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Premature Mortality from Smoking in the North East of England

This report is intended to inform local policy makers concerned with reducing the burden of chronic disease and premature death in the North East. They include members of local government, the NHS, the public health community and voluntary organisations.

The aim of the report is to estimate the number of premature deaths (under age 70) in the North East of England that can be attributed to smoking.

Life expectancy at birth in the North East (74.5 years for men and 79.3 years for women) is lower than the average for England (76.0 and 80.6) and substantially lower than for the South East (77.2 and 81.5)[1].

Cigarette smoking is the biggest contributor to this difference as smoking increases the risk of premature death (defined here as death under age 70). On average, regular smokers who die of a smoking-related disease lose 16 years of life expectancy compared to non-smokers[2]. Prolonged smoking causes many diseases to the smoker, mainly lung cancer, other cancers, heart disease (cardiovascular disease) and airways disease including Chronic Obstructive Pulmonary Disease (COPD).

Smoking harms others. The risk of fatal diseases like lung cancer and heart disease is higher in those exposed to second hand smoke (also known as environmental tobacco smoke) than those who are not[3]. In the past, the excess health risk associated with smoking had been under estimated because of the long delay between increase in smoking and increase in death rates. Recent studies show that half to two thirds of all smokers will eventually be killed by their habit[4].

This is particularly significant as the age at which people start to smoke is decreasing, especially in young women. The good news is that stopping smoking at any age helps improve health[4].

We used a well recognised method to estimate premature death rates in the North East, based on the assumption that current lung cancer deaths provide a better measure of the lifetime effects of smoking than current prevalence[5].

Estimated number and rates of smoking attributable deaths from specified diseases, for men and women aged 35-69 (premature deaths), are shown by Local Authority area (Table 1) and Primary Care Organisation (Table 2), overleaf.

Further tables giving death rates by sex and for all ages (35+) are available on the website www.nepho.org.uk

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Key points

- Life expectancy at birth in the North East is lower than that for England. Cigarette smoking is the biggest contributor to this difference.
- Recent studies show that half to two thirds of all persistent smokers will die because of the habit.
- In the North East, around a third of all premature deaths are caused by smoking attributable diseases, compared to a quarter of all deaths in England.
- Deaths from smoking range from 21% of all premature deaths in Alnwick to 38% of all premature deaths in Hartlepool.
- Stopping smoking at any age helps improve health.

Table 1: Average annual number and percentage of premature deaths attributable to smoking, by Local Authority (2000-2002 average)

	SMOKING ATTRIBUTABLE DEATHS FROM ALL CAUSES		SMOKING ATTRIBUTABLE DEATHS FROM ALL CANCERS		SMOKING ATTRIBUTABLE DEATHS FROM LUNG CANCER		SMOKING ATTRIBUTABLE DEATHS FROM COPD		SMOKING ATTRIBUTABLE DEATHS FROM CARDIOVASCULAR DISEASE	
MALES AND FEMALES	**Number**	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**
Gateshead	197	34%	90	39%	61	91%	23	77%	55	29%
Newcastle upon Tyne	263	37%	118	42%	82	92%	29	81%	74	35%
North Tyneside	158	31%	76	37%	53	90%	16	77%	42	28%
South Tyneside	155	34%	73	37%	49	91%	17	80%	42	31%
Sunderland	265	33%	125	39%	88	91%	25	78%	71	29%
Tyne & Wear	**1036**	**34%**	**482**	**39%**	**333**	**91%**	**110**	**79%**	**283**	**31%**
Darlington	79	31%	36	37%	26	90%	9	77%	24	28%
Hartlepool	103	38%	47	44%	33	92%	13	79%	28	34%
Middlesbrough	137	35%	60	39%	41	91%	18	79%	39	31%
Redcar & Cleveland	108	28%	47	31%	33	88%	15	70%	30	25%
Stockton-on-Tees	153	35%	77	39%	55	91%	17	80%	40	30%
Tees Valley	**581**	**33%**	**267**	**38%**	**188**	**91%**	**72**	**77%**	**161**	**29%**
Chester-le-Street	29	23%	14	27%	11	86%	4	61%	8	17%
Derwentside	72	31%	34	34%	24	90%	9	76%	20	28%
Durham	47	22%	20	25%	14	85%	8	65%	14	19%
Easington	92	32%	39	36%	28	90%	12	75%	28	29%
Sedgefield	88	35%	38	41%	30	91%	11	78%	25	30%
Teesdale	13	20%	6	26%	4	83%	2	55%	3	15%
Wear Valley	57	32%	23	37%	17	90%	10	72%	16	28%
County Durham	**398**	**30%**	**175**	**34%**	**128**	**89%**	**55**	**72%**	**113**	**26%**
Alnwick	14	21%	8	25%	5	85%	2	62%	2	15%
Berwick-upon-Tweed	16	23%	8	27%	6	88%	2	61%	4	19%
Blyth Valley	58	29%	26	34%	20	89%	5	73%	18	27%
Castle Morpeth	24	22%	14	29%	9	86%	2	51%	6	18%
Tynedale	25	20%	13	26%	10	84%	3	61%	6	15%
Wansbeck	55	32%	24	37%	18	90%	7	76%	17	27%
Northumberland	**193**	**26%**	**93**	**31%**	**68**	**88%**	**22**	**67%**	**54**	**22%**
NORTH EAST	**2216**	**32%**	**1019**	**37%**	**716**	**90%**	**261**	**78%**	**614**	**29%**
ENGLAND	**26065**	**24%**	**12073**	**28%**	**8432**	**85%**	**3051**	**69%**	**6648**	**20%**

Note: Totals may not add due to rounding
Not all smoking attributable diseases are included in the table

Table 2: Average annual number and percentage of premature deaths attributable to smoking by Primary Care Organisation (2000-2002 average)

MALES AND FEMALES	SMOKING ATTRIBUTABLE DEATHS FROM ALL CAUSES		SMOKING ATTRIBUTABLE DEATHS FROM ALL CANCERS		SMOKING ATTRIBUTABLE DEATHS FROM LUNG CANCER		SMOKING ATTRIBUTABLE DEATHS FROM COPD		SMOKING ATTRIBUTABLE DEATHS FROM CARDIOVASCULAR DISEASE	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Darlington PCT	83	32%	36	37%	26	90%	9	77%	24	27%
Derwentside PCT	74	31%	33	34%	24	90%	9	76%	20	28%
Durham & Chester-le-Street PCT	78	23%	35	26%	24	85%	13	68%	22	19%
Durham Dales PCT	71	30%	30	34%	21	88%	12	70%	19	25%
Easington PCT	91	32%	40	36%	28	90%	12	75%	28	29%
Hartlepool PCT	103	38%	47	44%	33	92%	13	79%	29	34%
Langbaurgh PCT	63	24%	28	27%	19	86%	10	65%	16	20%
Middlesbrough PCT	181	35%	79	39%	54	91%	24	79%	54	32%
North Tees PCT	155	35%	78	39%	55	91%	17	80%	40	30%
Sedgefield PCT	89	35%	39	41%	30	91%	11	78%	25	30%
County Durham & Tees Valley SHA	**988**	**32%**	**444**	**36%**	**316**	**90%**	**128**	**75%**	**276**	**28%**
Gateshead PCT	196	34%	90	40%	61	91%	23	77%	55	29%
Newcastle PCT	260	37%	118	42%	82	92%	29	81%	74	35%
North Tyneside PCT	159	31%	77	37%	53	90%	16	77%	42	28%
Northumberland Care Trust	194	26%	93	31%	67	86%	23	72%	54	22%
South Tyneside PCT	155	34%	73	37%	49	91%	17	80%	42	31%
Sunderland Teaching PCT	266	33%	126	39%	88	91%	25	78%	71	29%
Northumberland, Tyne & Wear SHA	**1229**	**32%**	**577**	**37%**	**400**	**90%**	**133**	**77%**	**338**	**29%**
NORTH EAST	**2216**	**32%**	**1019**	**37%**	**716**	**90%**	**261**	**78%**	**614**	**29%**
ENGLAND	**26065**	**24%**	**12073**	**28%**	**8432**	**85%**	**3051**	**69%**	**6648**	**20%**

Note: Totals may not add due to rounding
Not all smoking attributable diseases are included in the table

Further Information

The Health Development Agency (HDA) commissioned a piece of work from the University of Portsmouth, The smoking epidemic in England [6], which has recently been published. Full details of this work are available on the HDA website at www.hda-online.org.uk.

The HDA report provides estimates for smoking attributable deaths for all ages, 35 years and over. The NEPHO report focuses on premature deaths (35-69 years) at small area levels (Primary Care Organisation and Local Authority).

The HDA report uses synthetic estimation as a means of calculating current and past smoking patterns to derive smoking attributable deaths, whereas our report uses deaths from lung cancer to estimate deaths from diseases caused by smoking.

Full details of our method (Peto/Lopez[5]), including ICD codes, assumptions and attribution ratios, are available on www.nepho.org.uk.

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