

# The Prevalence of Smoking in the North East

## Background

This report updates and replaces *Occasional Paper 23* as the measures of the smoking prevalence have moved on significantly since its publication. Its purpose is to describe the data sources that SFNE should use as official figures and to provide support for service commissioners and providers in tobacco control. The advent of the Integrated Household Survey (IHS see Box 1 below) significantly changes the situation so this paper should be seen as an interim report until data starts to become available from that source in 2009/2010.

Cigarette smoking is a well recognised cause of preventable ill health, premature death and health inequalities in the North East of England.

Smoking causes chronic respiratory disease, cardiovascular disease, cancers of lung and other sites. Smoking is more common amongst the disadvantaged than affluent members of society<sup>1</sup>.

Reducing smoking prevalence, particularly in the less well off, is essential to reducing health inequalities in the North East.

We need information on smoking prevalence at a number of different levels:

- Regional (e.g. SFNE);
- Local (e.g. local authority);
- Neighbourhood (e.g. electoral ward).

And for a number of purposes including:

- Comparing between groups and areas to understand underlying problems;
- Planning and targeting services;
- Advocating for change; and
- Monitoring changes.

This paper describes the data source that SFNE should use as 'official' figures (e.g. in dealings with media and other agencies). It was agreed to use Region, Local Authority and Ward as the levels for analysis.

There are other data sources which may have specific uses or need to be commented on but the figures in this report should be used wherever possible.

We do not recommend the local collection of further smoking prevalence data without discussion with SFNE.

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## Summary

The SFNE Intelligence Subgroup advises the use of data as follows:

- at regional level we should use data from the General Household Survey;
- at local authority level we should use synthetic estimates used in Health Profiles; and
- at electoral ward level we should use ONS synthetic estimates.

## Regional Level

Information on these risk factors at national and regional level comes mainly from two regular surveys: The Health Survey for England (HSE) and The General Household Survey (GHS). It has been agreed that SFNE will switch to using General Household Survey figures until data from the Integrated Household Survey (IHS see Box 1 below) becomes available. The reasons for this are:

- The National Tobacco team uses GHS rather than HSE
- GHS will be incorporated into IHS

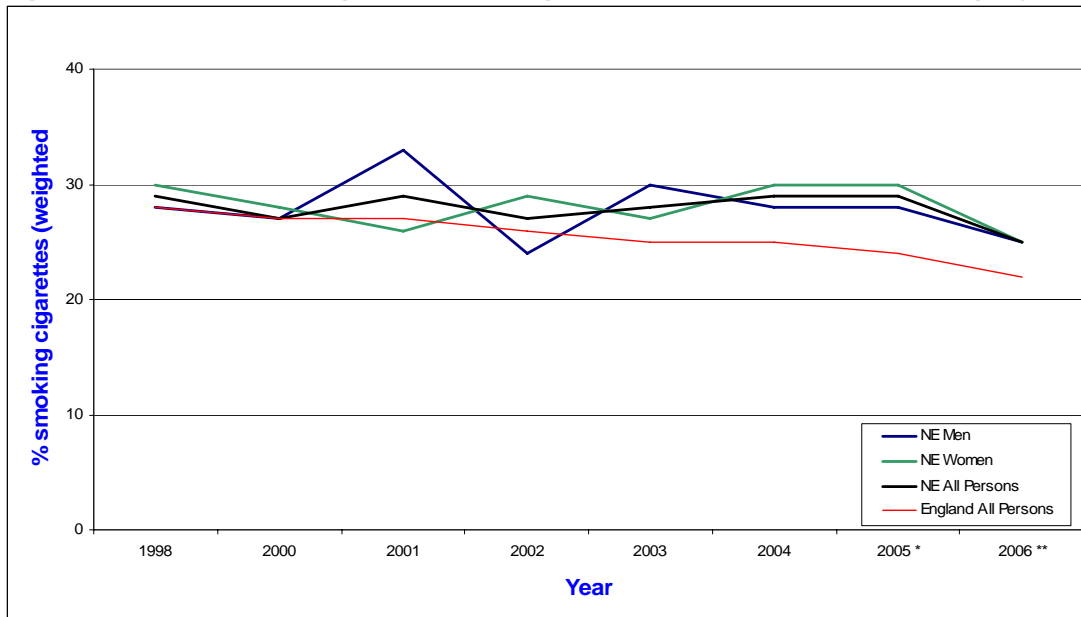
### The General Household Survey

The General Household Survey (GHS) is a continuous national survey of people living in private households conducted by the Office for National Statistics. The sample size for each year includes 13,250 households with about a 76% response rate. This sample size represents a small proportion of the population (677 individuals in the North East in 2006) and so useful information can only be drawn at relatively large population sizes. Results are not usually reported below the level of Government Office Region, but can be used in modelling synthetic estimates at lower level. However, the inclusion of questions on smoking in every year since 2000, together with the relative stability of smoking prevalence in recent years, facilitates the combination of several years of data to enable more robust regional comparisons to be made.<sup>3</sup>

**The most recent North East data are from GHS 2006 giving a prevalence of 25% (the same in men and women) compared to 22% for Great Britain (23% in men 21% in women).**

The 2004-6 combined data (sample size 2314) are: North East 28% overall: 27% in men and 28% in women. For Great Britain they are 23% overall: 27% in men and 20% in women.

**Figure 1 Prevalence of cigarette smoking: North East, 1998 to 2006 (single year data)**



Source: The Office for National Statistics: General Household Survey<sup>3</sup>

### BOX 1 - The Integrated Household Survey (IHS)

The Office for National Statistics (ONS) is developing a modular single survey system covering all the major surveys currently undertaken by ONS. It will be an unclustered, household survey so full implementation will take two years (starting January 2008) to bring all surveys into this format. Sample size will eventually be 200,000 households (370,000 individuals) across Great Britain per annum. This equates to nearly 12,500 individuals per year in the North East – probably sufficient to measure annual changes at PCT level. Core topics asked of all people surveyed include demography, health, limiting long term illness and smoking. Questions (to over 18s) are *Have you ever smoked?* and *Do you smoke now?*

See also: <http://www.statistics.gov.uk/cci/nugget.asp?id=936>

## Local Authority Level

There was greater difficulty selecting a primary data source for Local Authority (LA) level. There are currently about eight estimates available for each local authority from a range of sources including synthetic estimates, local lifestyle surveys, commercial data and primary care data each with their own strengths and weaknesses.<sup>4,5</sup> Given the expectation that the IHS will be capable of producing LA level data by 2010, it is recommended that synthetic estimates are used until then when, for example, comparing local authorities since the method of estimation is the same for all.

### *Model Based Estimates of Current Smoking Prevalence*

There is a range of model based or synthetic estimates available. The most widely accessed seem to be those in the local authority Health Profiles (<http://www.communityhealthprofiles.info/>) so we have used those produced by National Centre for Social Research (NatCen) in December 2007 for the 2008 Health Profiles (also available from <http://www.ic.nhs.uk> and <http://www.neighbourhood.statistics.gov.uk>).

These data are useful for planning and advocacy. However, synthetic estimates are the expected smoking rates, given the characteristics of the population (applying national data) so cannot be used for monitoring change. The North East and England figures are given for comparison, but GHS should normally be used for these levels.

**Table 1 Model-Based Estimates of Current Smoking for Local Authorities in the Region**

Local Authority Name	Estimate of Current smokers (%)	Lower 95% Confidence Interval (%)	Upper 95% Confidence Interval (%)
Castle Morpeth	16.2	13.4	19.3
Tynedale	20.4	17.5	23.5
Alnwick	20.7	17.4	24.5
Teesdale	21.1	17.8	24.8
City of Durham	23.2	20.3	26.5
Chester-le-Street	23.9	20.7	27.5
Easington	24.1	20.0	28.9
Derwentside	25.5	22.4	29.0
Berwick-upon-Tweed	25.9	21.2	31.1
Redcar and Cleveland	26.8	23.7	30.1
Sedgefield	27.3	23.9	31.0
Stockton-on-Tees	27.5	24.3	30.9
Blyth Valley	27.7	24.4	31.3
Darlington	27.9	24.7	31.5
Wear Valley	27.9	24.3	31.9
Wansbeck	28.7	25.2	32.5
North Tyneside	28.9	25.7	32.3
Newcastle upon Tyne	31.7	28.0	35.8
Sunderland	32.4	29.0	36.0
Hartlepool	33.2	29.4	37.3
Gateshead	33.3	29.7	37.2
Middlesbrough	34.8	30.9	39.0
South Tyneside	34.9	31.0	39.0
<b>North East</b>	<b>29.1</b>	<b>25.7</b>	<b>32.5</b>
<b>England</b>	<b>24.1</b>	<b>23.4</b>	<b>24.7</b>

Source: The Information Centre for Health and Social Care, 2007 using Health Surveys for England 2003 to 2005.

## Ward Level

Below local authority level there are few options. The ONS ward level estimates of smoking prevalence (16+) 2000/02 are available for all electoral wards in the North East via the NEPHO website: [http://www.nepho.org.uk/svg/ward\\_lifestyle\\_data\\_synthetic/map.htm](http://www.nepho.org.uk/svg/ward_lifestyle_data_synthetic/map.htm) (you will need Windows Explorer and Adobe SVG to view the data, see <http://www.nepho.org.uk/index.php?c=204>). The values range from 55% (Grange Town, Middlesbrough) to 10% (Ponteland South, Castle Morpeth, Northumberland) but of the 274 wards, 197 (72%) have confidence intervals overlapping the England average (57 are higher and 20 are lower). These data are also available from ONS Neighbourhood Statistics at: <http://neighbourhood.statistics.gov.uk/dissemination/Download1.do>.

These data are useful for planning and advocacy. For example, targeting of services should be proportional to these estimates. But they cannot be used for monitoring because they do not change with local interventions. Caution must also be exercised in making comparisons because of the very wide confidence intervals. It is not possible to collect data suitable for monitoring at this level because the populations are too small, but other methods for looking at smoking inequalities below local authority level are being looked at.

## Acknowledgements

We are grateful for the help and support provided to the project by the Smoke Free North East Office, and members of the Intelligence Subgroup whose ideas informed this report and to NEPHO staff, particularly Gillian Bryant for sourcing the data.

## Further Information

Further details of analyses and methodology presented in this report are available from NEPHO.

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