Kent & Medway Public Health Observatory

# Smoking in Kent: Deaths, disease and economic loss attributable to tobacco smoking

**May 2009**

"Smoking is the main reason why people from poor and deprived backgrounds have lower life expectancy than the affluent.

An effective strategy to reduce adult smoking will also help to reduce health inequalities and add to the disposable income of millions of poor families in England."[1]

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## Executive Summary

i. Smoking is a significant cause of preventable ill-health in Kent. The numbers of deaths and hospital admissions due to smoking can be estimated using "attributable fractions" – the proportion of each disease that is the result of smoking.

ii. Over 2,000 Kent residents die prematurely each year due to smoking and the average smoker loses more than seven years of healthy life. More men than women die of smoking-attributable illness – smoking is a big contributor to the gap in life expectancy between men and women, and between the poorest in society and the better off.

iii. There are over 10,000 admissions to our hospitals each year which are due to smoking. This is estimated to cost NHS Eastern and Coastal Kent £12m and NHS West Kent £10m each year. The annual outpatient activity costs associated with smoking in East and West Kent are estimated to be £1.3m and £860,000 respectively.

iv. The wider economic impact of smoking is substantial. Each year in Kent, cigarette breaks and smokers' sick days cost employers around £215million. The average smoker spends £1000 a year on tobacco, regardless of their socio-economic status. Fires due to smoking cost £3.3million each year in consequential and response costs.

v. In addition to the direct health benefits, strong action in tobacco control and in supporting smokers in stopping is likely to be highly cost effective across the Kent economy. These benefits will not be fully realised in the short term, but will be significant in the medium to long-term.

## 1. Introduction

Smoking kills one in every two smokers[2], and is the leading cause of preventable illness and early death in the UK[3].

This report provides an overview of the health and economic impact of tobacco smoking in Kent. It does not aim to be comprehensive, but to provide information to support decision-making around smoking, whether by health commissioners, businesses or individual smokers.

A strong association between smoking and lung cancer was first shown in 1950 by Richard Doll and Bradford Hill in a case-control study of patients in London hospitals.[4] Since then the evidence base has grown to show the association between smoking and a range of cancers, lung or airway conditions and diseases of the heart and circulation. A sufficient level of information has been gathered to allow the use of "attributable fractions" in reporting the proportion of each disease caused by smoking in a population, and this methodology forms the basis for this report.

Smoking is not only harmful to health, but expensive to the individual and society. The average smoker spends £19.75 a week on cigarettes (£1000 a year), with no difference in spending between smokers of different socio-economic grades[5]. Reports by both the Chief Medical Officer of England and the World Bank have demonstrated that the UK economy would grow with the introduction of smoke-free legislation and a reduction in smoking prevalence[6,7].

The average smoker spends £19.75 a week on cigarettes

Whether smoking increases or decreases the individual's lifetime healthcare costs is considered relatively neutral – it is certainly disputed, with a range of methodologies and measures producing different results[8]. What can be stated with more certainty is that stopping smoking - or never taking it up - extends life expectancy and defers ill-health, reducing short to medium term costs to health organisations and reducing the treatment cost per head of population, as more of the population are alive and able to enjoy good health[9].

Perhaps the most useful observations on smoking economics is that it takes the battle from the public health domain into the fiscal one – a battleground more familiar for the tobacco industry where defeat might not come as rapidly as when fought purely on the health front[10]. Even as the health service increasingly chooses the economic arena to contest the validity of interventions, the case for smoking cessation programmes and tobacco control remains strong, and this report further demonstrates the value of, and need for, local action to reduce harm from tobacco smoking.

## 2 Attributable Fractions Methodology

The attributable fractions approach applies knowledge from research to describe the proportion of a disease in a defined population which due to a particular hazard. For example, the proportion of female lung cancer deaths in England attributable to smoking is strongly attributable at 0.75 or 75%, while the smoking attributable fraction of male admissions to hospital in England for treatment of Crohn's disease (an inflammatory condition of the gut) is less attributable in comparison, at 0.18 or 18%.

75% of lung cancer deaths in women are due to smoking

The fractions used here are from the NHS Information Centre's report "Statistics on Smoking: England 2008"[11]. This uses the results of a 2007 Department of Health review of smoking attributable harm methodology, with some adaptation, specifically omission of diseases avoided by smoking, such as Parkinson's disease. While the tobacco industry and economics purists might argue that this is inappropriate, these diseases are likely to have been avoided to a large extent through the deaths of smokers, rather than through any protection given to the individual by their tobacco consumption, and so it seems reasonable to exclude these illnesses from the analysis.

Attributable fractions can be considered the proportion of a given disease which can be avoided if a given hazard did not exist, e.g. female lung cancer deaths would be 75% less than current levels if no one smoked. Note that this is not the same as stating that these lung cancer deaths would be avoided if all smoking stopped tomorrow – there would still be residual increased risk of disease in the ex-smoker population, though this is much reduced from the risk borne by current smokers. The excess health risk of ex-smokers compared with never-smokers has been considered in the creation of the attributable fractions.

There may be an under-estimation of smoking attributable illness in deprived areas

To create an attributable fraction, it is necessary to know the proportion of the population who smoke (i.e. prevalence of smoking), the proportion who are ex-smokers and the proportion who have never smoked. The relative risks of disease in each of these groups can be applied to the proportions to calculate the attributable fraction for the disease in the whole population. Over time, if smoking prevalence falls, these fractions will reduce, as less of each disease caseload will be due to smoking. These attributable risk ratios do not account for the harm caused by passive smoking in the non-smoking population. The smoking attributable fractions used by the NHS Information Centre and in this report use relative risk ratios from Callum (1998)[12], an adaptation for the UK of results from an overseas study, which have since been widely applied in epidemiological reports[13,14].

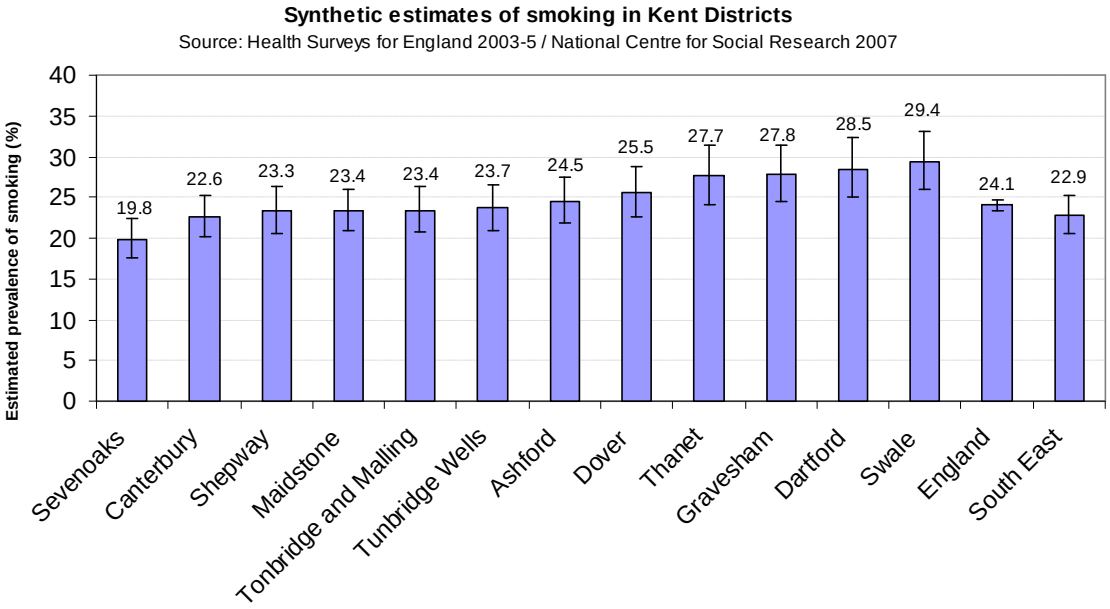
It should be also noted that these fractions are based on national smoking prevalence rates rather than local rates, and are estimates which should be taken as indicative. Precise local smoking prevalence rates are not available on which to create robust local fractions. Similarly, the attributable fractions do not account for the differences between smoking prevalence in different socio-economic groups. Thus there may be an underestimation of smoking attributable illness in deprived areas and overestimation in affluent areas due to the higher smoking prevalence in deprived areas.

## 3. Prevalence of Smoking in Kent

Smoking rates in district authority areas have been estimated from results of the Health Surveys for England using know information on the local population, such as socio-economic status and ethnicity. Chart 3.1 shows expected prevalence of smoking in adults given local population characteristics, ranked from lowest to highest.

Dartford and Swale have higher smoking rates than the England average, while Sevenoaks has a lower rate than the England average. There is a degree of statistical uncertainty in the figures (shown by the vertical confidence interval bars).

**Chart 3.1 Synthetic estimates of smoking in Kent Districts**
Source: Health Surveys for England 2003-5 / National Centre for Social Research 2007




These estimated rates have been converted into estimated numbers of smokers using the 2006 mid-year population estimates for each district. The estimates have been added to give total numbers and percentages for the two PCTs (tables 3.1 and 3.2) and Kent County Council area (table 3.3).

**3.1 Estimated numbers of adult smokers in East Kent**

| East Kent District Authority Areas | Estimated number of adult smokers (rounded, numbers may not sum due to rounding) |
|---|---|
| Ashford | 21,500 |
| Canterbury | 27,400 |
| Dover | 21,900 |
| Shepway | 18,900 |
| Swale | 30,100 |
| Thanet | 28,700 |
| **NHS East Kent total and percentage** | **148,500**<br>**25.5%** |

**3.2 Estimated numbers of adult smokers in West Kent**

| West Kent District Authority Areas | Estimated number of adult smokers (rounded, numbers may not sum due to rounding) |
|---|---|
| Dartford | 20,400 |
| Gravesham | 21,600 |
| Maidstone | 27,000 |
| Sevenoaks | 18,100 |
| Tonbridge & Malling | 21,100 |
| Tunbridge Wells | 19,600 |
| **NHS West Kent total and percentage** | **127,800**<br>**24.2%** |

**3.3 Estimated numbers of adult smokers in Kent County Council area**

| | Kent County Council Area |
|---|---|
| Estimated number of adult smokers | 276,300 |
| Smokers as a percentage of all adults | 24.9% |

Note that these are estimates of smokers of working age and older (16 years and above) and exclude children under 16. The estimates have not been amended to account for the increase in the legal age for buying tobacco, which was increased to 18 years on 1 October 2007.

## 4. Deaths Attributable to Smoking in Kent

### 4.1 Disease-specific Smoking Deaths

Attributable fractions have been applied to disease-specific deaths in Kent for the years 2005 to 2007. The numbers of deaths and the percentage of these caused by smoking are summarised in tables 4.1 (East Kent) and 4.2 (West Kent).

Based on the results shown in tables 4.1 and 4.2, there are 2,250 deaths in Kent each year due to smoking – 17% of all deaths. Obviously it is impossible to avert death altogether and these people would eventually have died of other causes; however, it is possible to describe these as premature, avoidable deaths – this is expanded in section 4.2. More men than women die from smoking (and a greater percentage: 22% vs 13%), and there are more deaths in the East than the West. Many of these deaths are due to cancers, particularly lung cancer.

**Table 4.1 Deaths in men and women attributable to smoking in NHS Eastern & Coastal Kent area from 2005 to 2007**

| | | Men | | | Women | | |
|---|---|---|---|---|---|---|---|
| Diagnosis ICD10 | ICD10 codes | Observed Deaths | Attributable number | Attributable percentage | Observed Deaths | Attributable number | Attributable percentage |
| **All deaths** | | 10,615 | 2,325 | 22% | 12,595 | 1,611 | 13% |
| **All cancers** | C00-D48 | 3,243 | 1,130 | 35% | 3,105 | 624 | 20% |
| **All respiratory diseases** | J00-J99 | 1,542 | 667 | 43% | 1,929 | 578 | 30% |
| **All circulatory diseases** | I00-I99 | 3,833 | 487 | 13% | 4,602 | 355 | 8% |
| **All diseases of the digestive system** | K00-K93 | 527 | 40 | 8% | 722 | 54 | 7% |

**Table 4.2 Deaths in men and women attributable to smoking in NHS West Kent area from 2005 to 2007**

| | | Men | | | Women | | |
|---|---|---|---|---|---|---|---|
| Diagnosis ICD10 | ICD10 codes | Observed Deaths | Attributable number | Attributable percentage | Observed Deaths | Attributable number | Attributable percentage |
| **All deaths** | | 7,897 | 1,664 | 21% | 9,275 | 1,130 | 12% |
| **All cancers** | C00-D48 | 2,525 | 834 | 33% | 2,378 | 457 | 19% |
| **All respiratory diseases** | J00-J99 | 1,022 | 437 | 43% | 1,262 | 375 | 30% |
| **All circulatory diseases** | I00-I99 | 2,880 | 367 | 13% | 3,303 | 262 | 8% |
| **All diseases of the digestive system** | K00-K93 | 341 | 26 | 8% | 475 | 37 | 8% |

Tables A1 and A2 in Appendix One give more detailed disease-specific attributable death rates. Two of these diseases are COPD and aortic aneurysm.

Chronic obstructive pulmonary disease (COPD) is the loss of lung and airway function due to conditions such as emphysema and bronchitis. Few smokers have heard of COPD and many will dismiss the symptoms as "smokers cough", yet it is responsible for the deaths of over 500 smokers a year in Kent.

Few smokers have heard of COPD – it kills 500 smokers each year in Kent

There is also a strong attributable risk for smoking and death from dissection of the aorta (64% male deaths and 58% female deaths), when the lining of the body's main artery tears open and internal bleeding occurs.

## 4.2 Years of Healthy Life Lost

Another way of measuring the impact of smoking is on the number of years of life lost.

Smokers in Kent stand to lose over two million years of healthy life by continuing to smoke.

The London Health Observatory estimates that half of all smokers will die of smoking related disease and of these, half will die in middle age losing 20 to 25 years of life, and half will die in later life, eight years prematurely. The average number of years of life lost therefore equals 15.25 for those that die of smoking, or 7.625 years per smoker. There are 276,300 smokers in Kent (APHO modeled prevalence rates applied to ONS district populations 16+, 2007). That is a total of 2,100,000 years lost. It should be noted that not all of these lost years can be saved by simply getting smokers to quit, as smoking will have already caused harm to existing smokers – it is equally important to reduce the uptake of smoking amongst children and young adults.

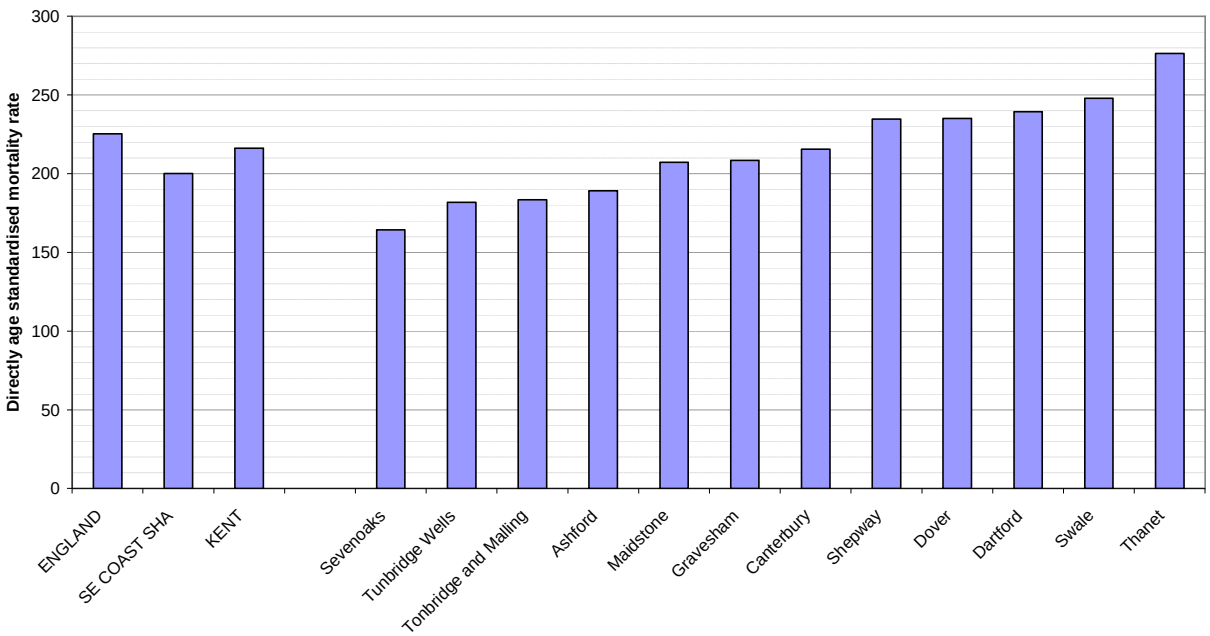
Smoking not only shortens life, it reduces the quality of life at the end of life, such as mobility and independence[15] - simply because smokers die earlier, this does not mean that they avoid ill health prior to death. This is supported by local statistics on healthy life expectancy at 65 years, which show there is no difference in years of poor health between populations with long life expectancy and those with short life expectancy[16].

## 4.3 Smoking Mortality Rates

Figure 4.1 shows that the Kent mortality rate due to smoking is higher than the South East Coast Strategic Health Authority rate but lower than the England rate. This is line with the known rates of smoking in these different areas, and reflects a national north-south deprivation gradient. The trend within Kent is also towards a higher mortality rate in the more deprived districts.

Figure 4.1

**Directly age standardised mortality rates of deaths attributable to smoking in Kent Districts**
Source: APHO 2008



## 5. Hospital Admissions and Outpatient Attendances Attributable to Smoking

There can be few people who look forward to spending time in hospital. This section investigates avoidable smoking-related hospital admissions and outpatient attendances, and provides cost estimates for this activity. Use of primary care services due to smoking (e.g. GPs, prescriptions, district nursing) has not been estimated or costed.

### 5.1 Admissions

National attributable fractions have been applied to local admission data for men and women age 35 and over in East and West Kent to give a local number of admissions. The length of stay has been combined with a bed-day cost to give an estimate of the burden on the local NHS. This is a necessarily crude methodology and should be considered indicative rather than a precise measure of the cost of care. HRGs, a unit of "NHS currency", have not been used as they cannot be disaggregated accurately.

Analysis of the economic burden of smoking in the West Midlands carried out in 2004 found that the cost of a smoking-associated disease bed day was higher – at £400 – than a standard general medicine bed day (£200 in 2004)[17]. This is likely to reflect higher resource usage such as intensive care, coronary care and surgery or other invasive procedures. The higher figure has been used here; cost is likely to have increased in the five years since this figure was derived.

The estimated numbers and costs of these admissions are summarised in table 5.1 and 5.2 below. Detailed disease and gender-specific tables are in Appendix Two, with details of the methodology used. In Eastern and Coastal Kent, smoking admissions cost the NHS £12.2m each year (table 5.1). Smoking admissions for West Kent residents costs the NHS £10.3m each year (table 5.2).

In both areas, smoking admissions make up five percent of all admissions. Respiratory admissions are the most strongly attributable to smoking (20-21% of all respiratory admissions), while cardiovascular admissions are the biggest area of smoking attributable expenditure at £4.6m and £4.0m in East and West Kent respectively.

**Table 5.1 NHS Eastern and Coastal Kent hospital admissions and costs attributable to smoking in adults aged 35+, financial year 2007-8**

| **Admission Primary Diagnosis** | ICD-10 code | Total number of admissions | Smoking Attributable admissions | Smoking Attributable percentage | Smoking Attributable Bed Days | Cost of Smoking Admissions |
|---|---|---|---|---|---|---|
| **All admissions** | | **114,365** | **6,124** | **5%** | **30379** | **£12,151,659** |
| All cancers | C00-D48 | 20,342 | 2,737 | 13% | 7658 | £3,063,364 |
| All respiratory diseases | J00-J99 | 6,230 | 1,290 | 21% | 8008 | £3,203,394 |
| All circulatory diseases | I00-I99 | 11,562 | 1,737 | 15% | 11479 | £4,591,565 |
| All digestive system diseases | K00-K93 | 9,846 | 107 | 1% | 775 | £310,108 |
| Other admissions | | 66,385 | 253 | 0.4% | 2458 | £983,228 |

**Table 5.2 NHS West Kent hospital admissions and costs attributable to smoking in adults aged 35+, financial year 2007-8**

| **Admission Primary Diagnosis** | ICD-10 code | Total number of admissions | Smoking Attributable admissions | Smoking Attributable percentage | Smoking Attributable Bed Days | Cost of Smoking Admissions |
|---|---|---|---|---|---|---|
| **All admissions** | | **91,567** | **4,126** | **5%** | **25,708** | **£10,283,249** |
| All cancers | C00-D48 | 11,251 | 1,445 | 13% | 5,894 | £2,357,459 |
| All respiratory diseases | J00-J99 | 4,603 | 905 | 20% | 7,026 | £2,810,589 |
| All circulatory diseases | I00-I99 | 9,188 | 1,412 | 15% | 9,968 | £3,987,017 |
| All digestive system diseases | K00-K93 | 12,807 | 167 | 1% | 739 | £295,542 |
| Other admissions | | 53,718 | 197 | 0.4% | 2,082 | £832,642 |

## 5.2 Outpatients

Data is not available on the disease-specific causes of attendance at outpatient clinics in the NHS. Instead, these smoking-attributable costs have been modelled on the basis of each smoking-attributable admission giving rise to one out-patient first appointment at a consultant-led single-professional clinic in the clinical specialties listed in table 5.3 below. The NHS tariff for 2009-10 has been applied to 2007-8 admissions figures.

These costs are an approximation and real costs may vary significantly from those shown. This model assumes no multi-professional appointments or follow-up appointments, and does not account for patients being seen by other clinical specialties e.g. patients admitted with cancer treated as outpatients by geriatricians or general physicians rather than oncologists. The category of “other diseases caused by smoking” covers a broad range of clinical areas but makes up a small proportion of the overall numbers and has been omitted.

**Table 5.3. Outpatient clinics and costs linked with smoking attributable admissions to hospital**

| **Smoking attributable In-patient admission** | **Outpatient first attendance at a consultant-led single professional clinic** | |
|---|---|---|
| | **Clinical Specialty** | **NHS tariff 2009-10** |
| Cancers which can be caused by smoking | Medical Oncology | £241 |
| Respiratory diseases which can be caused by smoking | Respiratory Medicine | £242 |
| Circulatory diseases which can be caused by smoking | Cardiology | £189 |
| Diseases of the digestive system which can be caused by smoking | Gastroenterology | £158 |

Tables 5.4 and 5.5 show that the estimated annual outpatient cost of smoking attributable disease is £1.3m in Eastern and Coastal Kent and £860,000 in West Kent. Cancer attributable to smoking is the largest component of this cost.

## Table 5.4 NHS Eastern and Coastal Kent annual smoking-attributable outpatient costs

| Smoking attributable disease area | ICD-10 Code | Admissions numbers as an estimate of outpatient appointment numbers | Cost per outpatient appointment | Total Cost |
|---|---|---|---|---|
| **All outpatient episodes** | | **6,124** | | **£1,316,984** |
| Cancers | C00-D48 | 2,737 | £241 | £659,723 |
| Respiratory diseases | J00-J99 | 1,290 | £242 | £312,144 |
| Circulatory diseases | I00-I99 | 1,737 | £189 | £328,235 |
| Diseases of the digestive system | K00-K93 | 107 | £158 | £16,882 |

## Table 5.5 NHS West Kent annual smoking-attributable outpatient costs

| Smoking attributable disease area | ICD-10 Code | Admissions numbers as an estimate of outpatient appointment numbers | Cost per outpatient appointment | Total Cost |
|---|---|---|---|---|
| **All outpatient episodes** | | **4,126** | | **£860,529** |
| Cancers | C00-D48 | 1,445 | £241 | £348,293 |
| Respiratory diseases | J00-J99 | 905 | £242 | 218,942 |
| Circulatory diseases | I00-I99 | 1,412 | £189 | £266,867 |
| Diseases of the digestive system | K00-K93 | 167 | £158 | 26,427 |

## 6. Workplace productivity

As stated in the introduction, and made clear in sections 4 and 5 of this report, the public health case for tobacco control is clear. This section of the report aims to demonstrate some of the wider impact of smoking on the local economy. A number of attempts have been made to quantify the impact of smoking on workplace productivity. This section of the report focuses on smoking breaks and time off for smoking attributable illness.

The total cost of smoking to Kent employers is around £215 million

The potential benefits for employing organisations – regardless of sector or industry – of supporting Smokefree legislation are significant. The total cost of smoking to Kent employers is estimated to be around £215 million. Employers should encourage and support staff with addiction to tobacco to contact NHS Stop Smoking services.

### 6.1 Methodology

The Kent smoking prevalence of 24.9% has been applied to the full and part time working population. Local mean gross salaries have been applied to time off due to smoking to provide cost estimates. Annual figures are constructed using daily or weekly data on the basis of forty-six working weeks in a year, each of five-days, thus accounting for annual leave and bank holidays. No estimate has been made of the number of people who are absent from the labour force on a long-term basis due to smoking. These figures should not be considered to be exact, but indicative of the scale of the economic impact of smoking. There may be an over-estimation of numbers and costs, as smoking is less prevalent in the employed than the unemployed and is less prevalent in higher paid staff, in line with other socio-economic smoking trends.

**Table 6.1 Kent workforce numbers and numbers of smokers in the workforce**
Source: NOMIS 2007-8 with APHO 2008 derived smoking prevalence

| | Full time | Part time | Total in employment |
|---|---|---|---|
| Total in workforce | 481,300 | 151,300 | 633,100 |
| Smokers in the workforce | 119,844 | 37,674 | 157,642 |

**Table 6.2 Kent Wages and hours**
Source: NOMIS 2008

| | Mean hourly wage | Mean weekly hours | Mean weekly wage |
|---|---|---|---|
| Full time workers | £15.63 | 39.9 | £624.20 |
| Part time workers | £10.53 | 17.9 | £188.10 |

## 6.2 Cigarette Breaks

The figure here uses calculation from "Choosing Health in the South East: Smoking"[18] which estimated the number of minutes of productive work which are lost each day due to cigarette breaks. These assume preference for smoking during lunch hours or free time where these overlap with the working day, and assume each smoking break to be of only five minutes.

The annual cost of cigarette breaks to employers in Kent is estimated to be around £180 million.

**Table 6.3 Estimated hours lost due to cigarette breaks per smoker in Kent**

| | Time lost per worker per week | Cost per worker per week | Time lost per worker per year | Cost per worker per year |
|---|---|---|---|---|
| Full time | 1.875h (4.7%) | £29.34 | 86.25h | £1,349.64 |
| Part time | 0.931h (5.2%) | £9.78 | 42.83h | £449.88 |

**Table 6.4 Estimated total hours lost due to cigarette breaks per year in Kent**

| | Time lost per week | Cost per week | Time lost per year | Cost per year |
|---|---|---|---|---|
| Full time | 224,708h | £3,516,223 | 10,336,568h | £161,746,258 |
| Part time | 35,074h | £368,452 | 1,613,404h | £16,948,792 |
| **Total** | **259,782h** | **£3,884,675** | **11,949,972h** | **£178,695,050** |

## 6.3 Smokers' sick days

For this section, the annual number of additional sick days taken by smokers compared with non-smokers was considered to be 2.3 days per year, based on a study of office workers in the United States[19]. This was used over European study figures as the sick leave cited in this study corresponds more closely to UK figures (e.g. CBI/AXA Absence and Labour Turnover Survey 2008 mean sickness absence 7.4days/year compared to one Swedish registry study with a mean sickness absence of 25days/year[20]).

The annual cost of smokers' sick days to Kent employers is estimated to be around £40 million.

**Table 6.5 Estimated hours lost due to smoking sickness per smoker in Kent**

| | Days missed per year | Hours worked per day | Hours lost per smoker per year | Cost of sick days per smoker per year |
|---|---|---|---|---|
| Full time | 2.3 | 8 | 18.4 | £287.60 |
| Part time | 2.3 | 3.6 | 8.3 | £87.40 |

**Table 6.6 Estimated total hours lost due to smoking sickness per year in Kent**

| | Hours lost per year | Cost per year |
|---|---|---|
| Full time | 2,205,130 | £34,466,175 |
| Part time | 312,694 | £3,292,670 |
| **Total** | **2,517,824** | **£37,758,845** |

Total sickness + smoking breaks = £215,454,895

## 7. Smoking and fires

A 2003 report for the Office of the Deputy Prime Minister found that smokers' households were 50% more likely to have experienced a fire in the previous year than tobacco-free households[21]. While there may be other social or environmental factors to this statistic, local data shows that cigarette fires are more dangerous than other fires – analysis of tables 7.1 and 7.2 finds that the relative risk of dying in a fire caused by smoking is five times that of dying in a fire caused by another source (RR 5.178; CI 1.385 to 19.294; P 0.019). Known risk factors include smoking in bed and smoking whilst drinking alcohol – a cigarette contains chemicals designed to keep it burning, even after the smoker falls asleep. These deaths are avoidable tragedies.

Two to three people die every year in Kent in fires caused by smoking (table 7.1).

### Table 7.1 Deaths in fires caused by smoking in Kent 2006-9

Source: Kent Fire and Rescue 2009

| | 2006-2007 | 2007-2008 | Apr 2008-Jan 2009 | Apr2006-Jan2009 | Annual average |
|---|---|---|---|---|---|
| Deaths in fires caused by smoking | 1 | 2 | 4 | 7 | 2.5 |
| Deaths in all-cause fires | 10 | 11 | 10 | 30 | 10.6 |
| Percentage of fire deaths due to smoking fires | 10.0% | 18.2% | 40% | 23.3% | 23.3% |

### Table 7.2 Fires caused by smoking in Kent 2006-9

Source: Kent Fire and Rescue 2009

| | 2006-2007 | 2007-2008 | 2008-Jan 2009 | Apr2006-Jan2009 | Annual average |
|---|---|---|---|---|---|
| Dwellings providing sleeping accommodation | 38 | 55 | 38 | 131 | 46 |
| Farms & Countryside | 13 | 5 | 5 | 23 | 8 |
| Industrial and commercial | 9 | 12 | 8 | 29 | 10 |
| Institutional establishments | 4 | 3 | 1 | 8 | 3 |
| Licensed premises | 4 | 5 | 3 | 12 | 4 |
| Miscellaneous | 10 | 18 | 8 | 36 | 13 |
| Other buildings | 10 | 8 | 8 | 26 | 9 |
| Other buildings with sleeping accommodation | 2 | 4 | 3 | 9 | 3 |
| Property used as a perm dwelling not a building | 0 | 0 | 0 | 0 | 0 |
| Transport and moveable locations | 8 | 2 | 7 | 17 | 6 |
| FDR3* | 266 | 224 | 189 | 679 | 240 |
| **Fires due to smoking** | **364** | **336** | **270** | **970** | **342** |
| Total fires (all causes) | 6881 | 5940 | 4407 | 17228 | 6080 |
| **% due to smoking** | **5.3%** | **5.7%** | **6.1%** | **5.6%** | **5.6%** |

*FDR3 Secondary fires: Single derelict building, grassland, intentional straw/stubble burning, outdoor structure, refuse and single derelict vehicle.

## 7.1 Economic cost of smoking related fires

The cost of smoking related fires can be divided into the response costs to the fire service in dealing with an incident, and the consequential costs, such as cost to insurers and property owners, and the physical, employment and emotional costs of injuries and death. These have been estimated in a report for the Office of the Deputy Prime Minister[22] and have been applied to local incident numbers in table 7.3 below.

The total annual cost in Kent of smoking related fires is estimated to be £3.3million.

### Table 7.3 Annual cost of smoking fires in Kent 2006-9

| Location of fire | Annual fires due to smoking | Consequential costs per incident | Response costs per incident | Total consequential costs | Total response costs | Total cost |
|---|---|---|---|---|---|---|
| Dwellings providing sleeping accommodation | 46 | £21,900 | £3,100 | £1,007,400 | £142,600 | £1,150,000 |
| Farms & Countryside | 8 | £32,000 | £33,200 | £256,000 | £265,600 | £521,600 |
| Industrial and commercial | 10 | £34,550 | £10,250 | £345,500 | £102,500 | £448,000 |
| Institutional establishments | 3 | £32,700 | £7,500 | £98,100 | £22,500 | £120,600 |
| Licensed premises | 4 | £34,600 | £6,600 | £138,400 | £26,400 | £164,800 |
| Miscellaneous | 13 | £0 | £0 | £0 | £0 | £0 |
| Other buildings | 9 | £30,900 | £7,300 | £278,100 | £65,700 | £343,800 |
| Other buildings with sleeping accommodation^ | 3 | £21,900 | £3,100 | £65,700 | £9,300 | £75,000 |
| Property used as a perm dwelling not a building | 0 | £0 | £0 | £0 | £0 | £0 |
| Transport and moveable locations | 6 | £3,000 | £1,400 | £18,000 | £8,400 | £26,400 |
| FDR3* | 240 | £0 | £2,000 | £0 | £480,000 | £480,000 |
| **All fires due to smoking** | **342** | **-** | **-** | **£2,207,200** | **£1,123,000** | **£3,330,200** |

^It is not clear if these are fixed caravans or luxury hotels; domestic fire costs have been used.
*FDR3 Secondary fires: Single derelict building, grassland, intentional straw/stubble burning, outdoor structure, refuse and single derelict vehicle

## 8. Conclusion

The costs of tobacco smoking in Kent are substantial. Smoking erases years of healthy life. It places a considerable financial burden on the NHS, smokers, local businesses and the fire service, and inflicts physical and emotional suffering on smokers and their loved ones.

Activities that reduce the prevalence of smoking – stop smoking services, tobacco control measures and other interventions to limit uptake – are likely to represent very good value for money for the NHS, local businesses and the wider economy and should be strongly supported.

## 9. Local stop smoking services

**West Kent Stop Smoking Service:**
01474 360546 (Dartford or Gravesham)
01622 723836 (Sevenoaks, Tonbridge & Malling, Tunbridge Wells or Maidstone).

www.westkentpct.nhs.uk/Live_well/Quit_Smoking/index.html

**NHS Eastern and Coastal Kent Stop Smoking Service**
0800 849 4444

www.ecksmokefree.nhs.uk

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## Appendix One – Smoking Mortality Tables

### Table A1
### Deaths in men and women attributable to smoking in NHS Eastern & Coastal Kent area from 2005 to 2007

| Diagnosis ICD10 | ICD10 codes | Men: Observed Deaths | Men: Attributable number | Men: Attributable percentage | Women: Observed Deaths | Women: Attributable number | Women: Attributable percentage |
|---|---|---|---|---|---|---|---|
| **All deaths** | | **10,615** | **2,325** | **22%** | **12,595** | **1,611** | **13%** |
| **All cancers** | C00-D48 | 3,243 | 1,130 | 35% | 3,105 | 624 | 20% |
| **All respiratory diseases** | J00-J99 | 1,542 | 667 | 43% | 1,929 | 578 | 30% |
| **All circulatory diseases** | I00-I99 | 3,833 | 487 | 13% | 4,602 | 355 | 8% |
| **All diseases of the digestive system** | K00-K93 | 527 | 40 | 8% | 722 | 54 | 7% |
| **All deaths which can be caused by smoking** | | **5,404** | **2,325** | **43%** | **6,086** | **1,611** | **26%** |
| **Cancers which can be caused by smoking** | | **1,806** | **1,130** | **63%** | **1,364** | **624** | **46%** |
| Lung | C33-C34 | 724 | 635 | 88% | 528 | 396 | 75% |
| Upper respiratory sites | C00-C14,C32 | 71 | 54 | 76% | 35 | 20 | 56% |
| Oesophagus | C15 | 178 | 125 | 70% | 101 | 63 | 63% |
| Cervical | C53 | . | . | | 34 | 4 | 12% |
| Bladder | C67 | 152 | 69 | 45% | 61 | 19 | 30% |
| Kidney | C64-C66,C68 | 101 | 35 | 35% | 64 | 6 | 9% |
| Stomach | C16 | 120 | 31 | 26% | 67 | 8 | 13% |
| Pancreas | C25 | 157 | 38 | 24% | 161 | 43 | 27% |
| Unspecified site | C80 | 237 | 129 | 54% | 267 | 61 | 23% |
| Myeloid leukaemia | C92 | 66 | 15 | 23% | 46 | 5 | 10% |
| **Respiratory diseases which can be caused by smoking** | | **1,258** | **667** | **53%** | **1,562** | **578** | **37%** |
| Chronic obstructive lung disease | J40-J44 | 649 | 521 | 80% | 561 | 440 | 78% |
| Pneumonia | J10-J18 | 609 | 147 | 24% | 1,001 | 138 | 14% |
| **Circulatory diseases which can be caused by smoking** | | **2,265** | **487** | **21%** | **3,048** | **355** | **12%** |
| Other Heart Disease | I00-I09, I26-I51 | 365 | 69 | 19% | 640 | 71 | 11% |
| Ischaemic heart disease | I20-I25 | 711 | 116 | 16% | 657 | 72 | 11% |
| Other arterial disease | I72-78 | 58 | 10 | 18% | 96 | 19 | 20% |
| Cerebrovascular disease | I60-I69 | 816 | 99 | 12% | 1,398 | 77 | 5% |
| Aortic aneurysm | I71 | 294 | 187 | 64% | 187 | 108 | 58% |
| Atherosclerosis | I70 | 21 | 6 | 29% | 70 | 9 | 13% |
| **Diseases of the digestive system which can be caused by smoking** | | **75** | **40** | **54%** | **112** | **54** | **48%** |
| Stomach/duodenal ulcer | K25-K27 | 75 | 40 | 54% | 112 | 54 | 48% |

## Table A2
## Deaths in men and women attributable to smoking in NHS West Kent area from 2005 to 2007

| Diagnosis ICD10 | ICD10 codes | Men | | | Women | | |
|---|---|---|---|---|---|---|---|
| | | Observed Deaths | Attributable number | Attributable percentage | Observed Deaths | Attributable number | Attributable percentage |
| **All deaths** | | 7,897 | 1,664 | 21% | 9,275 | 1,130 | 12% |
| **All cancers** | C00-D48 | 2,525 | 834 | 33% | 2,378 | 457 | 19% |
| **All respiratory diseases** | J00-J99 | 1,022 | 437 | 43% | 1,262 | 375 | 30% |
| **All circulatory diseases** | I00-I99 | 2,880 | 367 | 13% | 3,303 | 262 | 8% |
| **All diseases of the digestive system** | K00-K93 | 341 | 26 | 8% | 475 | 37 | 8% |
| **All deaths which can be caused by smoking** | | **4,004** | **1,664** | **42%** | **4,371** | **1,130** | **26%** |
| **Cancers which can be caused by smoking** | | **1,341** | **834** | **62%** | **997** | **457** | **46%** |
| Lung | C33-C34 | 540 | 473 | 88% | 380 | 285 | 75% |
| Upper respiratory sites | C00-C14,C32 | 36 | 27 | 76% | 26 | 15 | 56% |
| Oesophagus | C15 | 151 | 106 | 70% | 75 | 47 | 63% |
| Cervical | C53 | . | . | | 24 | 3 | 12% |
| Bladder | C67 | 107 | 48 | 45% | 64 | 19 | 30% |
| Kidney | C64-C66,C68 | 75 | 26 | 35% | 35 | 3 | 9% |
| Stomach | C16 | 101 | 26 | 26% | 53 | 7 | 13% |
| Pancreas | C25 | 120 | 29 | 24% | 124 | 33 | 27% |
| Unspecified site | C80 | 156 | 85 | 54% | 184 | 42 | 23% |
| Myeloid leukaemia | C92 | 55 | 13 | 23% | 32 | 3 | 10% |
| **Respiratory diseases which can be caused by smoking** | | **798** | **437** | **55%** | **1,003** | **375** | **37%** |
| Chronic obstructive lung disease | J40-J44 | 436 | 350 | 80% | 366 | 287 | 78% |
| Pneumonia | J10-J18 | 362 | 87 | 24% | 637 | 88 | 14% |
| **Circulatory diseases which can be caused by smoking** | | **1,816** | **367** | **20%** | **2,295** | **262** | **11%** |
| Other Heart Disease | I00-I09, I26-I51 | 350 | 66 | 19% | 511 | 56 | 11% |
| Ischaemic heart disease | I20-I25 | 548 | 89 | 16% | 428 | 47 | 11% |
| Other arterial disease | I72-78 | 50 | 9 | 18% | 76 | 15 | 20% |
| Cerebrovascular disease | I60-I69 | 672 | 81 | 12% | 1,122 | 62 | 5% |
| Aortic aneurysm | I71 | 186 | 118 | 64% | 137 | 79 | 58% |
| Atherosclerosis | I70 | 10 | 3 | 29% | 21 | 3 | 13% |
| **Diseases of the digestive system which can be caused by smoking** | | **49** | **26** | **54%** | **76** | **37** | **48%** |
| Stomach/duodenal ulcer | K25-K27 | 49 | 26 | 54% | 76 | 37 | 48% |

## Appendix Two – Smoking Admissions, Bed Days and Admission Costs

### Table A3
### Smoking attributable admissions by primary diagnosis for men resident in Eastern & Coastal Kent aged 35+ 2007/8

| Diagnosis | ICD10 codes | Admissions | Attributable Admissions | Attributable percentage | Attributable bed days | Total attributable cost at £400/day |
|---|---|---|---|---|---|---|
| **All admissions** | | **55,282** | **4,039** | **7%** | **17901** | **£7,160,379** |
| All cancers | C00-D48 | 9,856 | 1,940 | 20% | 5196 | £2,078,253 |
| All respiratory diseases | J00-J99 | 3,223 | 739 | 23% | 4324 | £1,729,780 |
| All circulatory diseases | I00-I99 | 6,699 | 1,223 | 18% | 7438 | £2,975,007 |
| All diseases of the digestive system | K00-K93 | 4,975 | 54 | 1% | 381 | £152,392 |
| Other admissions | | 30,529 | 84 | 0.3% | 562 | £224,948 |
| **All diseases which can be caused by smoking** | | **10,540** | **4,039** | **38%** | **17901** | **£7,160,379** |
| **Cancers which can be caused by smoking** | | **3,418** | **1,940** | **57%** | **5196** | **£2,078,253** |
| Lung | C33-C34 | 700 | 614 | 88% | 1782 | £712,772 |
| Upper respiratory sites | C00-C14 | 216 | 159 | 74% | 424 | £169,628 |
| Oesophagus | C15 | 605 | 423 | 70% | 1007 | £402,764 |
| Larynx | C32 | 84 | 69 | 82% | 235 | £94,116 |
| Cervical | C53 | | . | | | |
| Bladder | C67 | 944 | 427 | 45% | 759 | £303,684 |
| Kidney | C64-C66,C68 | 141 | 49 | 35% | 237 | £94,725 |
| Stomach | C16 | 230 | 60 | 26% | 147 | £58,797 |
| Pancreas | C25 | 219 | 53 | 24% | 205 | £81,961 |
| Unspecified site | C80 | 69 | 38 | 54% | 113 | £45,262 |
| Myeloid leukaemia | C92 | 210 | 48 | 23% | 286 | £114,544 |
| **Respiratory diseases which can be caused by smoking** | | **1,031** | **739** | **72%** | **4324** | **£1,729,780** |
| Chronic obstructive lung disease | J40-J43 | 31 | 28 | 89% | 199 | £79,489 |
| Chronic Airway Obstruction | J44 | 844 | 671 | 80% | 3877 | £1,550,675 |
| Pneumonia **35 -64** | J10-J18 | 156 | 40 | 26% | 249 | £99,616 |
| **Circulatory diseases which can be caused by smoking** | | **5,215** | **1,223** | **23%** | **7438** | **£2,975,007** |
| Other Heart Disease | I00-I09, I26-I51 | 2,053 | 387 | 19% | 1868 | £747,347 |
| Ischaemic heart disease | I20-I25 | 1,978 | 531 | 27% | 2299 | £919,692 |
| Other arterial disease | I72-78 | 210 | 38 | 18% | 261 | £104,222 |
| Cerebrovascular disease | I60-69 | 718 | 135 | 19% | 2140 | £856,156 |
| Aortic aneurysm | I71 | 167 | 106 | 64% | 782 | £312,918 |
| Atherosclerosis | I70 | 89 | 26 | 29% | 87 | £34,672 |
| **Diseases of the digestive system which can be caused by smoking** | | **135** | **54** | **40%** | **381** | **£152,392** |
| Stomach ulcer, Duodenal ulcer | K25-K27 | 77 | 41 | 54% | 336 | £134,256 |
| Crohn's disease | K50 | 51 | 9 | 18% | 43 | £17,047 |
| Periodontal disease/Periodonitis | K05 | 7 | 3 | 45% | 3 | £1,089 |
| **Other diseases which can be caused by smoking** | | **741** | **84** | **11%** | **562** | **£224,948** |
| Age related cataract **45+** | H25 | 500 | 61 | 12% | 61 | £24,386 |
| Hip fracture **55+** | S72 | 241 | 23 | 9% | 501 | £200,561 |
| Spontaneous abortion | O03 | . | . | . | | |

## Table A4
## Smoking attributable admissions by primary diagnosis for women resident in Eastern & Coastal Kent aged 35+ 2007/8

| Diagnosis | ICD10 codes | Admissions | Attributable Admissions | Attributable percentage | Attributable bed days | Total attributable cost at £400/day |
|---|---|---|---|---|---|---|
| **All admissions** | | **59,083** | **2,085** | **4%** | 12478 | £4,991,280 |
| All cancers | C00-D48 | 10,486 | 798 | 8% | 2463 | £985,111 |
| All respiratory diseases | J00-J99 | 3,007 | 551 | 18% | 3684 | £1,473,615 |
| All circulatory diseases | I00-I99 | 4,863 | 514 | 11% | 4041 | £1,616,558 |
| All diseases of the digestive system | K00-K93 | 4,871 | 53 | 1% | 394 | £157,716 |
| Other admissions | | 35,856 | 170 | 0.5% | 1896 | £758,281 |
| **All diseases which can be caused by smoking** | | **7,936** | **2,085** | **26%** | **12478** | **£4,991,280** |
| **Cancers which can be caused by smoking** | | **1,764** | **798** | **45%** | **2463** | **£985,111** |
| Lung | C33-C34 | 528 | 396 | 75% | 1287 | £514,861 |
| Upper respiratory sites | C00-C14 | 102 | 53 | 51% | 221 | £88,561 |
| Oesophagus | C15 | 253 | 158 | 63% | 361 | £144,480 |
| Larynx | C32 | 8 | 6 | 76% | 27 | £10,677 |
| Cervical | C53 | 110 | 14 | 12% | 35 | £13,858 |
| Bladder | C67 | 248 | 76 | 30% | 126 | £50,425 |
| Kidney | C64-C66,C68 | 48 | 4 | 9% | 31 | £12,251 |
| Stomach | C16 | 120 | 15 | 13% | 43 | £17,004 |
| Pancreas | C25 | 169 | 45 | 27% | 161 | £64,552 |
| Unspecified site | C80 | 108 | 24 | 23% | 107 | £42,625 |
| Myeloid leukaemia | C92 | 70 | 7 | 10% | 65 | £25,817 |
| **Respiratory diseases which can be caused by smoking** | | **806** | **551** | **68%** | **3684** | **£1,473,615** |
| Chronic obstructive lung disease | J40-J43 | 28 | 23 | 82% | 90 | £35,829 |
| Chronic Airway Obstruction | J44 | 640 | 501 | 78% | 3437 | £1,374,841 |
| Pneumonia **35 -64** | J10-J18 | 138 | 27 | 19% | 157 | £62,945 |
| **Circulatory diseases which can be caused by smoking** | | **3,524** | **514** | **15%** | **4041** | **£1,616,558** |
| Other Heart Disease | I00-I09, I26-I51 | 1,649 | 182 | 11% | 956 | £382,245 |
| Ischaemic heart disease | I20-I25 | 839 | 166 | 20% | 983 | £393,219 |
| Other arterial disease | I72-78 | 196 | 39 | 20% | 245 | £97,976 |
| Cerebrovascular disease | I60-69 | 754 | 102 | 13% | 1709 | £683,604 |
| Aortic aneurysm | I71 | 33 | 19 | 58% | 130 | £52,126 |
| Atherosclerosis | I70 | 53 | 7 | 13% | 18 | £7,388 |
| **Diseases of the digestive system which can be caused by smoking** | | **168** | **53** | **32%** | **394** | **£157,716** |
| Stomach ulcer, Duodenal ulcer | K25-K27 | 68 | 33 | 48% | 319 | £127,533 |
| Crohn's disease | K50 | 86 | 15 | 17% | 70 | £28,023 |
| Periodontal disease/Periodonitis | K05 | 14 | 6 | 42% | 5 | £2,160 |
| **Other diseases which can be caused by smoking** | | **1,674** | **170** | **10%** | **1896** | **£758,281** |
| Age related cataract **45+** | H25 | 794 | 84 | 11% | 84 | £33,584 |
| Hip fracture **55+** | S72 | 783 | 81 | 10% | 1808 | £723,006 |
| Spontaneous abortion | O03 | 97 | 5 | 5% | 4 | £1,691 |

## Table A5
## Smoking attributable admissions by primary diagnosis for all adults resident in Eastern & Coastal Kent aged 35+ 2007/8

| Diagnosis | ICD10 codes | Admissions | Attributable Admissions | Attributable percentage | Attributable bed days | Total attributable cost at £400/day |
|---|---|---|---|---|---|---|
| **All admissions** | | **114,365** | **6,124** | **5%** | **30379** | **£12,151,659** |
| All cancers | C00-D48 | 20,342 | 2,737 | 13% | 7658 | £3,063,364 |
| All respiratory diseases | J00-J99 | 6,230 | 1,290 | 21% | 8008 | £3,203,394 |
| All circulatory diseases | I00-I99 | 11,562 | 1,737 | 15% | 11479 | £4,591,565 |
| All diseases of the digestive system | K00-K93 | 9,846 | 107 | 1% | 775 | £310,108 |
| Other admissions | | 66,385 | 253 | 0.4% | 2458 | £983,228 |
| **All diseases which can be caused by smoking** | | **18,476** | **6,124** | **33%** | **30,379** | **£12,151,659** |
| **Cancers which can be caused by smoking** | | **5,182** | **2,737** | **53%** | **7,658** | **£3,063,364** |
| Lung | C33-C34 | 1,228 | 1,010 | 82% | 3,069 | £1,227,633 |
| Upper respiratory sites | C00-C14 | 318 | 212 | 67% | 645 | £258,189 |
| Oesophagus | C15 | 858 | 582 | 68% | 1,368 | £547,244 |
| Larynx | C32 | 92 | 75 | 81% | 262 | £104,792 |
| Cervical | C53 | 110 | 14 | 12% | 35 | £13,858 |
| Bladder | C67 | 1,192 | 503 | 42% | 885 | £354,109 |
| Kidney | C64-C66,C68 | 189 | 54 | 28% | 267 | £106,976 |
| Stomach | C16 | 350 | 75 | 21% | 190 | £75,801 |
| Pancreas | C25 | 388 | 97 | 25% | 366 | £146,513 |
| Unspecified site | C80 | 177 | 62 | 35% | 220 | £87,887 |
| Myeloid leukaemia | C92 | 280 | 55 | 20% | 351 | £140,361 |
| **Respiratory diseases which can be caused by smoking** | | **1,837** | **1,290** | **70%** | **8,008** | **£3,203,394** |
| Chronic obstructive lung disease | J40-J43 | 59 | 51 | 86% | 288 | £115,318 |
| Chronic Airway Obstruction | J44 | 1,484 | 1,173 | 79% | 7,314 | £2,925,515 |
| Pneumonia **35 -64** | J10-J18 | 294 | 67 | 23% | 406 | £162,561 |
| **Circulatory diseases which can be caused by smoking** | | **8,739** | **1,737** | **20%** | **11,479** | **£4,591,565** |
| Other Heart Disease | I00-I09, I26-I51 | 3,702 | 568 | 15% | 2,824 | £1,129,591 |
| Ischaemic heart disease | I20-I25 | 2,817 | 697 | 25% | 3,282 | £1,312,912 |
| Other arterial disease | I72-78 | 406 | 76 | 19% | 505 | £202,197 |
| Cerebrovascular disease | I60-69 | 1,472 | 237 | 16% | 3,849 | £1,539,761 |
| Aortic aneurysm | I71 | 200 | 125 | 63% | 913 | £365,044 |
| Atherosclerosis | I70 | 142 | 33 | 23% | 105 | £42,060 |
| **Diseases of the digestive system which can be caused by smoking** | | **303** | **107** | **35%** | **775** | **£310,108** |
| Stomach ulcer, Duodenal ulcer | K25-K27 | 145 | 74 | 51% | 654 | £261,789 |
| Crohn's disease | K50 | 137 | 24 | 17% | 113 | £45,070 |
| Periodontal disease/Periodonitis | K05 | 21 | 9 | 43% | 8 | £3,249 |
| **Other diseases which can be caused by smoking** | | **2,415** | **253** | **10%** | **2,458** | **£983,228** |
| Age related cataract **45+** | H25 | 1,294 | 145 | 11% | 145 | £57,970 |
| Hip fracture **55+** | S72 | 1,024 | 104 | 10% | 2,309 | £923,567 |
| Spontaneous abortion | O03 | 97 | 5 | 5% | 4 | £1,691 |

## Table A6
## Smoking attributable admissions by primary diagnosis for men resident in West Kent aged 35+ 2007/8

| Diagnosis | ICD10 codes | Admissions | Attributable admissions | Attributable percentage | Attributable bed days | Total attributable cost at £400/day |
|---|---|---|---|---|---|---|
| **All admissions** | | **43,519** | **2,597** | **6%** | **15269** | **£6,107,799** |
| All cancers | C00-D48 | 5,559 | 963 | 17% | 4078 | £1,631,053 |
| All respiratory diseases | J00-J99 | 2,339 | 501 | 21% | 4089 | £1,635,652 |
| All circulatory diseases | I00-I99 | 5,399 | 985 | 18% | 6253 | £2,501,153 |
| All diseases of the digestive system | K00-K93 | 6,353 | 82 | 1% | 416 | £166,425 |
| Other admissions | | 23,869 | 65 | 0.3% | 434 | £173,516 |
| **All diseases which can be caused by smoking** | | **7,492** | **2,597** | **35%** | **15269** | **£6,107,799** |
| **Cancers which can be caused by smoking** | | **1,748** | **963** | **55%** | **4078** | **£1,631,053** |
| Lung | C33-C34 | 423 | 371 | 88% | 1647 | £658,779 |
| Upper respiratory sites | C00-C14 | 102 | 75 | 74% | 393 | £157,238 |
| Oesophagus | C15 | 244 | 171 | 70% | 487 | £194,804 |
| Larynx | C32 | 24 | 20 | 82% | 168 | £67,225 |
| Cervical | C53 | | | | | |
| Bladder | C67 | 393 | 178 | 45% | 507 | £202,879 |
| Kidney | C64-C66,C68 | 65 | 23 | 35% | 145 | £57,872 |
| Stomach | C16 | 122 | 32 | 26% | 163 | £65,365 |
| Pancreas | C25 | 123 | 30 | 24% | 131 | £52,497 |
| Unspecified site | C80 | 24 | 13 | 54% | 143 | £57,012 |
| Myeloid leukaemia | C92 | 228 | 52 | 23% | 293 | £117,380 |
| **Respiratory diseases which can be caused by smoking** | | **721** | **501** | **69%** | **4089** | **£1,635,652** |
| Chronic obstructive lung disease | J40-J43 | 24 | 21 | 89% | 90 | £36,002 |
| Chronic Airway Obstruction | J44 | 558 | 444 | 80% | 3762 | £1,504,851 |
| Pneumonia **35 -64** | J10-J18 | 139 | 36 | 26% | 237 | £94,799 |
| **Circulatory diseases which can be caused by smoking** | | **4,244** | **985** | **23%** | **6253** | **£2,501,153** |
| Other Heart Disease | I00-I09, I26-I51 | 1,739 | 327 | 19% | 1833 | £733,114 |
| Ischaemic heart disease | I20-I25 | 1,738 | 467 | 27% | 1903 | £761,380 |
| Other arterial disease | I72-78 | 178 | 32 | 18% | 235 | £93,835 |
| Cerebrovascular disease | I60-69 | 468 | 88 | 19% | 1732 | £692,986 |
| Aortic aneurysm | I71 | 102 | 65 | 64% | 526 | £210,309 |
| Atherosclerosis | I70 | 19 | 5 | 29% | 24 | £9,529 |
| **Diseases of the digestive system which can be caused by smoking** | | **206** | **82** | **40%** | **416** | **£166,425** |
| Stomach ulcer, Duodenal ulcer | K25-K27 | 112 | 60 | 54% | 344 | £137,478 |
| Crohn's disease | K50 | 76 | 14 | 18% | 65 | £25,862 |
| Periodontal disease/Periodonitis | K05 | 18 | 8 | 45% | 8 | £3,084 |
| **Other diseases which can be caused by smoking** | | **573** | **65** | **11%** | **434** | **£173,516** |
| Age related cataract **45+** | H25 | 413 | 50 | 12% | 50 | £20,143 |
| Hip fracture **55+** | S72 | 160 | 15 | 9% | 383 | £153,373 |
| Spontaneous abortion | O03 | . | . | . | | |

## Table A7
## Smoking attributable admissions by primary diagnosis for women resident in West Kent aged 35+ 2007/8

| Diagnosis | ICD10 codes | Admissions | Attributable admissions | Attributable percentage | Attributable bed days | Total attributable cost at £400/day |
|---|---|---|---|---|---|---|
| **All admissions** | | **48,048** | **1,530** | **3%** | **10439** | **£4,175,451** |
| All cancers | C00-D48 | 5,692 | 482 | 8% | 1816 | £726,407 |
| All respiratory diseases | J00-J99 | 2,264 | 404 | 18% | 2937 | £1,174,936 |
| All circulatory diseases | I00-I99 | 3,789 | 427 | 11% | 3715 | £1,485,864 |
| All diseases of the digestive system | K00-K93 | 6,454 | 85 | 1% | 323 | £129,117 |
| Other admissions | | 29,849 | 132 | 0.4% | 1648 | £659,126 |
| **All diseases which can be caused by smoking** | | **6,102** | **1,530** | **25%** | **10439** | **£4,175,451** |
| **Cancers which can be caused by smoking** | | **1,094** | **482** | **44%** | **1816** | **£726,407** |
| Lung | C33-C34 | 371 | 278 | 75% | 1054 | £421,550 |
| Upper respiratory sites | C00-C14 | 39 | 20 | 51% | 77 | £30,687 |
| Oesophagus | C15 | 107 | 67 | 63% | 227 | £90,644 |
| Larynx | C32 | 7 | 5 | 76% | 8 | £3,356 |
| Cervical | C53 | 103 | 13 | 12% | 37 | £14,905 |
| Bladder | C67 | 135 | 41 | 30% | 129 | £51,521 |
| Kidney | C64-C66,C68 | 37 | 3 | 9% | 19 | £7,514 |
| Stomach | C16 | 35 | 4 | 13% | 22 | £8,752 |
| Pancreas | C25 | 105 | 28 | 27% | 125 | £50,195 |
| Unspecified site | C80 | 49 | 11 | 23% | 71 | £28,477 |
| Myeloid leukaemia | C92 | 106 | 10 | 10% | 47 | £18,805 |
| **Respiratory diseases which can be caused by smoking** | | **603** | **404** | **67%** | **2937** | **£1,174,936** |
| Chronic obstructive lung disease | J40-J43 | 32 | 26 | 82% | 84 | £33,528 |
| Chronic Airway Obstruction | J44 | 453 | 355 | 78% | 2740 | £1,096,051 |
| Pneumonia **35 -64** | J10-J18 | 118 | 23 | 19% | 113 | £45,358 |
| **Circulatory diseases which can be caused by smoking** | | **2,829** | **427** | **15%** | **3715** | **£1,485,864** |
| Other Heart Disease | I00-I09, I26-I51 | 1,332 | 147 | 11% | 1022 | £408,836 |
| Ischaemic heart disease | I20-I25 | 790 | 156 | 20% | 937 | £374,943 |
| Other arterial disease | I72-78 | 180 | 35 | 20% | 277 | £110,950 |
| Cerebrovascular disease | I60-69 | 472 | 64 | 13% | 1292 | £516,669 |
| Aortic aneurysm | I71 | 40 | 23 | 58% | 168 | £67,184 |
| Atherosclerosis | I70 | 15 | 2 | 13% | 18 | £7,282 |
| **Diseases of the digestive system which can be caused by smoking** | | **253** | **85** | **34%** | **323** | **£129,117** |
| Stomach ulcer, Duodenal ulcer | K25-K27 | 124 | 60 | 48% | 263 | £105,219 |
| Crohn's disease | K50 | 114 | 19 | 17% | 54 | £21,405 |
| Periodontal disease/Periodonitis | K05 | 15 | 6 | 42% | 6 | £2,493 |
| **Other diseases which can be caused by smoking** | | **1,323** | **132** | **10%** | **1648** | **£659,126** |
| Age related cataract **45+** | H25 | 607 | 64 | 11% | 64 | £25,600 |
| Hip fracture **55+** | S72 | 596 | 62 | 10% | 1579 | £631,777 |
| Spontaneous abortion | O03 | 120 | 6 | 5% | 4 | £1,750 |

## Table A8
## Smoking attributable admissions by primary diagnosis for all adults resident in West Kent aged 35+ 2007/8

| Diagnosis | ICD10 codes | Admissions | Attributable admissions | Attributable percentage | Attributable bed days | Total attributable cost at £400/day |
|---|---|---|---|---|---|---|
| **All admissions** | | **91,567** | **4,126** | **5%** | **25,708** | **£10,283,249** |
| All cancers | C00-D48 | 11,251 | 1,445 | 13% | 5,894 | £2,357,459 |
| All respiratory diseases | J00-J99 | 4,603 | 905 | 20% | 7,026 | £2,810,589 |
| All circulatory diseases | I00-I99 | 9,188 | 1,412 | 15% | 9,968 | £3,987,017 |
| All diseases of the digestive system | K00-K93 | 12,807 | 167 | 1% | 739 | £295,542 |
| Other admissions | | 53,718 | 197 | 0.4% | 2,082 | £832,642 |
| **All diseases which can be caused by smoking** | | **13,594** | **4,126** | **30%** | **25,708** | **£10,283,249** |
| **Cancers which can be caused by smoking** | | **2,842** | **1,445** | **51%** | **5,894** | **£2,357,459** |
| Lung | C33-C34 | 794 | 649 | 82% | 2,701 | £1,080,329 |
| Upper respiratory sites | C00-C14 | 141 | 95 | 68% | 470 | £187,926 |
| Oesophagus | C15 | 351 | 238 | 68% | 714 | £285,449 |
| Larynx | C32 | 31 | 25 | 81% | 176 | £70,581 |
| Cervical | C53 | 103 | 13 | 12% | 37 | £14,905 |
| Bladder | C67 | 528 | 219 | 41% | 636 | £254,399 |
| Kidney | C64-C66,C68 | 102 | 26 | 26% | 163 | £65,386 |
| Stomach | C16 | 157 | 36 | 23% | 185 | £74,117 |
| Pancreas | C25 | 228 | 57 | 25% | 257 | £102,693 |
| Unspecified site | C80 | 73 | 24 | 33% | 214 | £85,490 |
| Myeloid leukaemia | C92 | 334 | 63 | 19% | 340 | £136,185 |
| **Respiratory diseases which can be caused by smoking** | | **1,324** | **905** | **68%** | **7,026** | **£2,810,589** |
| Chronic obstructive lung disease | J40-J43 | 56 | 48 | 85% | 174 | £69,530 |
| Chronic Airway Obstruction | J44 | 1,011 | 799 | 79% | 6,502 | £2,600,902 |
| Pneumonia **35 -64** | J10-J18 | 257 | 58 | 23% | 350 | £140,157 |
| **Circulatory diseases which can be caused by smoking** | | **7,073** | **1,412** | **20%** | **9,968** | **£3,987,017** |
| Other Heart Disease | I00-I09, I26-I51 | 3,071 | 474 | 15% | 2,855 | £1,141,950 |
| Ischaemic heart disease | I20-I25 | 2,528 | 623 | 25% | 2,841 | £1,136,323 |
| Other arterial disease | I72-78 | 358 | 67 | 19% | 512 | £204,786 |
| Cerebrovascular disease | I60-69 | 940 | 152 | 16% | 3,024 | £1,209,655 |
| Aortic aneurysm | I71 | 142 | 88 | 62% | 694 | £277,493 |
| Atherosclerosis | I70 | 34 | 7 | 22% | 42 | £16,811 |
| **Diseases of the digestive system which can be caused by smoking** | | **459** | **167** | **36%** | **739** | **£295,542** |
| Stomach ulcer, Duodenal ulcer | K25-K27 | 236 | 120 | 51% | 607 | £242,697 |
| Crohn's disease | K50 | 190 | 33 | 17% | 118 | £47,268 |
| Periodontal disease/Periodonitis | K05 | 33 | 14 | 44% | 14 | £5,577 |
| **Other diseases which can be caused by smoking** | | **1,896** | **197** | **10%** | **2082** | **£832,642** |
| Age related cataract **45+** | H25 | 1,020 | 114 | 11% | 114 | £45,743 |
| Hip fracture **55+** | S72 | 756 | 77 | 10% | 1,963 | £785,149 |
| Spontaneous abortion | O03 | 120 | 6 | 5% | 4 | £1,750 |

## Notes on admission tables

1. NHS Hospitals and activity performed in the independent sector in England commissioned by the NHS. The data include private patients in NHS Hospitals (but not private patients in private hospitals).

2. Figures are presented for adults aged 35 and over unless otherwise specified.

3. The figures exclude people whose gender was unknown or unspecified and whose area of residence was not confirmed as Kent or Medway

4. The primary diagnosis is the first of up to 12 diagnosis fields in the Secondary Uses Service (SUS) data set and provides the main reason why the patient was in hospital.

5. 'Admissions' include only elective or emergency admissions (admission method 11 - 13 or 21 - 28) that are ordinary and day case admissions (patient classification 1 and 2 resp.). The main exclusions are regular day and night cases (patient classification 3 and 4) and non-emergency transfers (admission method 81).

6. Estimated attributable number is rounded to the nearest integer. Attributable bed days are rounded to the nearest integer while the attributable cost is derived from the unrounded attributable bed day figure.

7. Estimated attributable percentages are based on unrounded attributable estimates for England.

8. Figures include ante-partum admissions (admission method 31).

Sources:

Hospital Admission data from Secondary Uses Service (SUS) via Kent and Medway Data Warehouse