Smoking: Needs Profile
(JSNA supporting evidence)
Key points

Whilst smoking prevalence amongst adults in Northamptonshire is currently similar to the England average, past smoking rates and the associated cultural and industrial profile of the county/areas of the county is evident within health inequalities, particularly in Corby, shown by hospital data for deaths and admissions for Chronic Obstructive Pulmonary Disease (COPD) and smoking related admissions, all of which are significantly worse in Northamptonshire than the England average.

Current rates of smoking are estimated to be highest in East Northamptonshire, Corby and Daventry (2016) within the county according to the Local Tobacco Control Profiles. Although estimated smoking prevalence amongst males and females in Northamptonshire is almost equal (2016). The rate for females is higher than the national average by 2.3%-points (16.0% versus 13.7% nationally).

All Northamptonshire districts and boroughs have significantly higher rates of smoking at time of delivery (highest in Corby) than the England average and therefore is identified as a high priority for Northamptonshire. Smaller geographies (LSOAs) are identified with higher prevalence populations including less affluent areas and younger smokers, areas mainly concentrated within Northampton, Wellingborough, Corby and Kettering.

Further analysis by country of origin is also recommended due to the recent international migration to the county and the implications on smoking prevalence and differing smoking rates in other countries. National and International data suggests disproportionately high smoking rates amongst the ‘white other’ ethnic group, which is a growing section of Northamptonshire society.

The highest estimated prevalence of regular smokers amongst young people (15 year olds – 2009-2012) in the county are in those districts and boroughs with the highest estimated prevalence of adult smokers (2016). This appears to reinforce national research indicating that exposure to a parent smoking is one of a number of risk factors associated with higher likelihood of smoking initiation amongst young people and that smoking rates amongst young people impacts on future adult smoking rates.

Improvements within the local economy and prosperity of residents is highly relevant to smoking prevalence and associated health inequalities. Smoking costs also have the potential to push low-income households further below the poverty line. In Northamptonshire, there is a 10%-points difference between smoking prevalence amongst adults in routine and manual occupations (at 26.3%) and the general (adult) population (at 16.3%) and a 15.2%-point difference compared to those in (assumed) higher paid managerial and professional occupations.
Introduction

This document gives an overview of smoking prevalence in Northamptonshire and in particular, identifies those groups and areas with the highest smoking rates, covering:

1. SMOKING PREVALENCE
   1.1 Smoking prevalence amongst adults (18+)
   1.2 Location of smoking households
   1.3 Smoking in pregnancy
   1.4 Smoking prevalence amongst young people
   1.5 Poverty and low income

2. HEALTH AND SOCIETAL COSTS OF SMOKING
   2.1 Smoking related mortality and ill-health
   2.2 Economic and societal costs of smoking

One key objective of Stop Smoking Services is to reduce smoking amongst those groups and deprived communities where smoking rates are highest. Helping these groups to quit is one of the ways that services seek to reduce health inequalities. In the Tobacco Control Plan for England Government (Department of Health) makes clear its expectation that local councils identify the groups and areas with the highest smoking prevalence within their local communities to be able to take focussed action to reduce health inequalities.

In summary, smoking prevalence in Northamptonshire is:

- An estimated **16.3% of the adult population are current smokers** (APS, 2016), similar to the England and East Midlands averages, and reducing.
- An estimated 8.7% of 15 year olds are current smokers (WAY, 2014/15), and an estimated **6.2% of 15 year olds are regular smokers**, both similar to the England average
- An estimated **14.4% of women smoke at time of delivery** (2016/17), which is significantly worse than the England average
- An estimated **26.3% of adults in routine and manual occupations smoke** (similar to the England average), compared with 16.3% of the general (adult) population.
Data sources

An important data source for this document has been the Local Tobacco Control Profiles, which are part of a series of published products produced by Public Health England providing local data alongside national comparisons to support local health improvements. The profiles have been designed to help local government and health services assess the effect of tobacco on their local populations and come in the form of an online tool with data and graphs covering the extent of tobacco use and tobacco related harm.

A number of other data sources have been used in addition, particularly for establishing smaller area geographies. These are:

CACI ACORN Customer Insight: Household Types

Acorn Household is a customer segmentation dataset which has been purchased by Northamptonshire County Council/First for Wellbeing on contract from CACI Limited. Customer segmentation “is the sub-dividing of people with distinctive shared needs and characteristics into reachable groups, based on three dimensions: Who they are; what they do; how they think and feel.” Through the regular collation of huge amounts of data about society and population behaviour, along with local knowledge about housing in an area, CACI is able to apply an Acorn ‘type’ to each household and postcode area across the country based on characteristics. Acorn segments households and postcodes into 6 categories, 18 groups and 62 types. The 6 main categories are: Affluent Achievers; Rising Prosperity; Comfortable Communities; Financially Stretched; Urban Adversity; Communal Establishments.

This data has been used to establish the proportions of households in Northamptonshire compared to the UK average, categorised as being more strongly associated with having smokers (likely above UK average) within the context of poverty and low income.

Acorn Likelihood Estimates data: % Households: Current Cigarette Smoker (2016)

This data looks at the likelihood of an area having certain characteristics which are found listed within the Acorn Household Knowledge Sheet for the United Kingdom, in this instance the number of households in the local area which are LIKELY to have a resident current cigarette smoker. This "likelihood" is calculated using the national percentage of households with the characteristic and the number of households of each Acorn type locally (producing an estimated number of households and the likely percentage of households in the area).

As smoking prevalence data is not available from Public Health England at geographies lower than lower tier local authorities (district/borough level), Acorn likelihood estimates have been used to demonstrate difference across the county at lower geographies (LSOA) for the purpose of targeting interventions and services.
Pregnant smokers

A combination of data sources have been used to identify risk factors for increased prevalence based on national evidence. Such as higher deprivation and in women under the age of 20 than in more affluent and older groups.

An analysis has been carried out on births to women aged under 20 years in Northamptonshire for the pooled years 2014, 2015 and 2016 supplied by NHS digital. The birth data has been analysed by geographical distribution. The birth data has also been analysed by Acorn market segmentation. The mid year population estimates for 2014, 2015 and 2016 were used to produce rates at Lower Super Output Area (LSOA) geographical level. Rates per 100,000 population were calculated for Lower Super Output Areas (LSOA) for 2014, 2015 and 2016.

In addition, 14 LSOAs (smaller geographical areas) have been identified on the basis of having a combination of all of the following: above average proportions of 16 to 19 year olds, young(er) persons households, households likely to have a resident smoker, and fertility rate.

Young people

Data relating to smoking prevalence amongst young people is published as part of the series of data available within the Local Tobacco Control Profiles. The data is modelled on the expected prevalence of youth smoking, given the socio-demographic and therefore it may not reflect actual smoking prevalence. A local health related behaviour survey within schools in Northamptonshire has also taken place and the results from this will be linked when available.
1. Smoking prevalence

1.1 SMOKING PREVALENCE AMONGST ADULTS (18+)

Smoking prevalence in England has seen a steady decline in recent decades. A combination of public health measures have contributed to this decline, including stop smoking services, legislation on tobacco advertising, establishment of smoke free places, and a ban on smoking in cars with children. One of the ambitions of the Tobacco Control Plan for England is to reduce smoking prevalence in adults in England from the current (2016) 15.5% to 12% or less by 2022.

In Northamptonshire, an estimated **16.3% of the adult population smoke** (2016), similar to the England average (15.5%). More than 20,000 adults in Northamptonshire would need to quit smoking by 2022 to reduce prevalence amongst adults in line with the national target (reduction of 4.3%-points to 12%). The highest rates of smoking amongst adults in 2016 are found in East Northamptonshire and Corby.

![Smoking Prevalence in adults - current smokers (APS) - %](image)

The proportion of adult smokers in the population in the county has been similar to the England average for at least the last 5 years, albeit slightly better than average in 2013.

At a district level smoking prevalence in Corby was significantly worse than England average in the previous two years (2014 and 2015) but is now similar to the national average (2016), whilst smoking prevalence in Daventry dipped below average (significantly better) in 2013 and 2014, but increased again in 2015 and 2016. See Local Tobacco Control Area Profiles, PHE for further information.
In terms of characteristics, it is estimated that the highest proportions of adult smokers are found amongst (for data, see: Public Health England, Local Tobacco Control Profiles: Inequalities (2016)):

- **Males** versus females, although in *Northamptonshire* the split is almost equal, in contrast to the England, where smoking prevalence amongst males is higher than females by 3.7%-points. Estimated smoking prevalence amongst males in Northamptonshire is higher than the national average (16.0% versus 13.7% nationally), but the difference is not statistically significant.

- **Younger adults**, particularly the 25-29 age bracket, with proportions of smokers reducing with age on the whole (local data not available).

- **‘Mixed’** ethnic groups, followed by **‘White’** ethnic groups (local data not available)

- Residents born in **Poland** (by far the highest rates of smoking at almost twice the level of the general population), followed by Scotland, Northern Ireland and Wales (local data not available). Northamptonshire’s above average levels of International migration from (non-UK) EU countries should be noted (see: Demography JSNA - components of population change: International migration, ONS Local Area Migration Suite and National Insurance Number Allocations to Adult Overseas Nationals on www.northamptonshireanalysis.co.uk for most up to date information). Also see the local Equity Profile
1.2 LOCATION OF SMOKING HOUSEHOLDS

Assuming Northamptonshire’s Acorn household types follow the same patterns as nationally, data collected by CACI provides the number of households that are likely to have a resident smoker(s) and resident 20+ per day smoker(s).

CACI Acorn likelihood estimates: % households in LSOA with resident smoker(s)

- 7.4 - 14.3
- 14.4 - 21.0
- 21.1 - 27.0
- 27.1 - 35.6
- 35.7 - 40.3

CACI Acorn likelihood estimates: % households in LSOA with resident 20+ per day smoker(s)

- 1.4 - 3.6
- 3.7 - 5.7
- 5.8 - 7.8
- 7.9 - 10.1
- 10.2 - 11.8

Top 10

- GK102979 Northampton O21F 11.8
- G01025730 Northampton O07E 11.7
- G01027334 Wellingborough 002E 10.1
- G01022913 Steventon 006D 9.9
- G01023978 Northampton O21E 9.8
- G01027312 Wellesbourne 005D 9.7
- G01026366 Cotswold 005G 9.5
- G01027318 Wellingborough 006B 9.4
- G01027185 Northampton O12A 9.2
- G01027231 Northampton O09D 9.0

© Crown copyright and database rights 2014 Ordnance Survey 100019331

Data is taken from the 2016 Northamptonshire Acorn Dataset. Contains Royal Mail data © Royal Mail copyright and database right 2014. © Copyright 1979-2015 CACI Limited. This report shall be used solely for academic, personal and/or non-commercial purposes. Maps generated on www.NorthamptonshireAnalysis.co.uk.
1.3 SMOKING IN PREGNANCY

Smoking in pregnancy increases the risk of premature birth and neonatal complications, as well as miscarriage and still birth. Prevalence of smoking in pregnancy is considerably higher in more disadvantaged groups and in women under the age of 20 than in more affluent and older groups. There is, therefore, a major health inequality associated with smoking in pregnancy with a much greater risk of complications during and after pregnancy. Children who grow up with a parent who smokes are also more likely to be smokers themselves (Towards a smoke free generation: a tobacco control plan for England, Department of Health, July 2017). As such, the Government aims to reduce the prevalence of smoking in pregnancy, as every child deserves the best start in life. With significantly higher than England rates of smoking at time of delivery in Northamptonshire, this is a priority for the county. From 1st April 2018, Corby and the North of the county are identified geographical priorities for targeted support from the core specialist team to support pregnant smokers to stop smoking.

It is estimated that in 2016/17, **14.4% of women were smokers at time of delivery**, which is significantly worse than the England average. In Northamptonshire more than 690 additional pregnant women would need to quit smoking during pregnancy by 2022 to reduce smoking at time of delivery in line with the national target for 2022 (a large reduction of 8.4%-points to 6%).

![Graph showing smoking status at time of delivery](image)

The % women who were smokers at time of delivery in Northamptonshire has been above (worse) than the England average for a number of years, to varying degrees (see opposite) (Local Tobacco Control Area Profiles, PHE).

All districts within the county have a significantly higher than the England rate of smoking at time of delivery (see below). The highest rate is found in Corby (**13th worst in England out of 324**). The inequality gap between Corby and England has widened since 2012/13.

**Reducing smoking in pregnancy is a national and local priority.**
It is also worth noting Northamptonshire’s twice the England average rate of births to mothers from EU8, EU2 and EUOther countries (14.4% versus 7.7% England average in 2016, ONS). Whilst we do not know rates of smoking in pregnancy by country, smoking rates amongst women in all but two of the EU8 and EU2 countries are above the UK average, which may be relevant in terms of a wider influence of cultural norms, warranting greater understanding to assess the need for targeted support.

As prevalence of smoking in pregnancy is considerably higher in more disadvantaged groups and in women under the age of 20 than in more affluent and older groups (Towards a smoke free generation: a tobacco control plan for England, Department of Health, July 2017), this provides a basis for targeted support towards more deprived areas, particularly where there is a higher prevalence of older teens and young adults and where births to young mothers have been above average in recent years. The map below highlights (dark blue) those areas in Northamptonshire that sit within the 20% most deprived areas in England.
Amongst those LSOAs in Northamptonshire that sit within the 20% most deprived LSOAs in England:

- 25% have a higher than county average (similar to the England average) proportion of 16 to 19 years olds (ONS, MYE 2016)
- 88% have a higher than England average proportion of young(er) persons households (CACI Acorn household types 2017)
- 99% have a higher than county average proportion of households that are likely to have a resident smoker (CACI Acorn likelihood estimates 2016)
- 91% are part of an MSOA with a higher than county (and England) fertility rate (crude fertility rate, 2011-2015, Public Health England)

Note:
1-2 = most deprived and represents those LSOAs in Northamptonshire that sit within the 20% most deprived LSOAs in England.
9-10 = least deprived
14 of these LSOAs have a combination of all of the (above average proportion of 16 to 19 year olds, young(er) persons households, households likely to have a resident smoker, and fertility rate). These are:

<table>
<thead>
<tr>
<th>LSOA</th>
</tr>
</thead>
<tbody>
<tr>
<td>E01027153 Northampton 021C</td>
</tr>
<tr>
<td>E01027140 Northampton 011A</td>
</tr>
<tr>
<td>E01027156 Northampton 027A</td>
</tr>
<tr>
<td>E01027239 Northampton 017A</td>
</tr>
<tr>
<td>E01027341 Wellingborough 005C</td>
</tr>
<tr>
<td>E01026950 Corby 005B</td>
</tr>
<tr>
<td>E01027235 Northampton 026C</td>
</tr>
<tr>
<td>E01027330 Wellingborough 002A</td>
</tr>
<tr>
<td>E01027230 Northampton 009C</td>
</tr>
<tr>
<td>E01027199 Northampton 007D</td>
</tr>
<tr>
<td>E01027334 Wellingborough 002E</td>
</tr>
<tr>
<td>E01027168 Northampton 012A</td>
</tr>
<tr>
<td>E01027229 Northampton 009B</td>
</tr>
<tr>
<td>E01026961 Corby 006C</td>
</tr>
</tbody>
</table>

An analysis of birth data of births to women aged under 20 years in Northamptonshire for the pooled years 2014, 2015 and 2016 (NHS digital) showed that the highest counts of births to young mothers per LSOA are mainly found in the urban areas of Northamptonshire (see map 1) as would be expected given the size of the population.
The rates of births per 100 females aged 15-19 have been calculated for the LSOAs and are shown in map 2. The urban areas still have higher rates, but some less urban areas of East Northamptonshire, Wellingborough and Kettering also show higher rates. Even though three years of data have been pooled for this analysis the numbers of births per LSOA are fairly small and so only a few areas have significantly different rates to Northamptonshire as a whole, they are shown in Map 3.

Map 2: Rate of births to young mothers per 100 females aged 15-19 by Lower Super Output Area (2014-2016)

Source: ONS and NHS Digital
Figure 1 below shows that there is a higher rate of births to young mothers in the more deprived categories ‘Financially Stretched’ and ‘Urban Adversity’ which have significantly higher rates than Northamptonshire as a whole (shown in pink). The three more affluent categories have significantly lower rates than Northamptonshire (shown in green). The ‘Not Private Households’ category had very few births and confidence intervals are therefore very wide, and the rate is not significantly different to Northamptonshire.
Figure 1: Rate of birth per 100,000 population to mothers aged under 20 years by Acorn category using birth data 2014-2016

Source: Acorn Postcode Directory © CACI Ltd 2016, Acorn Profile for Northamptonshire CACI Ltd 2014 and ONS and NHS Digital. © CACI Limited [1979]-[2018]. This report shall be used solely for academic, personal and/or non-commercial purposes.
1.4 SMOKING PREVALENCE AMONGST YOUNG PEOPLE

Discouraging young people from smoking is a national priority. Many young people become addicted to tobacco before they fully understand the health risks and smoking rates amongst young people impacts on future adult smoking rates (Towards a smoke free generation: a tobacco control plan for England, Department of Health, July 2017).

There has been a steady decline in the number of pupils ever having smoked in England during the last two decades. One of the ambitions of the Tobacco Control Plan for England is to reduce the number of 15 year olds who regularly smoke to 3% or less by 2022 (current level, as of 2016, is 7%, according to national survey: Smoking, drinking and drug use among young people in England - 2016).

In Northamptonshire an estimated 8.7% of 15 year olds smoke (latest WAY survey data from 2014/15), with 6.2% of 15 year olds being regular smokers. Both values are similar to the England average. More than 200 15 year olds would need to be prevented from starting to smoke by 2022 to reduce prevalence (from 2014/15 levels – latest data) amongst 15 year olds who regularly smoke in line with the national target (reduction of 2.8%-points to 3%).

Modelled data shows that Corby, followed by Daventry and East Northamptonshire have the highest proportions of regular smokers amongst 15 year olds (see below), which is largely consistent with estimates of smoking prevalence amongst adults (being highest in East Northamptonshire, Corby and Daventry). Exposure to a parent smoking is one of a number of risk factors associated with higher likelihood of smoking initiation among young people (Source: Key data sources for planning effective tobacco control in 2018-19, Public Health England.

![Modelled likelihood of smoking prevalence (regular smokers) amongst 15 year olds (% 15 year olds) (Source: Local Health, Public Health England, 2009-2012)](chart.png)
Click here for map of Modelled likelihood of smoking prevalence amongst 15 year olds in Northamptonshire by MSOA (% 15 year olds)

In terms of characteristics, the survey, Smoking, drinking and drug use among young people in England - 2016 found nationally:

- A similar proportion of girls and boys saying they were regular smokers,
- The proportion of regular smokers increasing with age,
- Highest prevalence among ‘White’, ‘Mixed’ and ‘Asian’ ethnicities,
- Factors associated with regular smoking being: having smokers at home, friends who smoked, family don’t discourage smoking, taking drugs, drinking alcohol, exclusion from school, older pupils.
- Whilst 20% of regular smokers were committed to giving up, 44% were unconcerned about dependence on smoking.
1.5 POVERTY AND LOW INCOME

Smoking rates are almost three times higher amongst the lowest earners compared to the highest earners. Smoking accounts for approximately half of the difference in life expectancy between the richest and poorest in society ([Towards a smoke free generation: a tobacco control plan for England](https://www.gov.uk/government/publications/towards-a-smoke-free-generation-a-tobacco-control-plan-for-england), Department of Health, July 2017). **Nationally**, the prevalence of smoking has been found to increase with deprivation, as such, residents living in the 20% most deprived areas of the country are more likely to smoke than those in less deprived areas (for data see: [Public Health England, Local Tobacco Control Profiles: Inequalities (2016)](https://www.health.eastyorkshire.nhs.uk/local-tobacco-control-profiles-inequalities-2016/)). Recent analysis indicates that people living in the most deprived areas of England were as much as four times more likely to smoke than those living in the least deprived areas. The same analysis concluded that out of several measures of inequality, area deprivation – which combines factors such as income, employment, health and education within an area – had the greatest impact on someone’s likelihood of smoking (see [Likelihood of smoking four times higher in England’s most deprived areas than least deprived](https://www.ons.gov.uk/ons/diggedown/?page=/digital-statistics/measures/lifestyle/smoking/lifestylesmoking/likelihoodofsmokingfourtimeshigherincreland%27smostdeprivedareasthanleastdeprived/onsdigital/2018-03-28), ONS Digital, March 2018).

One of the Government’s ambitions within the current [Tobacco Control Plan for England](https://www.gov.uk/government/publications/towards-a-smoke-free-generation-a-tobacco-control-plan-for-england) is, therefore, to **reduce the inequality gap in smoking prevalence** between those in routine and manual occupations and the general population and assumes targeted support provided by local areas for those in routine and manual occupations due to smoking prevalence remaining high. In addition, there are efforts to lift people out of poverty and increase social mobility (see Government [Poverty and Social Justice Policies](https://www.gov.uk/government/collections/poverty-and-social-justice-policies)). It should also be noted that smoking costs have the potential to push low-income households further below the poverty line.

The inequality gap in smoking prevalence between routine and manual workers and the general population is currently (2016) 10%-points in Northamptonshire, where an estimated 26.3% of adults in routine and manual occupations smoke, compared with 16.3% of the general (adult) population. This compares to an 11% gap for England overall (2016).


17 | Page

![Smoking Prevalence in adults - current smokers (APS) - Northamptonshire, 2016 - Data partitioned by Socioeconomic class](https://example.com/smoking-prevalence-graph.png)
Changes within the local economy and prosperity of residents are therefore highly relevant to smoking prevalence, as is the county’s resilience to less favourable economic conditions.

In the context of poverty and low income, it is worth noting the following about Northamptonshire:

- **Resident earnings** (ASHE, 2017) remain below the England average; with well below England average earnings in Wellingborough (£88 pw lower) and Corby (£80 pw lower).
- Northamptonshire does not fare well within the recently published **Social Mobility** Index (2017, Social Mobility Commission), which highlights where people from disadvantaged backgrounds are most and least likely to make social progress. In the overall Index, Corby is the 4th worst local authority for social mobility amongst people from disadvantaged backgrounds and Wellingborough the 7th worst. Kettering and East Northamptonshire are also within the worst 10% of authorities across the country, with Northampton not far ahead (see article: [Northants results within the Social Mobility Index 2017](#), 1st Dec 2017).
- Within the **Index of Multiple Deprivation** (2015), Northamptonshire ranks in the 3rd quartile (middle to bottom) amongst all other upper tier local authorities in England and is the 5th most deprived when compared to the 26 other county areas. Corby ranks amongst the 25% most deprived local authority areas in England. The most problematic domains related to Education, Skills and Training, and also Housing.
- Improvement in local **economic conditions** for local residents in relation to jobs growth and economic output (GVA) are evident within the latest available data, however compared to other county areas growth has been comparatively weak since 2011 and suggests slow recovery from economic downturn, which is worrying in the context of further uncertainty associated with Brexit.

It is also worth noting the proportions of households in Northamptonshire categorised as being more strongly associated with having smokers (likely above UK average) according to demographics and lifestyle research and information provided by CACI. The majority of household types with the strongest likelihood of having resident smokers fall within the **lower affluence** Acorn categories 4 (Financially Stretched) and 5 (Urban Adversity). Overall, it is estimated that Northamptonshire has a slightly above UK average proportions of these types of households in categories 4 and 5 only at +0.9%-points above the UK average, but a lower (-0.5%-points) proportion of household types in all categories (1 to 5) more associated with having smokers. See differences to UK average proportions opposite. The small %-point differences should be noted.
1.6 MENTAL HEALTH

Prevalence is also higher in people with mental health conditions. A report by the Royal College of Physicians and the Royal College of Psychiatrists states that when compared to the general population, adults with a common mental health disorder (such as depression or anxiety) are twice as likely to smoke and adults with schizophrenia or bipolar disorder are three times more likely to smoke. High smoking rates among people with mental health problems are the single largest contributor to their 10 to 20-year reduced life expectancy compared to the rest of the population. It is estimated that in England, approximately 40% of adults who smoke have a serious mental illness (Local Tobacco Control Profiles, Public Health England). One of the Government’s (Department of Health) expectations set out within the current Tobacco Control Plan for England is for ‘Government Commissioners and providers of the local health and social care system assessing the need of stop smoking support for people with mental health conditions and delivering targeted and effective interventions’.

Please see the forthcoming Joint Strategic Needs Assessment: Mental Health for more information.
2. Health & Societal Costs of Smoking

Smoking is recognised as the ‘leading cause of preventable illness and premature death in England’ (Towards a smoke free generation: a tobacco control plan for England, Department of Health, July 2017). Smoking is responsible for many fatalities from cancer, respiratory and circulatory disease, as well as many non-fatal diseases which are intensified as a result of smoking.

It is estimated that the annual cost of smoking to society in Northamptonshire is £200.41m due to lost productivity (smoking breaks, sick days and early deaths), smoking related disease (NHS), social care costs, fires and passive smoking (Action on Smoking and Health Ready Reckoner Tool v5.7). Tobacco control interventions are important in helping to cut costs to local businesses, healthcare and public services, as well as improving people’s health, quality of life and life expectancy.

The vision for Northamptonshire’s Health and Wellbeing Strategy acknowledges smoking as one of the leading causes of preventable diseases in Northamptonshire.

2.1 SMOKING RELATED MORTALITY AND ILL HEALTH

In Northamptonshire:

- 274.8 smoking attributable deaths per 100,000 people (2014-16), which has been similar to the England average for the last 10 years following the same downwards trend.

- 1,901 smoking attributable hospital admissions per 100,000 people (2016/17), which has been significantly worse than the England average for the last 5 years.

- 57.3 deaths per 100,000 people from chronic obstructive pulmonary disease (2014-16), significantly worse than the 52.2 England average.

- 571 emergency hospital admissions for chronic obstructive pulmonary disease (2016/17), which has been significantly worse than the England average for the last 2 years, having previously been just below average for a number of years.

- 1,405 potential years of life lost per 100,000 people (2014-16) due to smoking related illness, which is lower (better) than the England and East Midlands averages.
Smoking is one of the main causes of chronic obstructive pulmonary disease (NICE). It is worth noting that whilst deaths from other diseases connected to smoking are either similar or lower than the England average, the rate of deaths from chronic obstructive pulmonary disease in Northamptonshire have become significantly worse/above average since 2014 (see below).

Compared to its nearest statistical neighbours, Northamptonshire has the second highest death rate behind Lancashire, whereas the remaining areas are similar or significantly better than the England average (see below).
Correspondingly, emergency hospital admissions for chronic obstructive pulmonary disease (2015/16) and smoking attributable hospital admissions (2015/15), are significantly worse in Northamptonshire than the England average (see below):

**Smoking related ill health**

<table>
<thead>
<tr>
<th>Period</th>
<th>Local value</th>
<th>England value</th>
<th>England range</th>
<th>England best</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premature births (less than 37 weeks gestation)</td>
<td>2013-15</td>
<td>80.9</td>
<td>76.4</td>
<td>106.5</td>
</tr>
<tr>
<td>Low birth weight of term babies</td>
<td>2015</td>
<td>2.1</td>
<td>2.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Hospital admissions for asthma (under 19 years)</td>
<td>2015/16</td>
<td>154.7</td>
<td>202.4</td>
<td>591.6</td>
</tr>
<tr>
<td>Smoking attributable hospital admissions</td>
<td>2015/16</td>
<td>1704</td>
<td>1726</td>
<td>3142</td>
</tr>
<tr>
<td>Cost per capita of smoking attributable hospital admissions</td>
<td>2011/12</td>
<td>36.4</td>
<td>35.0</td>
<td>59.3</td>
</tr>
<tr>
<td>Emergency hospital admissions for COPD</td>
<td>2015/16</td>
<td>473</td>
<td>411</td>
<td>911</td>
</tr>
<tr>
<td>Lung cancer registrations</td>
<td>2013-15</td>
<td>71.4</td>
<td>75.9</td>
<td>156.9</td>
</tr>
<tr>
<td>Oral cancer registrations</td>
<td>2013-15</td>
<td>13.7</td>
<td>145</td>
<td>23.6</td>
</tr>
</tbody>
</table>

The above average rate of deaths from chronic obstructive pulmonary disease in Northamptonshire is driven by consistently well above average rates in **Corby** (100 per 100,000 people versus 52.2 England average), **3rd highest rate in England**. Northampton is also above average rate of COPD deaths at 62.7 deaths per 100,000 people.

**Corby, Wellingborough, Northampton, Kettering and East Northamptonshire** all have above England average rates of emergency hospital admissions for COPD; **Corby** has the highest rate in the East Midlands and 9th highest in England. It is worth noting the difference between Corby at 1,210 admissions per 100,000 people and South Northamptonshire at 242 (see below).

**Click here** for map of Emergency Hospital Admissions for Chronic Obstructive Pulmonary Disease in Northamptonshire by MSOA (Source: [Local Health](http://www.northamptonshirehealthandwellbeingboard.co.uk), Public Health England, 20011/12 to 2015/16, MSOA level)
2.2 ECONOMIC AND SOCIETAL COSTS OF SMOKING

Based on 2014 smoking prevalence figures, the Action on Smoking and Health (ASH) Ready Reckoner Tool estimates the local cost of smoking to smokers, the NHS and society at large. Based on this information, the economic and societal costs of smoking are 121% higher than is collected in tax revenues (see below). Lost productivity features highly in the list, and reflects the national picture.

**Annual smoking costs vs taxation in Northamptonshire (£millions)**

(ASH Ready Reckoner Tool v5.7)

- **Total local contribution in tobacco duty**: £90.75m
- **Total local cost of tobacco**: £200.41m (£1,871 per smoker per year)

**Estimated cost of smoking in Northamptonshire** (annual cost to society £millions) (ASH Ready Reckoner Tool v5.7)

- **Lost productivity (smoking breaks)**: £85.11
- **Lost productivity (early deaths)**: £51.70
- **Smoking-related disease (NHS)**: £25.31
- **Smoking-related social care**: £21.15
- **Lost productivity (sick days)**: £13.41
- **Smoking-related fires**: £2.17
- **Passive smoking**: £1.56

See: ASH Ready Reckoner Tool and other local resources

In addition, the Tobacco Return on investment Tool (NICE 2014) aims to support commissioners in their investment decisions by enabling them to explore the costs and impact of different tobacco control interventions. By applying this tool, the current package of tobacco control interventions can be evaluated for its economic returns in four payback timescales (2, 5, 10 years and lifetime). It is recommend that this tool is used locally to evaluate the package of interventions proposed to ensure it is providing the best value for money against benefits received.
The tool can be accessed at https://www.nice.org.uk/about/what-we-do/into-practice/return-on-investment-tools/tobacco-return-on-investment-tool

The effects of smoking expenditure on low-income households should also be noted. As shown earlier, the prevalence of smoking increases with deprivation. Therefore, it is likely that expenditure on tobacco imposes a comparatively (to earnings) higher cost on proportionally more low-income households than higher-income households. Smoking costs have the potential to push low-income households further below the poverty line and therefore increase the risk of financial distress and the associated non-financial effects, such as stress, along with other forms of mental and physical distress. The following estimates for Northamptonshire have been made (see below):

![Estimates of poverty in England adjusted for expenditure on tobacco](https://www.nice.org.uk/about/what-we-do/into-practice/return-on-investment-tools/tobacco-return-on-investment-tool)

*The poverty measure used is the "Before Housing Costs" relative poverty measure*

There are about 61,646 households in Northamptonshire with at least one smoker. When net income and smoking expenditure is taken into account, 20,896 or 34% of households with a smoker fall below the poverty line*

- If these smokers were to quit, 4,767 households in Northamptonshire would be elevated out of poverty.
- The residents of these households include:
  - around 8,347 adults below pension age
  - around 2,121 pension age adults
  - and around 3,645 dependent children

This means that roughly 14,112 people would not be below the poverty line if the cost of smoking were returned to the household.


© Copyright 2015. All rights are reserved.
Copies of the full report can be downloaded from the ASH website at http://www.ash.org.uk/files/documents/ASH_964.pdf

See: ASH Smoking and Poverty calculator
Useful links

Public Health Glossary, NHS Health Education England

Northamptonshire Local Tobacco Control Profile, Public Health England

Local Tobacco Control Profiles, Public Health England

Northamptonshire Analysis, Northamptonshire County Council

Towards a smoke free generation: a tobacco control plan for England, Department of Health, July 2017

Northamptonshire Health and Wellbeing Strategy 2016 - 2020, Northamptonshire Health and Wellbeing Board

Likelihood of smoking four times higher in England’s most deprived areas than least deprived, ONS Digital, March 2018

Alcohol, drugs and tobacco: commissioning support pack, Public Health England, Sept 2017

Statistics on smoking in England - 2017, NHS Digital, June 2017

Adult smoking habits in the UK: 2016, Office for National Statistics, 2017

Smoking, drinking and drug use among young people in England - 2016, NHS Digital, November 2017

Smoking policies on www.gov.uk, Department of Health

Local Resources, Action on Smoking and Health (ASH)

What is chronic pulmonary obstructive disease?, British Lung Foundation

NHS programming budget, NHS England

Tobacco Return on investment Tool, NICE, 2014

Local Health, Public Health England

Northamptonshire Demography JSNA, Northamptonshire County Council, 2017