



## Comparing smoking prevalence estimates

### Introduction

Smoking prevalence estimates are generated from survey data in which respondents self-report their own smoking status. In the [Local Tobacco Control Profiles](#) there are various smoking prevalence estimates presented which have been derived from data collected from different surveys. This factsheet aims to explain the differences between the survey methodologies and the results obtained from them.

### Overview

Smoking prevalence in adults ranges from 17.1% to 18.8% in England and can be derived from the following surveys:

- Integrated Household Survey (IHS)
- Quality and Outcomes Framework (QOF)
- GP Patient Survey (GPPS)
- Health Survey for England (HSE)

Smoking prevalence in 15-year-olds (regular smokers) ranges from 4.8% to 8.7% can be derived from the following sources:

- Smoking, Drinking and Drug Use in Young People survey (SDD)
- What About YOUth? survey (WAY)
- Modelled estimates of smoking prevalence in young people (University of Portsmouth and University of Southampton)
- Health Survey for England (HSE)

Each survey has a different methodology and therefore produces different results.

## Smoking prevalence in Adults

### Survey methodologies and limitations

#### Integrated Household Survey (IHS)

The IHS is an annual composite survey conducted by the Office for National Statistics (ONS), surveying around 340,000 people in the UK per year (200,000 in England). The survey uses an unclustered sample design and questions are asked by interviewers either in a face-to-face or telephone setting. Smoking prevalence is self-reported and therefore subject to the respondent's perception of whether they are a 'smoker'.

For further information see [www.ons.gov.uk/ons/guide-method/method-quality/specific/social-and-welfare-methodology/integrated-household-survey/index.html](http://www.ons.gov.uk/ons/guide-method/method-quality/specific/social-and-welfare-methodology/integrated-household-survey/index.html)

#### Quality and Outcomes Framework (QOF)

The QOF is the annual reward and incentive programme detailing GP practice achievement conducted by the Health and Social Care Information Centre (HSCIC) and although it is voluntary for GP surgeries in the UK, there is a high rate of completion. The Smoking prevalence is derived as a percentage of the estimated patient list size (age 15+) for each GP Practice from the last 24 months and therefore the survey excludes people who are not registered with a GP or have not visited their GP in this period. There may also be some bias as people may not wish to disclose their true smoking status to their GP.

<http://www.hscic.gov.uk/catalogue/PUB18887/qof-1415-annex2-technical-annex.pdf>

#### GP Patient Survey (GPPS)

The GPPS is run by the HSCIC. Patients are selected to be sent a questionnaire using a proportionately stratified unclustered sampling method for each GP practice, however, the initial pool from which the sample is obtained contains only those with a valid NHS number, registered with a GP for six months or more and over the age of 18.

For further information see: [http://gp-survey-production.s3.amazonaws.com/archive/2014/July/1301375001\\_Technical%20Annex%202013-2014\\_FINAL%20v1.pdf](http://gp-survey-production.s3.amazonaws.com/archive/2014/July/1301375001_Technical%20Annex%202013-2014_FINAL%20v1.pdf)

#### Health Survey for England (HSE)

The HSE is a home-based survey conducted by interviewers covering around 9,000 adults (aged 16 and over) in private households per year. Households are selected by a stratified random probability sample taken from the Postcode Address File (PAF). Individuals living in institutions are excluded from the sample. Smoking prevalence is reported for national and regional geographies only.

<http://www.hscic.gov.uk/catalogue/PUB19295/HSE2014-Methods-and-docs.pdf>

## Results

Table 1 shows the high level results from initial comparisons between the three surveys. There is significant variation between the data sources even at England level, with the lowest smoking prevalence calculated from the GPPS and the highest from the HSE.

Variation between local authorities in England is more than 20% in both the IHS and GPPS and 16% in the QOF. Therefore all three data sources highlight the differences between areas across England.

**Table 1. Smoking prevalence in adults in England and range across English local authorities, by survey**

Survey	Smoking Prevalence	
	England	Range in local authorities in England
IHS	18.0%	6.1% - 29.8%
QOF	18.6%	11.2% - 27.2%
GPPS	17.1%	9.2% - 29.2%
HSE	18.8%	-

Looking at the variation between the smoking prevalence from the three surveys in each local authority there are some contrasting results (see appendix A). For example in Ealing the smoking prevalence ranges from 16.2% reported in the QOF to 16.4% reported in the HIS to 16.5% reported in the GPPS, however in Ashford the range is much larger from 16.5% in the GPPS to 26.4% in the IHS, and with the QOF value at 18.6%.

Furthermore, if the results from each survey are split into deciles (10 equally sized groups derived from the order in which each local authority ranks in the survey – see appendix A), there is movement for the majority of local authorities between deciles as the different surveys are explored. Although in many cases this may be expected and not cause for concern, just 39 of the 326 local authorities in England were in the same decile in all three surveys, 88 moved between only two neighbouring deciles across the three surveys and 78 moved between three neighbouring deciles. The remaining 121 local authorities had even larger variation between surveys with Tamworth appearing in decile 1 (9.0%) in the IHS and decile 10 (21.5%) in the GPPS.

## Smoking prevalence in 15-year-olds

### Survey methodologies and limitations

#### Smoking, Drinking and Drug Use in Young People (SDD)

The SDD is a school-based survey conducted by the HSCIC. Young people in secondary schools in England (mainly aged between 11 and 15 years) are asked to complete a survey in exam conditions. Currently due to the small sample size at low level geographies, the HSCIC only publish results at national (England) and regional level.

For further information please see [www.hscic.gov.uk/article/2021/Website-Search?productid=18273&q=smoking+drinking+and+drug+use&sort=Relevance&size=10&page=1&area=both#top](http://www.hscic.gov.uk/article/2021/Website-Search?productid=18273&q=smoking+drinking+and+drug+use&sort=Relevance&size=10&page=1&area=both#top)

#### What About YOUth? (WAY)

The WAY survey is the first survey to provide local authority estimates for smoking prevalence among 15-year-olds, however there appears to be an underreporting in the data as the survey is completed at home in the majority of cases and it seems that young people feel more able to honestly answer questions on risky behaviours when asked away from the home setting.

For further information please see [www.hscic.gov.uk/article/2021/Website-Search?productid=18373&q=what+about+youth&sort=Relevance&size=10&page=1&area=both#top](http://www.hscic.gov.uk/article/2021/Website-Search?productid=18373&q=what+about+youth&sort=Relevance&size=10&page=1&area=both#top)

#### Modelled estimates

Colleagues at the University of Portsmouth and University of Southampton have used various publicly available data sources such as the Understanding Society Survey and the UK Census, to develop a multilevel logistic model to investigate the simultaneous influence of individual and area characteristics on smoking outcomes. The resultant equations from these models were then used in a predictive framework to estimate likely levels of smoking using population counts from the UK Census and ONS small area population estimates.

#### Health Survey for England (HSE)

Children living in households selected for the HSE adult survey were also interviewed. If there were more than two children living in the household, two were randomly chosen to complete the survey. This may therefore have omitted some 15-year-olds from the surveyed households. Smoking prevalence is reported for national and regional geographies only. Due to the small sample size of 15-year-olds, three years' worth of data was combined to get the smoking prevalence.

[www.hscic.gov.uk/catalogue/PUB16076/HSE2013-Ch9-chi-smok-exp.pdf](http://www.hscic.gov.uk/catalogue/PUB16076/HSE2013-Ch9-chi-smok-exp.pdf)

## Results

National estimates for 15-year-old regular smokers (defined as smoking at least one cigarette per week) ranged from 5% in the HSE to 8.7% in the modelled estimates (see table 2).

**Table 2. Smoking prevalence in 15-year-olds in England and range across English Local Authorities, by survey**

Survey	Smoking Prevalence	
	England	Range in local authorities in England
SDD	8%	-
WAY	5.5%	1.3% - 11.1%
Modelled estimates	8.7%	3.2% - 14.9%
HSE	5%*	-

The HSCIC are responsible for both the SDD and WAY surveys and suggest using the SDD for national monitoring of smoking prevalence figures and the WAY survey for comparison of local authority level data. The differences in the national estimates have arisen from the different survey methodologies, where it appears young people feel more able to answer questions about their smoking behaviours while completing a school based survey rather than at home.

Although the WAY survey appears to have resulted in an underestimate of the true smoking prevalence, the data is still useful for local authority monitoring of how they compare to other areas of similar demographics and neighbouring areas to them. It will also be useful for monitoring trends following future surveys. The difference between the highest and lowest estimates was around 10%, ranging from 1.3% in Waltham Forest to 11.1% in Blackpool.

The modelled estimates provided the highest estimates for regular smoking prevalence in 15-year-olds, but also have the largest confidence intervals due to the nature of their calculation, and show that all local authority estimates are not significantly different to the England average.

## Appendix A

### Adult smoking prevalence estimates and corresponding deciles

Area code	Area name	Current smoking prevalence			QOF decile	IHS decile	GPPS decile
		QOF	IHS	GPPS			
E07000223	Adur	19.1	18.9	17.4	7	7	7
E07000026	Allerdale	17.9	18.4	18.5	6	6	8
E07000032	Amber Valley	16.7	18.8	16.5	4	7	5
E07000224	Arun	18.3	16.2	15.6	6	4	4
E07000170	Ashfield	21.8	20.1	17.0	9	8	6
E07000105	Ashford	18.6	26.4	16.5	6	10	5
E07000004	Aylesbury Vale	16.0	17.3	14.5	3	5	3
E07000200	Babergh	15.3	16.0	11.4	3	4	1
E09000002	Barking and Dagenham	20.8	21.7	19.4	8	9	9
E09000003	Barnet	15.1	13.2	15.8	3	2	5
E08000016	Barnsley	22.0	22.3	19.2	9	9	8
E07000027	Barrow-in-Furness	21.0	23.5	19.4	9	10	9
E07000066	Basildon	20.0	18.5	17.1	8	6	6
E07000084	Basingstoke and Deane	17.4	18.6	14.8	5	6	4
E07000171	Bassetlaw	19.6	16.2	19.4	7	4	9
E06000022	Bath and North East Somerset	14.7	15.6	14.4	2	4	3
E06000055	Bedford	18.3	14.2	16.0	6	3	5
E09000004	Bexley	16.9	16.6	15.3	4	5	4
E08000025	Birmingham	19.8	18.4	17.4	7	6	6
E07000129	Blaby	15.2	15.8	13.4	3	4	2
E06000008	Blackburn with Darwen	22.5	23.6	20.1	10	10	9
E06000009	Blackpool	27.1	26.9	28.0	10	10	10
E07000033	Bolsover	21.0	23.4	18.8	9	10	8
E08000001	Bolton	21.1	20.9	20.4	9	8	9
E07000136	Boston	24.6	18.6	19.7	10	6	9
E06000028	Bournemouth	21.0	17.9	20.3	9	6	9
E06000036	Bracknell Forest	17.0	16.9	16.3	4	5	5
E08000032	Bradford	22.2	20.2	20.1	9	8	9
E07000067	Braintree	18.3	13.0	15.2	6	2	4
E07000143	Breckland	19.6	18.4	16.7	7	6	6
E09000005	Brent	17.6	13.6	17.3	5	2	6
E07000068	Brentwood	13.7	12.6	14.3	1	2	3
E06000043	Brighton and Hove	22.8	23.1	20.4	10	10	9
E06000023	Bristol	21.7	18.9	20.7	9	7	10
E07000144	Broadland	15.4	13.5	13.5	3	2	2
E09000006	Bromley	15.9	14.0	13.0	3	3	2

Area code	Area name	Current smoking prevalence			QOF decile	IHS decile	GPPS decile
		QOF	IHS	GPPS			
E07000234	Bromsgrove	14.4	12.1	12.7	2	1	1
E07000095	Broxbourne	18.3	19.1	17.7	6	7	7
E07000172	Broxtowe	17.2	14.5	16.0	5	3	5
E07000117	Burnley	24.5	27.9	20.4	10	10	9
E08000002	Bury	19.0	20.5	17.5	7	8	7
E08000033	Calderdale	21.1	20.2	16.8	9	8	6
E07000008	Cambridge	14.7	17.6	15.3	2	6	4
E09000007	Camden	17.9	16.9	19.4	6	5	9
E07000192	Cannock Chase	20.1	18.3	17.5	8	6	7
E07000106	Canterbury	17.7	20.0	16.5	5	8	5
E07000028	Carlisle	20.6	22.2	17.7	8	9	7
E07000069	Castle Point	18.3	26.9	17.3	6	10	6
E06000056	Central Bedfordshire	17.2	17.5	14.3	5	5	3
E07000130	Charnwood	15.8	18.4	13.5	3	6	2
E07000070	Chelmsford	15.0	14.3	12.6	2	3	1
E07000078	Cheltenham	16.2	14.7	14.4	4	3	3
E07000177	Cherwell	17.6	13.6	16.9	5	2	6
E06000049	Cheshire East	15.8	12.6	14.0	3	2	3
E06000050	Cheshire West and Chester	16.4	20.1	16.0	4	8	5
E07000034	Chesterfield	19.9	26.4	18.3	7	10	8
E07000225	Chichester	15.9	16.0	14.5	3	4	3
E07000005	Chiltern	12.5	7.3	11.2	1	1	1
E07000118	Chorley	18.0	17.9	15.5	6	6	4
E07000048	Christchurch	14.4	15.8	14.2	2	4	3
E09000001	City of London	11.2	13.3	15.4	1	2	4
E07000071	Colchester	18.1	21.0	17.4	6	9	7
E07000029	Copeland	19.5	28.7	18.0	7	10	7
E07000150	Corby	27.2	29.8	29.2	10	10	10
E06000052	Cornwall	19.0	19.3	18.1	7	7	7
E07000079	Cotswold	14.2	15.6	13.0	2	4	2
E06000047	County Durham	19.3	20.6	17.4	7	8	7
E08000026	Coventry	19.3	15.6	20.6	7	4	10
E07000163	Craven	14.4	14.0	14.8	2	3	4
E07000226	Crawley	19.6	17.4	19.9	7	5	9
E09000008	Croydon	17.9	17.1	17.3	6	5	6
E07000096	Dacorum	16.5	14.0	16.8	4	3	6
E06000005	Darlington	20.6	20.1	20.1	8	8	9
E07000107	Dartford	18.7	17.1	18.5	6	5	8
E07000151	Daventry	16.4	14.2	13.0	4	3	2
E06000015	Derby	20.7	18.7	16.7	8	7	6
E07000035	Derbyshire Dales	13.2	12.9	11.5	1	2	1
E08000017	Doncaster	22.9	22.7	19.6	10	9	9

Area code	Area name	Current smoking prevalence			QOF decile	IHS decile	GPPS decile
		QOF	IHS	GPPS			
E07000108	Dover	21.2	18.6	18.4	9	6	8
E08000027	Dudley	18.6	19.5	18.4	6	7	8
E09000009	Ealing	16.2	16.4	16.5	4	5	5
E07000009	East Cambridgeshire	16.8	14.9	13.9	4	3	3
E07000040	East Devon	14.3	11.2	13.4	2	1	2
E07000049	East Dorset	11.7	12.0	9.9	1	1	1
E07000085	East Hampshire	14.5	18.5	11.8	2	6	1
E07000242	East Hertfordshire	13.9	17.0	11.7	1	5	1
E07000137	East Lindsey	20.1	21.0	19.5	8	9	9
E07000152	East Northamptonshire	18.3	19.9	16.8	6	7	6
E06000011	East Riding of Yorkshire	15.8	14.2	13.1	3	3	2
E07000193	East Staffordshire	18.8	16.3	18.1	7	5	8
E07000061	Eastbourne	18.5	17.4	18.3	6	5	8
E07000086	Eastleigh	15.0	15.8	13.9	2	4	3
E07000030	Eden	15.8	11.3	12.0	3	1	1
E07000207	Elmbridge	12.5	17.1	10.7	1	5	1
E09000010	Enfield	19.1	13.6	18.1	7	2	8
E07000072	Epping Forest	17.1	20.2	14.5	5	8	3
E07000208	Epsom and Ewell	13.1	12.2	12.3	1	2	1
E07000036	Erewash	18.9	21.9	15.0	7	9	4
E07000041	Exeter	17.6	16.1	18.1	5	4	8
E07000087	Fareham	13.3	9.8	12.4	1	1	1
E07000010	Fenland	23.2	21.2	18.3	10	9	8
E07000201	Forest Heath	20.6	27.6	16.2	8	10	5
E07000080	Forest of Dean	17.0	20.8	17.0	5	8	6
E07000119	Fylde	16.8	17.2	14.5	4	5	3
E08000037	Gateshead	20.7	21.0	19.2	8	8	8
E07000173	Gedling	17.9	18.1	16.1	6	6	5
E07000081	Gloucester	20.0	22.1	17.8	8	9	7
E07000088	Gosport	20.9	11.3	19.6	8	1	9
E07000109	Gravesham	18.8	21.7	16.9	6	9	6
E07000145	Great Yarmouth	24.0	19.1	22.0	10	7	10
E09000011	Greenwich	19.9	17.3	17.0	7	5	6
E07000209	Guildford	13.6	18.6	14.9	1	6	4
E09000012	Hackney	22.7	20.0	21.9	10	8	10
E06000006	Halton	21.7	17.8	18.3	9	6	8
E07000164	Hambleton	13.3	12.1	12.1	1	1	1
E09000013	Hammersmith and Fulham	19.9	22.2	21.7	8	9	10
E07000131	Harborough	13.6	15.6	13.8	1	4	2
E09000014	Haringey	21.0	20.7	21.6	9	8	10
E07000073	Harlow	23.2	23.8	21.3	10	10	10
E07000165	Harrogate	15.1	12.2	15.0	2	2	4



Area code	Area name	Current smoking prevalence			QOF decile	IHS decile	GPPS decile
		QOF	IHS	GPPS			
E09000015	Harrow	13.4	13.1	11.9	1	2	1
E07000089	Hart	12.6	6.4	9.9	1	1	1
E06000001	Hartlepool	23.1	23.4	22.4	10	10	10
E07000062	Hastings	25.9	22.6	23.7	10	9	10
E07000090	Havant	19.5	17.7	16.0	7	6	5
E09000016	Havering	16.8	18.4	17.4	4	6	6
E06000019	Herefordshire	17.8	14.4	16.8	5	3	6
E07000098	Hertsmere	16.0	23.1	14.3	3	10	3
E07000037	High Peak	17.8	15.3	18.6	5	4	8
E09000017	Hillingdon	17.0	17.1	16.0	5	5	5
E07000132	Hinckley and Bosworth	17.4	17.6	14.1	5	5	3
E07000227	Horsham	13.2	16.1	12.9	1	4	2
E09000018	Hounslow	16.8	12.3	17.1	4	2	6
E07000011	Huntingdonshire	17.1	14.4	15.6	5	3	4
E07000120	Hyndburn	23.6	22.4	20.5	10	9	9
E07000202	Ipswich	21.3	25.3	19.7	9	10	9
E06000046	Isle of Wight	19.2	16.2	17.5	7	4	7
E09000019	Islington	21.4	22.2	21.8	9	9	10
E09000020	Kensington and Chelsea	19.0	18.7	20.6	7	6	10
E07000153	Kettering	20.7	15.7	17.6	8	4	7
E07000146	King's Lynn and West Norfolk	20.5	16.7	16.6	8	5	6
E06000010	Kingston upon Hull	26.1	26.4	24.5	10	10	10
E09000021	Kingston upon Thames	16.1	13.5	14.0	3	2	3
E08000034	Kirklees	20.4	21.2	18.1	8	9	7
E08000011	Knowsley	24.2	21.7	19.6	10	9	9
E09000022	Lambeth	20.6	18.1	20.6	8	6	10
E07000121	Lancaster	19.4	18.8	15.9	7	7	5
E08000035	Leeds	20.8	23.1	19.4	8	10	9
E06000016	Leicester	19.6	20.7	19.5	7	8	9
E07000063	Lewes	17.1	19.7	15.0	5	7	4
E09000023	Lewisham	20.5	20.6	18.2	8	8	8
E07000194	Lichfield	15.6	13.4	11.9	3	2	1
E07000138	Lincoln	23.8	18.5	18.4	10	6	8
E08000012	Liverpool	22.9	21.7	21.3	10	9	10
E06000032	Luton	20.0	20.0	19.8	8	8	9
E07000110	Maidstone	17.3	17.3	15.5	5	5	4
E07000074	Maldon	16.9	24.1	14.0	4	10	3
E07000235	Malvern Hills	15.2	13.8	12.9	3	2	2
E08000003	Manchester	23.2	25.8	22.6	10	10	10
E07000174	Mansfield	23.2	19.9	20.3	10	7	9
E06000035	Medway	21.1	22.7	18.0	9	9	7
E07000133	Melton	17.3	19.7	16.0	5	7	5

Area code	Area name	Current smoking prevalence			QOF decile	IHS decile	GPPS decile
		QOF	IHS	GPPS			
E07000187	Mendip	18.1	15.1	17.7	6	4	7
E09000024	Merton	16.7	15.5	18.1	4	4	7
E07000042	Mid Devon	16.5	12.7	13.7	4	2	2
E07000203	Mid Suffolk	14.3	13.0	12.9	2	2	2
E07000228	Mid Sussex	13.3	15.8	10.9	1	4	1
E06000002	Middlesbrough	23.8	20.2	22.4	10	8	10
E06000042	Milton Keynes	18.7	19.1	16.6	6	7	6
E07000210	Mole Valley	13.2	14.4	13.8	1	3	2
E07000091	New Forest	14.8	12.5	14.4	2	2	3
E07000175	Newark and Sherwood	18.3	22.6	15.6	6	9	4
E08000021	Newcastle upon Tyne	20.5	19.6	20.7	8	7	10
E07000195	Newcastle-under-Lyme	18.5	14.9	17.2	6	3	6
E09000025	Newham	18.7	20.6	18.2	6	8	8
E07000043	North Devon	17.3	19.4	16.3	5	7	5
E07000050	North Dorset	16.0	21.0	13.0	3	8	2
E07000038	North East Derbyshire	15.6	16.3	16.4	3	4	5
E06000012	North East Lincolnshire	24.5	23.3	22.4	10	10	10
E07000099	North Hertfordshire	15.0	19.3	13.7	2	7	2
E07000139	North Kesteven	15.3	13.9	13.6	3	3	2
E06000013	North Lincolnshire	21.0	17.9	17.5	9	6	7
E07000147	North Norfolk	17.1	14.3	13.6	5	3	2
E06000024	North Somerset	17.2	12.4	16.4	5	2	5
E08000022	North Tyneside	18.8	18.6	17.2	6	6	6
E07000218	North Warwickshire	17.8	14.6	17.6	6	3	7
E07000134	North West Leicestershire	17.4	16.9	17.9	5	5	7
E07000154	Northampton	22.3	25.0	19.3	9	10	8
E06000057	Northumberland	16.8	16.5	14.8	4	5	4
E07000148	Norwich	21.8	23.8	20.7	9	10	10
E06000018	Nottingham	22.6	24.2	23.0	10	10	10
E07000219	Nuneaton and Bedworth	19.8	21.8	16.7	7	9	6
E07000135	Oadby and Wigston	14.4	14.1	16.5	2	3	5
E08000004	Oldham	22.3	20.1	19.2	9	8	8
E07000178	Oxford	15.0	14.0	17.1	2	3	6
E07000122	Pendle	22.9	21.0	22.6	10	9	10
E06000031	Peterborough	25.0	18.6	21.9	10	6	10
E06000026	Plymouth	21.0	22.4	20.0	9	9	9
E06000029	Poole	17.2	15.5	16.5	5	4	5
E06000044	Portsmouth	22.4	21.7	21.4	10	9	10
E07000123	Preston	23.5	25.3	18.8	10	10	8
E07000051	Purbeck	16.2	16.5	12.2	4	5	1
E06000038	Reading	17.7	17.0	17.9	5	5	7
E09000026	Redbridge	14.1	14.2	15.6	1	3	4

Area code	Area name	Current smoking prevalence			QOF decile	IHS decile	GPPS decile
		QOF	IHS	GPPS			
E06000003	Redcar and Cleveland	20.4	18.9	18.4	8	7	8
E07000236	Redditch	20.6	17.8	19.1	8	6	8
E07000211	Reigate and Banstead	14.7	13.4	13.3	2	2	2
E07000124	Ribble Valley	13.9	12.5	14.1	1	2	3
E09000027	Richmond upon Thames	13.6	11.2	13.5	1	1	2
E07000166	Richmondshire	15.7	25.0	14.1	3	10	3
E08000005	Rochdale	22.9	21.1	20.7	10	9	10
E07000075	Rochford	14.9	12.5	13.9	2	2	2
E07000125	Rossendale	21.5	23.8	17.0	9	10	6
E07000064	Rother	16.7	14.1	17.8	4	3	7
E08000018	Rotherham	21.2	18.4	18.3	9	6	8
E07000220	Rugby	19.2	13.9	17.5	7	2	7
E07000212	Runnymede	16.3	14.7	14.9	4	3	4
E07000176	Rushcliffe	12.3	10.2	12.2	1	1	1
E07000092	Rushmoor	19.5	16.8	14.7	7	5	4
E06000017	Rutland	13.6	14.1	11.3	1	3	1
E07000167	Ryedale	15.0	10.9	13.3	2	1	2
E08000006	Salford	23.6	24.4	20.6	10	10	10
E08000028	Sandwell	21.5	20.6	20.4	9	8	9
E07000168	Scarborough	19.5	19.2	17.9	7	7	7
E07000188	Sedgemoor	19.9	19.5	15.9	7	7	5
E08000014	Sefton	18.0	15.9	15.5	6	4	4
E07000169	Selby	16.5	19.8	14.3	4	7	3
E07000111	Sevenoaks	14.8	6.1	13.4	2	1	2
E08000019	Sheffield	18.1	17.7	17.9	6	6	7
E07000112	Shepway	20.6	23.8	20.6	8	10	10
E06000051	Shropshire	15.9	15.3	14.3	3	4	3
E06000039	Slough	18.7	19.0	18.9	6	7	8
E08000029	Solihull	16.3	12.6	13.8	4	2	2
E07000006	South Bucks	15.1	16.1	14.9	3	4	4
E07000012	South Cambridgeshire	12.7	11.7	12.1	1	1	1
E07000039	South Derbyshire	16.4	23.5	18.0	4	10	7
E06000025	South Gloucestershire	16.0	13.9	13.3	3	3	2
E07000044	South Hams	14.3	14.8	13.2	2	3	2
E07000140	South Holland	21.4	22.7	16.0	9	9	5
E07000141	South Kesteven	16.4	14.8	16.4	4	3	5
E07000031	South Lakeland	13.8	12.1	11.5	1	1	1
E07000149	South Norfolk	14.5	10.9	12.4	2	1	1
E07000155	South Northamptonshire	14.4	9.5	13.9	2	1	3
E07000179	South Oxfordshire	14.2	12.5	12.7	1	2	2
E07000126	South Ribble	16.9	15.5	15.7	4	4	5
E07000189	South Somerset	17.6	20.4	14.6	5	8	4

Area code	Area name	Current smoking prevalence			QOF decile	IHS decile	GPPS decile
		QOF	IHS	GPPS			
E07000196	South Staffordshire	14.5	9.7	11.3	2	1	1
E08000023	South Tyneside	21.9	19.5	19.6	9	7	9
E06000045	Southampton	22.3	20.5	22.1	9	8	10
E06000033	Southend-on-Sea	20.9	20.1	18.6	8	8	8
E09000028	Southwark	19.3	16.5	18.8	7	5	8
E07000213	Spelthorne	17.4	15.9	14.2	5	4	3
E07000240	St Albans	12.2	9.9	9.9	1	1	1
E07000204	St Edmundsbury	17.7	20.5	17.3	5	8	6
E08000013	St Helens	19.7	19.4	19.5	7	7	9
E07000197	Stafford	15.5	12.9	17.8	3	2	7
E07000198	Staffordshire Moorlands	16.0	14.3	12.4	3	3	1
E07000243	Stevenage	19.1	23.4	18.6	7	10	8
E08000007	Stockport	17.8	17.1	15.5	6	5	4
E06000004	Stockton-on-Tees	18.9	19.2	16.7	7	7	6
E06000021	Stoke-on-Trent	23.6	18.7	19.6	10	7	9
E07000221	Stratford-on-Avon	14.3	12.3	13.2	2	2	2
E07000082	Stroud	15.2	10.5	14.1	3	1	3
E07000205	Suffolk Coastal	15.3	20.3	14.6	3	8	4
E08000024	Sunderland	22.5	22.8	21.1	10	9	10
E07000214	Surrey Heath	14.3	10.6	12.8	2	1	2
E09000029	Sutton	17.3	15.3	17.7	5	4	7
E07000113	Swale	21.7	19.7	17.9	9	7	7
E06000030	Swindon	19.3	17.8	15.8	7	6	5
E08000008	Tameside	23.0	22.5	19.7	10	9	9
E07000199	Tamworth	20.2	9.0	21.5	8	1	10
E07000215	Tandridge	15.1	10.0	15.7	2	1	4
E07000190	Taunton Deane	17.9	16.5	16.0	6	5	5
E07000045	Teignbridge	16.6	10.6	13.9	4	1	3
E06000020	Telford and Wrekin	20.8	20.7	18.0	8	8	7
E07000076	Tendring	21.2	22.5	20.1	9	9	9
E07000093	Test Valley	16.7	10.1	15.1	4	1	4
E07000083	Tewkesbury	15.6	14.4	14.2	3	3	3
E07000114	Thanet	23.7	23.8	21.0	10	10	10
E07000102	Three Rivers	16.0	12.1	15.5	3	1	4
E06000034	Thurrock	20.3	20.7	17.7	8	8	7
E07000115	Tonbridge and Malling	16.0	17.0	16.3	3	5	5
E06000027	Torbay	20.6	19.9	15.0	8	7	4
E07000046	Torridge	17.4	14.0	14.8	5	3	4
E09000030	Tower Hamlets	21.7	22.1	21.4	9	9	10
E08000009	Trafford	16.7	15.5	16.4	4	4	5
E07000116	Tunbridge Wells	16.3	17.9	16.8	4	6	6
E07000077	Uttlesford	13.8	6.6	10.8	1	1	1

Area code	Area name	Current smoking prevalence			QOF decile	IHS decile	GPPS decile
		QOF	IHS	GPPS			
E07000180	Vale of White Horse	15.0	15.8	11.9	2	4	1
E08000036	Wakefield	22.0	23.4	19.6	9	10	9
E08000030	Walsall	21.6	18.7	18.7	9	7	8
E09000031	Waltham Forest	20.5	20.7	19.3	8	8	8
E09000032	Wandsworth	17.0	14.4	17.3	5	3	6
E06000007	Warrington	17.0	15.5	15.1	5	4	4
E07000222	Warwick	15.2	13.7	15.5	3	2	4
E07000103	Watford	17.9	22.0	14.7	6	9	4
E07000206	Waveney	20.0	19.9	17.2	8	7	6
E07000216	Waverley	12.6	17.2	11.2	1	5	1
E07000065	Wealden	14.9	15.2	14.4	2	4	3
E07000156	Wellingborough	22.9	16.3	18.1	10	4	7
E07000241	Welwyn Hatfield	16.7	22.4	14.3	4	9	3
E06000037	West Berkshire	15.7	15.5	17.0	3	4	6
E07000047	West Devon	14.6	12.8	14.4	2	2	3
E07000052	West Dorset	14.1	13.9	13.9	1	3	3
E07000127	West Lancashire	16.4	13.7	17.1	4	2	6
E07000142	West Lindsey	16.4	13.9	16.5	4	3	5
E07000181	West Oxfordshire	14.8	12.1	12.7	2	1	2
E07000191	West Somerset	17.0	13.2	16.5	5	2	5
E09000033	Westminster	17.3	20.0	18.4	5	7	8
E07000053	Weymouth and Portland	20.7	17.9	20.9	8	6	10
E08000010	Wigan	20.0	20.6	18.3	8	8	8
E06000054	Wiltshire	16.5	17.6	15.1	4	6	4
E07000094	Winchester	12.6	8.2	11.3	1	1	1
E06000040	Windsor and Maidenhead	14.3	12.1	13.4	2	1	2
E08000015	Wirral	19.2	17.6	17.3	7	6	6
E07000217	Woking	13.9	11.1	14.1	1	1	3
E06000041	Wokingham	12.3	9.8	12.6	1	1	1
E08000031	Wolverhampton	20.9	20.4	18.1	9	8	8
E07000237	Worcester	19.8	22.0	20.0	7	9	9
E07000229	Worthing	18.5	20.3	15.8	6	8	5
E07000238	Wychavon	16.5	16.3	14.3	4	5	3
E07000007	Wycombe	15.1	16.5	13.4	2	5	2
E07000128	Wyre	18.4	17.1	16.4	6	5	5
E07000239	Wyre Forest	19.9	19.4	17.8	8	7	7
E06000014	York	15.2	18.4	12.9	3	6	2

## Appendix B

### Smoking prevalence in 15-year-olds estimates

Area code	Area name	Current smoking prevalence		
		WAY	modelled	difference
E09000002	Barking and Dagenham	3.6	6.4	2.8
E09000003	Barnet	2.6	5.5	2.9
E08000016	Barnsley	7.5	10.9	3.4
E06000022	Bath and North East Somerset	6.6	9.7	3.1
E06000055	Bedford	5.7	7.3	1.6
E09000004	Bexley	4.9	6.7	1.8
E08000025	Birmingham	3.1	6.3	3.1
E06000008	Blackburn with Darwen	6.6	6.9	0.4
E06000009	Blackpool	11.1	11.6	0.5
E08000001	Bolton	6.9	8.1	1.2
E06000028	Bournemouth	7.0	10.6	3.6
E06000036	Bracknell Forest	4.4	8.6	4.2
E08000032	Bradford	6.5	6.6	0.1
E09000005	Brent	2.4	4.0	1.6
E06000043	Brighton and Hove	9.7	10.6	0.9
E06000023	Bristol	7.8	9.7	2.0
E09000006	Bromley	6.6	7.2	0.6
E10000002	Buckinghamshire	2.9	7.6	4.7
E08000002	Bury	4.7	8.4	3.7
E08000033	Calderdale	7.4	9.2	1.8
E10000003	Cambridgeshire	5.2	9.4	4.2
E09000007	Camden	3.9	9.0	5.1
E06000056	Central Bedfordshire	5.1	8.7	3.5
E06000049	Cheshire East	4.5	9.0	4.5
E06000050	Cheshire West and Chester	5.1	9.8	4.7
E06000052	Cornwall	6.9	10.1	3.2
E06000047	County Durham	8.6	10.9	2.3
E08000026	Coventry	5.8	7.0	1.2
E09000008	Croydon	3.9	4.8	0.9
E10000006	Cumbria	5.1	9.9	4.8
E06000005	Darlington	6.8	10.6	3.7
E06000015	Derby	5.1	8.3	3.2
E10000007	Derbyshire	5.4	9.8	4.4
E10000008	Devon	6.2	9.8	3.7
E08000017	Doncaster	6.8	10.1	3.3
E10000009	Dorset	5.8	9.8	4.0
E08000027	Dudley	4.9	8.6	3.7
E09000009	Ealing	2.7	4.9	2.2
E06000011	East Riding of Yorkshire	5.2	9.3	4.0
E10000011	East Sussex	7.3	9.7	2.4
E09000010	Enfield	2.0	5.3	3.3
E10000012	Essex	6.1	9.0	2.9
E08000037	Gateshead	9.8	11.7	1.9
E10000013	Gloucestershire	5.0	9.4	4.5
E09000011	Greenwich	3.0	7.2	4.2
E09000012	Hackney	2.6	7.7	5.1
E06000006	Halton	6.5	11.4	4.8

Area code	Area name	Current smoking prevalence		
		WAY	modelled	difference
E09000013	Hammersmith and Fulham	3.6	9.0	5.4
E10000014	Hampshire	4.9	9.2	4.3
E09000014	Haringey	3.5	7.1	3.6
E09000015	Harrow	2.2	3.2	1.0
E06000001	Hartlepool	7.7	12.0	4.3
E09000016	Havering	3.5	7.5	4.0
E06000019	Herefordshire	3.7	10.2	6.5
E10000015	Hertfordshire	4.5	8.3	3.8
E09000017	Hillingdon	5.3	5.0	-0.3
E09000018	Hounslow	4.0	5.2	1.2
E06000046	Isle of Wight	6.9	9.8	2.9
E09000019	Islington	4.5	10.1	5.5
E09000020	Kensington and Chelsea	3.3	9.0	5.7
E10000016	Kent	7.3	9.5	2.1
E06000010	Kingston upon Hull	6.6	12.7	6.1
E09000021	Kingston upon Thames	4.5	6.4	1.9
E08000034	Kirklees	5.5	7.4	1.9
E08000011	Knowsley	5.8	11.6	5.8
E09000022	Lambeth	1.6	7.4	5.8
E10000017	Lancashire	5.7	9.0	3.3
E08000035	Leeds	8.3	9.6	1.3
E06000016	Leicester	3.5	6.1	2.6
E10000018	Leicestershire	4.5	8.1	3.7
E09000023	Lewisham	3.9	5.9	2.0
E10000019	Lincolnshire	5.6	9.9	4.3
E08000012	Liverpool	3.9	12.1	8.2
E06000032	Luton	3.7	5.0	1.3
E08000003	Manchester	5.6	9.2	3.6
E06000035	Medway	6.6	8.4	1.8
E09000024	Merton	3.8	5.7	2.0
E06000002	Middlesbrough	6.5	10.4	3.8
E06000042	Milton Keynes	6.7	8.0	1.2
E08000021	Newcastle upon Tyne	8.3	11.2	2.9
E09000025	Newham	2.4	4.0	1.6
E10000020	Norfolk	7.9	10.1	2.3
E06000012	North East Lincolnshire	7.7	10.9	3.2
E06000013	North Lincolnshire	6.3	9.7	3.4
E06000024	North Somerset	5.1	9.4	4.3
E08000022	North Tyneside	7.5	10.5	3.1
E10000023	North Yorkshire	3.2	9.9	6.7
E10000021	Northamptonshire	6.2	9.0	2.8
E06000057	Northumberland	6.0	10.7	4.7
E06000018	Nottingham	6.7	8.6	1.9
E10000024	Nottinghamshire	5.3	9.4	4.1
E08000004	Oldham	4.9	8.4	3.4
E10000025	Oxfordshire	5.7	9.1	3.4
E06000031	Peterborough	6.6	8.8	2.2
E06000026	Plymouth	6.0	11.5	5.4
E06000029	Poole	7.4	9.4	2.1
E06000044	Portsmouth	8.2	10.3	2.2
E06000038	Reading	6.1	7.6	1.5

Area code	Area name	Current smoking prevalence		
		WAY	modelled	difference
E09000026	Redbridge	1.6	3.7	2.1
E06000003	Redcar and Cleveland	6.0	11.1	5.0
E09000027	Richmond upon Thames	6.7	8.4	1.7
E08000005	Rochdale	6.2	8.6	2.4
E08000018	Rotherham	7.2	10.0	2.9
E06000017	Rutland	4.5	9.5	5.0
E08000006	Salford	5.9	11.5	5.7
E08000028	Sandwell	3.7	7.2	3.5
E08000014	Sefton	5.3	10.0	4.6
E08000019	Sheffield	5.5	9.5	4.0
E06000051	Shropshire	4.7	9.9	5.2
E06000039	Slough	2.6	4.3	1.7
E08000029	Solihull	2.7	8.0	5.3
E10000027	Somerset	7.2	10.1	2.9
E06000025	South Gloucestershire	6.8	8.5	1.8
E08000023	South Tyneside	7.7	11.9	4.2
E06000045	Southampton	8.3	10.9	2.6
E06000033	Southend-on-Sea	6.4	9.4	3.0
E09000028	Southwark	2.9	7.3	4.4
E08000013	St. Helens	6.2	10.4	4.2
E10000028	Staffordshire	5.2	9.2	4.0
E08000007	Stockport	4.4	8.5	4.0
E06000004	Stockton-on-Tees	4.6	9.8	5.3
E06000021	Stoke-on-Trent	10.4	9.8	-0.6
E10000029	Suffolk	5.9	9.5	3.5
E08000024	Sunderland	8.9	11.3	2.5
E10000030	Surrey	4.1	7.9	3.8
E09000029	Sutton	5.4	6.7	1.3
E06000030	Swindon	4.2	9.1	4.9
E08000008	Tameside	8.9	9.6	0.7
E06000020	Telford and Wrekin	4.1	9.9	5.9
E06000034	Thurrock	2.8	8.2	5.3
E06000027	Torbay	10.4	10.4	0.0
E09000030	Tower Hamlets	3.2	6.8	3.5
E08000009	Trafford	2.9	7.9	5.1
E08000036	Wakefield	5.5	10.5	5.0
E08000030	Walsall	5.9	8.2	2.2
E09000031	Waltham Forest	1.3	5.1	3.7
E09000032	Wandsworth	5.0	8.2	3.2
E06000007	Warrington	5.5	9.3	3.9
E10000031	Warwickshire	5.9	8.8	2.9
E06000037	West Berkshire	3.2	9.2	6.0
E10000032	West Sussex	7.1	8.8	1.7
E09000033	Westminster	4.8	8.4	3.6
E08000010	Wigan	4.9	10.3	5.4
E06000054	Wiltshire	5.8	10.0	4.2
E06000040	Windsor and Maidenhead	4.2	7.8	3.6
E08000015	Wirral	4.9	10.4	5.6
E06000041	Wokingham	2.2	7.1	4.8
E08000031	Wolverhampton	5.9	6.7	0.8
E10000034	Worcestershire	6.3	9.2	3.0
E06000014	York	5.3	9.6	4.3



First published: May 2016

© Crown copyright 2016

Re-use of Crown copyright material (excluding logos) is allowed under the terms of the Open Government Licence, visit [www.nationalarchives.gov.uk/doc/open-government-licence/version/3/](http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/) for terms and conditions.