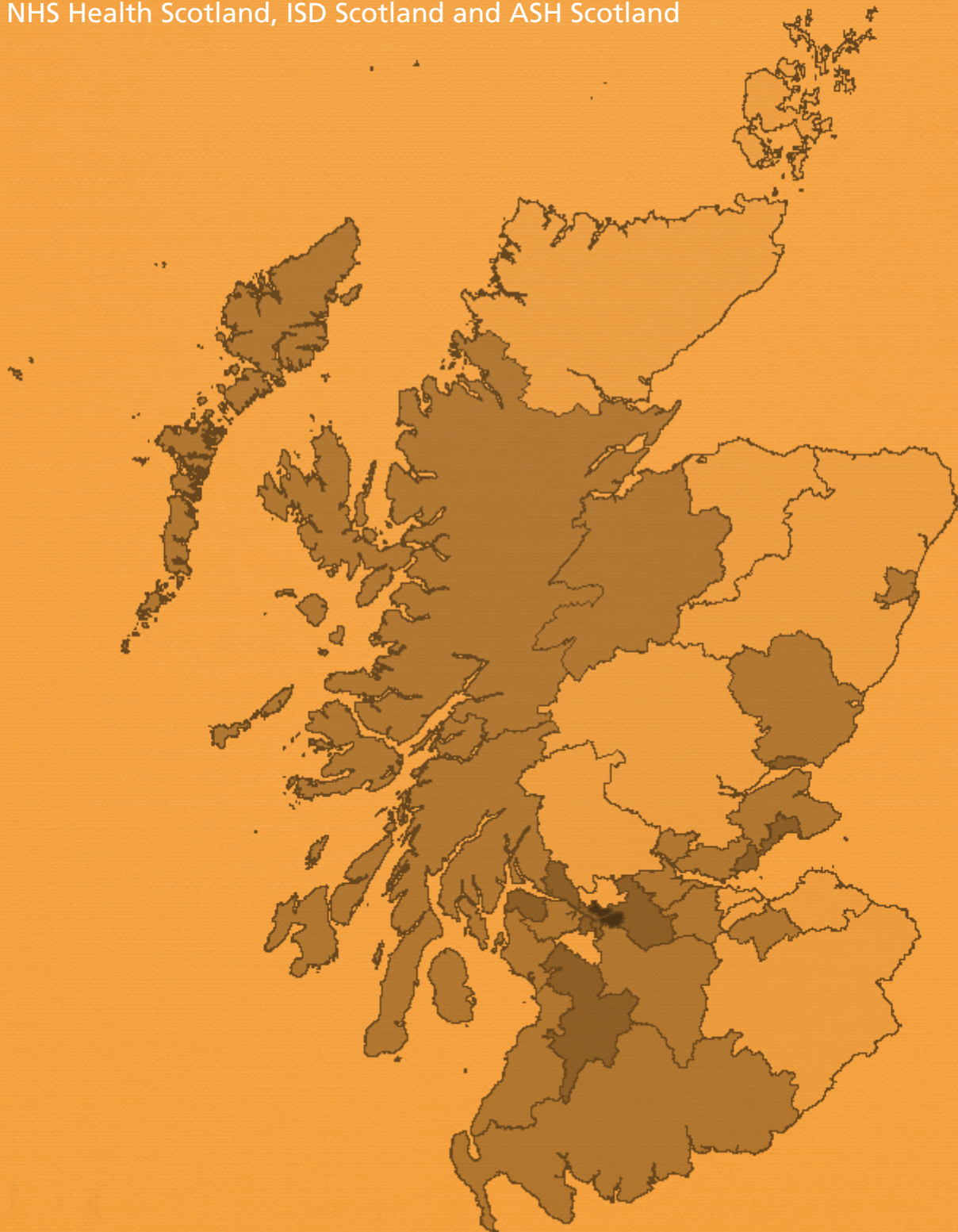


AN ATLAS OF TOBACCO SMOKING IN SCOTLAND:

A REPORT PRESENTING ESTIMATED SMOKING PREVALENCE
AND SMOKING-ATTRIBUTABLE DEATHS WITHIN SCOTLAND

NHS Health Scotland, ISD Scotland and ASH Scotland



Editorial Team

Bruce Whyte, David Gordon, Sally Haw (NHS Health Scotland)
Colin Fischbacher, Nick Scott (ISD Scotland)
Rachel Harrison (ASH Scotland)

Contact for correspondence: scotpho@isd.csa.scot.nhs.uk

www.scotpho.org.uk/tobaccoatlas

Published by Health Scotland

Edinburgh Office:
Woodburn House, Canaan Lane,
Edinburgh EH10 4SG

Glasgow Office:
Clifton House, Clifton Place,
Glasgow G3 7LS

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ISBN: 1-84485-389-6

Health Scotland is a WHO Collaborating
Centre for Health Promotion and
Public Health Development.

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Appendix 1: Maps of estimated smoking prevalence (2003/04) by intermediate zone within four city councils: Aberdeen, Glasgow, Dundee and Edinburgh

(The following appendices are accessible on the web at: www.scotpho.org.uk/tobaccoatlas)

Appendix 2: Tables of smoking estimates for intermediate zones and postcode sectors (MS Excel)

Appendix 3: Smoking Prevalence in Scotland: 2003/04 sub-national estimates – the main report on creation of smoking estimates (pdf)

Appendix 4: Technical supplement to main report on creation of smoking estimates (pdf)

Appendix 5: Description of method applied to calculate smoking-attributable mortality (pdf)

Appendix 6a: Detailed tables on smoking-attributable mortality for Scotland, 1950–2004 (pdf)

Appendix 6b: Detailed tables on smoking-attributable mortality for NHS board, 2000–2004 (pdf)

Appendix 7: Smoking-attributable mortality tables for Scotland, NHS boards and CHPs by cause, age and sex (MS Excel)

Acknowledgments

We would like to thank Graham Moon and his colleagues at the University of Portsmouth for calculating the smoking estimates that form the basis of this atlas. In relation to this work, we acknowledge the important assistance afforded by Lisa Taylor and the Scottish Household Survey Project Team.

Additionally, we would like to thank:

Jillian Boreham (CTSU, University of Oxford), for producing updated smoking-attributable mortality data for Scotland and for individual NHS boards.

Shona Nicol and Jane Allan (Scottish Executive), for their help in providing relevant mapping and look-up files.

1. Introduction

1.1 What the atlas provides

This atlas presents estimates of current smoking prevalence – via tables and maps – at a number of relevant administrative levels. These estimates are perhaps most useful at the level of Community health partnerships (CHPs) and below, where such estimates have not been available in this form before. Used judiciously along with local knowledge they should help target smoking-cessation initiatives and assist other efforts to reduce tobacco harm.

While the atlas also contains estimates of smoking prevalence at NHS board and council level, presenting smoking estimates for these levels was not the primary reason for creating the atlas. Existing national surveys already provide estimates of smoking prevalence at these larger administrative levels.

In addition to the smoking prevalence estimates, independent estimates of smoking-attributable deaths have been calculated for NHS boards and individual CHPs. Bearing in mind various caveats with respect to their accuracy, we hope that the estimates of smoking mortality will be an additional useful resource for planners both locally and nationally.

1.2 Background

The work to create a tobacco atlas for Scotland builds on a number of preceding publications, notably *The Scottish Epidemic*^{1,2}, which presented deaths and hospitalisations related to smoking at a Scottish level and at a range of sub-national geographies. Later, in the early 1990s, *The Smoking Epidemic – Counting the cost in Scotland*^{3,4}, added to the picture of smoking-related harm by not only estimating smoking-attributable hospital admissions and deaths within Scotland, but also including estimates of the cost of smoking-related hospital care.

However, none of these publications showed smoking prevalence at a sub-national level. It was this gap in intelligence that led to the initiation of work to create a tobacco atlas for Scotland in 2001/02, when the Health Education Board for Scotland (HEBS), the Public Health Institute of Scotland (PHIS) and ASH Scotland commissioned Professor Graham Moon and colleagues at the University of Portsmouth to generate small area estimates of smoking prevalence and smoking-related mortality for specified target geographies.

These initial estimates were made by applying multilevel modelling techniques to data from the 1995 and 1998 Scottish Health Survey and the 1991 decennial population census. In 2003 Professor Moon and colleagues were commissioned to update their estimates using the 2001 population census. The resulting estimates, although not published in an atlas format, were shared with health boards and appeared as part of Health Scotland's constituency profiles⁵ and community profiles⁶ published in 2004.

1.3 Tobacco Atlas project

In October 2005, Health Scotland, ASH Scotland and ISD Scotland commissioned Professor Moon and his team to produce a new, updated set of smoking estimates using the 2003/04 Scottish Household Survey (SHsS) and the 2001 census. The SHsS was chosen for the modelling instead of the Scottish Health Survey because of its larger sample and greater frequency, and also because the smoking prevalence estimates from the SHsS are increasingly used as the main official source for monitoring levels of adult smoking.

The updated estimates cover a variety of sub-national geographies. This report provides data for NHS health boards, councils, CHPs and Scottish parliamentary constituencies. Electronic appendices also provide smoking prevalence estimates for intermediate zones^a and postcode sectors.

It should be noted that the atlas would have been completed considerably earlier, but for delays in agreeing the boundaries (and obtaining accompanying map and look-up files) for the 41 new CHPs^b within Scotland. Given the importance of CHPs in planning and delivering services aimed at health improvement, it was felt that their inclusion in the atlas was vital despite the delay incurred.

2. Aims

The primary aim of the atlas is to provide smoking prevalence estimates at a variety of relevant geographical levels, particularly for small areas, as a resource to support smoking cessation and prevention activities within NHS boards, community health partnerships and councils across Scotland.

The atlas will be a valuable resource when used in conjunction with local knowledge, for health improvement directors and planners in CHPs, health improvement officers within local authorities and smoking cessation co-ordinators, health promotion officers and planners within health boards. Additionally, it is expected that a range of national organisations will find the atlas of use in identifying areas in which to target effort.

Alongside the smoking estimates, we have included estimates of smoking-attributable deaths in order to illustrate the burden of smoking-related harm within Scotland.

Finally, it is worth emphasising – as we stress repeatedly throughout the report – that the smoking prevalence figures presented are *estimates* and as such should be interpreted carefully, ideally along with local knowledge.

3. Methods

There is little reliable information on smoking prevalence at a sub-national scale within Scotland. Health board and council level estimates of smoking can be derived from national surveys, but reliable estimates of smoking for smaller areas are not available from national surveys. To bridge this information gap, multilevel synthetic estimation has been applied to data from the 2003/04 Scottish Household Survey and the 2001 census. In very general terms this approach allows identification of the numbers of people in a particular ‘target’ area who, given certain assumptions based on their characteristics in census data, might be expected to be current smokers.

The approach recognises that the chance of an individual smoking reflects not only that individual's personal characteristics, but also the characteristics of the environment in which they live, which may influence behaviour. The present research used a multilevel structure of individuals, nested within postcode sectors, nested within council areas. This structure provides an approximate basis for capturing personal, community and mid-scale influences on smoking.

a The intermediate zones are aggregations of data zones within local authorities and contain between 2,500 and 6,000 people.

b In parts of Scotland the partnerships encompass social work and other care services and consequently are described as Community Health and Care Partnerships (CHCPs). There is also one Community Health and Social Care Partnership in Moray.

The multilevel synthetic estimation procedure of Twigg *et al*⁷ is used in the present study. This approach both allows the generation of age–sex disaggregated estimates and also models processes appropriately in relation to their level of operation. It has been subject to peer-reviewed evaluation in a leading journal and favourable third party assessment.^{8,9} It was the procedure used in the two previous sub-national smoking estimation exercises in Scotland and in a recent study of smoking in England.¹⁰

Using this approach, adult smoking prevalence predictions were generated by age, sex and marital status for each census output area and then aggregated to the larger geographies of postcode sectors, census area sectors, intermediate zones, council areas, Scottish parliamentary constituencies, NHS boards and, latterly, CHPs.

A more detailed description of this process, the variables used and results obtained is available in Professor Moon’s main report on the smoking estimation work (Appendix 3) and in the technical supplement (Appendix 4) to this report; the latter includes an assessment of the quality of the derived estimates.

4. Results

In this section the modelled estimates of adult smoking are presented at a variety of geographies in map and tabular format with brief interpretive commentary. It is worth reiterating that the smoking survey data used to create the estimates come from the 2003/04 Scottish Household Survey and so this is the period to which all the reported estimates of current smoking in this report refer.

The question from this survey that has been used to define current smoking is shown below:

Question on current smoking from 2003/04 Scottish Household Survey

RG19 DO YOU SMOKE CIGARETTES NOWADAYS?

Yes [1]

No [2]

The exact wording of the question excludes pipe and cigar smoking and, thus, their contribution is not included in the modelled estimates of smoking prevalence presented in this atlas.

Prior to viewing the results it is worth being aware of a range of caveats relating to the accuracy of the data, and to note our advice on interpretation and geographical issues.

4.1 Accuracy

The estimates of smoking prevalence at local level almost certainly will not mirror precisely any available measures from local studies or surveys. In this regard it is important to note that neither the national nor the council level modelled estimates of smoking exactly match the Scottish Household Survey smoking results for 2003/04 (one of the sources from which the estimates were derived), and they were not expected to.

During the modelling process, credible intervals for the estimates were calculated. These are equivalent to confidence intervals and can be used as a guide to the degree of uncertainty in the estimates at small area and higher levels^c. Appendix 3 contains tables of smoking estimates with credible intervals at NHS board, CHP, council and Scottish parliamentary constituency level.

Despite these caveats, the modelled estimates generally align well with past work and common-sense expectations. The data indicate expected levels of smoking, given the local expression of national statistical associations between key indicators and these target variables. In the absence of better information, particularly at the small area level, they provide a helpful basis for further work on smoking prevalence and smoking cessation.

4.2 Interpretation

Caution should be exercised when using and quoting from the data. Comparisons between areas should be made with care, particularly when differences are small. Professor Moon and colleagues recommend that users adopt the following types of statement when using the estimates presented in the atlas and accompanying tables:

- Given the characteristics of the local population and the regional setting, we would expect a smoking prevalence of approximately *x%* within *[this area]*
- Given the characteristics of the local population and regional setting, *[this area]* is estimated to be within the highest (or lowest) *x%* of *[intermediate zones, postcode sectors, etc.]* in terms of smoking prevalence.

Exact numbers and decimal places are given to facilitate users' manipulation of the data, but the results should not be regarded as accurate to this level of detail. Additionally, given that the smoking figures presented are synthetic modelled estimates, it would not be appropriate to use them for performance monitoring.

4.3 Geographical issues

There are several issues relating to geographies used in this report that are worth clarifying:

- The smoking estimates for NHS boards are presented using the new health board configuration following the dissolution of NHS Argyll & Clyde. Under the new configuration there are 14 boards, with NHS Greater Glasgow & Clyde (NHS GG&C) absorbing the parts of Argyll & Clyde that included Inverclyde, part of East Renfrewshire, Renfrewshire and part of West Dunbartonshire, and NHS Highland absorbing the Argyll & Bute part of Argyll & Clyde
- The two Lanarkshire CHPs are co-terminous with the North and South Lanarkshire council boundaries and, as a result, incorporate population from NHS GG&C. The South Lanarkshire CHP includes a population of 55,000 from the Cambuslang and Rutherglen areas of NHS GG&C, and North Lanarkshire includes 16,500 people from the Moodiesburn, Muirhead, Stepps and Chryston districts of NHS GG&C
- As a consequence of the administrative arrangements relating to the Lanarkshire CHPs – as described above – the smoking and smoking-attributable mortality figures for CHPs in Greater Glasgow & Clyde do not aggregate to the total for the NHS board as a whole. Similarly, in Lanarkshire, an aggregation of estimates of smokers (or deaths due to smoking) in the two Lanarkshire CHPs does not equate to the NHS board total

^c Credible intervals are derived via Markov Chain Monte Carlo methods and can be interpreted in much the same way as traditional confidence intervals.

- The majority of intermediate zones have been named, but in three council areas (West Dunbartonshire, Moray and East Lothian) official names have not been assigned to the zones. In the smoking tables that follow, unofficial names have been given to intermediate zones from these areas.
- Finally, it is worth noting that not all intermediate zones fall completely within one CHP. Where there is an element of overlap, the intermediate zone has been allocated to the CHP area in which the majority of the population resides.

4.4 NHS boards

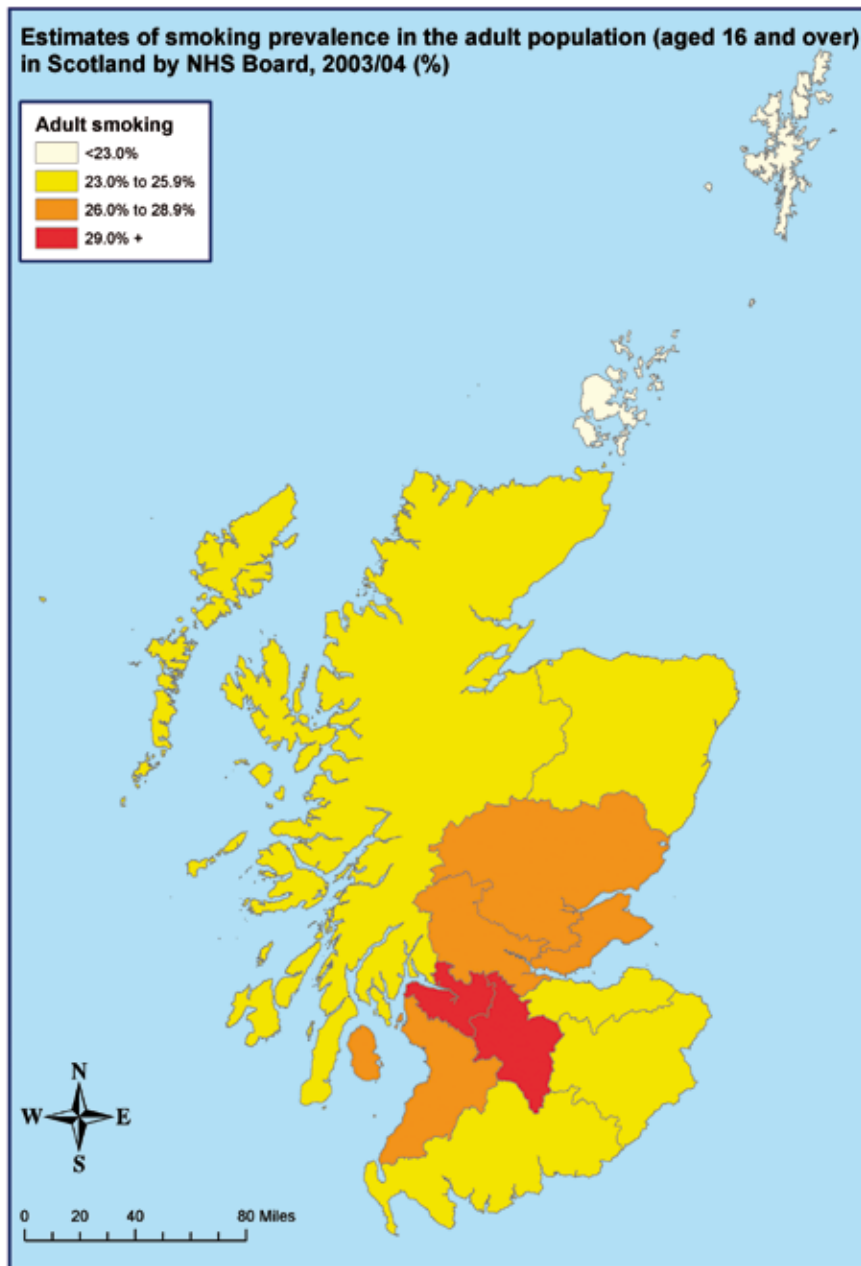
- In the period to which these figures relate (2003/04) there were estimated to be approximately 1.1 million adult smokers in Scotland – 27.2% of the adult population.
- A slightly higher proportion of men (28.1%) smoke than women (26.5%) but, given that the female population is larger than the male population, there are slightly more female smokers (570,000 vs. 543,000).
- The highest smoking prevalences are in Greater Glasgow and Clyde (29.8%), Lanarkshire (29.3%) and Ayrshire and Arran (28.9%), whereas the lowest are in Orkney (21.7%) and Shetland (22.5%).

Table 1 Estimated number and percentage of smokers in the adult population (aged 16 and over) by NHS board and sex, Scotland, 2003/04

NHS board	Males (16+)		Females (16+)		Persons (16+)	
	Smokers	As % of male population	Smokers	As % of female population	Smokers	As % of population
Ayrshire & Arran	41,029	29.5	44,704	28.3	85,733	28.9
Borders	10,084	24.5	10,578	23.2	20,661	23.9
Dumfries and Galloway	15,040	26.4	15,626	24.9	30,665	25.6
Fife	38,517	29.0	41,156	27.8	79,673	28.4
Forth Valley	29,029	27.3	31,440	26.6	60,468	26.9
Grampian	52,580	25.2	51,227	23.5	103,807	24.4
Greater Glasgow & Clyde	138,400	30.9	149,366	28.8	287,766	29.8
Highland	30,869	26.3	30,565	24.5	61,435	25.4
Lanarkshire	62,078	29.8	67,260	28.8	129,338	29.3
Lothian	78,146	26.1	79,977	23.9	158,123	24.9
Orkney	1,717	22.8	1,620	20.6	3,336	21.7
Shetland	1,998	23.2	1,869	21.8	3,867	22.5
Tayside	40,311	26.9	42,295	25.3	82,606	26.0
Western Isles	2,888	27.3	2,630	24.1	5,518	25.7
Scotland	542,684	28.1	570,313	26.5	1,112,997	27.2

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

Map 1



4.5 Community health partnerships

- The CHPs with the highest smoking prevalence are concentrated in the West of Scotland, particularly in Glasgow. North Glasgow and East Glasgow have the highest prevalence of adult smoking (37.5%), followed by South West Glasgow (34.0%) and West Dunbartonshire (33.3%).
- The CHPs with the lowest adult smoking levels include a mixture of suburban West of Scotland areas – East Dunbartonshire (18.6%) and East Renfrewshire (19.2%) – and rural areas – Orkney (21.7%), Perth and Kinross (21.8%) and Shetland (22.5%).

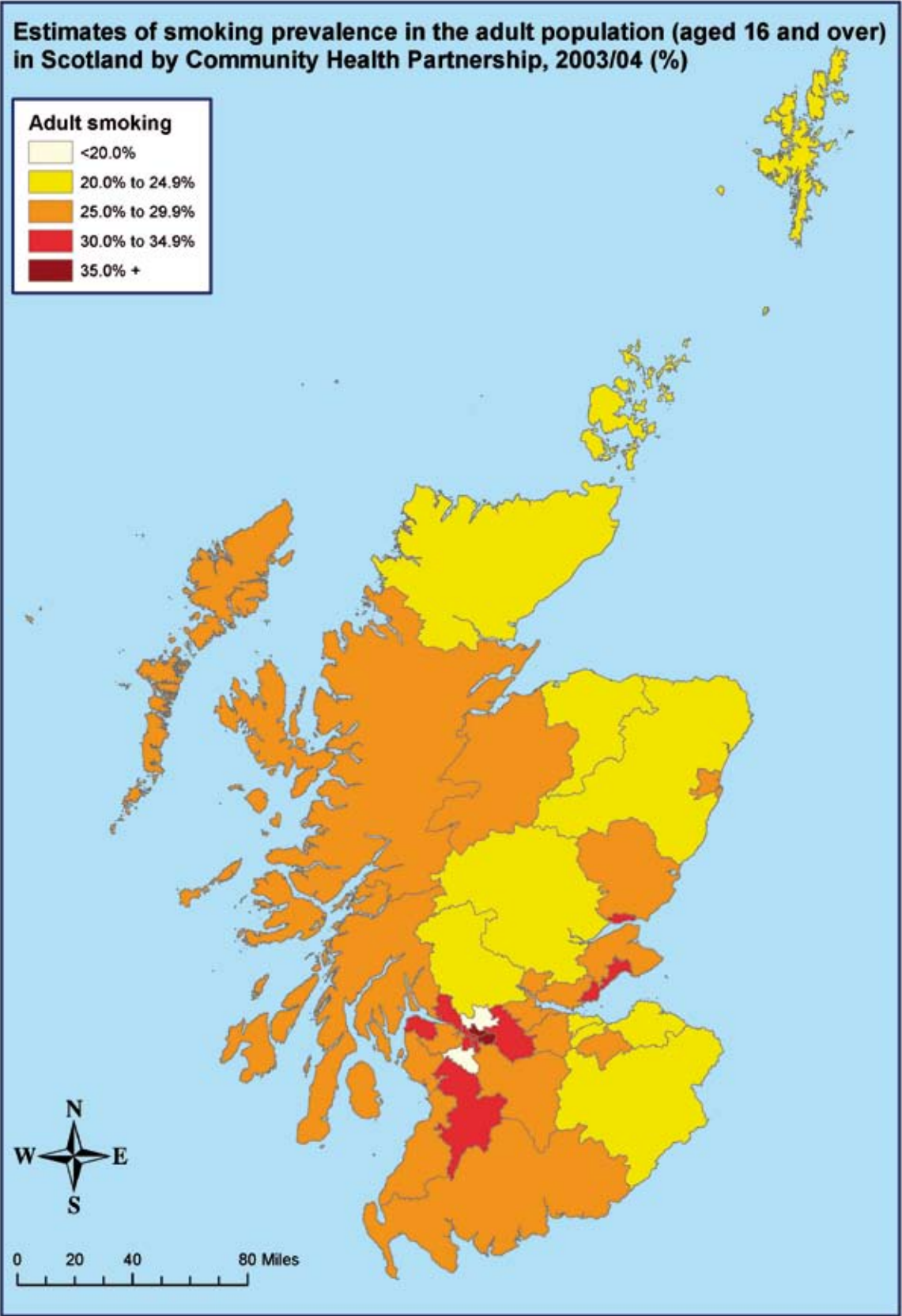
The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

Table 2 Estimated number and percentage of current smokers in the adult population (aged 16 and over) by CHP and sex, Scotland, 2003/04

Community Health Partnership (CHP)	Males (16+)		Females (16+)		Persons (16+)	
	Smokers	As % of male population	Smokers	As % of female population	Smokers	As % of population
Aberdeen City CHP	24,031	28.0	22,885	25.0	46,916	26.5
Aberdeenshire CHP	20,299	23.1	20,627	22.6	40,926	22.8
Angus CHP	10,877	25.9	11,314	24.6	22,191	25.2
Argyll & Bute CHP	9,536	26.4	9,242	24.3	18,778	25.3
Clackmannanshire CHP	5,499	30.3	5,857	29.4	11,357	29.8
Dumfries & Galloway CHP	15,040	26.4	15,626	24.9	30,665	25.6
Dundee City CHP	17,680	31.6	18,908	29.6	36,589	30.5
Dunfermline & West Fife CHP	15,074	29.5	15,937	28.3	31,011	28.9
East Ayrshire CHP	14,821	32.5	16,096	31.7	30,917	32.1
East Dunbartonshire CHP	7,656	18.8	8,403	18.4	16,059	18.6
East Glasgow CHCP	18,295	38.8	20,154	36.4	38,449	37.5
East Lothian CHP	8,281	24.8	9,010	23.7	17,290	24.2
East Renfrewshire CHCP	6,359	19.5	7,081	18.9	13,439	19.2
Edinburgh North CHP	21,290	25.4	20,590	21.7	41,879	23.5
Edinburgh South CHP	23,428	25.1	22,774	22.0	46,203	23.5
Falkirk CHP	15,763	28.4	16,988	27.7	32,751	28.0
Glenrothes & North East Fife CHP	11,954	26.0	12,757	24.8	24,711	25.4
Inverclyde CHCP	10,067	31.8	10,664	29.5	20,731	30.6
Kirkcaldy & Levenmouth CHP	11,489	32.3	12,463	30.8	23,952	31.5
Mid Highland CHP	8,973	26.6	9,093	25.3	18,066	25.9
Midlothian CHP	8,060	26.8	8,900	26.2	16,960	26.5
Moray CHSCP	8,250	23.9	7,716	22.1	15,966	23.0
North Ayrshire CHP	14,352	28.5	16,095	27.6	30,446	28.0
North Glasgow CHCP	14,315	38.9	15,973	36.4	30,287	37.5
North Highland CHP	3,927	25.8	3,805	23.9	7,732	24.8
North Lanarkshire CHP	38,858	32.3	42,244	31.3	81,102	31.7
Orkney CHP	1,717	22.8	1,620	20.6	3,336	21.7
Perth & Kinross CHP	11,754	22.5	12,072	21.1	23,826	21.8
Renfrewshire CHP	17,897	27.4	19,077	25.8	36,974	26.5
Scottish Borders CHCP	10,084	24.5	10,578	23.2	20,661	23.9
Shetland CHP	1,998	23.2	1,869	21.8	3,867	22.5
South Ayrshire CHP	11,857	27.5	12,513	25.7	24,370	26.5
South East Glasgow CHCP	12,815	33.1	13,000	29.7	25,815	31.3
South East Highland CHP	8,433	26.3	8,426	24.1	16,859	25.1
South Lanarkshire CHP	30,511	26.9	33,087	25.6	63,598	26.2
South West Glasgow CHCP	14,840	35.4	16,431	32.8	31,271	34.0
Stirling CHP	7,766	23.8	8,594	23.3	16,360	23.5
West Dunbartonshire CHP	11,800	34.1	13,079	32.6	24,879	33.3
West Glasgow CHCP	17,065	32.2	17,433	28.7	34,498	30.3
West Lothian CHP	17,087	29.0	18,703	28.8	35,791	28.9
Western Isles CHP	2,888	27.3	2,630	24.1	5,518	25.7
Scotland	542,684	28.1	570,313	26.5	1,112,997	27.2

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

Map 2



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

4.6 Individual NHS boards

Note on maps: Please note that not all the CHP boundaries fit exactly to the NHS board boundaries on the maps. There are a number of possible reasons for this lack of co-terminosity.

As explained previously, the South Lanarkshire CHP includes Cambuslang and Rutherglen, which are part of NHS GG&C, while the North Lanarkshire CHP includes the Moodiesburn, Muirhead, Stepps and Chryston districts of NHS GG&C.

There are other small differences in boundaries that arise from the different ways that NHS board boundaries and CHP boundaries were originally defined. NHS board boundaries were based on local government areas described in the Local Government (Scotland) Act 1973. This set out a uniform two-tier system of regional and district councils that were replaced in 1996 with unitary local authorities. This means that although most NHS boards cover one or more complete local authorities, there are cases where local authorities are split or where boundaries are mismatched. CHPs are co-terminous with the local authority boundaries (as at 2005) or sub-divisions of these boundaries. Another reason why there may be differences between the boundaries is that there have been minor changes between the 1996 and 2005 local authority boundaries.

There are also known anomalies in the mapping files used to create the atlas maps, which we could not correct. For example, the outline of Holy Island (off Arran) and the island of Little Cumbrae are shown, but are not defined as part of the intermediate zone mapping file and thus are not coloured in accordance with the smoking prevalence of the intermediate zone of which they are part.



NHS Ayrshire & Arran

- 29% of adults (86,000 people) in the board area are current smokers (2003/04), a figure which is slightly above the Scottish average.
- Smoking prevalence is highest in the 25–34 age group and drops progressively in older age groups.
- Of the three CHPs, East Ayrshire has the highest smoking prevalence but there is a two- to threefold variation in smoking prevalence across each CHP at a small area level.
- 23% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).



Table 3 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	5,615	9,338	8,505	7,880	5,579	3,009	1,104	41,029
Females	6,549	9,425	8,927	7,781	5,896	3,850	2,277	44,704
All	12,164	18,763	17,432	15,661	11,474	6,858	3,380	85,733

Percentage of smokers in the population by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	30.7	41.4	32.3	30.9	26.7	19.3	11.3	29.5
Females	35.8	38.9	30.8	29.4	26.1	20.2	12.6	28.3
All	33.3	40.1	31.5	30.2	26.4	19.8	12.1	28.9

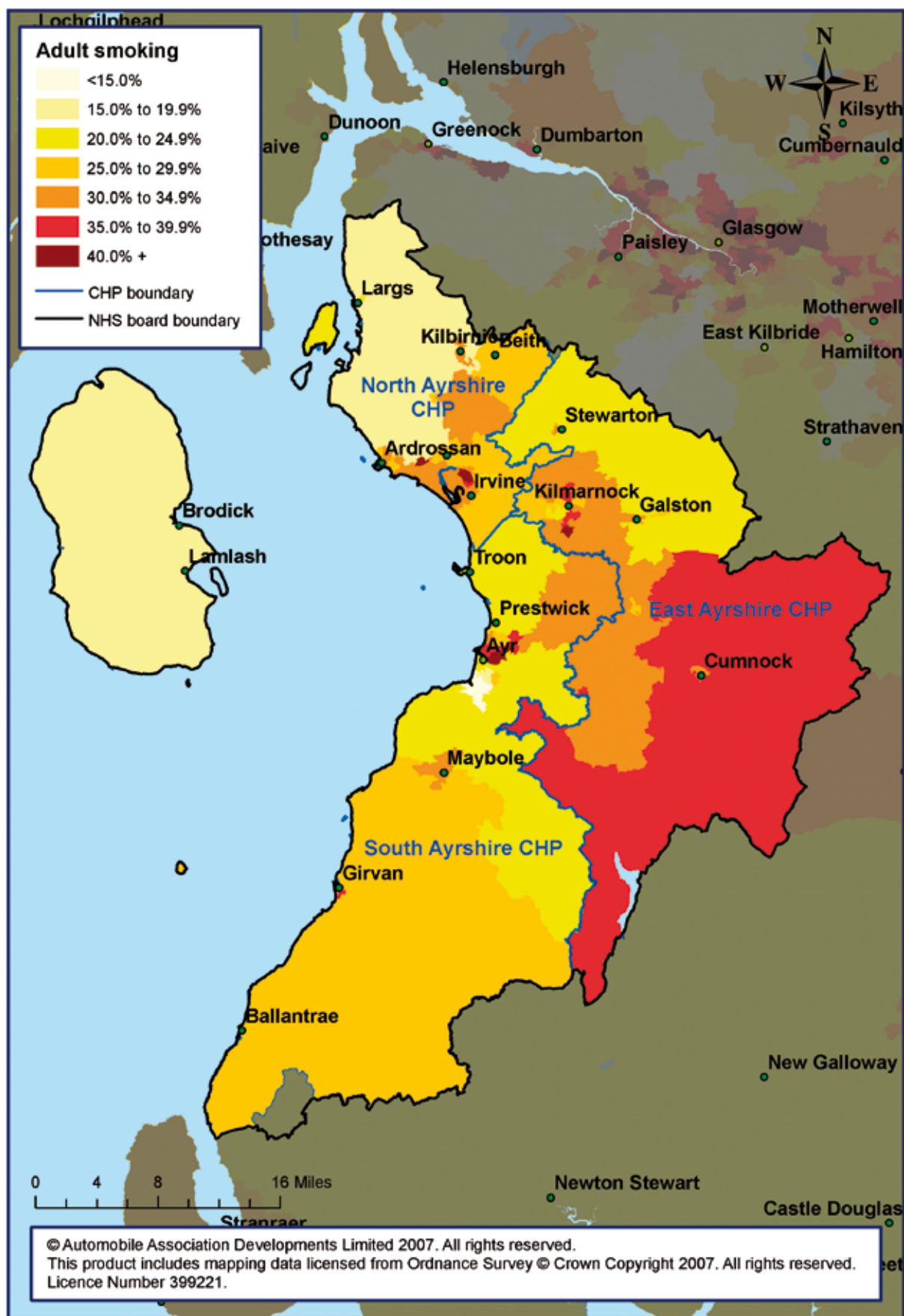
Table 4 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
East Ayrshire CHP	14,821	16,096	30,917	32.1	Shortlees	40.7	Stewarton East	21.7	19.0	1.9
North Ayrshire CHP	14,352	16,095	30,446	28.0	Irvine Castlepark North	40.6	Largs North	16.4	24.2	2.5
South Ayrshire CHP	11,857	12,513	24,370	26.5	Dalmilling and Craigie	41.1	Alloway and Doonfoot	11.5	29.6	3.6

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



Map 3 Estimates of smoking prevalence (%) in the adult population (aged 16 and over), Ayrshire & Arran NHS Board, 2003/04



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



NHS Borders

- 24% of adults (21,000 people) in the board area are current smokers (2003/04), a figure which is below the Scottish average.
- Smoking prevalence is highest in the 16–24 and 25–34 age groups and drops progressively in older age groups.
- At a small area level there is an almost twofold variation in smoking levels across the region with a range varying from 31% to 17%.
- 18% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).

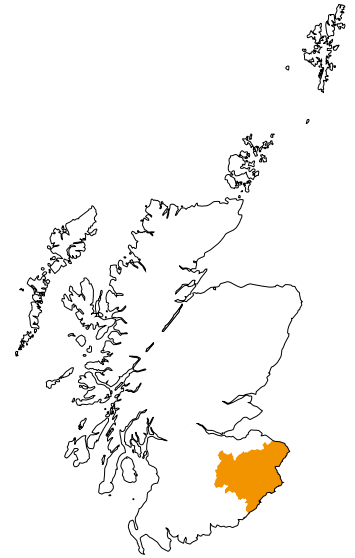


Table 5 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	1,258	2,091	2,208	2,007	1,414	785	321	10,084
Females	1,382	1,943	2,186	2,013	1,509	947	598	10,578
All	2,640	4,034	4,394	4,020	2,924	1,732	918	20,661

Percentage of smokers in the population by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	28.9	33.6	27.3	26.2	22.4	15.7	9.2	24.5
Females	31.2	30.1	25.9	25.9	22.5	16.6	10.0	23.2
All	30.1	31.8	26.6	26.0	22.4	16.2	9.7	23.9

Table 6 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
Scottish Borders CHCP	10,084	10,578	20,661	23.9	Burnfoot and area	30.9	West Linton and Broughton area	16.5	14.4	1.9

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



Map 4 Estimates of smoking prevalence (%) in the adult population (aged 16 and over), Borders NHS Board, 2003/04



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



NHS Dumfries & Galloway

- 26% of adults (31,000 people) in the board area are current smokers (2003/04), a figure which is slightly below the Scottish average.
- Smoking prevalence is highest in the 25–34 age group and drops progressively in older age groups.
- At a small area level there is a more than twofold variation in smoking levels across the region with a range varying from 36% to 15%.
- 22% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).



Table 7 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	1,923	3,150	3,105	2,963	2,202	1,232	465	15,040
Females	2,109	3,041	3,076	2,785	2,264	1,486	864	15,626
All	4,032	6,191	6,181	5,748	4,466	2,718	1,330	30,665

Percentage of smokers in the population by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	30.0	38.2	29.4	28.0	24.0	16.8	9.9	26.4
Females	34.3	34.7	27.3	26.3	23.1	17.5	11.1	24.9
All	32.1	36.4	28.3	27.1	23.5	17.2	10.6	25.6

Table 8 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
Dumfries & Galloway CHP	15,040	15,626	30,665	25.6	Lincluden and Lochside	35.6	Fleet	20.3	15.4	1.8

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



NHS Fife

- 28% of adults (80,000 people) in the board area are current smokers (2003/04), a figure which is slightly above the Scottish average.
- Smoking prevalence is highest in the 25–34 age group and drops progressively in older age groups.
- Of the three Fife CHPs, Kirkcaldy & Levenmouth has the highest overall smoking prevalence, but there is a two- to threefold variation in smoking prevalence across each CHP at a small area level.
- 23% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).

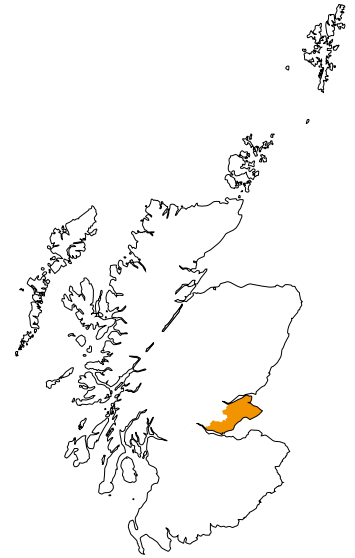


Table 9 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	5,803	8,719	8,066	7,252	4,989	2,655	1,033	38,517
Females	6,500	8,516	8,115	7,301	5,212	3,369	2,143	41,156
All	12,304	17,235	16,182	14,552	10,201	6,024	3,176	79,673

Percentage of smokers in the population by age and sex

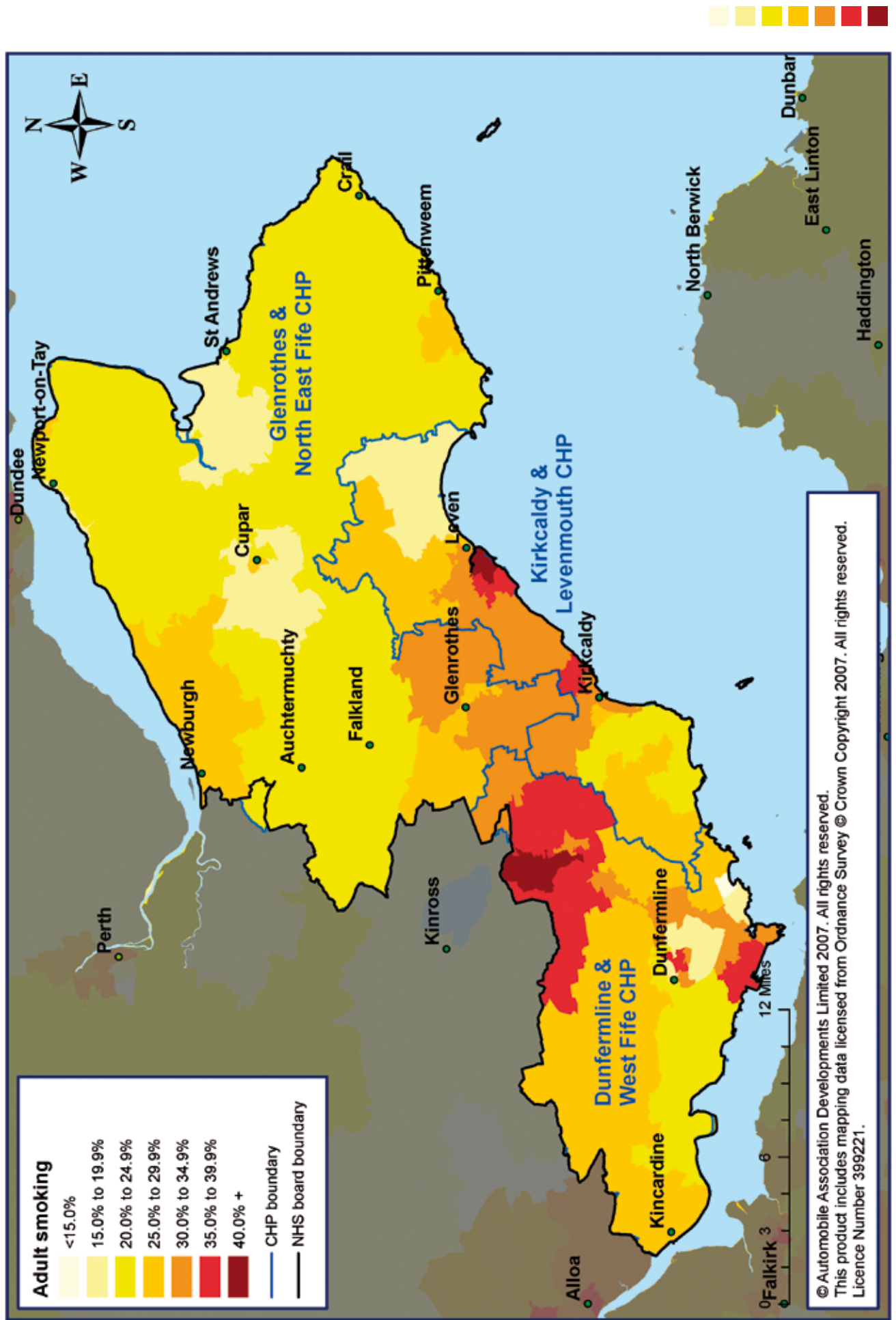
	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	30.3	39.3	31.4	30.5	26.5	19.1	11.4	29.0
Females	33.8	36.4	30.1	29.5	26.0	20.1	12.6	27.8
All	32.0	37.8	30.7	30.0	26.2	19.6	12.2	28.4

Table 10 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
Dunfermline & West Fife CHP	15,074	15,937	31,011	28.9	Ballingry	43.3	Dalgety Bay East	14.6	28.8	3.0
Glenrothes & North East Fife CHP	11,954	12,757	24,711	25.4	Thornton and Kinglassie	34.5	Newport and Wormit	15.2	19.3	2.3
Kirkcaldy & Levenmouth CHP	11,489	12,463	23,952	31.5	Methil East	41.7	Largo	19.9	21.9	2.1

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

Map 6 Estimates of smoking prevalence (%) in the adult population (aged 16 and over), Fife NHS Board, 2003/04



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



NHS Forth Valley

- 27% of adults (60,000 people) in the Board area are current smokers (2003/04), a figure which is very close to the Scottish average.
- Smoking prevalence is highest in the 25–34 age group and drops progressively in older age groups.
- Of the three Forth Valley CHPs, Clackmannanshire has the highest overall smoking prevalence, but there is at least a two-fold variation in smoking prevalence across each CHP at a small area level.
- 24% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).

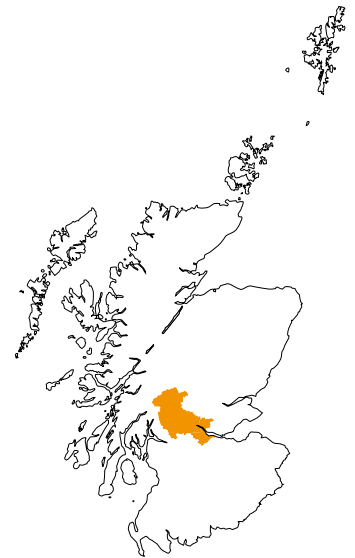


Table 11 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	4,495	6,552	6,206	5,437	3,733	1,902	703	29,029
Females	4,924	6,555	6,364	5,654	4,071	2,470	1,402	31,440
All	9,419	13,107	12,571	11,090	7,804	4,372	2,105	60,468

Percentage of smokers in the population by age and sex

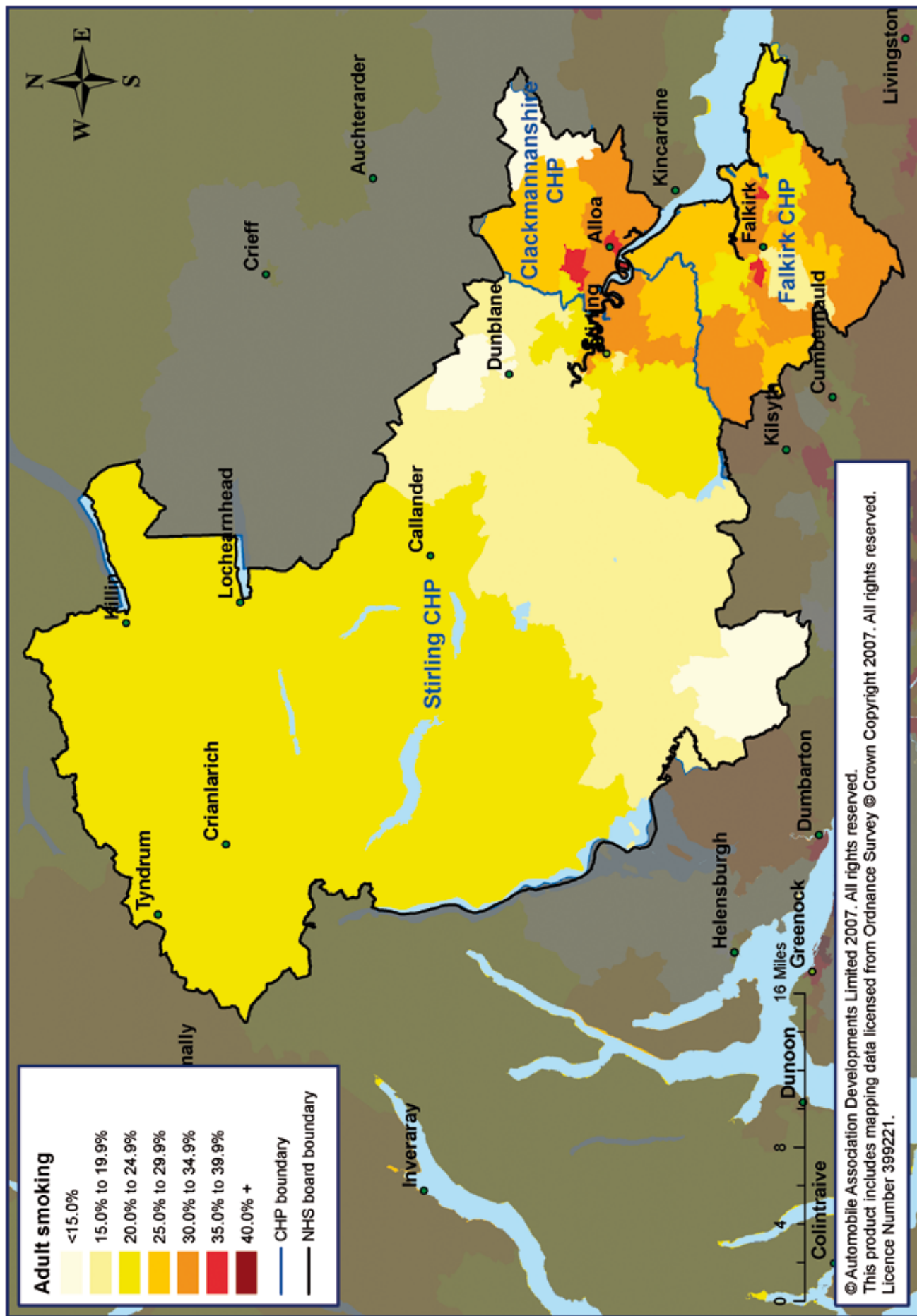
	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	29.1	36.2	29.7	28.4	24.5	17.7	10.6	27.3
Females	31.7	33.5	29.1	28.6	25.3	19.0	11.4	26.6
All	30.4	34.8	29.4	28.5	24.9	18.4	11.1	26.9

Table 12 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
Clackmannanshire CHP	5,499	5,857	11,357	29.8	Alloa South and East	36.6	Dollar and Muckhart	14.4	22.2	2.5
Falkirk CHP	15,763	16,988	32,751	28.0	Bowhouse	39.9	Bantaskin	16.8	23.1	2.4
Stirling CHP	7,766	8,594	16,360	23.5	Raploch	32.6	Blane Valley	13.0	19.7	2.5

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

Map 7 Estimates of smoking prevalence (%) in the adult population (aged 16 and over), Forth Valley NHS Board, 2003/04



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



NHS Grampian

- 24% of adults (104,000 people) in the board area are current smokers (2003/04), a figure which is below the Scottish average.
- Smoking prevalence is highest in the 16–24 and 25–34 age groups and drops progressively in older age groups.
- Of the three Grampian CHPs, Aberdeen City has the highest overall smoking prevalence and displays a very wide (fourfold) variation in smoking levels at a small area level. Small area variations in prevalence across the other two CHPs are much less marked, although a twofold variation exists across Aberdeenshire.
- 21% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).

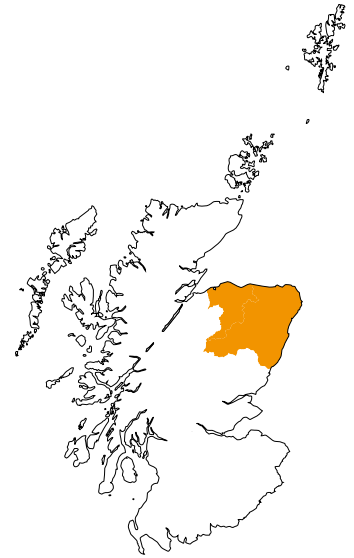


Table 13 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	8,866	11,962	11,084	9,974	6,134	3,302	1,257	52,580
Females	8,667	10,301	10,268	9,371	6,203	4,051	2,366	51,227
All	17,533	22,264	21,352	19,344	12,338	7,353	3,623	103,807

Percentage of smokers in the population by age and sex

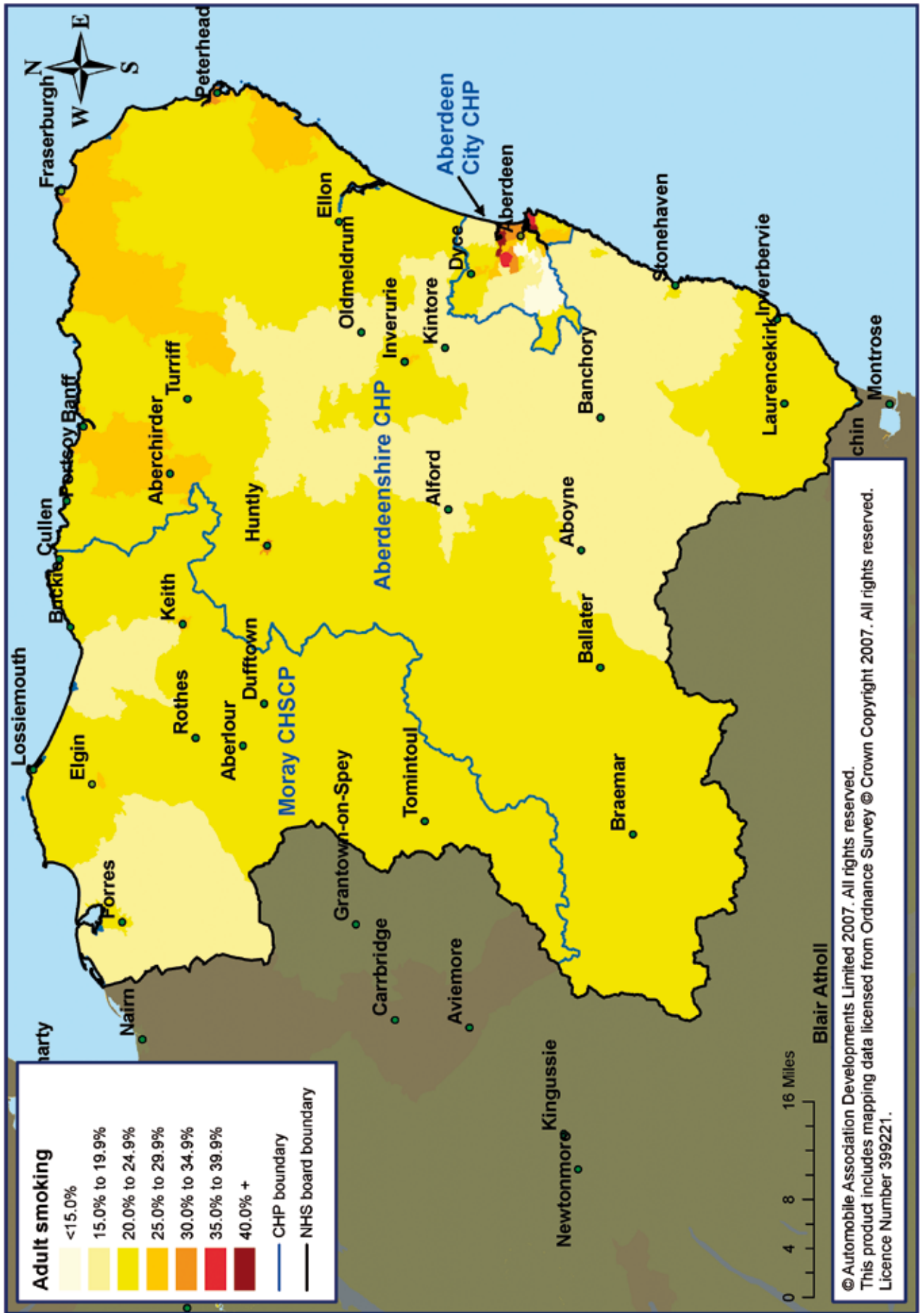
	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	28.2	31.6	26.9	26.1	22.8	16.5	9.9	25.2
Females	29.6	27.6	25.1	25.5	22.7	17.3	10.4	23.5
All	28.9	29.6	26.0	25.8	22.8	16.9	10.2	24.4

Table 14 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
Aberdeen City CHP	24,031	22,885	46,916	26.5	Tillydrone	45.8	Cults, Bieldside and Milltimber West	10.1	35.7	4.5
Aberdeenshire CHP	20,299	20,627	40,926	22.8	Peterhead Harbour	33.8	Westhill North and South	15.7	18.1	2.2
Moray Community HSCP	8,250	7,716	15,966	23.0	SE Elgin	27.7	Forres	18.1	9.5	1.5

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

Map 8 Estimates of smoking prevalence (%) in the adult population (aged 16 and over), Grampian NHS Board, 2003/04



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



NHS Greater Glasgow & Clyde

- 30% of adults (288,000 people) in the board area are current smokers (2003/04), a figure which is the highest of all NHS boards in Scotland.
- Smoking prevalence is highest in the 25–34 and 35–44 age groups and drops progressively in older age groups.
- Of the 10 CHPs in the region, East Glasgow and North Glasgow have the highest overall smoking prevalence. Most CHPs display a two- to threefold variation in smoking levels at a small area level.
- 29% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).

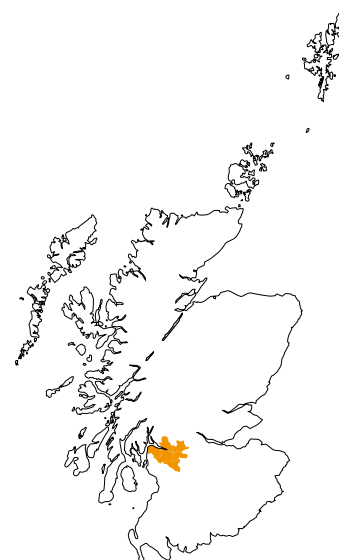


Table 15 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	20,339	29,503	31,933	25,481	17,502	10,050	3,591	138,400
Females	22,580	30,029	32,730	24,518	18,649	13,385	7,475	149,366
All	42,919	59,532	64,663	49,999	36,151	23,435	11,067	287,766

Percentage of smokers in the population by age and sex

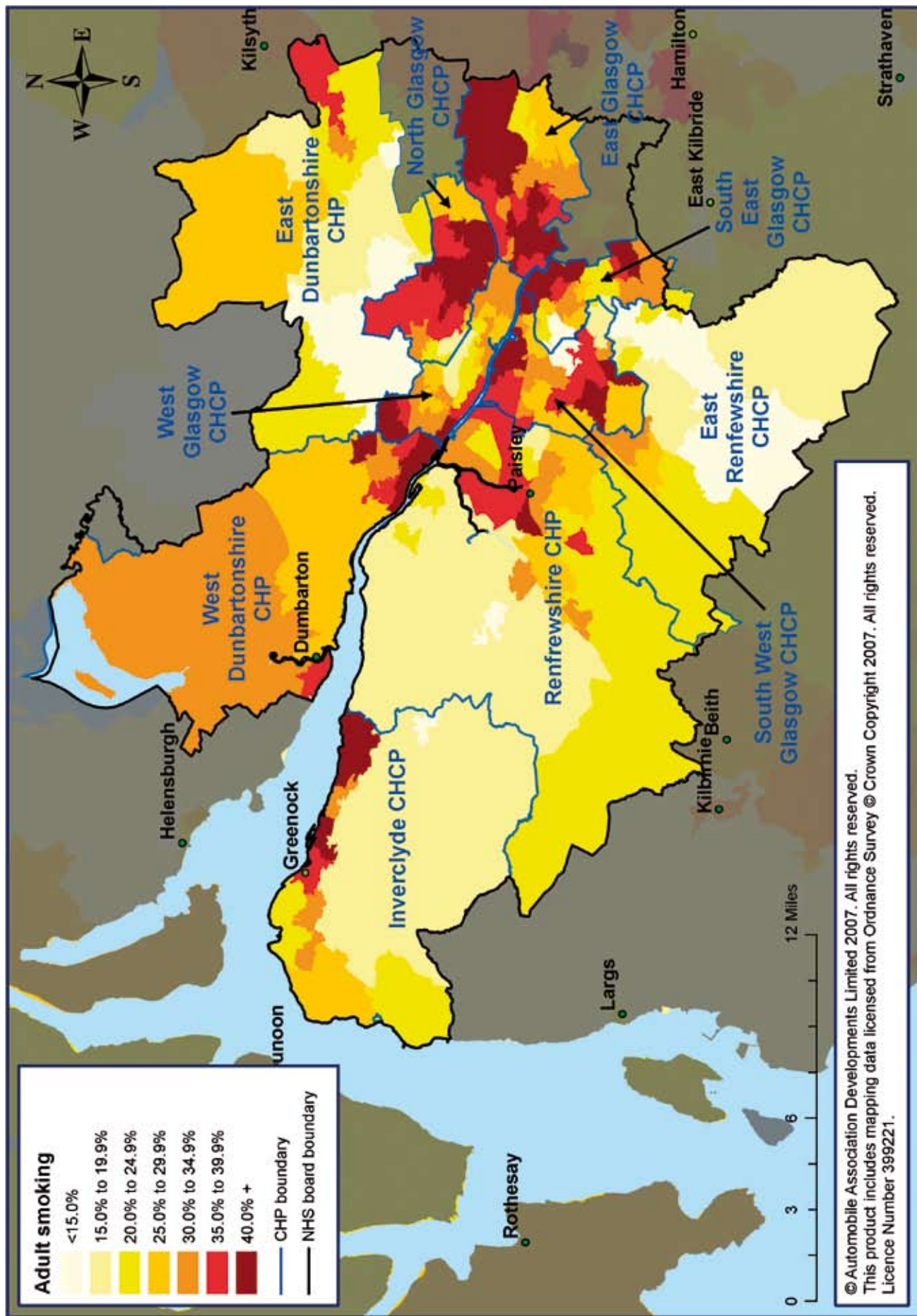
	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	28.7	36.6	35.5	33.7	29.9	22.1	13.1	30.9
Females	30.9	33.4	33.3	31.6	28.9	22.4	13.6	28.8
All	29.8	34.9	34.4	32.6	29.4	22.2	13.4	29.8

Table 16 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
East Dunbartonshire CHP	7,656	8,403	16,059	18.6	Twechar and Harestanes East	35.2	Kilmardinny West	10.5	24.7	3.4
East Glasgow CHCP	18,295	20,154	38,449	37.5	North Barlanark and Easterhouse South	52.4	Garrowhill West	21.5	31.0	2.4
East Renfrewshire CHCP	6,359	7,081	13,439	19.2	Auchenback	32.9	Mearnskirk and South Kirkhill	11.9	21.0	2.8
Inverclyde CHCP	10,067	10,664	20,731	30.6	Port Glasgow Upper East	42.6	Kilmacolm Central	13.5	29.1	3.1
North Glasgow CHCP	14,315	15,973	30,287	37.5	Roystonhill, Blochairn, and Provanmill	50.0	Kelvindale	16.0	33.9	3.1
Renfrewshire CHP	17,897	19,077	36,974	26.5	Paisley Ferguslie	45.1	Houston North	13.4	31.7	3.4
South East Glasgow CHCP	12,815	13,000	25,815	31.3	Glenwood South	46.5	Maxwell Park	14.8	31.7	3.1
South West Glasgow CHCP	14,840	16,431	31,271	34.0	Ibrox	46.9	Merrylee and Millbrae	18.5	28.5	2.5
West Dunbartonshire CHP	11,800	13,079	24,879	33.3	Dalmuir, Clydebank	40.6	South and Central Dumbarton	25.7	14.9	1.6
West Glasgow CHCP	17,065	17,433	34,498	30.3	Drumchapel North	51.9	Kelvinside and Jordanhill	18.9	33.0	2.7

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

Map 9 Estimates of smoking prevalence (%) in the adult population (aged 16 and over), Greater Glasgow & Clyde NHS Board, 2003/04



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



NHS Highland

- 25% of adults (61,000 people) in the board area are current smokers (2003/04), a figure which is below the Scottish average.
- Smoking prevalence is highest in the 25–34 age group and drops progressively in older age groups.
- All four Highland CHPs have similar levels of overall smoking prevalence (around 25%–26%), but there are variations in smoking levels at a small area level within each CHP, particularly within Argyll & Bute where there is a twofold variation across the CHP.
- 20% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).

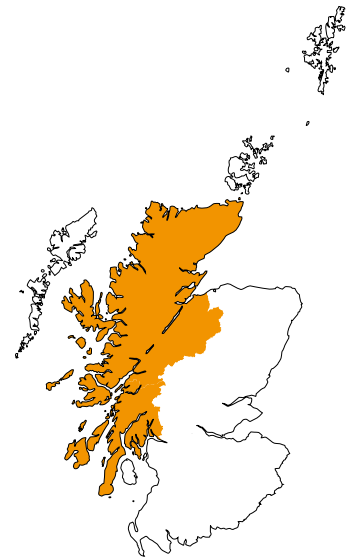


Table 17 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	4,190	6,587	6,494	6,179	4,382	2,227	809	30,869
Females	4,100	6,018	6,089	5,789	4,302	2,656	1,611	30,565
All	8,290	12,605	12,583	11,968	8,685	4,884	2,420	61,435

Percentage of smokers in the population by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	28.4	36.5	28.9	28.0	24.0	16.8	9.8	26.3
Females	32.4	32.8	26.5	26.0	22.9	17.4	11.0	24.5
All	30.2	34.7	27.7	27.0	23.5	17.1	10.6	25.4

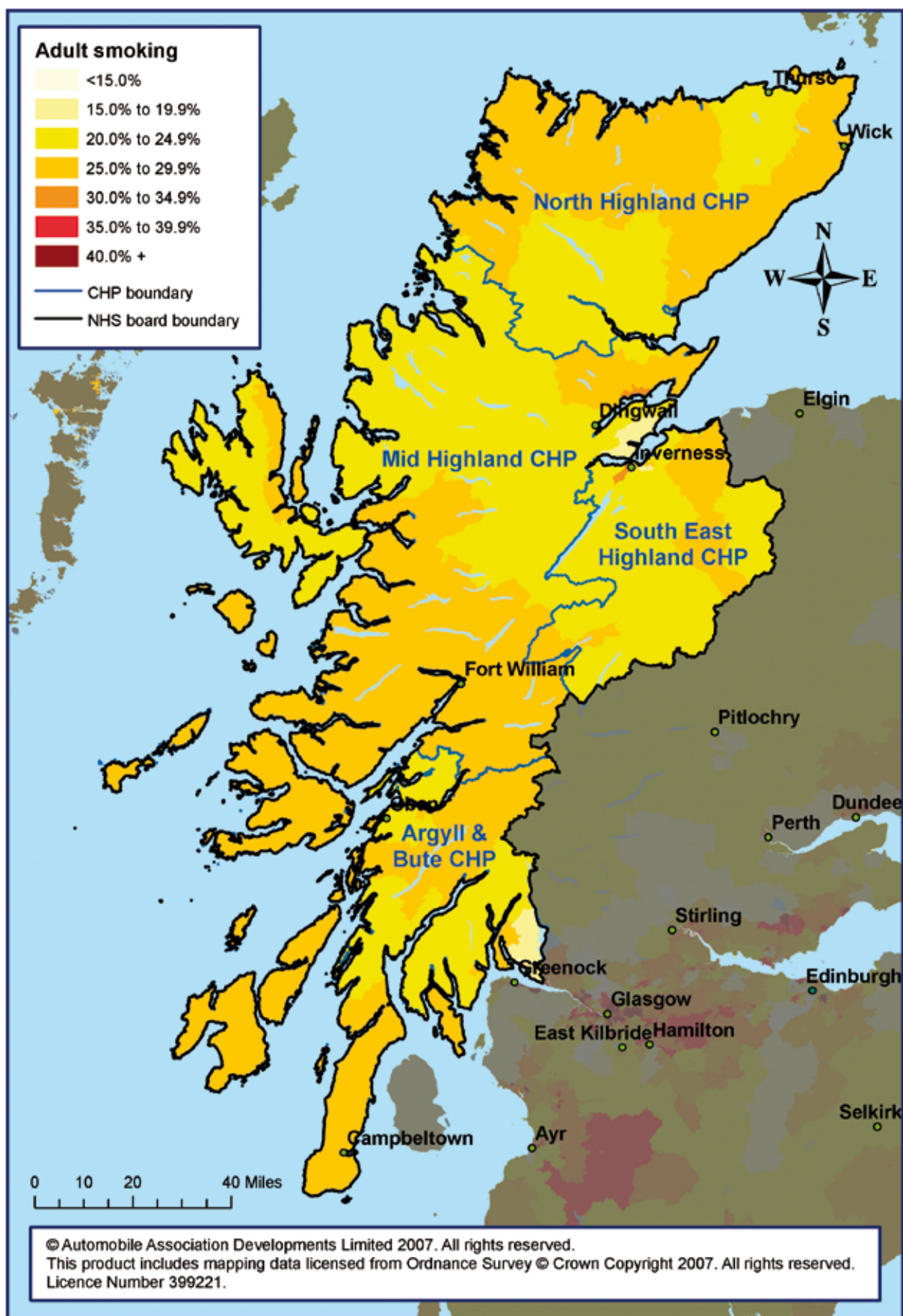
Table 18 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
Argyll & Bute CHP	9,536	9,242	18,778	25.3	Campbeltown	33.2	Helensburgh North	14.8	18.4	2.2
Mid Highland CHP	8,973	9,093	18,066	25.9	Alness	34.0	Black Isle South	18.7	15.3	1.8
North Highland CHP	3,927	3,805	7,732	24.8	Wick South	28.6	Thurso West	21.4	7.1	1.3
South East Highland CHP	8,433	8,426	16,859	25.1	Inverness Merkinch	34.5	Inverness Westhill	19.1	15.4	1.8

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



Map 10 Estimates of smoking prevalence (%) in the adult population (aged 16 and over), Highland NHS Board, 2003/04



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



NHS Lanarkshire

- 29% of adults (129,000 people) in the board area are current smokers (2003/04), a figure which is above the Scottish average and the second highest among NHS boards.
- Smoking prevalence is highest in the 25–34 age group and drops progressively in older age groups.
- Of the two CHPs, North Lanarkshire has the highest overall smoking prevalence, but within each CHP there is at least a twofold variation in smoking prevalence at a small area level.
- 26% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).

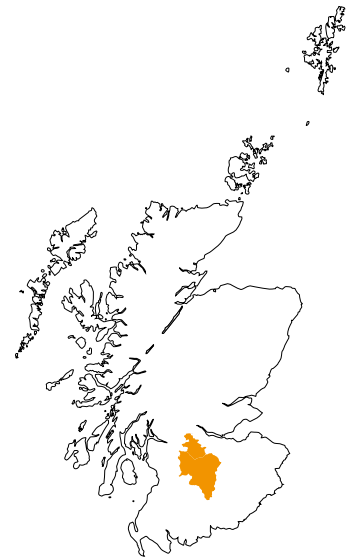


Table 19 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	9,324	13,919	13,696	11,551	7,965	4,204	1,420	62,078
Females	9,922	13,718	14,395	11,992	8,875	5,549	2,808	67,260
All	19,246	27,637	28,091	23,543	16,840	9,753	4,228	129,338

Percentage of smokers in the population by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	29.9	36.8	32.7	31.7	27.8	20.3	12.4	29.8
Females	32.8	33.8	31.7	31.4	28.1	21.4	13.2	28.8
All	31.3	35.3	32.2	31.6	27.9	20.9	12.9	29.3

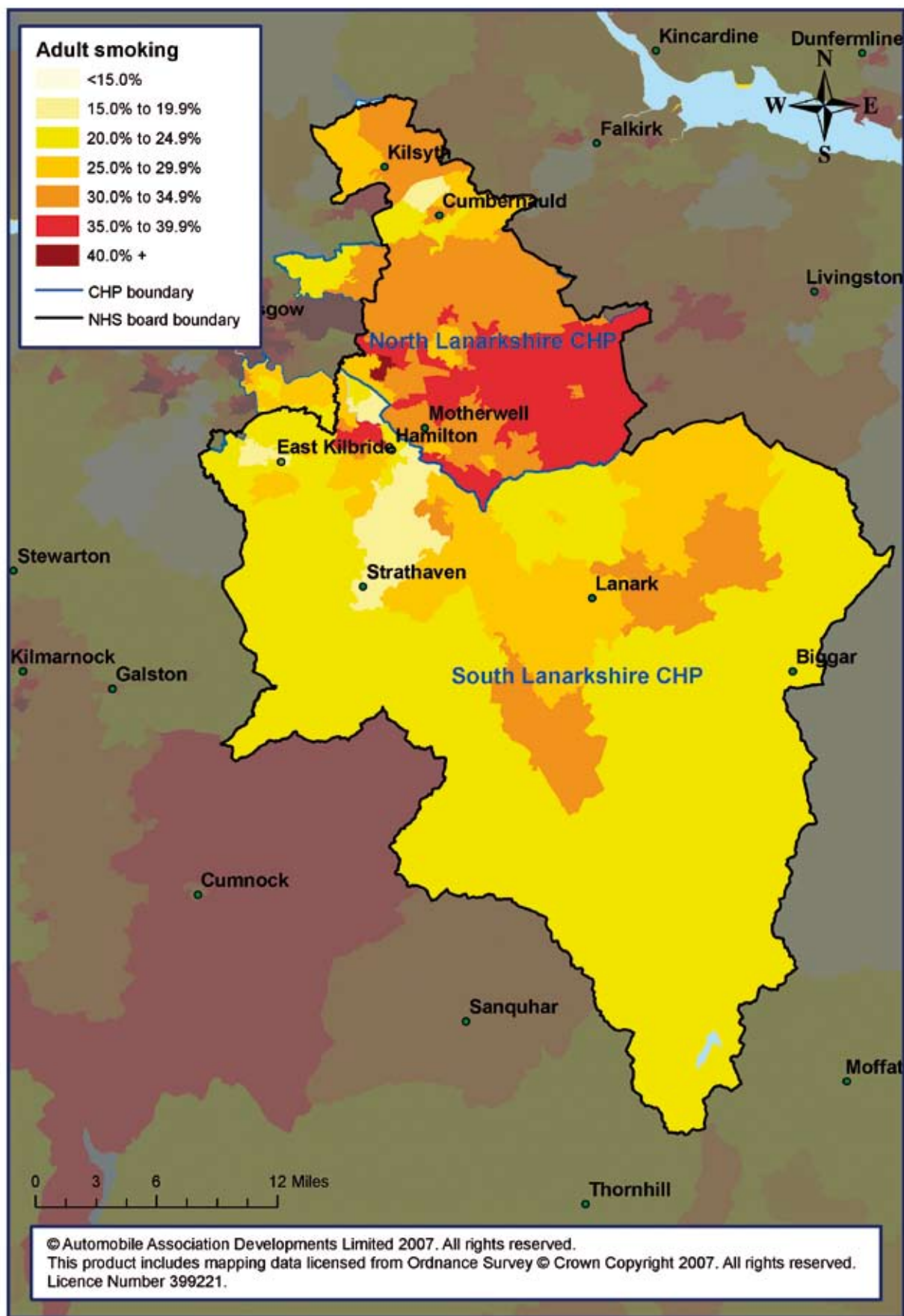
Table 20 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
North Lanarkshire CHP	38,858	42,244	81,102	31.7	Viewpark	42.3	Carrickstone	15.8	26.4	2.7
South Lanarkshire CHP	30,511	33,087	63,598	26.2	High Blantyre	37.6	Bothwell South	16.9	20.7	2.2

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



Map 11 Estimates of smoking prevalence (%) in the adult population (aged 16 and over), Lanarkshire NHS Board, 2003/04



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



NHS Lothian

- 25% of adults (158,000 people) in the board area are current smokers (2003/04), a figure which is below the Scottish average.
- Smoking prevalence is highest in the 25–34 and 35–44 age groups and drops progressively in older age groups.
- Of the five CHPs, West Lothian has the highest overall smoking prevalence and there are at least twofold variations in smoking prevalence across each CHP at a small area level; across the Edinburgh CHPs this increases to a fourfold variation.
- 25% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).

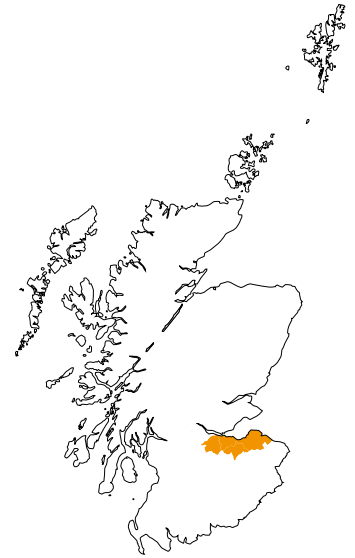


Table 21 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	12,505	18,440	17,204	14,242	9,060	4,841	1,855	78,146
Females	13,425	17,102	16,801	13,777	9,431	5,982	3,458	79,977
All	25,930	35,542	34,004	28,019	18,491	10,823	5,313	158,123

Percentage of smokers in the population by age and sex

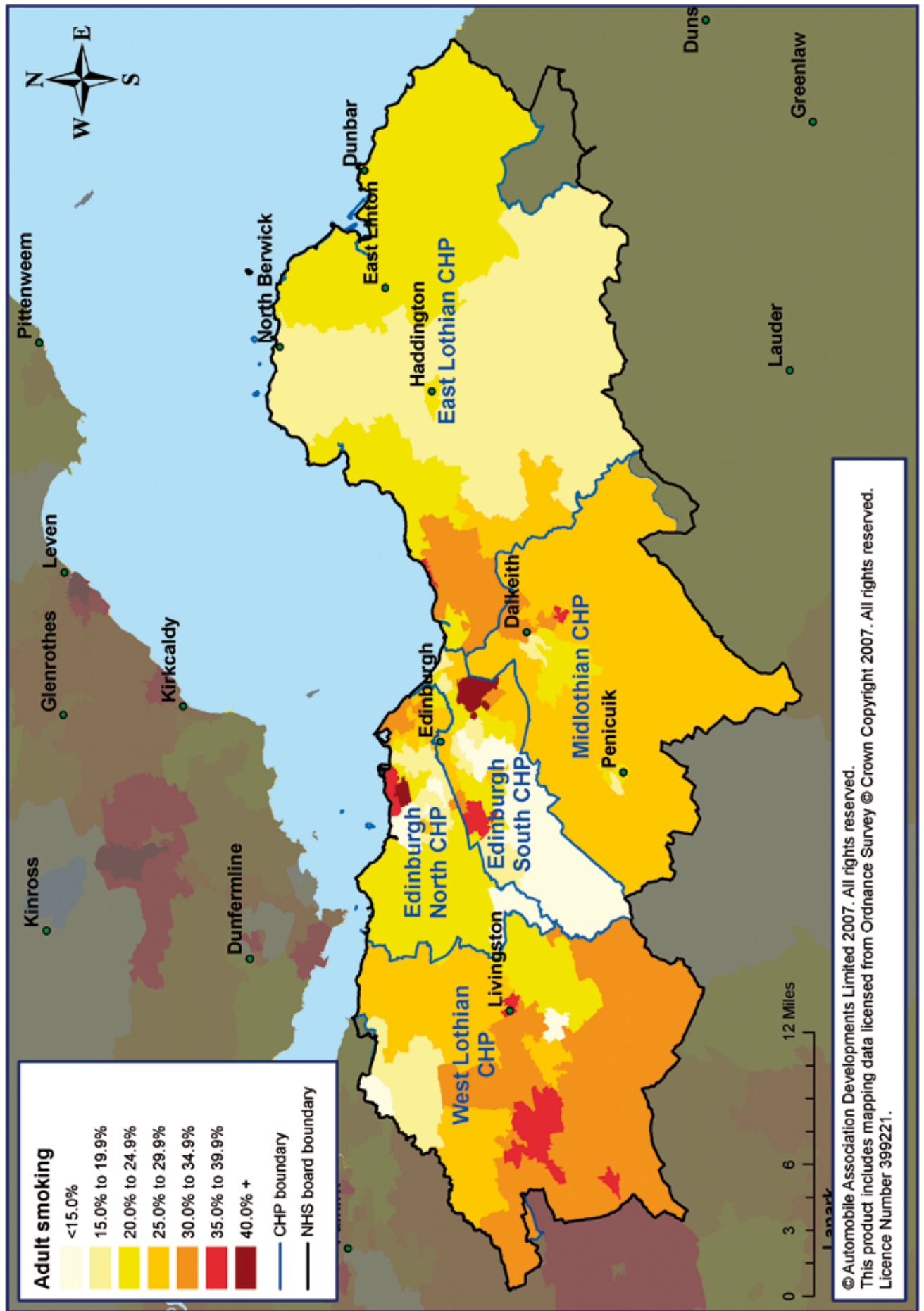
	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	26.5	30.8	29.3	28.3	24.5	17.4	10.1	26.1
Females	27.5	27.1	26.9	26.7	23.6	17.4	10.1	23.9
All	27.0	28.9	28.0	27.5	24.1	17.4	10.1	24.9

Table 22 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
East Lothian CHP	8,281	9,010	17,290	24.2	Prestonpans	35.7	North Berwick (West side)	15.1	20.6	2.4
Edinburgh North CHP	21,290	20,590	41,879	23.5	Muirhouse	44.5	Murrayfield and Ravelston	9.5	35.0	4.7
Edinburgh South CHP	23,428	22,774	46,203	23.5	Greendykes and Niddrie Mains	43.8	Fairmilehead	10.3	33.5	4.2
Midlothian CHP	8,060	8,900	16,960	26.5	Mayfield	38.1	Eskbank	15.9	22.2	2.4
West Lothian CHP	17,087	18,703	35,791	28.9	Whitburn Central	37.7	Murieston	13.6	24.1	2.8

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

Map 12 Estimates of smoking prevalence (%) in the adult population (aged 16 and over), Lothian NHS Board, 2003/04



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



NHS Orkney

- 22% of adults (3,300 people) in the board area are current smokers (2003/04), a figure which is the lowest among NHS boards in Scotland.
- Smoking prevalence is highest in the 25–34 age group and drops progressively in older age groups.
- There is very little variation in smoking prevalence at a small area level.
- 16% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).

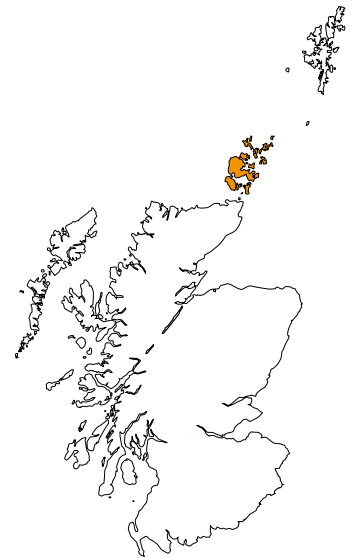


Table 23 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	212	346	381	356	258	117	47	1,717
Females	213	297	326	309	250	138	87	1,620
All	425	643	707	664	508	255	134	3,336

Percentage of smokers in the population by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	24.7	29.4	26.0	24.6	21.1	14.4	8.5	22.8
Females	27.4	25.0	22.9	22.6	19.7	15.1	9.3	20.6
All	26.0	27.2	24.5	23.6	20.4	14.8	9.0	21.7

Table 24 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
Orkney CHP	1,717	1,620	3,336	21.7	East Kirkwall	23.5	West Mainland	20.8	2.7	1.1

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



Map 13 Estimates of smoking prevalence (%) in the adult population (aged 16 and over), Orkney NHS Board, 2003/04



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



NHS Shetland

- 23% of adults (3,900 people) in the board area are current smokers (2003/04), a figure which is the second lowest among NHS boards in Scotland.
- Smoking prevalence is highest in the 25–34 age group and drops progressively in older age groups.
- At a small area level smoking prevalence varies from 28% at the highest to 18% at the lowest.
- 15% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).



Table 25 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	310	453	423	411	255	105	40	1,998
Females	292	383	382	354	241	130	88	1,869
All	602	836	806	765	496	236	127	3,867

Percentage of smokers in the population by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	26.5	30.5	25.1	23.5	20.4	14.0	8.0	23.2
Females	28.7	26.7	23.7	23.5	20.5	15.2	8.9	21.8
All	27.5	28.6	24.4	23.5	20.4	14.6	8.6	22.5

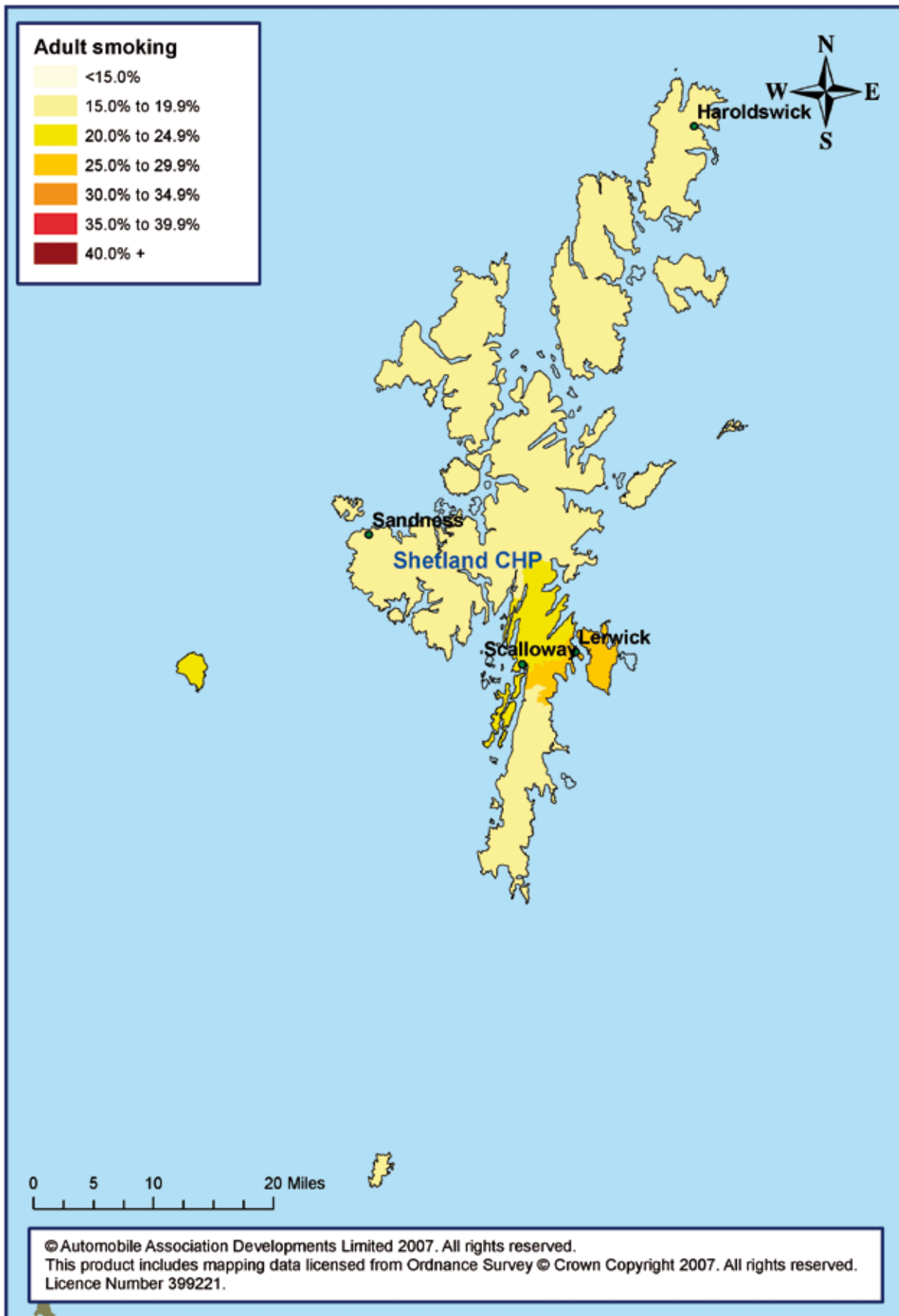
Table 26 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
Shetland CHP	1,998	1,869	3,867	22.5	Lerwick North	27.7	North and East Isles	18.0	9.7	1.5

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



Map 14 Estimates of smoking prevalence (%) in the adult population (aged 16 and over), Shetland NHS Board, 2003/04



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



NHS Tayside

- 26% of adults (83,000 people) in the board area are current smokers (2003/04), a figure which is slightly below the Scottish average.
- Smoking prevalence is highest in the 25–34 age group and drops progressively in older age groups.
- Of the CHPs, Dundee City has the highest overall smoking prevalence, but there is a two- to threefold variation in smoking prevalence across each CHP at a small area level.
- 21% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).

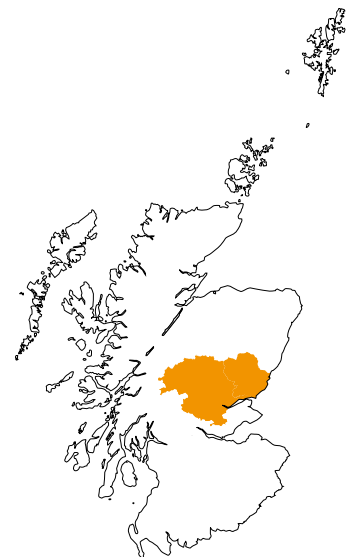


Table 27 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	6,401	8,454	8,387	7,559	5,315	3,015	1,179	40,311
Females	6,665	8,263	8,449	7,386	5,438	3,773	2,321	42,295
All	13,066	16,717	16,837	14,945	10,753	6,787	3,500	82,606

Percentage of smokers in the population by age and sex

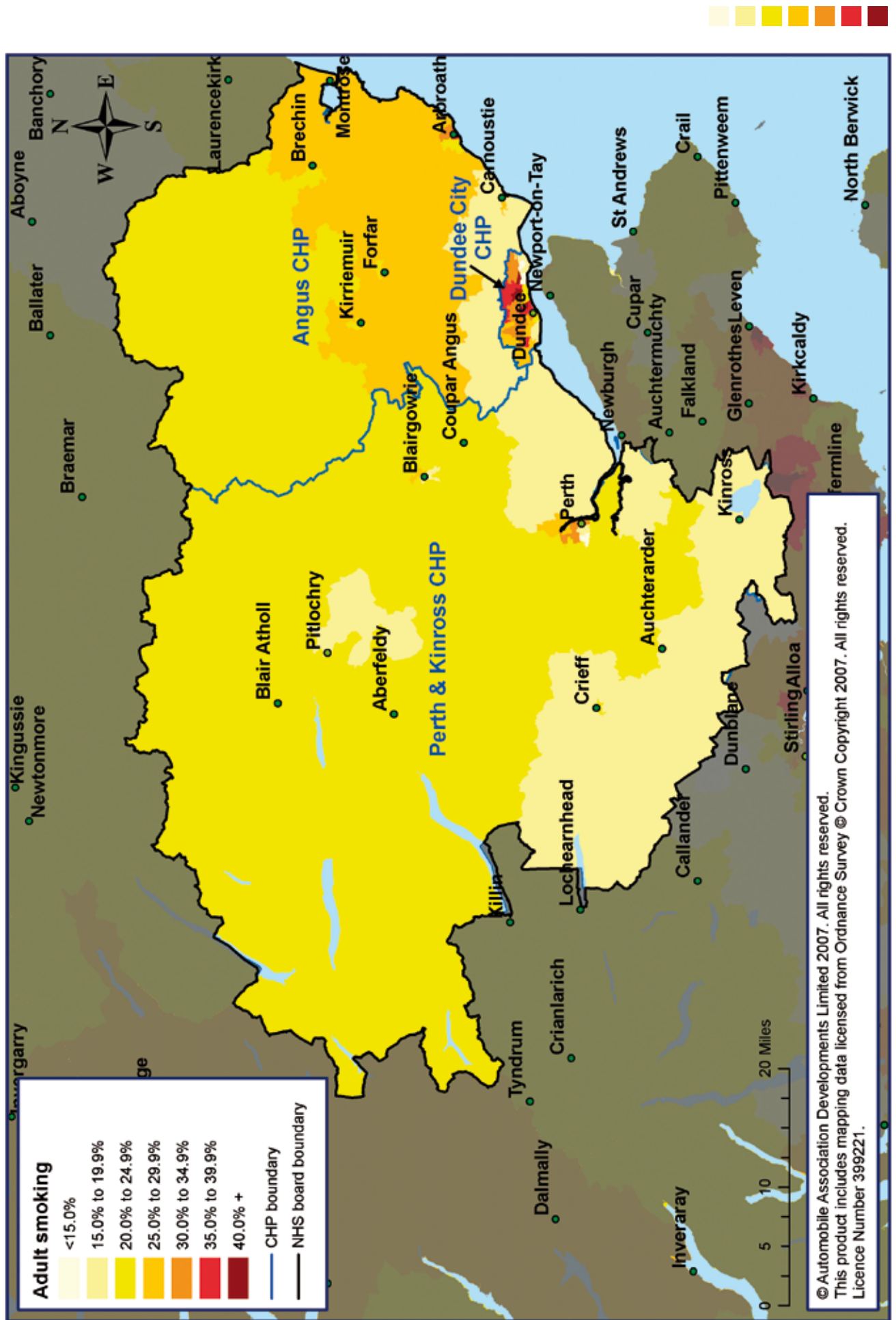
	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	28.5	36.6	30.2	28.7	24.6	17.5	10.2	26.9
Females	31.6	33.3	28.5	27.2	23.8	18.1	11.2	25.3
All	30.0	34.9	29.4	27.9	24.2	17.8	10.8	26.0

Table 28 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
Angus CHP	10,877	11,314	22,191	25.2	Arbroath Harbour	38.3	Monifieth East	16.8	21.5	2.3
Dundee City CHP	17,680	18,908	36,589	30.5	Linlathen and Midcraigie	42.5	Broughty Ferry East	13.6	28.9	3.1
Perth & Kinross CHP	11,754	12,072	23,826	21.8	Hillyland, Tulloch and Inveralmond	34.5	Burghmuir and Oakbank	13.0	21.5	2.7

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

Map 15 Estimates of smoking prevalence (%) in the adult population (aged 16 and over), Tayside NHS Board, 2003/04



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



NHS Western Isles

- 26% of adults (5,500 people) in the board area are current smokers (2003/04), a figure which is slightly below the Scottish average.
- Smoking prevalence is highest in the 25–34 age group and drops progressively in older age groups.
- At a small area level there is relatively little variation in smoking prevalence.
- 16% of deaths at all ages are attributed to smoking (2000–2004) (see section 5.3).

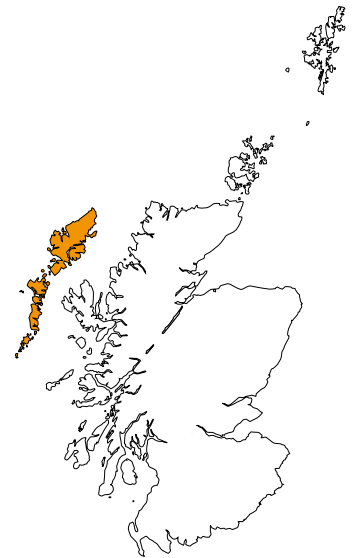


Table 29 Estimated number and percentage of smokers in the adult population by age and sex, 2003/04

Numbers of smokers by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	358	648	573	580	418	226	85	2,888
Females	363	529	464	460	368	253	193	2,630
All	721	1,177	1,037	1,041	785	479	278	5,518

Percentage of smokers in the population by age and sex

	16-24	25-34	35-44	45-54	55-64	65-74	75+	16+
Males	29.5	40.5	29.9	28.7	24.9	17.7	9.9	27.3
Females	35.0	35.1	25.6	25.1	22.5	17.9	11.4	24.1
All	32.0	37.9	27.8	27.0	23.7	17.8	10.9	25.7

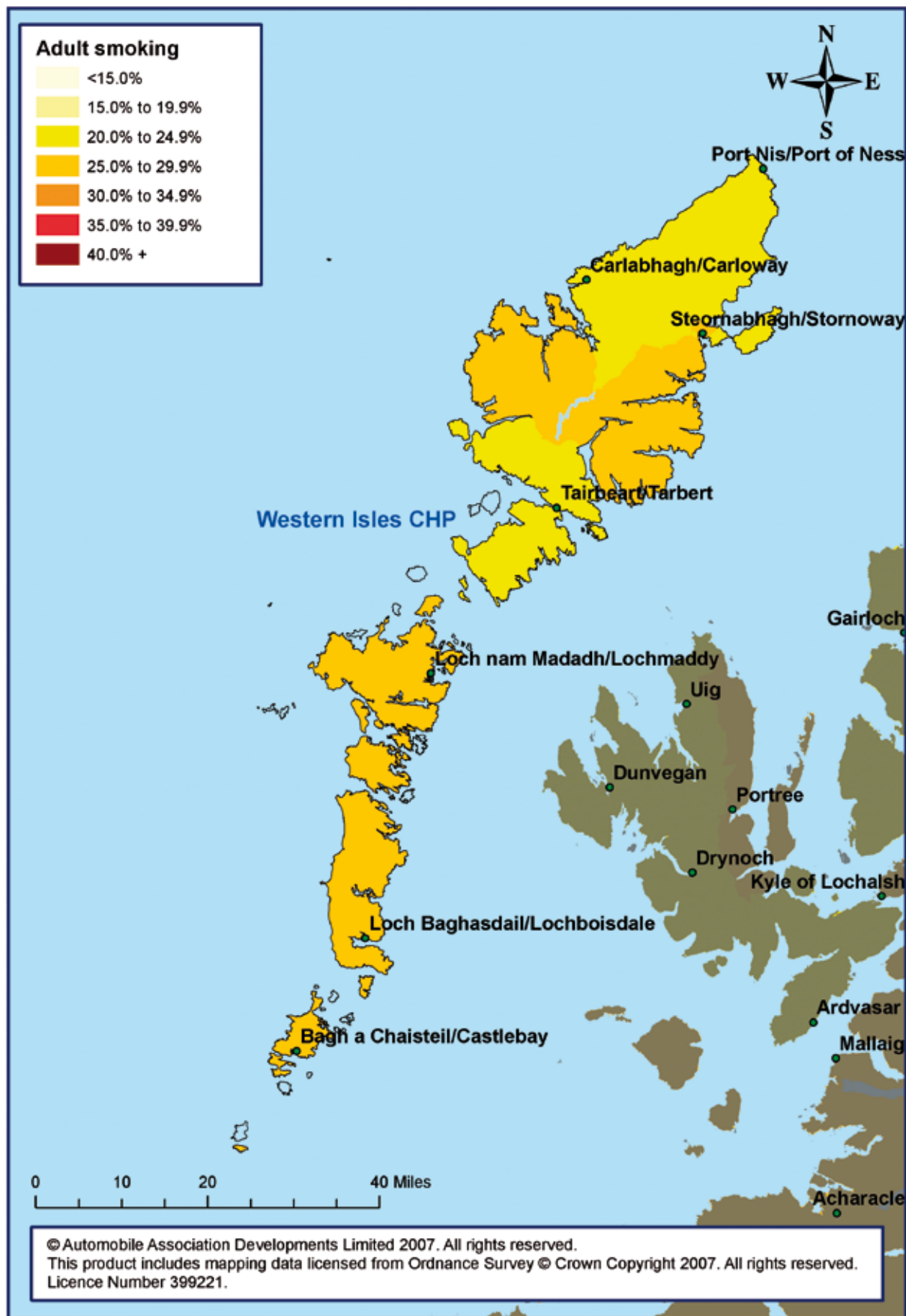
Table 30 Estimated number and percentage of smokers in the adult population, by CHP and within CHP, 2003/04

Community Health Partnership (CHP)	Adult smoking (aged 16+)				Within CHP (intermediate zone [IZ])					
	Male smokers	Female smokers	Total smokers	% of adult population smoking	IZ with highest adult smoking prevalence	% of adult population smoking	IZ with lowest adult smoking prevalence	% of adult population smoking	Smoking gap (highest - lowest)	Ratio (highest / lowest)
Western Isles CHP	2,888	2,630	5,518	25.7	Stornoway West	28.4	Broadbay	23.1	5.2	1.2

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



Map 16 Estimates of smoking prevalence (%) in the adult population (aged 16 and over), Western Isles NHS Board, 2003/04



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

4.7 Councils

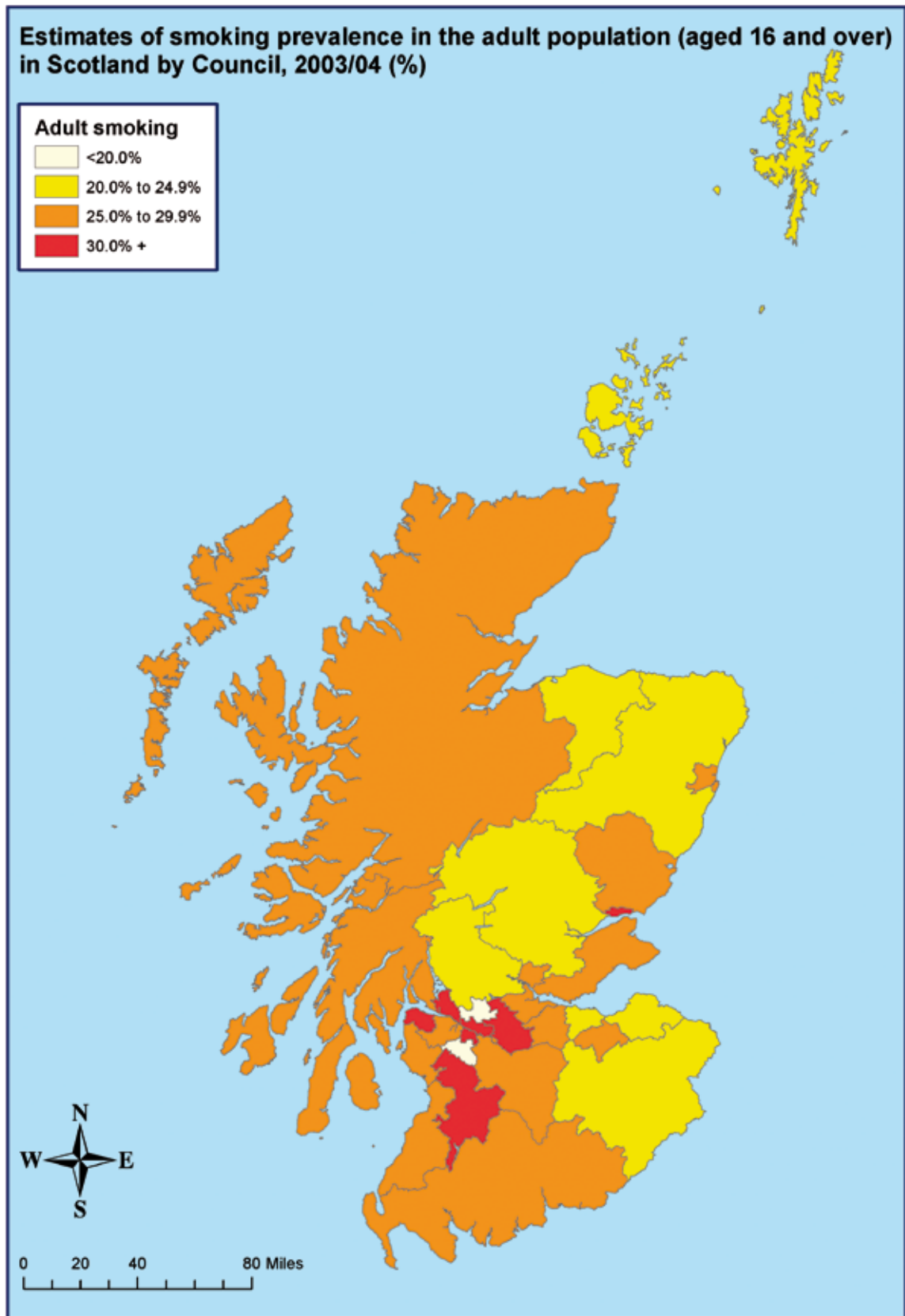
- The councils with the highest smoking prevalences are concentrated mainly in the West of Scotland. The City of Glasgow has the highest smoking prevalence among adults (34.0%), followed by West Dunbartonshire (33.3%) and East Ayrshire (32.1%).
- The councils with the lowest adult smoking prevalences are also in the West of Scotland: East Dunbartonshire (18.6%) and East Renfrewshire (19.2%).
- Among the city councils, Dundee has the second highest prevalence among adults (30.5%), while Edinburgh has the lowest (23.5%).
- Many of the rural councils have lower than average smoking prevalence, for example, Orkney Islands (21.7%), Shetland Islands (22.5%), Aberdeenshire (22.8%) and Moray (23.0%).

Table 31 Estimated number and percentage of smokers in the adult population (aged 16 and over) by council and sex, Scotland, 2003/04

Council	Males (16+)		Females (16+)		Persons (16+)	
	Smokers	As % of male population	Smokers	As % of female population	Smokers	As % of population
City of Aberdeen	24,031	28.0	22,885	25.0	46,916	26.5
Aberdeenshire	20,299	23.1	20,627	22.6	40,926	22.8
Angus	10,877	25.9	11,314	24.6	22,191	25.2
Argyll & Bute	9,536	26.4	9,242	24.3	18,778	25.3
Scottish Borders	10,084	24.5	10,578	23.2	20,661	23.9
Clackmannanshire	5,499	30.3	5,857	29.4	11,357	29.8
West Dunbartonshire	11,800	34.1	13,079	32.6	24,879	33.3
Dumfries & Galloway	15,040	26.4	15,626	24.9	30,665	25.6
City of Dundee	17,680	31.6	18,908	29.6	36,589	30.5
East Ayrshire	14,821	32.5	16,096	31.7	30,917	32.1
East Dunbartonshire	7,656	18.8	8,403	18.4	16,059	18.6
East Lothian	8,281	24.8	9,010	23.7	17,290	24.2
East Renfrewshire	6,359	19.5	7,081	18.9	13,439	19.2
City of Edinburgh	44,718	25.2	43,364	21.9	88,082	23.5
Falkirk	15,763	28.4	16,988	27.7	32,751	28.0
Fife	38,517	29.0	41,156	27.8	79,673	28.4
City of Glasgow	77,329	35.5	82,992	32.7	160,321	34.0
Highland	21,333	26.3	21,324	24.5	42,657	25.4
Inverclyde	10,067	31.8	10,664	29.5	20,731	30.6
Midlothian	8,060	26.8	8,900	26.2	16,960	26.5
Moray	8,250	23.9	7,716	22.1	15,966	23.0
North Ayrshire	14,352	28.5	16,095	27.6	30,446	28.0
North Lanarkshire	38,858	32.3	42,244	31.3	81,102	31.7
Orkney Islands	1,717	22.8	1,620	20.6	3,336	21.7
Perth & Kinross	11,754	22.5	12,072	21.1	23,826	21.8
Renfrewshire	17,897	27.4	19,077	25.8	36,974	26.5
Shetland Islands	1,998	23.2	1,869	21.8	3,867	22.5
South Ayrshire	11,857	27.5	12,513	25.7	24,370	26.5
South Lanarkshire	30,511	26.9	33,087	25.6	63,598	26.2
Stirling	7,766	23.8	8,594	23.3	16,360	23.5
West Lothian	17,087	29.0	18,703	28.8	35,791	28.9
Western Isles	2,888	27.3	2,630	24.1	5,518	25.7
Scotland	542,684	28.1	570,313	26.5	1,112,997	27.2

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

Map 17



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

4.8 Scottish parliamentary constituencies

- The constituencies with the highest smoking prevalences are concentrated in the West of Scotland, in particular, Glasgow, which contains the top five constituencies for smoking prevalence: Shettleston (40.1%), Springburn (39.0%), Maryhill (37.3%), Baillieston (36.2%) and Pollok (33.6%).
- The constituencies with the lowest smoking prevalence are geographically spread but tend to be in the most affluent suburban and rural areas. The five constituencies with the lowest prevalence of current smoking are Eastwood (19.2%), West Aberdeen and Kincardine (19.6%), Strathkelvin and Bearsden (19.8%), Edinburgh West (20.5%) and Edinburgh South (21.3%).

Table 32 Estimated number and percentage of smokers in the adult population (aged 16 and over) by Scottish parliamentary constituency and sex, Scotland, 2003/04

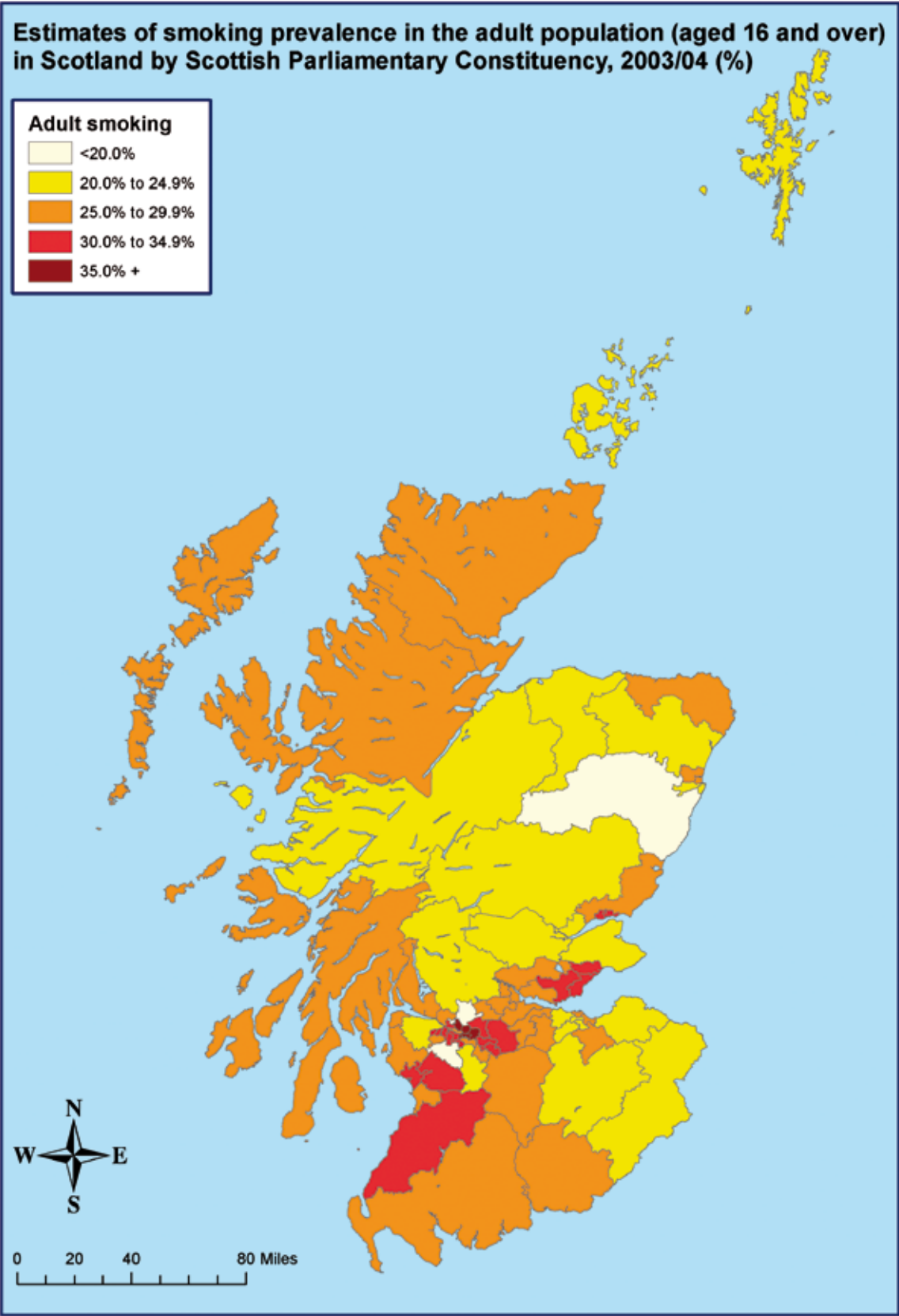
Scottish parliamentary constituency	Males (16+)		Females (16+)		Persons (16+)	
	Smokers	As % of male population	Smokers	As % of female population	Smokers	As % of population
Aberdeen Central	9,341	32.5	8,205	27.5	17,547	29.9
Aberdeen North	7,324	27.5	7,595	26.4	14,920	26.9
Aberdeen South	7,366	24.1	7,084	21.6	14,450	22.8
Airdrie and Shotts	9,654	33.4	10,423	32.7	20,077	33.0
Angus	7,635	25.7	7,890	24.3	15,525	25.0
Argyll & Bute	6,956	28.2	7,004	25.9	13,960	27.0
Ayr	7,482	28.0	7,892	25.8	15,373	26.8
Banff & Buchan	8,237	27.9	8,038	26.4	16,275	27.2
Caithness, Sutherland and Easter Ross	5,422	26.6	5,341	25.0	10,762	25.8
Carrick, Cumnock and Doon Valley	9,767	30.8	10,577	30.0	20,344	30.4
Central Fife	9,098	32.4	9,965	31.7	19,064	32.0
Clydebank and Milngavie	7,107	28.7	8,103	27.8	15,211	28.2
Clydesdale	8,516	27.2	9,297	26.9	17,813	27.0
Coatbridge and Chryston	8,111	32.0	8,831	30.8	16,942	31.4
Cumbernauld and Kilsyth	6,614	27.2	6,951	26.0	13,565	26.6
Cunninghame North	6,876	26.2	7,575	24.9	14,451	25.5
Cunninghame South	7,476	31.1	8,519	30.7	15,995	30.9
Dumbarton	8,528	28.8	8,633	27.5	17,162	28.2
Dumfries	8,232	26.6	8,600	25.1	16,832	25.8
Dundee East	8,769	31.8	9,567	30.1	18,335	30.9
Dundee West	8,816	31.5	9,264	29.2	18,080	30.3
Dunfermline East	8,186	32.2	8,722	31.1	16,908	31.6
Dunfermline West	6,919	26.8	7,247	25.5	14,166	26.1
East Kilbride	7,889	24.6	8,278	23.0	16,167	23.8
East Lothian	6,959	24.9	7,652	24.3	14,611	24.6
Eastwood	6,359	19.5	7,081	18.9	13,439	19.2
Edinburgh Central	9,022	27.0	7,850	22.0	16,872	24.4
Edinburgh East and Musselburgh	8,028	28.4	8,050	24.5	16,078	26.3
Edinburgh North and Leith	8,748	28.7	8,078	24.1	16,826	26.3
Edinburgh Pentlands	6,662	22.5	6,841	21.3	13,503	21.9
Edinburgh South	7,178	23.0	7,206	19.9	14,384	21.3
Edinburgh West	6,403	21.6	6,696	19.5	13,099	20.5
Falkirk East	8,057	27.8	8,682	27.4	16,739	27.6
Falkirk West	7,706	29.0	8,306	28.0	16,012	28.5

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

Scottish parliamentary constituency	Males (16+)		Females (16+)		Persons (16+)	
	Smokers	As % of male population	Smokers	As % of female population	Smokers	As % of population
Galloway and Upper Nithsdale	6,807	26.1	7,026	24.6	13,833	25.3
Glasgow Anniesland	7,593	33.0	8,721	30.5	16,314	31.7
Glasgow Baillieston	8,197	36.6	9,641	35.8	17,838	36.2
Glasgow Cathcart	7,356	31.4	7,964	28.9	15,321	30.1
Glasgow Govan	7,994	33.8	7,856	30.1	15,850	31.9
Glasgow Kelvin	8,308	29.7	7,630	25.3	15,938	27.4
Glasgow Maryhill	9,160	38.9	10,134	36.0	19,294	37.3
Glasgow Pollok	7,742	34.9	9,076	32.6	16,818	33.6
Glasgow Rutherglen	6,883	29.0	7,634	26.7	14,517	27.8
Glasgow Shettleston	9,403	42.0	9,505	38.3	18,909	40.1
Glasgow Springburn	10,393	40.6	11,141	37.6	21,535	39.0
Gordon	6,800	22.3	6,979	22.1	13,779	22.2
Greenock and Inverclyde	7,339	31.1	7,615	28.4	14,953	29.7
Hamilton North and Bellshill	8,326	32.1	9,161	31.2	17,487	31.6
Hamilton South	6,596	29.3	7,232	28.3	13,829	28.7
Inverness East, Nairn and Lochaber	8,496	25.8	8,423	23.6	16,920	24.6
Kilmarnock and Loudoun	9,429	31.2	10,140	30.1	19,569	30.6
Kirkcaldy	7,725	31.8	8,283	30.0	16,008	30.8
Linlithgow	7,861	29.3	8,646	29.2	16,507	29.2
Livingston	9,226	28.7	10,057	28.5	19,283	28.6
Midlothian	6,569	27.7	7,244	27.0	13,813	27.3
Moray	7,461	23.8	6,940	21.8	14,401	22.8
Motherwell and Wishaw	8,243	32.8	9,156	31.6	17,399	32.1
North East Fife	6,590	22.7	6,939	21.2	13,528	21.9
North Tayside	7,073	23.4	7,349	22.1	14,423	22.7
Ochil	7,665	27.1	8,282	26.5	15,947	26.8
Orkney	1,717	22.8	1,620	20.6	3,336	21.7
Paisley North	7,220	31.7	7,636	29.3	14,856	30.4
Paisley South	7,404	29.6	8,009	27.4	15,413	28.4
Perth	7,315	24.0	7,453	22.2	14,769	23.0
Ross, Skye and Inverness West	7,415	26.7	7,559	25.4	14,975	26.0
Roxburgh and Berwickshire	5,777	25.5	6,006	24.1	11,784	24.8
Shetland	1,998	23.2	1,869	21.8	3,867	22.5
Stirling	6,304	23.7	6,940	23.1	13,244	23.4
Strathkelvin and Bearsden	6,120	20.0	6,674	19.5	12,794	19.8
Tweeddale, Ettrick and Lauderdale	5,797	23.5	6,228	22.5	12,025	22.9
West Aberdeenshire and Kincardine	6,051	19.5	6,386	19.7	12,436	19.6
West Renfrewshire	6,001	23.4	6,481	23.1	12,482	23.2
Western Isles	2,888	27.3	2,630	24.1	5,518	25.7
Scotland	542,684	28.1	570,313	26.5	1,112,997	27.2

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

Map 18



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

5. Smoking-attributable mortality

5.1 Methods

Mortality from smoking was calculated for Scotland in 2004 by Jillian Boreham (CTSU, University of Oxford), using an approach developed by Peto, Lopez *et al.*¹¹ The analysis updates and extends existing published tables for Scotland, which present smoking-attributable mortality across a range of developed countries¹² and allow an overview of trends in smoking-attributable mortality in Scotland from 1950 onwards. Additional analyses were undertaken to calculate smoking-attributable mortality for NHS boards and CHPs within Scotland in the period 2000–2004.

In brief, the method is based on the premise that in developed countries, the absolute age- and sex-specific lung cancer mortality rates can be used to indicate the approximate proportions of deaths due to tobacco, not only from lung cancer itself, but also, indirectly, from vascular disease and from various other categories of disease. Thus, in the absence of direct information on smoking histories, mortality from tobacco can be estimated from disease mortality. In practice this means that mortality rates from various categories of disease are taken and certain proportions of deaths from those disease categories are attributed to tobacco. These attributable proportions vary from one category to another, being greatest for lung cancer, upper aerodigestive cancer and chronic obstructive pulmonary disease (COPD), intermediate for vascular disease, and zero for cirrhosis, accidents and violence.

Table 33 shows the smoking-attributable proportions calculated for Scotland from 2004 mortality data.

Table 33 Smoking-attributable mortality proportions by cause, sex and broad age group, Scotland, 2004

Attributable causes (ICD10 codes)	Male		Female	
	35-69	70+	35-69	70+
Lung cancer (C33, C34)	91	92	85	90
Upper aerodigestive cancer (C00-C15, C32)	58	62	59	71
Other cancer (C16-C31 & C35-C97)	13	14	5	8
COPD (J40-J47, J67)	75	75	78	85
Other respiratory disease (J00-J39, J48-J66, J68-J99)	24	13	28	17
Diseases of the circulatory system (I00-I99)	24	13	29	17
Other medical (rest of A00-R99) ¹	24	13	28	17

¹ Discharges relating to liver cirrhosis (K70,K74) and non-medical causes (S01-Y89) are excluded as smoking-attributable causes.

This method is not designed to estimate deaths among non-smokers from passive smoking and thus, in principle, excludes any deaths among non-smokers from environmental tobacco smoke. Appendix 5 contains a fuller description of the method.

In the following sections, smoking-attributable mortality results obtained using this technique are reported at a national, NHS board and CHP level.

5.2 Scotland

In 2004, an estimated 13,473 deaths in Scotland were attributed to smoking, which equated to 24% of all deaths (see Table 34).

Table 34 Estimated smoking-attributable mortality by age, sex and cause, Scotland, 2004

	Males (35-69)		Males (70+)		Females (35-69)		Females (70+)		All persons	
	Deaths	% ¹	Deaths	% ¹	Deaths	% ¹	Deaths	% ¹	Deaths (all ages)	% ²
Scotland	2,539	28	3,984	24	1,631	28	5,319	23	13,473	24

Source: Jillian Boreham, CTSU, University of Oxford. Estimates created applying method of Peto *et al*, *Lancet* 1992)

¹ Deaths from smoking as a percentage of all deaths in the specific age/sex group

² Deaths from smoking as a percentage of all deaths at all ages

Among men, 40% of all cancer deaths and 91% of lung cancer deaths were attributable to smoking, whereas for women the equivalent figures were 29% and 88% respectively.

Among men and women in middle age (35–69) in 2004, 22 years of life were lost on average per death from smoking.

Over the period from 1950 to 2004, the proportion of adult deaths attributable to smoking has fluctuated by age and by sex:

- among men in middle age (35–69), the proportion of all deaths attributable to smoking rose from 37% in 1950 to 50% in 1965 but has dropped subsequently to 28% in 2004
- among women in middle age, in 1950 only 9% of female deaths were attributable to smoking. However, by 1985 this figure had risen to 31% and has only reduced slightly since, to 28% of all deaths in 2004
- among men and women aged 70 and over, the proportion of deaths from smoking has risen significantly since 1950. In 2004, 24% of men and 23% of women in this age band died from smoking; in contrast, the equivalent mortality burden from smoking in 1950 was 5% of all male deaths and 2% of all female deaths.

Appendix 6a provides more detailed commentary on smoking-attributable mortality trends for Scotland. The Deaths from smoking website (<http://www.deathsfromsmoking.net/>) published by the International Union Against Cancer (IACC) contains estimates of deaths from smoking, calculated using the same methodology, for 40 countries including the UK.

Moon *et al* have previously calculated estimates of smoking mortality in Scotland based on Callum's approach applied to small area smoking and ex-smoking estimates.¹⁰ They estimated that there were 11,300 annual deaths due to smoking in Scotland in the period 1998–2002. This figure is clearly lower than the estimate we quote in this report, which is based on the approach of Peto *et al*. However, given the different approaches, different data and different assumptions applied, the two estimates are remarkably close. Both methods, despite their slightly different results, emphasise the seriousness of smoking-related harm in Scotland.

5.3 NHS boards

The analysis of deaths from smoking at NHS board level was calculated from mortality data for 2000–2004. A five-year period was chosen to enable robust estimates to be calculated for the smaller NHS boards, although further adjustments to the method had to be applied to obtain more stable estimates for the three Island boards.^e

Table 35 summarises the NHS board level results.

Table 35 Estimated smoking-attributable mortality by age and sex, NHS board, 2000–2004

NHS board	Males (35-69)		Males (70+)		Females (35-69)		Females (70+)		All persons	
	Deaths	% ¹	Deaths	% ¹	Deaths	% ¹	Deaths	% ¹	Deaths (all ages)	% ²
Ayrshire & Arran	938	27	1,669	25	672	28	1,923	20	5,202	23
Borders	176	22	415	19	132	24	472	16	1,195	18
Dumfries & Galloway	329	28	747	25	213	24	720	19	2,009	22
Fife	819	29	1,504	25	457	25	1,711	21	4,491	23
Forth Valley	687	29	1,164	26	459	29	1,325	21	3,635	24
Grampian	955	24	1,766	22	581	24	2,116	19	5,418	21
Greater Glasgow & Clyde	4,548	34	5,794	29	2,791	34	7,650	27	20,783	29
Highland	701	25	1,083	20	375	22	1,234	17	3,393	20
Lanarkshire	1,612	31	2,307	27	1,027	29	2,949	25	7,895	26
Lothian	1,707	29	3,109	26	1,070	27	3,785	23	9,671	25
Orkney	37	23	71	21	12	17	45	10	165	16
Shetland	39	22	58	20	17	18	42	9	155	15
Tayside	913	27	1,584	22	588	26	1,906	19	4,991	21
Western Isles	80	25	133	21	22	16	68	9	303	16

Source: Jillian Boreham, CTSU, University of Oxford. Estimates created applying method of Peto, Lopez *et al* (*Lancet* 1992)

¹ Deaths from smoking as a percentage of all deaths in the specific age/sex group

² Deaths from smoking as a percentage of all deaths at all ages

Not surprisingly, Greater Glasgow & Clyde had the highest number and proportion of deaths from smoking in all age/sex groups. Over the five-year period, (2000–2004), there were more than 20,000 deaths attributed to smoking in Greater Glasgow & Clyde, equating to 29% of deaths at all ages. Among 35- to 69-year-olds, smoking accounted for 34% of all deaths for both men and women in the board area.

Lanarkshire had the second highest proportion of smoking-attributable deaths (26%).

The lowest proportion of smoking-related deaths was reported in the Island boards of Shetland, Orkney and Western Isles, where deaths due to smoking accounted for 15–16% of all deaths over the period.

More detailed NHS board tables, with smoking-attributable deaths broken down by cause as well as age and sex, are available in Appendix 6b.

^e Because of the relatively small number of deaths in the Island boards, smoking-attributable mortality proportions by cause, age and sex were initially calculated for the three boards combined. These average attributable proportions were then applied to actual deaths in each board area to calculate smoking deaths for each individual board.

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust ‘best guess’ of local smoking prevalence.

5.4 Community health partnerships

Estimates of smoking-attributable deaths at a CHP level were calculated in a more approximate way by applying the smoking-attributable mortality proportions for each cause at a NHS board level to deaths in the CHPs within each NHS board. Table 36 summarises the results at CHP level.


Table 36 Estimated smoking-attributable mortality by age and sex, CHP, 2000–2004

Community Health Partnership (CHP)	Males (35-69)		Males (70+)		Females (35-69)		Females (70+)		All persons	
	Deaths	% ¹	Deaths	% ¹	Deaths	% ¹	Deaths	% ¹	Deaths (all ages)	% ²
East Ayrshire CHP	290	27	549	26	258	30	616	21	1,712	24
North Ayrshire CHP	386	28	580	25	237	27	666	20	1,870	23
South Ayrshire CHP	262	27	540	24	177	26	641	20	1,620	22
Scottish Borders CHCP	176	22	415	19	132	24	472	16	1,195	18
Dumfries & Galloway CHP	329	28	747	25	213	24	720	19	2,009	22
Dunfermline & West Fife CHP	319	28	539	25	186	25	613	21	1,657	23
Glenrothes & North East Fife CHP	235	29	491	25	138	25	531	20	1,395	22
Kirkcaldy & Levenmouth CHP	265	31	474	25	134	25	566	21	1,440	24
Clackmannanshire CHP	122	29	195	26	89	31	217	21	622	24
Falkirk CHP	394	29	650	27	255	30	703	21	2,002	24
Stirling CHP	172	27	318	24	115	26	402	21	1,007	23
Aberdeen City CHP	426	25	748	23	256	26	978	21	2,408	22
Aberdeenshire CHP	363	24	697	21	222	23	790	18	2,073	20
Moray Community HSCP	165	24	321	21	103	24	348	18	937	20
East Dunbartonshire CHP	257	34	417	28	156	29	503	25	1,334	27
East Glasgow CHCP	692	34	754	32	420	36	916	29	2,783	31
East Renfrewshire CHCP	206	33	336	25	129	32	468	25	1,140	26
Inverclyde CHP	369	34	426	28	198	33	575	26	1,568	28
North Glasgow CHCP	493	34	534	30	325	36	722	28	2,075	30
Renfrewshire CHP	602	33	808	28	368	32	1,049	26	2,827	28
South East Glasgow CHCP	359	33	434	28	200	33	573	27	1,566	28
South West Glasgow CHCP	521	35	637	29	337	36	894	27	2,388	29
West Dunbartonshire CHP	329	33	447	29	221	34	614	27	1,612	28
West Glasgow CHCP	478	33	659	30	277	34	896	27	2,311	28
Argyll & Bute CHP	214	25	348	20	113	21	435	18	1,110	20
Mid Highland CHP	188	25	300	20	105	22	310	17	903	19
North Highland CHP	102	27	154	20	51	21	157	17	464	19
South East Highland CHP	197	26	281	21	106	22	331	17	916	20
North Lanarkshire CHP	991	31	1,352	28	643	29	1,679	26	4,664	27
South Lanarkshire CHP	835	31	1,288	26	527	28	1,695	25	4,345	26
East Lothian CHP	193	30	437	27	122	26	522	23	1,274	25
Edinburgh North CHP	468	28	863	25	280	26	1,057	22	2,669	24
Edinburgh South CHP	462	28	895	25	262	25	1,152	22	2,772	24
Midlothian CHP	211	32	362	28	131	28	399	24	1,102	26
West Lothian CHCP	374	29	552	26	274	29	653	24	1,853	26
Orkney CHP	37	23	71	21	12	17	45	10	165	16
Shetland CHP	39	22	58	20	17	18	42	9	155	15
Angus CHP	225	27	426	20	149	25	540	18	1,340	20
Dundee CHP	433	28	613	23	270	28	748	20	2,064	23
Perth & Kinross CHP	255	26	547	22	168	26	621	18	1,592	20
Western Isles CHP	80	25	133	21	22	16	68	9	303	16

¹ Deaths from smoking as a percentage of all deaths in the specific age/sex group

² Deaths from smoking as a percentage of all deaths at all ages

The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



The CHPs with the highest proportions of smoking-attributable deaths are in East Glasgow CHCP (31% of all deaths) and North Glasgow CHCP (30%).

Many of the CHP areas with the highest proportions of smoking-attributable deaths are concentrated in Greater Glasgow & Clyde. However, for some more affluent CHP areas, such as East Dunbartonshire and East Renfrewshire (ranked 9th and 11th highest for smoking deaths respectively), the application of smoking-attributable proportions from the whole of Greater Glasgow & Clyde (the highest of any board in Scotland) may falsely inflate the estimated numbers of smoking deaths. It is equally likely that the application of the board level attributable proportions may underestimate smoking deaths in other areas that have higher than average lung cancer mortality rates. Thus the estimates for East Glasgow and North Glasgow CHCP, although the highest in Scotland, are almost certainly conservative.

The CHPs with the lowest levels of smoking-attributable mortality tend to concentrate in rural areas, with the lowest levels in the Island areas, the Borders and the Highlands.

More detailed CHP tables, with smoking-attributable deaths broken down by cause as well as age and sex, are available in Appendix 7.

6. Conclusion

This atlas, with its electronic appendices, provides smoking prevalence estimates for a variety of geographies in Scotland. We have emphasised that the figures given are estimates. Although they have been systematically and robustly derived, they will not be correct in every detail and should always be used in conjunction with an understanding of local circumstances.

There is considerable variation in smoking prevalence between different parts of Scotland. Large areas such as those covered by health boards tend to average out these differences – the range of adult smoking for boards is from 21.7% to 29.8%. But at CHP level the range is from 18.6% to 37.5%; and at intermediate zone level it is 9.5% to 52.4%. It is important that local activity to reduce smoking is sensitive to these geographical variations, which often match the geography of deprivation.

An obvious use of this atlas is to highlight the targeting of smoking cessation effort. However, it is also important to reduce the annual crop of new teenage smokers. Since the likelihood of a young person taking up smoking is influenced by the prevalence of smoking around them, this atlas can also help to inform prevention as well as cessation. Reducing the number of new smokers and helping existing smokers to stop are both necessary if Scotland's smoking targets are to be achieved (see below).

Smoking reduction targets

Reduce:

1. adult (age 16+) smoking to 22% by 2010
2. smoking among those aged 12–15 to 11% by 2010
3. smoking in pregnancy to 20% by 2010
4. adult smoking prevalence in the most deprived quintile of areas to 33.2% by 2008
5. smoking in pregnancy in the most deprived quintile of areas to 32.2% by 2008.

Tobacco smoking remains the single most important preventable cause of ill health and premature death in Scotland, despite a substantial reduction since its peak in the middle of the twentieth century and also the rise of new challenges to health, such as obesity. Indeed, it is estimated that in 2004, more than 13,000 deaths were attributable to smoking, equating to 24% of all deaths in that year.

We hope this atlas will be a useful resource for the wide range of people concerned with reducing tobacco use in Scotland and as such will help to contribute to further reductions in smoking and smoking-related harm.

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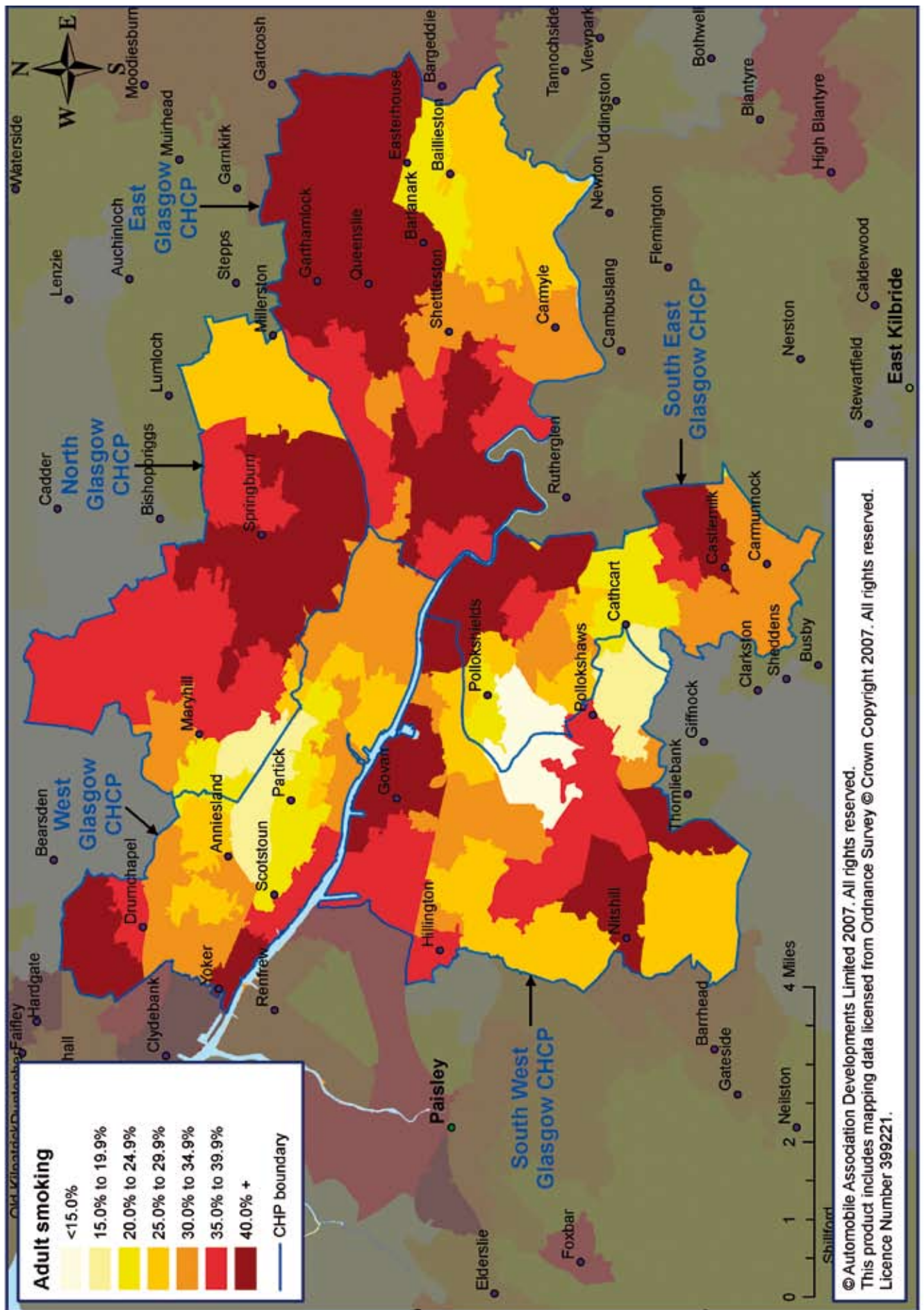




Appendix 1

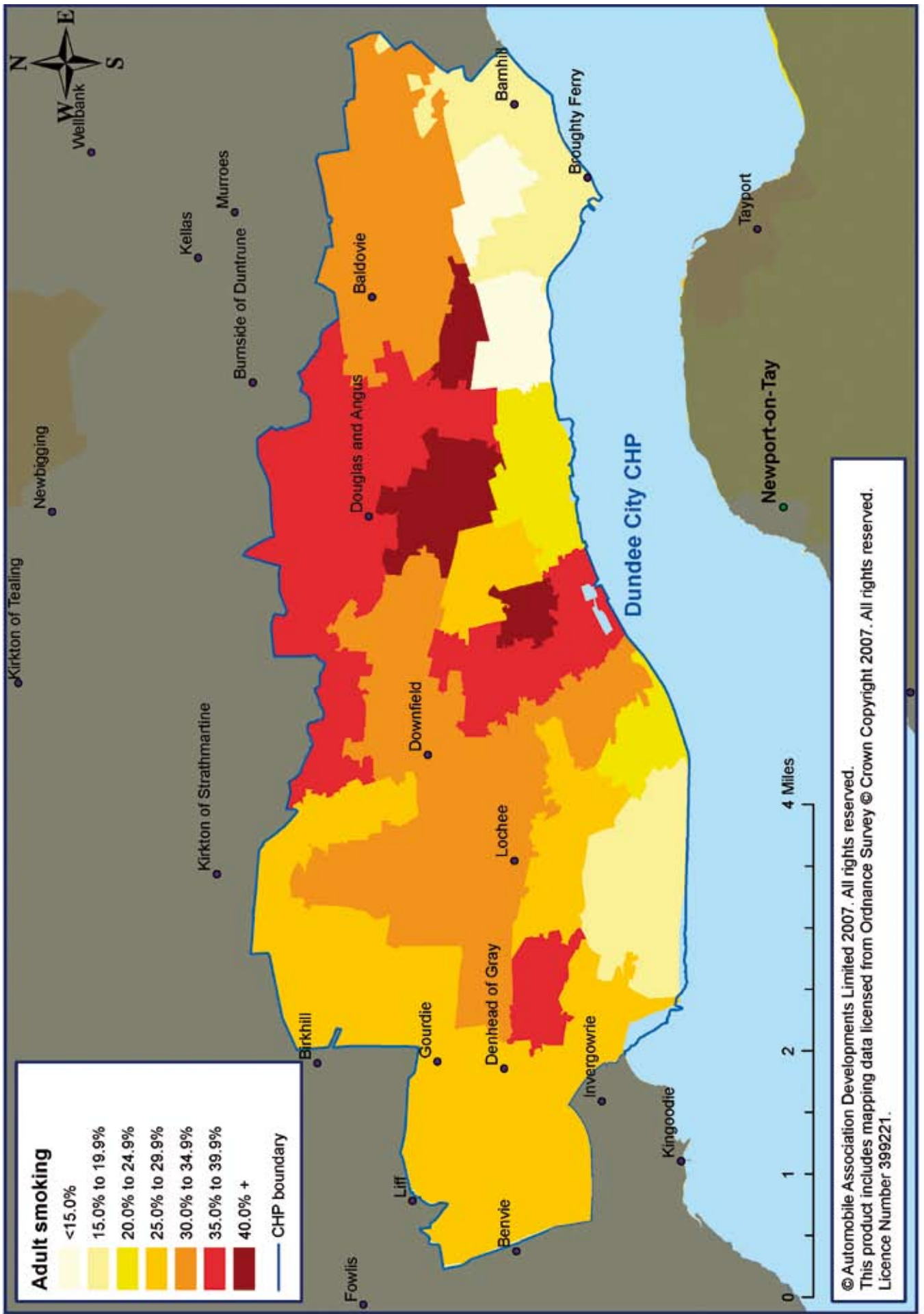
Maps of estimated smoking prevalence (2003/04) by intermediate zone within four city councils: Aberdeen, Glasgow, Dundee and Edinburgh

Glasgow City



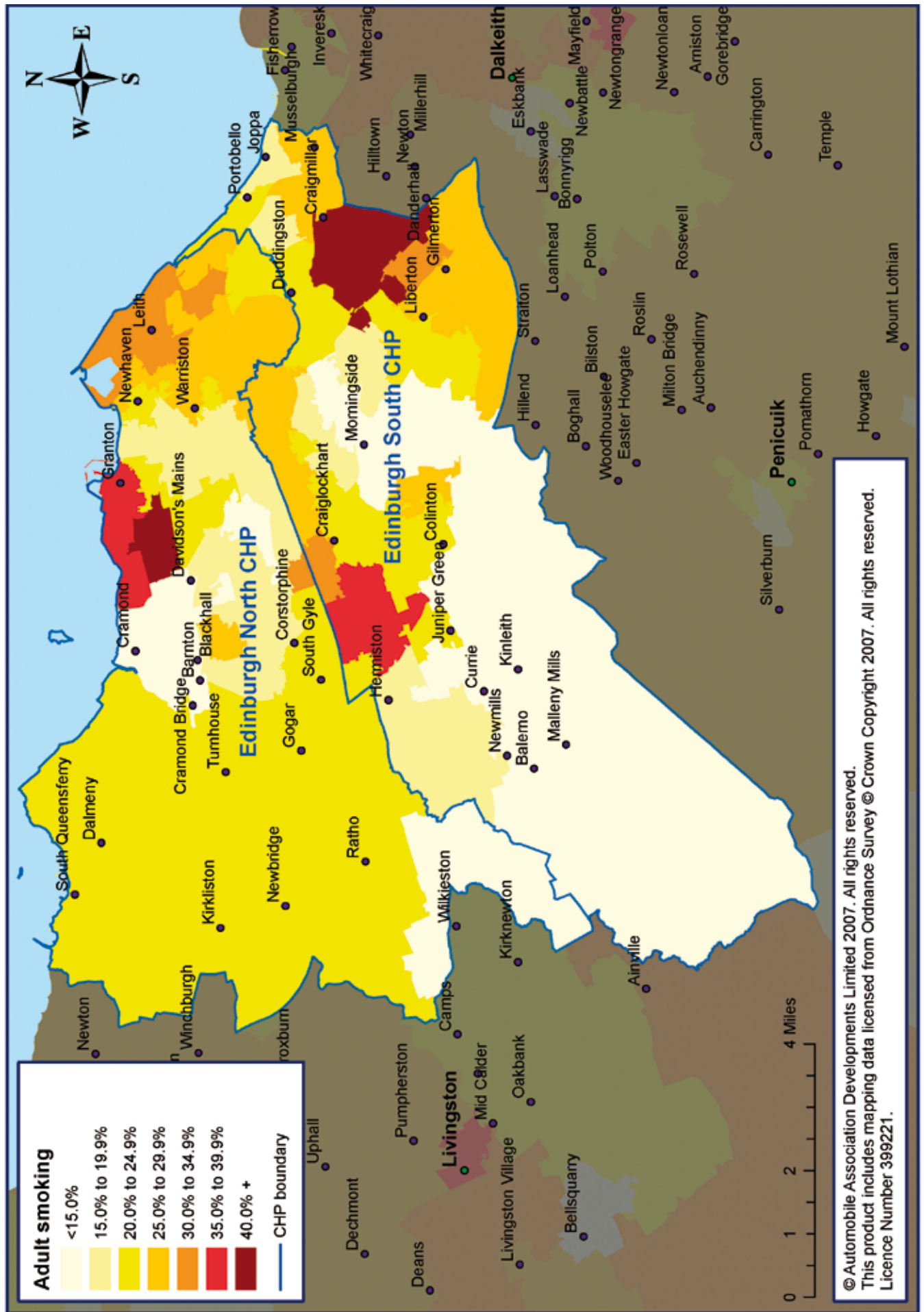
The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

Dundee City



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.

City of Edinburgh



The smoking prevalence figures presented are estimates, based on the characteristics of the local population and the regional setting, and represent a reasoned, robust 'best guess' of local smoking prevalence.



