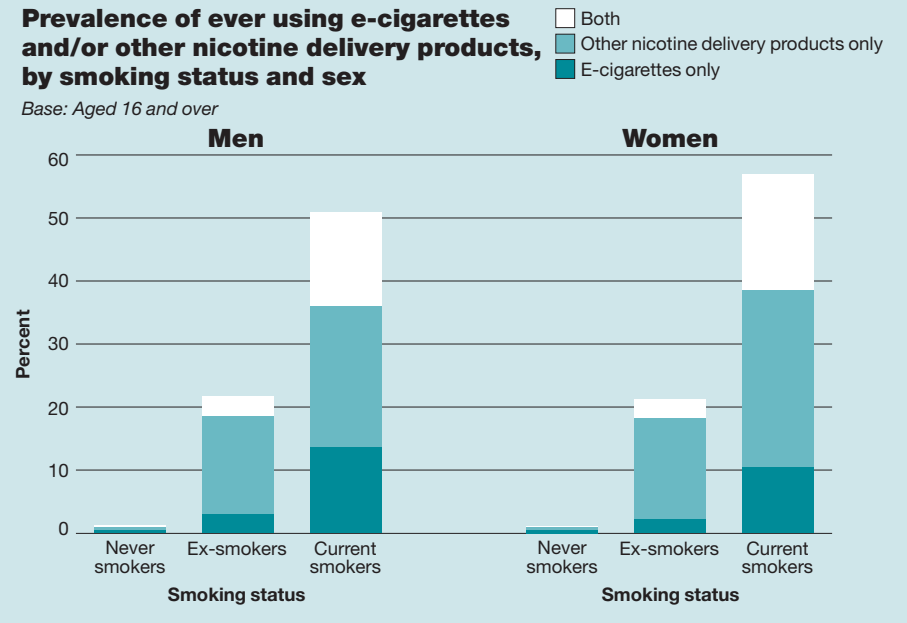


Figure 8J



8.6 Exposure to secondhand smoke

More men than women reported exposure to other people's smoke (31% and 26% respectively). Figure 8K shows variation by age in the proportion who did not experience any exposure, and the average hours of exposure per week (among all adults, not just those exposed to any smoke). The proportion who reported no exposure to secondhand smoke was lowest among those aged 16-24 and increased with age; there was a steeper increase between the age groups 16-24 and 25-34 among women than men. Overall the mean number of reported hours of exposure per week to secondhand smoke was 3.1 among men and 2.1 among women; it was also highest among 16 to 24 year olds and this decreased with age.

Figure 8L shows where people reported that they experienced secondhand smoke. Outdoor areas outside pubs/restaurants and cafes were most frequently mentioned, followed by other people's homes and own home. More men than women were exposed to secondhand smoke at work, travelling by car/van and in outdoor smoking areas.

Reflecting the fact that more young people reported being exposed to secondhand smoke, they were also more likely to mention exposure in any of the locations listed, as shown in Figure 8M. Of those who reported they were exposed to secondhand smoke, more women than men were bothered by being exposed to other people's smoke (40% and 30% respectively).

Tables 8.11, 8.12, Figures 8K, 8L, 8M

Figure 8K

Self-reported exposure to secondhand smoke (SHS), by age and sex

Base: Aged 16 and over

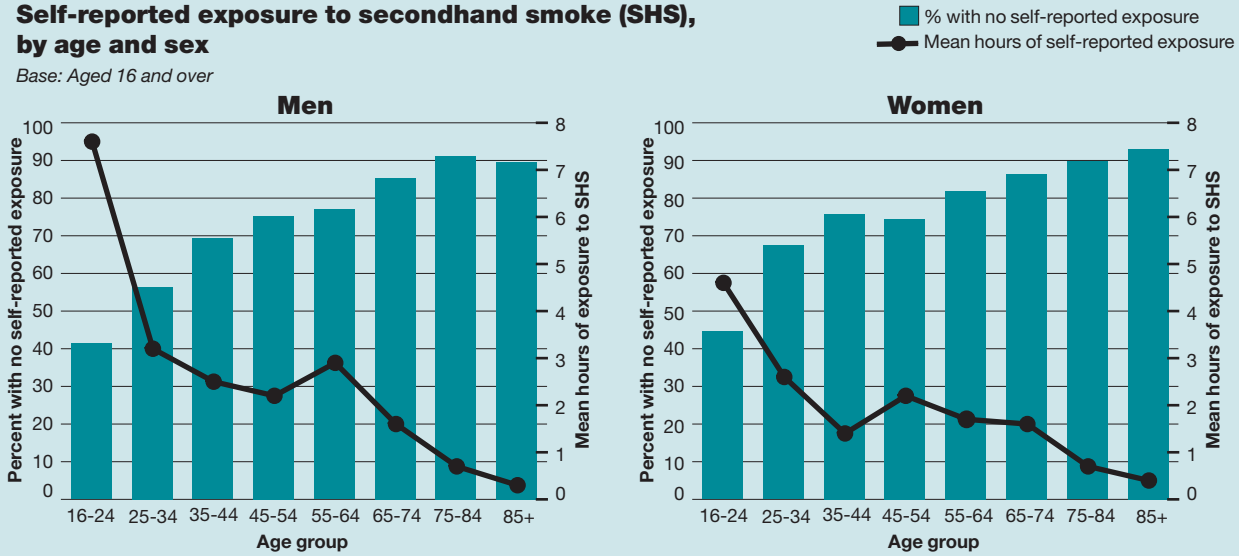


Figure 8L

Self-reported locations of exposure to other people's smoke, by sex

Base: Aged 16 and over

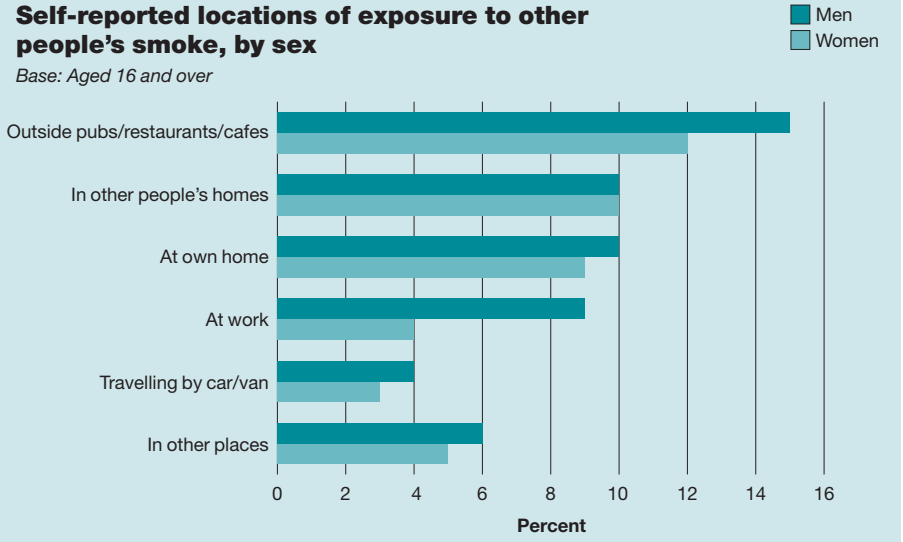
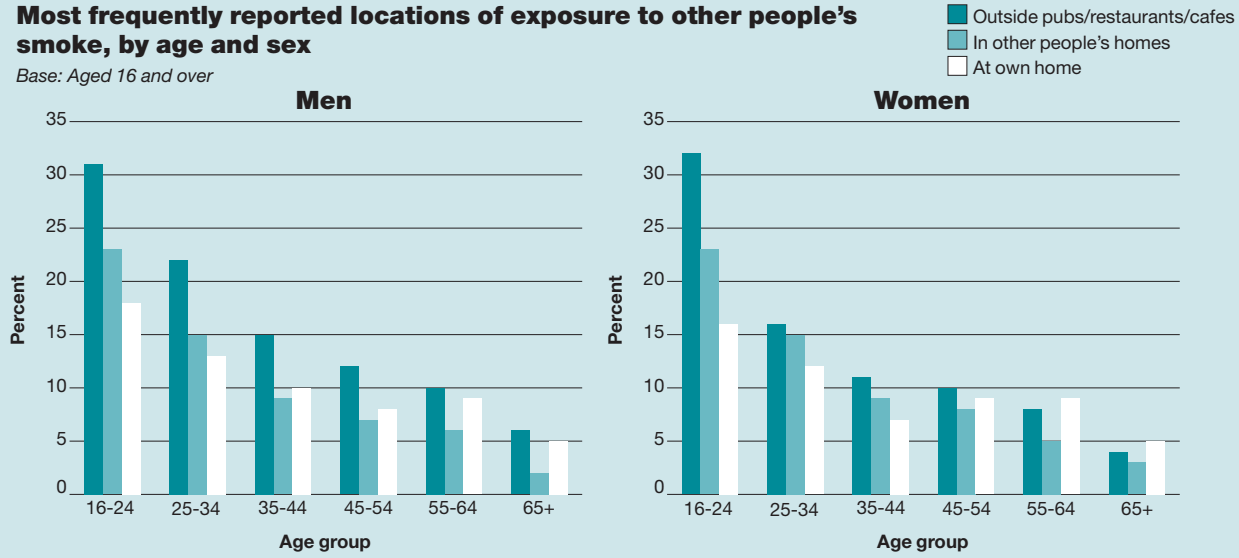


Figure 8M

Most frequently reported locations of exposure to other people's smoke, by age and sex

Base: Aged 16 and over



8.7 Saliva cotinine levels

8.7.1 Non users of nicotine delivery products

Among all participants who were not currently using nicotine delivery products, 24% of men and 18% of women had cotinine levels of 12ng/ml or above (indicative of personal tobacco use). The proportion was highest among those aged 25-34 and then declined with age. This was similar to the pattern observed for self-reported current smokers by age and sex (Table 8.1, Figure 8A).

8.7.2 Smokers and users of nicotine delivery products

Almost all self-reported current smokers were found to have cotinine levels of 12ng/ml or above across all age groups, as shown in Figure 8N. This confirms that the self-report is very consistent with the threshold taken to be indicative of personal smoking. It is interesting to note that a small proportion of self-reported ex-smokers (6% of men and 7% of women) also had cotinine levels of 12ng/ml or above; the proportion decreased steeply with age. Very few self-reported never smokers had cotinine levels of 12ng/ml or above (2% of men and 1% of women). Cotinine levels of 12ng/ml or above among non-cigarette smokers may be due to a high level of exposure to environmental tobacco smoke, occasional smoking that occurred shortly before the saliva sample was taken, cigar or pipe smoking, or their reported smoking status being incorrect.

Table 8A below shows current smoking status as assessed by cotinine levels of 12ng/ml or above, along with the responses given in the interview and the subsequent nurse visit. There are some differences in definitions compared with Table 8.13 as the purpose of this table is to compare the prevalence of smoking as indicated through cotinine levels of 12ng/ml or above with self-reported current smoking:

- Smokers using NDPs were included, unlike in Table 8.13 where all users of NDPs were excluded[37]
- Non-smokers of cigarettes who reported smoking cigars or pipes were excluded to make results comparable with self-reported current [cigarette] smokers.[38]

Current smoking as indicated by cotinine levels of at least 12ng/ml characterises slightly more men and women as tobacco users than the self-reported status at the interview. There was only a marginal difference between the proportion reporting being current smokers at the interview and nurse visit.[26]

Table 8A

Measures of current smoking status (cotinine of 12ng/ml or above and/or self-report), by sex

	Total	Confidence interval
	%	%
Men		
Cotinine level 12ng/ml or above[a,b]	26	±1.7
Self-reported current cigarette smoker at interview[c]	24	±1.3
Self-reported current cigarette smoker at nurse visit[d]	24	±1.7
Women		
Cotinine level above 12ng/ml[a,b]	19	±1.4
Self-reported current cigarette smoker at interview[c]	17	±1.2
Self-reported current cigarette smoker at nurse visit[d]	18	±1.4

[a] Sample is based on adults aged 16 and over with a valid cotinine assay.

[b] Excludes non-smokers [of cigarettes] who use nicotine delivery products, and/ or were cigar or pipe smokers.[38]

[c] Sample is based on adults aged 16 and over.

[d] Sample is based on adults aged 16 and over.

Table 8B shows the median and mean values for cotinine among current smokers and ex-smokers by non-users and users of NDPs. Smokers using NDPs had higher mean saliva cotinine than those who did not use NDPs. Among ex-smokers, those not using NDPs had a median mean cotinine level of zero. There was no significant difference in cotinine levels between users of e-cigarettes and users of other NDPs.

Table 8B

Median and mean saliva cotinine levels among self-reported current smokers and ex-smokers,[a] by use of e-cigarettes and other NDPs[b]

Saliva cotinine levels (ng/ml)	Current smokers		Ex-smokers	
	Not using NDPs	Using any NDPs[b]	Not using NDPs	Using any NDPs[b]
Median	244	275	0	162
Mean saliva cotinine	255	306	n/ac	211
Standard error	6.92	12.04	1.80	17.34
Bases (unweighted)	*925*	*101*	*1570*	*95*
Bases (weighted)	*1053*	*113*	*1323*	*88*

[a] Smoking status at the time of the nurse visit, when the saliva sample was taken.[26]

[b] Participants reporting use of nicotine chewing gum, lozenges/mini lozenges, patches, inhalers/inhalators, mouth spray, nasal spray, e-cigarettes or other nicotine products in the last 7 days.

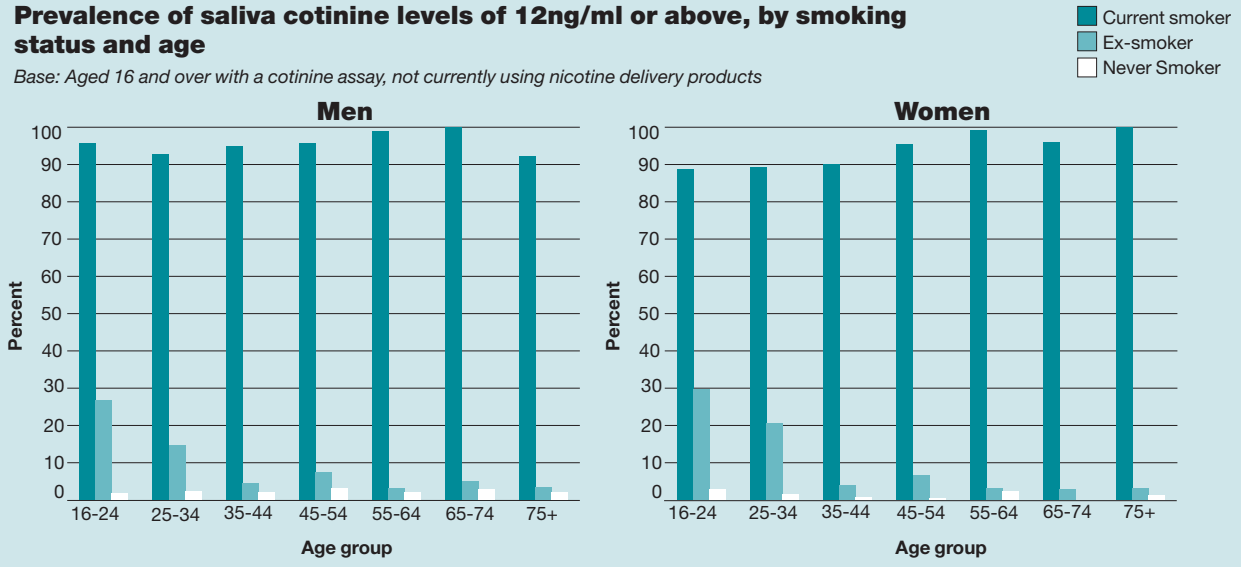
[c] Mean not shown for ex-smokers not using NPDs, geometric means are used for this group and non-smokers because of the very skewed distribution of cotinine values.

Tables 8.13, 8A, 8B, Figure 8N

Figure 8N

Prevalence of saliva cotinine levels of 12ng/ml or above, by smoking status and age

Base: Aged 16 and over with a cotinine assay, not currently using nicotine delivery products



8.7.3 Non-smokers

Saliva cotinine levels among non-smokers can indicate exposure to environmental smoke. Cotinine-validated non-smokers have been defined as self-reported never smokers or ex-smokers with saliva cotinine levels less than 12ng/ml.

Geometric mean cotinine among cotinine-validated non-smokers (never or ex-smokers) was 0.08ng/ml in men and women, and 74% of men and 76% of women who were non-smokers had undetectable saliva cotinine.

The majority of participants who provided a saliva sample had cotinine levels that were undetectable or very low, meaning the distribution of cotinine levels were very skewed, as demonstrated by the very low values at the median and 75th centile (see Table 8.14). The geometric mean takes account of this skewed distribution. Those aged 16-24 had the highest geometric mean cotinine, and similarly had the highest proportion at the 95th centile). Correspondingly, the proportion of participants with undetectable cotinine was lowest for those aged 16-24, and increased with age (see Figure 8O).

There were also variations according to equivalised household income, as shown in Figure 8P. Participants in the lowest income quintile had the highest geometric mean cotinine level and the highest cotinine value at the 95th centile. The proportion of participants with undetectable cotinine was also lowest for those in that income quintile.

Tables 8.14-8.15, Figures 8O, 8P

Figure 8O

Saliva cotinine levels among non-smokers, by age and sex

Base: Cotinine-validated non-smokers aged 16 and over

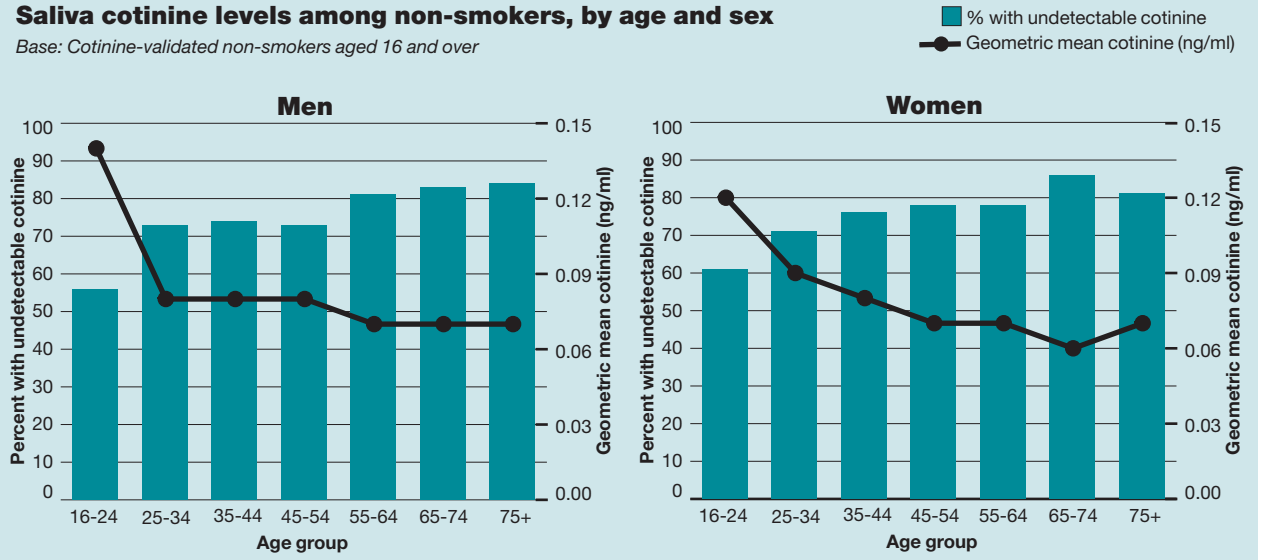
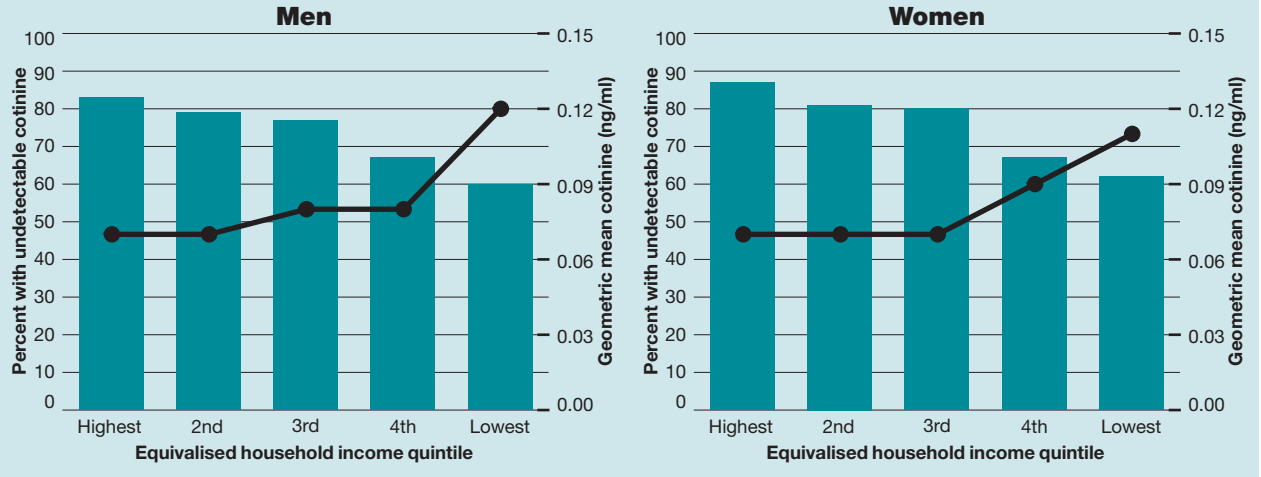


Figure 8P

Saliva cotinine levels among non-smokers, by equivalised household income and sex (age standardised)

Base: Cotinine-validated non-smokers aged 16 and over



8.8 Discussion

8.8.1 Smoking prevalence

Men and women show different trends in smoking prevalence. The proportion of current smokers among women has on the whole been declining, reaching a new low of 17% in 2013. This is already within the target set by the government in *Healthy Lives, Healthy People: A tobacco control plan for England* in 2011 of reducing adult smoking to 18.5% or less by 2015. However current smoking prevalence among men was 24% in 2013, increasing by two percentage points from 22% in 2012, although this difference was not statistically significant. This may be a random variation or the start of a new trend; it will be important to continue to monitor this in the coming years. If the trend remains at the current smoking levels among men, this will present a challenge to achieving the government target set for the total adult population by 2015.

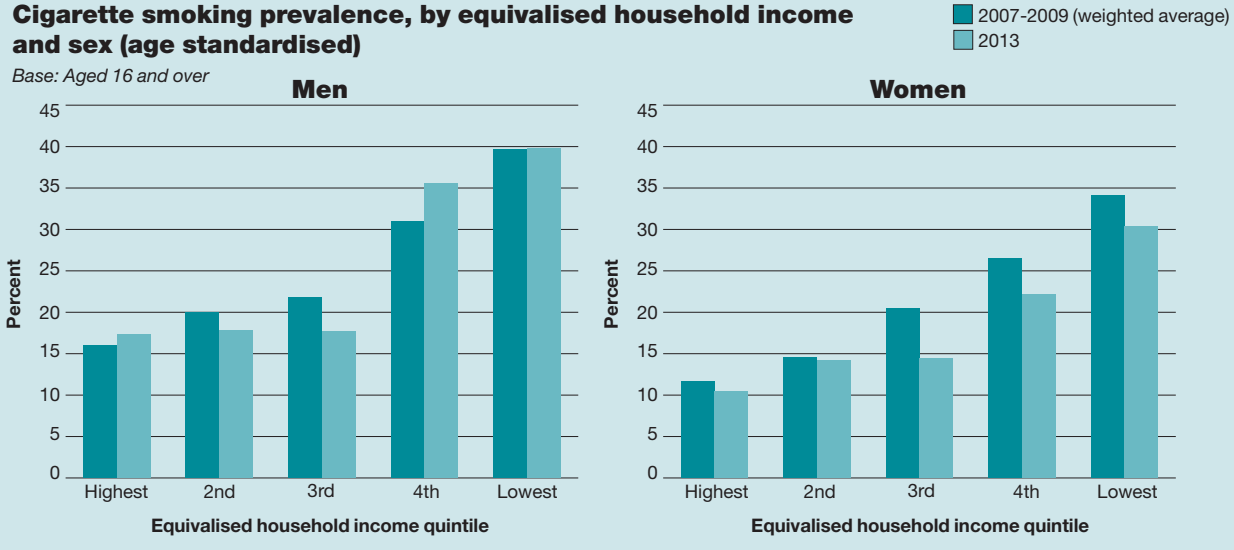
Using a combination of self-report and saliva cotinine levels, the proportion of current smokers among men and women was around two percentage points higher than using self-report alone. This may indicate some under-reporting of current cigarette smoking, although some of these cases could represent very high environmental tobacco smoke exposure.

As well as inequalities between the sexes, social inequalities in smoking persist and are very marked. Levels of smoking in the lowest income households and among those living in the most deprived areas continue to be much higher than those in higher income groups and those living in less deprived areas. There has been little change to the proportions of men in the lowest income quintile who are current smokers since the previous chapters on smoking in adults were published in 2007,[39] 2008[15] and 2009,[11] remaining at around two fifths (see Figure 8Q). Among women, there has been a reduction in inequalities; prevalence of smoking declined by 4% in the lowest income quintile since 2009, with little change in the highest income quintile over the same period.[11] Tobacco use has been estimated to account for around half of the difference in longevity between poorest and richest groups.[40] Reducing tobacco harm among those in lower social groups is a key strategy if the government is to achieve its long-term ambition of increasing healthy life expectancy among the poorest, as set out in the White Paper, *The Healthy Lives, Healthy People*.[41]

Figure 8Q

Cigarette smoking prevalence, by equivalised household income and sex (age standardised)

Base: Aged 16 and over



The smokefree legislation, implemented in July 2007, was not aimed at reducing smoking prevalence but it had been hoped that smokers would use it as a reason to quit smoking. However, the recent HSE data have confirmed the findings using data from just after implementation of the legislation: implementation does not appear to have accelerated the decline in current smoking.[42] Among men, the prevalence of smoking has been fluctuating, although rates among women have been falling at a steadier pace.

A consultation was held in 2012 on the standardisation of tobacco packaging to reduce the appeal and promotion of smoking.[43] The Chantler report, outlining the benefits this would have to the population's health particularly to children, was published in April 2014.[44] Going forward standardisation of tobacco packaging is expected to have an impact on the uptake of smoking by children and young people, and may therefore impact on future smoking prevalence, particularly among young adults. A study on smoking prevalence among Australian adults found that tobacco taxation, comprehensive smoke-free laws and mass media campaigns were the most effective tobacco control policies in reducing smoking levels from 2001-2011.[45] **Figure 8Q**

8.8.2 Exposure to secondhand smoke

HSE data have shown that exposure to secondhand smoke has significantly reduced following the implementation of the smokefree legislation in 2007.[11,14,15] There has been an on-going reduction in self-reported and objective measures of exposure to secondhand smoke. Self-reported mean hours of exposure to secondhand smoke in 2013 were 3.1 hours for men and 2.1 hours for women. This is lower than the levels reported in 2009, when mean hours of exposure were 3.4 hours for men and 3.3 hours for women, and is less than half the levels reported prior to implementation of the smoke-free legislation in 2007 when it was 6.2 hours and 4.4 hours respectively.[11] Correspondingly, the geometric mean saliva cotinine levels among non-smokers, an objective measure of exposure to environmental tobacco smoke, was 0.08ng/ml for men and women. This is slightly lower than levels recorded in 2009 when the geometric mean was 0.10ng/ml in men and 0.09ng/ml in women, and considerably lower than before the smoke-free legislation in the first half of 2007 when it was 0.20ng/ml and 0.19ng/ml respectively.[11,39,46] This shows that the smokefree legislation not only reduced exposure to secondhand smoke in the short term but the benefits have continued to increase six years after the legislation was first implemented.

However evidence from the HSE suggests that socio-economic inequalities in environmental tobacco smoke exposure have persisted. Secondary analysis of HSE 1998-2008 data showed that the geometric mean saliva cotinine in cotinine-validated adult non-smokers was 0.17ng/ml among those in social class I or II households and 0.28ng/ml in social class IV or V households (supplementary table 1 of Sims et al).[14] In 2013, the geometric mean saliva cotinine levels were 0.07-0.08ng/ml in adults in households in the highest four income quintiles and 0.12ng/ml in the lowest income quintile. Thus although the proportion of those with detectable cotinine remained higher among those in the lowest income quintiles, absolute levels of exposure appear to have fallen in all socio-economic groups.

Being exposed to others' smoke was most likely to occur in outdoor smoking areas of pubs, restaurants or cafes, in other people's homes or at home. Younger adults aged 16-24 were the most likely to report being exposed to secondhand smoke anywhere, and reported the highest number of hours of exposure to other people's smoke. Consistent with this, the proportion with undetectable cotinine in non-smokers was lowest among this age group, and they had the highest geometric mean saliva cotinine.

The proportion of all non-smokers who reported no exposure to secondhand smoke was similar to the proportion who had undetectable levels of cotinine. These patterns demonstrate the validity of self-reported data in reporting exposure to secondhand smoke.

8.8.3 Electronic cigarettes

3% of adult population were currently using e-cigarettes. The majority of those who had ever used e-cigarettes were current smokers; around 29% of current smokers had ever used e-cigarettes compared with 6% of ex-smokers. This mirrors finding from ASH and the smoking tool-kit[25] where the majority of e-cigarette users were co-users of tobacco cigarettes. Also consistent with other studies,[19,25,47] never smokers who had ever used e-cigarettes were rare; 1% of men and fewer than 1% of women who were never smokers had

ever used e-cigarettes.

Although current use of electronic cigarettes is at a very low level, advertising and awareness of them has been increasing. E-cigarettes may be beneficial to smokers who want to quit, as studies have found they have been useful in helping smokers to stop smoking.[48,49,50] However, not enough is known about how e-cigarettes compare with other NDPs in their effectiveness at a population level, nor in the amount of nicotine and other toxins they deliver. Due to little restriction on advertising and their use being allowed in most enclosed public spaces such as bars, restaurants and public transport, some also argue that their uptake could re-normalise smoking.[18,24] However, ex-smokers using e-cigarettes long-term have pointed out that banning their use indoors stigmatises users and forces them to spend time with smokers who are actively smoking, which is counter-productive and exposes them to secondhand smoke. From 2016, e-cigarettes will be regulated as medicinal products, similar to other nicotine delivery products, following the EU Tobacco Products Directive passed by the European Parliament in February 2014.[18,51] The new regulations will ensure the safety and efficiency of the product as a smoking cessation aid and advertising restrictions as recommend by WHO.[52] Up until now, and until the new regulations are enforced, the quality and chemical composition of e-cigarettes may vary.

References and notes

1 Geometric means have been presented for non-smokers as their cotinine data have a very skewed distribution: there are large numbers of extremely low values and a small number of very high values. Using the arithmetic mean is not appropriate as this can be distorted with such a distribution. The geometric mean is an average calculated by multiplying the cotinine values and taking the nth root, where n is the number of values. The geometric mean takes the outliers with very high values into account by estimating the typical value (or central tendency) of the set of data. Confidence intervals around the estimate are presented rather than standard errors.

2 World Health Organization. *WHO Report on the Global Tobacco Epidemic 2013. Enforcing bans on tobacco advertising, promotion and sponsorship*. WHO, Luxembourg, 2013. www.who.int/tobacco/global_report/2013/en/

3 Health and Social Care Information Centre. *Statistics on Smoking: England, 2013*. HSCIC, Leeds, 2013. www.hscic.gov.uk/catalogue/PUB11454

4 Allender S, Balakrishnan R, Scarborough P et al. *The burden of smoking-related ill health in the UK*. Tob Control 2009;**18**:262-267.

5 Department of Health. *Smoking kills: a White Paper on tobacco*. DH, London, 1998. www.gov.uk/government/uploads/system/uploads/attachment_data/file/260754/4177.pdf

6 Health and Social Care Information Centre. *Statistics on NHS Stop Smoking Services in England, April 2004 to March 2005*. HSCIC, Leeds, 2005. www.hscic.gov.uk/catalogue/PUB00183/nhs-stop-smok-serv-eng-2004-2005-q4-rep.pdf

7 Action on Smoking and Health. *Beyond 'Smoking Kills': Protecting children, reducing inequalities*. ASH, London, 2008. www.ash.org.uk/beyondsmokingkills

8 Health Survey for England – 2012. *Trend tables*. Health and Social Care Information Centre, Leeds, 2013. www.hscic.gov.uk/catalogue/PUB13219

9 *ONS General Lifestyle Survey 2010 release. Reference tables*. Office of National Statistics, Cardiff, 2012. www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-226919

10 Department of Health. *Healthy lives, Healthy People: A tobacco control plan for England*. DH, London, 2011. www.gov.uk/government/publications/the-tobacco-control-plan-for-england

11 Wardle H. *Adult cigarette smoking*. Chapter 9 in Craig R, Hirani V (eds). *Health Survey for England 2009*. Health and Social Care Information Centre, Leeds, 2010. www.hscic.gov.uk/catalogue/PUB00414/heal-surv-heal-life-eng-2009-rep-v2.pdf

12 Action on Smoking and Health. *Advertising and Promotion*. ASH, London, 2012. www.ash.org.uk/current-policy-issues/advertising-and-promotion

13 Bauld L. *The Impact of Smokefree legislation in England: Evidence Review*. Department of Health, London, 2011. www.gov.uk/government/uploads/system/uploads/attachment_data/file/216319/dh_124959.pdf

14 Sims M, Mindell J, Jarvis MJ et al. *Did smokefree legislation in England reduce exposure to secondhand smoke among non-smoking adults? Cotinine analysis from the Health Survey for Englan*d. Environ Health Perspect. 2012;**120**:425-30.

15 Wardle H. *Adult Cigarette smoking*. Chapter 11 in Craig R, Mindell J, Hirani V (eds). *Health Survey for*

England 2008. Health and Social Care Information Centre, Leeds, 2009. www.hscic.gov.uk/catalogue/PUB00430/heal-surv-phys-acti-fitn-eng-2008-rep-v2.pdf

16 E-cigarettes are sometimes referred to as vapourisers or electronic nicotine delivery systems (ENDS).

17 E-cigarettes that are made to resemble cigarettes often come in one of two forms; a non-rechargeable disposable product or a kit that is rechargeable with replaceable pre-filled cartridges. A third form is a rechargeable e-cigarette that includes a reservoir or tank to fill with liquid nicotine. Source: Action on Smoking and Health. *Electronic Cigarettes*. ASH, London, 2014. www.ash.org.uk/files/documents/ASH_715.pdf

18 Action on Smoking and Health. *Electronic Cigarettes*. ASH, London, 2014. www.ash.org.uk/files/documents/ASH_715.pdf

19 Action on Smoking and Health. *Use of electronic cigarettes in Great Britain*. ASH, London, 2014. www.ash.org.uk/files/documents/ASH_891.pdf

20 Goniewicz M L, Knysak J, Gawron M et al. *Levels of selected carcinogens and toxicants in vapour from electronic cigarettes*. Tob Control 2013;**10**:133-139.

21 Czogala J, Goniewicz M, Fiedelus B et al. *Secondhand exposure to vapors from electronic cigarettes*. Nicotine Tob Res. 2014;**16**:655-662.

22 Schripp T, Markewitz D, Uhde E et al. *Does e-cigarette consumption cause passive vaping?* Indoor Air 2012;**23**:25-31.

23 Vardavas CI, Anagnostopoulos N, Kougias M et al. *Short-term pulmonary effects of using an electronic cigarette: impact on respiratory flow resistance, impedance, and exhaled nitric oxide*. Chest 2012;**141**:1400-1406.

24 *Simon Chapman on e-cigarettes: the best and the worst case scenarios for public health*. BMJ Group Blogs, 2014. http://blogs.bmj.com/bmj/2014/03/14/simon-chapman-on-e-cigarettes-the-best-and-the-worst-case-scenarios-for-public-health/

25 Smoking in England. *STS140122 Electronic cigarettes in England – latest trends*. DH and Cancer Research UK, London, 2014. www.smokinginengland.info/latest-statistics/

26 Participants were also asked at the nurse visit about current smoking status and about current use of any nicotine delivery product. Results presented in the tables relating to self-reported smoking status, cigarette consumption, or use of nicotine delivery products are based on the answers given at the initial interview. For tables presenting results on cotinine, current smoking status is based on information given at the nurse visit, since this was when the saliva sample was taken. In these tables, ex-smokers (used to smoke cigarettes regularly) and never smokers (never smoked cigarettes regularly) were distinguished by combining 'non-smokers' at the nurse visit with information on smoking status as reported at the earlier interview.

27 Jarvis M, Fidler J, Mindell J, Feyerabend M et al. *Assessing smoking status in children, adolescents and adults: cotinine cutpoints revisited.* Addiction 2008;**103**:1553-1561.

28 For analyses of saliva cotinine, stratification by smoking status or use of nicotine delivery products, or exclusion of participants, is based on the answers given at the nurse visit.

29 Craig R, Mindell J (eds). *Health Survey for England 2013: Report. Volume 2: Methods and documentation*. Health and Social Care Information Centre, Leeds, 2014. www.hscic.gov.uk/pubs/hse2013

30 NatCen Social Research. *Quick guide to the HSE 2013*. www.hscic.gov.uk/pubs/hse2013

31 Fidler J, Jarvis M, Mindell J et al. *Nicotine intake in English smokers: distribution and demographic correlates*. Cancer Epidemiol Biomarkers Prev. 2008;**17**:3331-3336.

32 The previous saliva cotinine threshold of 15ng/ml was established over 20 years ago on a non-representative sample of smokers and non-smokers (source: Jarvis M, Tunstall-Pedoe H, Feyerabend C et al. *Comparison of tests used to distinguish smokers from nonsmokers*. Am J Public Health 1987;**77**:1435-1438). Cotinine cut-points depend on both the level of smoking and of secondhand exposure in the population. They are therefore country specific and need to be re-evaluated as smoking prevalence changes. A reduction in the level of smoking and secondhand exposure was thought to have influenced the reduction in the optimal cut-point to detect personal use of tobacco.

33 Jarvis M, Feyerabend C, Bryant A et al. *Passive smoking in the home: plasma cotinine concentrations in non-smokers with smoking partners*. Tob Control 2001;**10**:368-374.

34 Jarvis M. *Dietary nicotine: Won't mislead on passive smoking*. BMJ 1994;**308**:61-62.

35 Moving averages are shown to smooth the trend and make the long term pattern clearer.

36 There was some evidence that a proportion of young people aged 16-24 who answered the questions about NDPs in the self-completion booklet may not have given complete answers. Of the young people who filled in the self-completion questionnaire, there were 120 who reported using 'none of these' to questions on current use of NDPs but had missing information on previous use, and 7 reported no previous use but did not answer the questions on current use. They were excluded from the base but this changed the prevalence by less than 0.1%.

37 The purpose of Table 8.13 was to show cotinine levels attributable to tobacco consumption.

38 Including non-smokers who use cigars or pipes would have increased the prevalence of those with saliva cotinine of 12ng/ml or more by only 0.2%.

39 Wardle H, Mindell J. *Adult Cigarette smoking*. Chapter 6 in Craig R, Shelton N (eds). *Health Survey for England 2007*. The Health and Social Care Information Centre, Leeds, 2008.

40 Marmot M, Allen J, Goldblatt P et al. *Fair Society, Healthy Lives: Strategic review of health inequalities in England post-2010*. The Marmot Review, London, 2010. www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review

41 Department of Health. *White paper: Healthy lives, healthy people: our strategy for public health in England*. The Stationery Office, London, 2011. www.gov.uk/government/uploads/system/uploads/attachment_data/file/216096/dh_127424.pdf

42 Lee J T, Glantz A, Millett C. *Effect of smoke-free legislation on adult smoking behaviour in England in the 18 months following implementation*. PLoS One 2011;**6**:e20933.

43 Department of Health. *Consultation on standardised packaging of tobacco products: summary report.* DH, London, 2013. www.gov.uk/government/consultations/standardised-packaging-of-tobacco-products

44 Chantler, C. *Independent review into standardised packaging of tobacco*. Williams Lea, London, 2014. www.kcl.ac.uk/health/10035-TSO-2901853-Chantler-Review-ACCESSIBLE.PDF

45 Wakefield M, Coomber K, Durkin S et al. *Time series analysis of tobacco control policies on smoking prevalence among Australian adults*, 2001-2011. Bull. World Health Organ. 2014;**92**:413-422

46 Older HSE reports used the higher cut-point of below 15ng/ml to identify cotinine validated non-smokers. This is unlikely to make a significant difference to the geometric mean cotinine among non-smokers, as the vast majority of cotinine-validated non-smokers had cotinine levels below 1ng/ml, as given by the values at the 95th centile. Only 17 non-smokers had cotinine values between 12ng/ml and 15ng/ml.

47 Dockrell M, Morison R, Bauld L et al. *E-cigarettes: Prevalence and attitudes in Great Britain*. Nicotine Tob Res. 2013;**15**:1737-1744.

48 Bullen C, Howe C, Laugesen M et al. *Electronic cigarettes for smoking cessation: a randomised controlled trial*. Lancet 2013;**382**:1629-1637.

49 Caponnetto P, Campagna D, Cibella F et al. *EffiCiency and Safety of an eLectronic cigarette (ECLAT) as Tobacco Cigarettes Substitute*. PLoS One 2013;**8**:e66317.

50 Brown J, Beard E, Kotz D et al. *Real-world effectiveness of e-cigarettes when used to aid smoking cessation: a cross-sectional population study*. Addiction 2014:**109**:1531-1540.

51 *E-cigarettes to be regulated as medicines*. NHS Choices, 2013. www.nhs.uk/news/2013/06june/pages/e-cigarettes-and-vaping.aspx

52 World Health Organization framework convention on tobacco control. *Electronic nicotine delivery systems*. WHO, Moscow, 2014. http://apps.who.int/gb/fctc/PDF/cop6/FCTC_COP6_10-en.pdf

Tables

Notes on the tables

1. The group on which the figures in the table are based is stated at the upper left corner of the table.
2. The data in most tables have been weighted. See Volume 2, Chapter 7 of this report for more detail. Both unweighted and weighted sample sizes are shown at the foot of each table.
3. Apart from tables showing age breakdowns, data for adults have been age-standardised to allow comparisons between groups after adjusting for the effects of any differences in their age distributions. See Volume 2, Chapter 8.4 of this report for more detail.
4. The following conventions have been used in tables:
   - \- no observations (zero value)
   - 0 non-zero values of less than 0.5% and thus rounded to zero
   - [ ] used to warn of small sample bases, if the unweighted base is less than 50. If a group's unweighted base is less than 30, data are normally not shown for that group.
5. Because of rounding, row or column percentages may not add exactly to 100%.
6. 'Missing values' occur for several reasons, including refusal or inability to answer a particular question; refusal to co-operate in an entire section of the survey (such as the nurse visit or a self-completion questionnaire); and cases where the question is not applicable to the participant. In general, missing values have been omitted from all tables and analyses.

Table 8.1

Cigarette smoking status, by age and sex

Aged 16 and over *2013*

Cigarette smoking status[a]	Age group								Total
	16-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	
	%	%	%	%	%	%	%	%	
Men									
Current smoker	27	37	25	25	21	12	7	8	24
Ex-smoker	4	16	27	27	35	47	56	56	28
Never smoker	68	46	48	48	43	41	37	36	48
Women									
Current smoker	19	24	19	19	17	12	6	3	17
Ex-smoker	7	18	22	23	29	34	32	35	23
Never smoker	74	57	59	58	54	54	63	62	60
Bases (unweighted)									
Men	*367*	*542*	*623*	*703*	*604*	*614*	*347*	*90*	*3890*
Women	*454*	*754*	*825*	*884*	*740*	*649*	*386*	*143*	*4835*
Bases (weighted)									
Men	*592*	*733*	*740*	*762*	*620*	*477*	*272*	*69*	*4265*
Women	*609*	*751*	*756*	*779*	*635*	*514*	*342*	*128*	*4514*

[a] Ex-smoker: used to smoke cigarettes regularly; Never smoker: never smoked cigarettes regularly.

Table 8.2

Number of cigarettes smoked by current smokers, by age and sex

Current smokers aged 16 and over *2013*

Cigarettes smoked per day	Age group						Total
	16-24	25-34	35-44	45-54	55-64	65+	
Men							
% less than 10 cigarettes per day	51	49	33	25	25	31	37
% 10 to under 20 cigarettes per day	38	35	43	44	43	40	40
% 20 or more cigarettes per day	11	16	24	31	32	30	23
Mean	9.8	10.7	12.5	14.6	15.1	15.1	12.5
Standard error of the mean	0.64	0.60	0.68	0.72	0.88	1.36	0.32
Median	9.1	10.0	11.4	14.3	13.6	12.0	10.6
Women							
% less than 10 cigarettes per day	41	49	44	33	27	36	39
% 10 to under 20 cigarettes per day	53	40	44	47	46	45	45
% 20 or more cigarettes per day	6	11	12	20	27	19	15
Mean	9.5	9.3	10.1	12.0	13.1	11.8	10.8
Standard error of the mean	0.58	0.47	0.52	0.50	0.70	1.16	0.26
Median	10.0	10.0	10.0	11.4	12.0	10.0	10.0
Bases (unweighted)							
Men	*104*	*195*	*142*	*170*	*125*	*102*	*838*
Women	*87*	*194*	*157*	*176*	*132*	*103*	*849*
Bases (weighted)							
Men	*158*	*274*	*186*	*186*	*131*	*79*	*1014*
Women	*113*	*184*	*141*	*150*	*110*	*82*	*779*

Table 8.3

Cigarette smoking status (observed and age-standardised), by region and sex

Aged 16 and over *2013*

Cigarette smoking status[a]	Region								
	North East	North West	Yorkshire & the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	%	%	%	%	%	%	%	%	%
Men									
Observed									
Current smoker	23	24	28	20	30	25	24	22	19
Ex-smoker	28	28	27	29	28	28	23	31	30
Never smoker	49	48	45	51	42	47	53	47	51
Standardised									
Current smoker	23	25	28	20	31	25	23	23	21
Ex-smoker	29	27	26	31	26	28	24	29	29
Never smoker	49	48	46	49	43	47	53	48	51
Women									
Observed									
Current smoker	24	17	23	16	18	16	17	13	17
Ex-smoker	25	23	23	24	24	24	18	24	26
Never smoker	51	59	54	61	58	60	65	63	57
Standardised									
Current smoker	24	17	23	16	19	17	17	14	18
Ex-smoker	25	23	23	23	23	23	20	23	26
Never smoker	51	60	54	61	58	60	63	63	56
Bases(unweighted)									
Men	*338*	*562*	*348*	*359*	*386*	*411*	*488*	*619*	*379*
Women	*426*	*659*	*462*	*435*	*478*	*501*	*638*	*740*	*496*
Bases (weighted)									
Men	*215*	*581*	*401*	*382*	*449*	*470*	*637*	*704*	*426*
Women	*221*	*584*	*461*	*392*	*480*	*479*	*687*	*728*	*483*

[a] Ex-smoker: used to smoke cigarettes regularly; Never smoker: never smoked cigarettes regularly.

Table 8.4

Cigarette smoking status (age-standardised), by equivalised household income and sex

Aged 16 and over *2013*

Cigarette smoking status[a]	Equivalised household income quintile				
	Highest	2nd	3rd	4th	Lowest
	%	%	%	%	%
Men					
Current smoker	17	18	18	36	40
Ex-smoker	29	27	28	27	24
Never smoker	54	55	54	38	36
Women					
Current smoker	11	14	14	22	30
Ex-smoker	20	23	26	24	20
Never smoker	70	62	60	54	49
Bases (unweighted)					
Men	*708*	*694*	*575*	*585*	*549*
Women	*720*	*798*	*730*	*766*	*776*
Bases (weighted)					
Men	*806*	*760*	*609*	*577*	*629*
Women	*695*	*758*	*676*	*674*	*695*

[a] Ex-smoker: used to smoke cigarettes regularly; Never smoker: never smoked cigarettes regularly.

Table 8.5

Cigarette smoking status (age-standardised), by Index of Multiple Deprivation (IMD)[a] and sex

Aged 16 and over *2013*

Cigarette smoking status[b]	IMD quintile				
	Least deprived	2nd	3rd	4th	Most deprived
	%	%	%	%	%
Men					
Current smoker	15	17	25	27	39
Ex-smoker	29	31	28	27	23
Never smoker	56	52	47	47	39
Women					
Current smoker	9	13	17	20	28
Ex-smoker	21	24	23	24	22
Never smoker	69	63	60	56	50
Bases (unweighted)					
Men	*791*	*850*	*831*	*709*	*709*
Women	*965*	*996*	*1021*	*942*	*911*
Bases (weighted)					
Men	*836*	*916*	*916*	*817*	*780*
Women	*892*	*940*	*959*	*912*	*811*

[a] The Index of Multiple Deprivation 2010 combines a number of indicators, chosen to cover a range of economic, social and housing issues, into a single deprivation score at the small area level in England.

[b] Ex-smoker: used to smoke cigarettes regularly; Never smoker: never smoked cigarettes regularly.

Table 8.6

Cigarette smoking status (age-standardised), by self-reported longstanding illness and sex

Aged 16 and over *2013*

Cigarette smoking status[a]	Longstanding illness[b]		
	No longstanding illness	Non-limiting longstanding illness	Limiting longstanding illness
	%	%	%
Men			
Current smoker	23	21	31
Ex-smoker	27	29	28
Never smoker	51	50	41
Women			
Current smoker	16	14	24
Ex-smoker	21	25	24
Never smoker	64	61	52
Bases (unweighted)			
Men	*2230*	*707*	*950*
Women	*2763*	*765*	*1302*
Bases (weighted)			
Men	*2633*	*703*	*926*
Women	*2673*	*689*	*1149*

[a] Ex-smoker: used to smoke cigarettes regularly; Never smoker: never smoked cigarettes regularly.

[b] Longstanding illness is any physical or mental health conditions or illnesses lasting or expected to last 12 months or more. A limiting longstanding illness is one that reduces a person's ability to carry out day-to-day activities.

Table 8.7

Trends in cigarette smoking status, 1993 to 2013, by age and sex

Aged 16 and over *1993-2013*

Cigarette smoking status[a]	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
1993[b]								
Current smoker	32	34	32	28	25	20	13	28
Ex-smoker	6	16	27	39	49	61	64	33
Never smoker	62	50	42	34	27	19	23	39
1994[b]								
Current smoker	35	36	31	30	22	21	12	28
Ex-smoker	7	15	26	39	46	58	63	32
Never smoker	58	49	43	32	32	22	25	39
1995[b]								
Current smoker	36	39	31	30	24	18	11	29
Ex-smoker	7	13	23	37	44	61	58	31
Never smoker	57	48	45	34	32	22	30	40
1996[b]								
Current smoker	38	39	34	30	23	19	14	30
Ex-smoker	5	13	22	35	43	53	63	30
Never smoker	57	48	44	34	34	28	23	40
1997[b]								
Current smoker	36	39	31	27	25	20	12	29
Ex-smoker	5	11	22	36	46	55	69	31
Never smoker	59	49	46	37	29	25	20	40
1998[b]								
Current smoker	40	36	31	28	23	18	9	28
Ex-smoker	6	13	23	35	47	54	62	31
Never smoker	54	50	46	37	29	28	28	40
1999[b]								
Current smoker	37	35	30	29	22	17	9	27
Ex-smoker	5	14	22	33	41	55	62	30
Never smoker	58	51	48	39	37	28	29	42
2000[b]								
Current smoker	33	37	35	28	24	14	9	28
Ex-smoker	7	14	19	30	43	55	61	30
Never smoker	61	49	46	41	33	31	30	42
2001[b]								
Current smoker	33	37	30	26	22	16	10	26
Ex-smoker	5	14	21	32	45	55	63	31
Never smoker	62	49	49	42	33	29	27	43
2002[b]								
Current smoker	33	37	31	26	23	14	10	27
Ex-smoker	5	14	21	32	40	54	56	29
Never smoker	62	49	48	42	38	32	34	44
2003								
Current smoker	33	38	32	23	22	13	8	27
Ex-smoker	4	12	18	33	43	56	60	28
Never smoker	63	50	49	44	34	31	32	45
2004								
Current smoker	25	37	26	25	19	10	7	24
Ex-smoker	5	14	21	30	44	56	61	29
Never smoker	69	49	53	44	36	34	32	47

Continued…

[a] Ex-smoker: used to smoke cigarettes regularly; Never smoker: never smoked cigarettes regularly.

[b] In HSE years before 2003, data were not weighted for non-response.

[c] All young adults from core and boost samples in 2002 were included in analysis of those aged 16-24 but only the core sample was included in the overall total. Thus it should be noted that the 'Men' and 'Women' totals are not the sum of the individual age groups.

[d] All adults from core and boost samples in 2005 were included in analysis of 65-74 and 75+ age groups but only the core sample was included in the overall total. Thus it should be noted that the 'Men' and 'Women' totals are not the sum of the individual age groups.

Table 8.7 continued

Aged 16 and over *1993-2013*

Cigarette smoking status[a]	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
2005								
Current smoker	37	34	30	29	20	14	8	27
Ex-smoker	5	13	21	28	45	51	59	28
Never smoker	58	52	49	43	36	35	33	45
2006								
Current smoker	27	34	28	24	19	14	9	24
Ex-smoker	5	15	20	26	42	51	56	27
Never smoker	68	51	52	50	39	36	35	49
2007								
Current smoker	25	34	27	25	20	14	10	24
Ex-smoker	4	16	20	28	40	56	59	28
Never smoker	71	50	53	47	40	30	31	48
2008								
Current smoker	28	34	30	22	18	13	6	24
Ex-smoker	5	15	19	27	42	52	59	27
Never smoker	67	51	51	50	41	35	35	49
2009								
Current smoker	24	32	28	24	23	12	11	24
Ex-smoker	6	15	20	27	39	55	52	27
Never smoker	70	53	51	49	38	33	37	49
2010								
Current smoker	22	34	26	21	18	14	4	22
Ex-smoker	5	15	22	28	43	51	55	28
Never smoker	73	51	52	51	39	35	41	50
2011								
Current smoker	27	34	26	24	20	11	5	23
Ex-smoker	5	15	23	26	38	55	61	28
Never smoker	68	51	51	50	42	33	34	49
2012								
Current smoker	25	28	28	24	19	12	4	22
Ex-smoker	7	15	22	24	36	48	55	26
Never smoker	68	57	50	52	44	41	41	51
2013								
Current smoker	27	37	25	25	21	12	7	24
Ex-smoker	4	16	27	27	35	47	56	28
Never smoker	68	46	48	48	43	41	37	48

[a] Ex-smoker: used to smoke cigarettes regularly; Never smoker: never smoked cigarettes regularly.

[b] In HSE years before 2003, data were not weighted for non-response.

[c] All young adults from core and boost samples in 2002 were included in analysis of those aged 16-24 but only the core sample was included in the overall total. Thus it should be noted that the 'Men' and 'Women' totals are not the sum of the individual age groups.

[d] All adults from core and boost samples in 2005 were included in analysis of 65-74 and 75+ age groups but only the core sample was included in the overall total. Thus it should be noted that the 'Men' and 'Women' totals are not the sum of the individual age groups.

Continued…

Table 8.7 continued

Aged 16 and over *1993-2013*

Cigarette smoking status[a]	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
Bases (unweighted)[b]								
Men 1993	*1042*	*1510*	*1364*	*1314*	*1079*	*895*	*474*	*7678*
Men 1994	*955*	*1433*	*1329*	*1126*	*1000*	*876*	*440*	*7159*
Men 1995	*918*	*1395*	*1386*	*1183*	*1000*	*920*	*519*	*7321*
Men 1996	*938*	*1363*	*1410*	*1323*	*996*	*895*	*554*	*7479*
Men 1997	*486*	*739*	*739*	*694*	*535*	*455*	*243*	*3891*
Men 1998	*857*	*1335*	*1304*	*1285*	*985*	*836*	*561*	*7163*
Men 1999	*415*	*611*	*671*	*627*	*515*	*435*	*269*	*3543*
Men 2000	*424*	*643*	*719*	*579*	*532*	*439*	*303*	*3639*
Men 2001	*780*	*1135*	*1315*	*1207*	*1053*	*880*	*549*	*6919*
Men 2002[c]	*1627*	*507*	*686*	*530*	*493*	*379*	*269*	*3303*
Men 2003	*717*	*1024*	*1261*	*1098*	*1102*	*807*	*554*	*6563*
Men 2004	*272*	*449*	*534*	*439*	*506*	*379*	*276*	*2855*
Men 2005[d]	*393*	*521*	*588*	*613*	*585*	*424*	*297*	*3421*
Men 2006	*621*	*860*	*1178*	*1046*	*1123*	*852*	*600*	*6280*
Men 2007	*334*	*422*	*565*	*504*	*493*	*421*	*300*	*3039*
Men 2008	*738*	*952*	*1215*	*1097*	*1182*	*874*	*648*	*6706*
Men 2009	*219*	*276*	*383*	*346*	*359*	*315*	*190*	*2088*
Men 2010	*365*	*491*	*639*	*625*	*642*	*518*	*402*	*3682*
Men 2011	*340*	*546*	*675*	*666*	*627*	*503*	*419*	*3776*
Men 2012	*352*	*484*	*592*	*613*	*622*	*596*	*389*	*3648*
Men 2013	*367*	*542*	*623*	*703*	*604*	*614*	*437*	*3890*
Bases (weighted)								
Men 2003	*1005*	*1272*	*1413*	*1181*	*1042*	*731*	*504*	*7148*
Men 2004	*452*	*561*	*646*	*529*	*476*	*330*	*231*	*3225*
Men 2005[d]	*527*	*623*	*727*	*603*	*541*	*1091*	*769*	*3659*
Men 2006	*996*	*1126*	*1351*	*1116*	*1012*	*694*	*496*	*6791*
Men 2007	*481*	*552*	*659*	*559*	*505*	*337*	*247*	*3339*
Men 2008	*1084*	*1210*	*1407*	*1206*	*1085*	*725*	*539*	*7256*
Men 2009	*346*	*386*	*440*	*390*	*345*	*232*	*174*	*2314*
Men 2010	*625*	*699*	*751*	*721*	*608*	*429*	*318*	*4152*
Men 2011	*581*	*712*	*758*	*730*	*613*	*433*	*322*	*4150*
Men 2012	*559*	*695*	*722*	*716*	*595*	*429*	*312*	*4027*
Men 2013	*592*	*733*	*740*	*762*	*620*	*477*	*341*	*4265*

[a] Ex-smoker: used to smoke cigarettes regularly; Never smoker: never smoked cigarettes regularly.

[b] In HSE years before 2003, data were not weighted for non-response.

[c] All young adults from core and boost samples in 2002 were included in analysis of those aged 16-24 but only the core sample was included in the overall total. Thus it should be noted that the 'Men' and 'Women' totals are not the sum of the individual age groups.

[d] All adults from core and boost samples in 2005 were included in analysis of 65-74 and 75+ age groups but only the core sample was included in the overall total. Thus it should be noted that the 'Men' and 'Women' totals are not the sum of the individual age groups.

Continued…

Table 8.7 continued

Aged 16 and over *1993-2013*

Cigarette smoking status[a]	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Women								
1993[b]								
Current smoker	32	32	30	27	25	18	11	26
Ex-smoker	11	15	22	26	24	34	28	22
Never smoker	57	53	48	46	51	49	61	52
1994[b]								
Current smoker	34	33	28	29	24	19	11	27
Ex-smoker	9	14	20	24	25	36	31	22
Never smoker	57	53	52	46	51	45	58	51
1995[b]								
Current smoker	37	32	27	30	24	19	10	27
Ex-smoker	8	14	20	24	25	33	28	21
Never smoker	56	54	52	46	50	48	62	52
1996								
Current smoker	35	34	30	29	24	20	10	27
Ex-smoker	8	14	18	25	25	33	32	21
Never smoker	57	52	53	47	51	48	57	52
1997[b]								
Current smoker	38	33	28	27	23	18	11	27
Ex-smoker	9	14	18	24	27	34	29	21
Never smoker	54	53	53	48	50	48	60	52
1998[b]								
Current smoker	38	34	30	26	25	19	10	27
Ex-smoker	8	14	18	24	25	33	33	21
Never smoker	54	53	52	50	50	48	57	52
1999[b]								
Current smoker	36	34	28	30	20	17	9	26
Ex-smoker	8	14	19	23	25	32	34	21
Never smoker	56	52	53	47	55	52	57	52
2000[b]								
Current smoker	34	31	29	25	20	19	11	25
Ex-smoker	8	13	16	23	25	25	28	19
Never smoker	58	56	55	52	55	55	61	56
2001[b]								
Current smoker	35	32	28	27	20	18	8	25
Ex-smoker	7	15	19	24	32	29	35	22
Never smoker	58	53	53	50	48	53	57	53
2002[b]								
Current smoker	35	32	32	26	23	17	8	26
Ex-smoker	6	16	15	22	29	29	30	20
Never smoker	58	52	53	52	49	54	62	54
2003								
Current smoker	31	29	29	26	22	15	9	24
Ex-smoker	7	16	15	21	27	29	34	20
Never smoker	62	55	56	53	51	56	57	56
2004								
Current smoker	29	28	27	25	20	13	9	23
Ex-smoker	7	16	18	24	30	29	34	22
Never smoker	64	56	55	51	50	57	57	56

[a] Ex-smoker: used to smoke cigarettes regularly; Never smoker: never smoked cigarettes regularly.

[b] In HSE years before 2003, data were not weighted for non-response.

[c] All young adults from core and boost samples in 2002 were included in analysis of those aged 16-24 but only the core sample was included in the overall total. Thus it should be noted that the 'Men' and 'Women' totals are not the sum of the individual age groups.

[d] All adults from core and boost samples in 2005 were included in analysis of 65-74 and 75+ age groups but only the core sample was included in the overall total. Thus it should be noted that the 'Men' and 'Women' totals are not the sum of the individual age groups.

Continued…

Table 8.7 continued

Aged 16 and over *1993-2013*

Cigarette smoking status[a]	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Women								
2005								
Current smoker	32	27	30	28	20	13	9	24
Ex-smoker	6	16	18	20	26	29	34	20
Never smoker	62	57	53	52	54	57	57	56
2006								
Current smoker	28	25	23	24	20	13	8	21
Ex-smoker	6	19	19	22	28	27	35	22
Never smoker	67	56	58	54	52	60	57	57
2007								
Current smoker	26	25	26	22	18	13	8	21
Ex-smoker	7	16	19	23	29	28	32	21
Never smoker	67	59	55	55	53	59	60	58
2008								
Current smoker	25	25	25	20	16	13	8	20
Ex-smoker	8	17	19	22	31	32	32	22
Never smoker	67	58	56	58	53	55	60	58
2009								
Current smoker	25	26	20	26	17	13	8	20
Ex-smoker	7	15	24	17	29	33	37	22
Never smoker	68	59	56	56	54	55	55	58
2010								
Current smoker	28	22	19	19	16	12	7	18
Ex-smoker	10	16	23	20	28	36	31	23
Never smoker	62	63	58	61	56	52	62	59
2011								
Current smoker	22	20	22	22	17	14	5	19
Ex-smoker	7	17	20	22	31	32	33	22
Never smoker	71	62	57	56	52	54	63	59
2012								
Current smoker	22	21	19	21	16	11	7	18
Ex-smoker	7	19	21	21	29	31	27	22
Never smoker	71	60	61	58	54	57	66	61
2013								
Current smoker	19	24	19	19	17	12	5	17
Ex-smoker	7	18	22	23	29	34	33	23
Never smoker	74	57	59	58	54	54	63	60

[a] Ex-smoker: used to smoke cigarettes regularly; Never smoker: never smoked cigarettes regularly.

[b] In HSE years before 2003, data were not weighted for non-response.

[c] All young adults from core and boost samples in 2002 were included in analysis of those aged 16-24 but only the core sample was included in the overall total. Thus it should be noted that the 'Men' and 'Women' totals are not the sum of the individual age groups.

[d] All adults from core and boost samples in 2005 were included in analysis of 65-74 and 75+ age groups but only the core sample was included in the overall total. Thus it should be noted that the 'Men' and 'Women' totals are not the sum of the individual age groups.

Continued…

Table 8.7 continued

Aged 16 and over *1993-2013*

Cigarette smoking status[a]	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Women								
Bases (unweighted)[b]								
Women 1993	*1124*	*1746*	*1561*	*1393*	*1131*	*1090*	*828*	*8873*
Women 1994	*1071*	*1723*	*1520*	*1295*	*1056*	*1119*	*825*	*8609*
Women 1995	*1074*	*1737*	*1502*	*1378*	*1120*	*1059*	*836*	*8706*
Women 1996	*1101*	*1675*	*1603*	*1492*	*1087*	*1100*	*881*	*8939*
Women 1997	*554*	*916*	*832*	*806*	*585*	*545*	*438*	*4676*
Women 1998	*991*	*1629*	*1571*	*1483*	*1147*	*967*	*906*	*8694*
Women 1999	*495*	*738*	*819*	*764*	*513*	*472*	*423*	*4224*
Women 2000	*413*	*792*	*868*	*731*	*580*	*498*	*433*	*4315*
Women 2001	*937*	*1445*	*1716*	*1478*	*1155*	*1028*	*883*	*8642*
Women 2002[c]	*1903*	*613*	*836*	*661*	*582*	*451*	*420*	*4056*
Women 2003	*868*	*1284*	*1617*	*1278*	*1304*	*949*	*901*	*8201*
Women 2004	*346*	*549*	*748*	*626*	*621*	*486*	*429*	*3805*
Women 2005[d]	*463*	*640*	*781*	*720*	*677*	*464*	*403*	*4148*
Women 2006	*764*	*1147*	*1490*	*1278*	*1269*	*933*	*895*	*7776*
Women 2007	*363*	*575*	*704*	*636*	*603*	*494*	*407*	*3782*
Women 2008	*883*	*1217*	*1512*	*1374*	*1366*	*994*	*946*	*8292*
Women 2009	*264*	*360*	*489*	*392*	*390*	*338*	*289*	*2522*
Women 2010	*449*	*694*	*820*	*874*	*722*	*565*	*563*	*4687*
Women 2011	*461*	*725*	*835*	*823*	*768*	*608*	*536*	*4756*
Women 2012	*431*	*695*	*767*	*818*	*686*	*638*	*533*	*4568*
Women 2013	*454*	*754*	*825*	*884*	*740*	*649*	*529*	*4835*
Bases (weighted)								
Women 2003	*1008*	*1284*	*1439*	*1199*	*1071*	*814*	*783*	*7599*
Women 2004	*448*	*562*	*655*	*541*	*491*	*367*	*353*	*3416*
Women 2005[d]	*519*	*633*	*739*	*611*	*562*	*1215*	*1176*	*3899*
Women 2006	*974*	*1158*	*1375*	*1140*	*1050*	*768*	*793*	*7258*
Women 2007	*454*	*568*	*669*	*564*	*520*	*373*	*366*	*3513*
Women 2008	*1047*	*1212*	*1431*	*1233*	*1123*	*795*	*785*	*7626*
Women 2009	*336*	*381*	*450*	*398*	*357*	*256*	*248*	*2425*
Women 2010	*572*	*685*	*760*	*730*	*630*	*469*	*441*	*4287*
Women 2011	*586*	*690*	*768*	*741*	*638*	*475*	*446*	*4345*
Women 2012	*556*	*705*	*731*	*725*	*612*	*464*	*426*	*4220*
Women 2013	*609*	*751*	*756*	*779*	*635*	*514*	*470*	*4514*

[a] Ex-smoker: used to smoke cigarettes regularly; Never smoker: never smoked cigarettes regularly.

[b] In HSE years before 2003, data were not weighted for non-response.

[c] All young adults from core and boost samples in 2002 were included in analysis of those aged 16-24 but only the core sample was included in the overall total. Thus it should be noted that the 'Men' and 'Women' totals are not the sum of the individual age groups.

[d] All adults from core and boost samples in 2005 were included in analysis of 65-74 and 75+ age groups but only the core sample was included in the overall total. Thus it should be noted that the 'Men' and 'Women' totals are not the sum of the individual age groups.

Table 8.8

Intentions to give up smoking, by age and sex

Current smokers aged 16 and over — *2013*

Intention to give up smoking	Age group						Total
	16-24	25-34	35-44	45-54	55-64	65+	
Men							
I really want to stop smoking and intend to in the next month	9	9	6	7	6	4	7
I really want to stop smoking and intend to in the next three months	7	8	7	6	9	2	7
I want to stop smoking and hope to soon	21	22	24	22	12	5	19
I really want to stop smoking but I don't know when I will	16	17	21	20	24	16	19
I want to stop smoking but haven't thought about when	18	15	11	12	7	11	13
I think I should stop smoking but don't really want to	15	15	13	22	16	20	17
I don't want to stop smoking	15	14	18	12	25	42	18
Women							
I really want to stop smoking and intend to in the next month	6	8	11	6	2	7	7
I really want to stop smoking and intend to in the next three months	10	9	12	8	11	1	9
I want to stop smoking and hope to soon	22	26	24	19	14	9	20
I really want to stop smoking but I don't know when I will	13	19	19	30	19	18	20
I want to stop smoking but haven't thought about when	16	11	9	7	13	7	10
I think I should stop smoking but don't really want to	23	12	18	16	19	34	19
I don't want to stop smoking	10	14	8	14	21	25	15
Bases (unweighted)							
Men	*103*	*189*	*139*	*169*	*124*	*100*	*824*
Women	*86*	*192*	*155*	*172*	*132*	*100*	*837*
Bases (weighted)							
Men	*156*	*267*	*181*	*185*	*127*	*78*	*993*
Women	*111*	*181*	*139*	*145*	*110*	*80*	*766*

Table 8.9

Prevalence of current use of nicotine delivery products, by age and sex

Aged 16 and over *2013*

Current use of nicotine delivery products	Age group								Total
	16-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	
	%	%	%	%	%	%	%	%	
Men									
E-cigarettes only	3	4	3	4	2	2	0	-	3
Other nicotine delivery products only[a]	1	2	3	2	1	2	1	-	2
Both	0	0	0	0	0	0	0	-	0
Any use of e-cigarettes	*4*	*4*	*3*	*4*	*3*	*2*	*1*	-	*3*
Any nicotine delivery product[b]	*4*	*7*	*7*	*6*	*4*	*4*	*2*	-	*5*
Women									
E-cigarettes only	3	3	3	3	2	3	-	1	3
Other nicotine delivery products only[a]	0	1	2	2	2	1	0	-	1
Both	0	0	0	0	0	0	-	-	0
Any use of e-cigarettes	*3*	*3*	*4*	*3*	*3*	*3*	-	*1*	*3*
Any nicotine delivery product[b]	*3*	*5*	*6*	*5*	*4*	*4*	*0*	*1*	*4*
Bases (unweighted)									
Men	*326*	*542*	*624*	*703*	*604*	*615*	*347*	*90*	*3851*
Women	*418*	*754*	*825*	*884*	*741*	*649*	*386*	*143*	*4800*
Bases (weighted)									
Men	*529*	*733*	*742*	*762*	*620*	*478*	*272*	*69*	*4205*
Women	*563*	*751*	*756*	*779*	*636*	*514*	*342*	*128*	*4469*

[a] Other nicotine delivery products: nicotine chewing gum, lozenges/mini lozenges, patches, inhalers/inhalators, mouth spray, nasal spray or other nicotine products.

[b] Any nicotine delivery product: e-cigarettes or other nicotine delivery product, as above.

Table 8.10

Prevalence of ever using nicotine delivery products, by smoking status and sex

Aged 16 and over *2013*

Ever use of nicotine delivery products	Current smoking status[a]		
	Current smokers	Ex-smokers	Never smokers
	%	%	%
Men			
E-cigarettes only	14	3	1
Other nicotine delivery products only[b]	22	15	0
Both	15	3	0
Any use of e-cigarettes	*29*	*6*	*1*
Any nicotine delivery product[c]	*51*	*22*	*1*
Women			
E-cigarettes only	11	2	0
Other nicotine delivery products only[b]	28	16	1
Both	18	3	0
Any use of e-cigarettes	*29*	*5*	*1*
Any nicotine delivery product[c]	*57*	*21*	*1*
Bases (unweighted)			
Men	*832*	*1235*	*1752*
Women	*847*	*1158*	*2730*
Bases (weighted)			
Men	*1001*	*1185*	*1968*
Women	*776*	*1035*	*2565*

[a] Ex-smoker: used to smoke cigarettes regularly; never smoker: never smoked cigarettes regularly.

[b] Other nicotine delivery products: nicotine chewing gum, lozenges/mini lozenges, patches, inhalers/inhalators, mouth spray, nasal spray or other nicotine products.

[c] Any nicotine delivery product: e-cigarettes or other nicotine delivery product, as above.

Table 8.11

Self-reported hours of exposure to other people's smoke, by age and sex

Aged 16 and over *2013*

Hours per week exposure to other people's smoke	Age group								Total
	16-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	
Men									
% with no self-reported exposure	41	56	69	75	77	85	91	89	69
% with at least some self-reported exposure	59	44	31	25	23	15	9	11	31
Median[a]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75th centile	6.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0
90th centile	24.0	8.0	5.0	5.0	4.0	1.0	0.0	1.0	7.0
95th centile	40.0	15.0	15.0	10.0	14.0	3.0	1.0	1.0	18.0
Mean	7.6	3.2	2.5	2.2	2.9	1.6	0.7	0.3	3.1
Standard error of the mean	0.99	0.45	0.41	0.35	0.55	0.40	0.26	0.19	0.24
Women									
% with no self-reported exposure	45	67	76	74	82	86	90	93	74
% with at least some self-reported exposure	55	33	24	26	e18	14	10	7	26
Median[a]	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75th centile	3.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0
90th centile	10.0	5.0	2.0	3.0	2.0	1.0	1.0	0.0	4.0
95th centile	28.0	18.0	6.0	10.0	7.0	3.0	1.0	1.0	10.0
Mean	4.6	2.6	1.4	2.2	1.7	1.6	0.7	0.4	2.1
Standard error of the mean	0.73	0.38	0.20	0.42	0.30	0.42	0.25	0.25	0.17
Bases (unweighted)									
Men	*347*	*540*	*620*	*700*	*600*	*614*	*346*	*90*	*3857*
Women	*434*	*750*	*821*	*881*	*738*	*649*	*385*	*143*	*4801*
Bases (weighted)									
Men	*564*	*730*	*737*	*759*	*616*	*477*	*271*	*69*	*4224*
Women	*583*	*748*	*753*	*777*	*634*	*514*	*340*	*128*	*4476*

[a] Centiles are values of a distribution that divide it into 100 equal parts. For example, the 90th centile is the value of a distribution where 90% of the cases have values at or below the 90th centile and 10% have values above it. The median is the 50th centile.

Table 8.12

Self-reported locations of exposure to other people's smoke, by age and sex

Adults aged 16 and over *2013*

Locations of exposure	Age group						Total
	16-24	25-34	35-44	45-54	55-64	65+	
	%	%	%	%	%	%	%
Men							
Outdoor smoking areas of pubs/ restaurants/ cafes	31	22	15	12	10	6	15
At own home	18	13	10	8	9	5	10
In other people's homes	23	15	9	7	6	2	10
At work	12	18	11	10	5	0	9
Travelling by car/van	10	6	4	2	3	1	4
In other places	14	5	6	4	3	3	6
None of these[a]	42	52	63	70	74	86	65
Whether bothered by exposure to other people's smoke[b]							
Yes	28	28	35	26	31	36	30
No	72	72	65	74	69	64	70
Women							
Outdoor smoking areas of pubs/ restaurants/ cafes	32	16	11	10	8	4	12
At own home	16	12	7	9	9	5	9
In other people's homes	23	15	9	8	5	3	10
At work	10	7	5	4	2	0	4
Travelling by car/van	9	3	3	2	1	0	3
In other places	18	5	4	4	2	2	5
None of these[a]	40	61	71	71	79	88	70
Whether bothered by exposure to other people's smoke[b]							
Yes	35	44	43	44	35	41	40
No	65	56	57	56	65	59	60
Bases (unweighted)							
Men	*365*	*542*	*623*	*702*	*603*	*1051*	*3886*
Men who reported one or more locations of exposure to smoke	*207*	*252*	*227*	*213*	*159*	*143*	*1201*
Women	*451*	*754*	*825*	*884*	*741*	*1179*	*4834*
Women who reported one or more locations of exposure to smoke	*262*	*291*	*234*	*252*	*155*	*146*	*1340*
Bases (weighted)							
Men	*589*	*733*	*740*	*761*	*618*	*818*	*4260*
Men who reported one or more locations of exposure to smoke	*321*	*353*	*275*	*230*	*160*	*112*	*1451*
Women	*604*	*751*	*756*	*779*	*636*	*985*	*4511*
Women who reported one or more locations of exposure to smoke	*353*	*290*	*219*	*224*	*136*	*122*	*1344*

[a] This includes those not exposed to secondhand smoke and a small proportion who said that they were, but did not mention any of the locations listed.

[b] Among adults who reported at least one location of exposure to other peoples smoke.

Table 8.13

Prevalence of saliva cotinine levels of 12ng/ml or more, by self-reported smoking status,[a] age and sex

Aged 16 and over with valid cotinine assay[b] *2013*

Saliva cotinine levels of 12ng/ml or more[c]	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
All	25	38	24	25	22	16	9	24
Current smoker	[96]	93	95	96	99	[100]	d	95
Ex-smoker	d	15	4	7	3	5	3	6
Never smoker	2	2	2	3	2	3	2	2
Women								
All	22	24	17	21	19	9	5	18
Current smoker	89	89	90	95	99	[96]	d	93
Ex-smoker	d	21	4	7	3	3	3	7
Never smoker	3	1	1	0	2	-	1	1
Bases (unweighted)								
Men	*193*	*302*	*365*	*450*	*415*	*432*	*297*	*2454*
Men: Current smokers	*45*	*103*	*69*	*95*	*76*	*49*	*20*	*457*
Men: Ex-smokers	*9*	*50*	*105*	*126*	*145*	*202*	*167*	*804*
Men: Never smokers	*131*	*149*	*191*	*229*	*194*	*181*	*110*	*1185*
Women	*261*	*429*	*507*	*565*	*492*	*458*	*325*	*3037*
Women: Current smokers	*51*	*101*	*84*	*107*	*77*	*37*	*11*	*468*
Women: Ex-smokers	*20*	*75*	*118*	*120*	*153*	*164*	*116*	*766*
Women: Never smokers	*181*	*253*	*305*	*338*	*262*	*257*	*198*	*1794*
Bases (weighted)								
Men	*373*	*438*	*451*	*459*	*377*	*290*	*215*	*2603*
Men: Current smokers	*87*	*164*	*102*	*105*	*78*	*36*	*16*	*588*
Men: Ex-smokers	*18*	*64*	*124*	*119*	*124*	*132*	*117*	*698*
Men: Never smokers	*254*	*210*	*226*	*235*	*175*	*121*	*82*	*1302*
Women	*386*	*462*	*462*	*473*	*389*	*317*	*296*	*2785*
Women: Current smokers	*81*	*102*	*82*	*95*	*66*	*27*	*11*	*465*
Women: Ex-smokers	*21*	*80*	*101*	*93*	*115*	*113*	*103*	*626*
Women: Never smokers	*270*	*280*	*279*	*285*	*208*	*176*	*182*	*1680*

[a] Smoking status at the time of the nurse visit, when the saliva sample was taken. Ex-smokers (used to smoke cigarettes regularly) and never smokers (never smoked cigarettes regularly) were distinguished by combining 'non-smokers' in the nurse visit with information on smoking status as reported at the earlier interview.

[b] Those using nicotine delivery products, including e-cigarettes, have been excluded from this table. Table 8B in the text shows saliva cotinine levels among smokers and ex-smokers by use of e-cigarettes and other nicotine delivery products.

[c] HSE 2009 and earlier reports used a threshold of 15ng/ml for salivary cotinine levels to indicate personal use of tobacco products, so these results are not directly comparable with earlier reports. See Section 8.2 Methods and definitions for an explanation of the change in threshold.

[d] The unweighted base for this group is less than 30 therefore the estimates are not shown.

[ ] Results shown in brackets should be treated with caution because of the low base size.

Table 8.14

Saliva cotinine levels among self-reported, cotinine-validated non-smokers,[a] by age and sex

Self-reported non-smokers aged 16 and over with valid cotinine assay[b] — *2013*

Saliva cotinine levels (ng/ml)	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
Men								
% with undetectable cotinine[c]	56	73	74	73	81	83	84	74
Median[d]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75th centile	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.1
90th centile	1.2	0.3	0.3	0.3	0.2	0.2	0.1	0.3
95th centile	2.9	0.8	0.7	0.7	0.6	0.4	0.5	0.8
Geometric mean saliva cotinine[e]	0.14	0.08	0.08	0.08	0.07	0.07	0.07	0.08
Confidence interval	0.10-0.18	0.07-0.09	0.07-0.09	0.07- 0.09	0.06-0.08	0.06-0.07	0.06-0.07	0.08-0.09
Women								
% with undetectable cotinine[c]	61	71	76	78	78	86	81	76
Median[d]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75th centile	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
90th centile	0.8	0.4	0.4	0.2	0.3	0.2	0.2	0.4
95th centile	2.0	0.7	1.0	0.5	0.7	0.3	0.4	0.8
Geometric mean saliva cotinine[e]	0.12	0.09	0.08	0.07	0.07	0.06	0.07	0.08
Confidence interval	0.09-0.15	0.08-0.10	0.07-0.09	0.07-0.08	0.07- 0.08	0.06-0.07	0.06-0.07	0.07-0.08
Bases (unweighted)								
Men	*142*	*185*	*287*	*336*	*329*	*367*	*268*	*1914*
Women	*199*	*309*	*416*	*448*	*406*	*416*	*309*	*2503*
Bases (weighted)								
Men	*276*	*253*	*339*	*337*	*290*	*243*	*193*	*1930*
Women	*291*	*339*	*374*	*370*	*315*	*286*	*280*	*2255*

[a] To be included within this category, participants had to be both self-reported non-smokers at the nurse visit and have a saliva cotinine level lower than 12ng/ml.

[b] Those using nicotine delivery products, including e-cigarettes, have been excluded, as the purpose of this table is to examine objective evidence of exposure to other people's tobacco smoke.

[c] The lower limit of detection of even the most sensitive assay used is 0.1ng/ml. Levels below this are considered to represent no or minimal exposure to tobacco smoke.

[d] Centiles are values of a distribution that divide it into 100 equal parts. For example, the 90th centile is the value of a distribution where 90% of the cases have values at or below the 90th centile and 10% have values above it. The median is the 50th centile.

[e] Geometric means have been presented for non-smokers as the distribution of cotinine levels is very skewed, with most values being very low. The geometric mean is a measure of central tendency of a distribution, which minimises the effects of extreme values (see endnote 1). Confidence intervals around the estimate are presented rather than standard errors.

Table 8.15

Saliva cotinine levels (age-standardised) among self-reported, cotinine-validated non-smokers,[a] by equivalised household income and sex

Self-reported non-smokers aged 16 and over with valid cotinine assay[b] *2013*

Saliva cotinine levels (ng/ml)	Equivalised household income quintile				
	Highest	2nd	3rd	4th	Lowest
Men					
% with undetectable cotinine[c]	83	79	77	67	60
Median[d]	0.0	0.0	0.0	0.0	0.0
75th centile	0.0	0.0	0.0	0.1	0.2
90th centile	0.2	0.2	0.3	0.3	1.1
95th centile	0.4	0.6	0.7	0.8	2.2
Geometric mean saliva cotinine[e]	0.07	0.07	0.08	0.08	0.12
Confidence interval	0.06-0.07	0.07-0.08	0.07-0.09	0.07-0.10	0.09-0.16
Women					
% with undetectable cotinine[c]	87	81	80	67	62
Median[d]	0.0	0.0	0.0	0.0	0.0
75th centile	0.0	0.0	0.0	0.2	0.2
90th centile	0.2	0.2	0.2	0.5	1.0
95th centile	0.4	0.4	0.6	0.9	1.6
Geometric mean saliva cotinine[e]	0.07	0.07	0.07	0.09	0.11
Confidence interval	0.06-0.07	0.06-0.07	0.06-0.08	0.08-0.11	0.10-0.13
Bases (unweighted)					
Men	*381*	*399*	*335*	*272*	*215*
Women	*442*	*450*	*401*	*423*	*330*
Bases (weighted)					
Men	*404*	*397*	*327*	*228*	*236*
Women	*394*	*395*	*352*	*362*	*305*

[a] To be included within this category, participants had to be both self-reported non-smokers at the nurse visit and have a saliva cotinine level lower than 12ng/ml.

[b] Those using nicotine delivery products, including e-cigarettes, have been excluded, as the purpose of this table is to examine objective evidence of exposure to other people's tobacco smoke.

[c] The lower limit of detection of even the most sensitive assay used is 0.1ng/ml. Levels below this are considered to represent no or minimal exposure to tobacco smoke.

[d] Centiles are values of a distribution that divide it into 100 equal parts. For example, the 90th centile is the value of a distribution where 90% of the cases have values at or below the 90th centile and 10% have values above it. The median is the 50th centile.

[e] Geometric means have been presented for non-smokers as the distribution of cotinine levels is very skewed, with most values being very low. The geometric mean is a measure of central tendency of a distribution, which minimises the effects of extreme values (see endnote 1). Confidence intervals around the estimate are presented rather than standard errors.