

# Chapter 15

# Respiratory disease

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# 15 Respiratory disease

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# 15 Respiratory disease

## **Introduction**

Respiratory disease is a condition of particular interest in Gateshead due to the area's recent industrial heritage. In the twentieth century coalmining, shipbuilding and other heavy industries formed a significant part of the region's economy. For this reason, it might be expected that respiratory disease would be more prevalent in Gateshead than in other parts of England.

In 2004 in Gateshead, the most recent year for which statistics are currently available, 350<sup>1</sup> people died with respiratory disease as the primary cause of death. This represented 16% of all deaths. 40% of these deaths were due to pneumonia and 40% were due collectively to "bronchitis, emphysema and other chronic obstructive pulmonary disease". The pooled three year indirectly standardised mortality ratio (SMR) due to all respiratory disease in Gateshead between 2002 and 2004 was 134 i.e. mortality in Gateshead was 34% higher than comparative rates across England and Wales. This is significantly higher than 100 at the 95% level of confidence. Although useful, this indicator is not monitored nationally.

The SMR due to bronchitis and emphysema is monitored separately for all local authority and primary care organisation areas within the Clinical and Health Outcomes Knowledge Base<sup>2</sup>, but this only represents a small proportion of deaths due to respiratory disease. The SMR for Gateshead in this area between 2002 and 2004 was 141 i.e. mortality in Gateshead was 41% higher than a comparable rate for England & Wales as a whole. However, this statistic was based on only 28 deaths and the SMR was not significantly different to 100 at the 95% level of confidence.

It is worth noting that the number of deaths where pneumonia was cited as the primary cause of death fell dramatically in 2001 across England and Wales due to changes in the conventions used to classify the primary cause of death. From 2001 onwards deaths due to pneumonia are more likely to be classified to the underlying cause of death.

Respiratory diseases, including asthma, are also a significant group of chronic illnesses some of which are largely managed in primary care. Data from primary care around asthma and chronic obstructive pulmonary disease (COPD) are now available from the national Quality and Outcomes Framework (QOF). At March 2006 there were 13,100 people registered with Gateshead GPs diagnosed with asthma and 4,600 diagnosed with COPD. These figures represent a prevalence of 6.5% for asthma and 2.3% for COPD and compare to national figures of 5.8% and 1.4% respectively. Information on the prevalence of disease in primary care has only recently become available through QOF. Evidence suggests that the

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<sup>1</sup> Office for National Statistics, "Vital Statistics 2004"

<sup>2</sup> National Centre for Health Outcomes Development, "Clinical and Health Outcomes Knowledge Base", [www.nchod.nhs.uk](http://www.nchod.nhs.uk).

prevalence of asthma across England is rising<sup>3</sup> and it will be useful to be able to monitor whether this rise is occurring locally in Gateshead.

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### **Acknowledgements**

This chapter of the Gateshead Compendium of Health Related Statistics contains data from a range of partner agencies. Sources of data are detailed at the foot of each individual item. Thanks are extended to the following organisations for providing and allowing use of their information:

NHS Information Centre

National Centre for Health Outcomes and Development

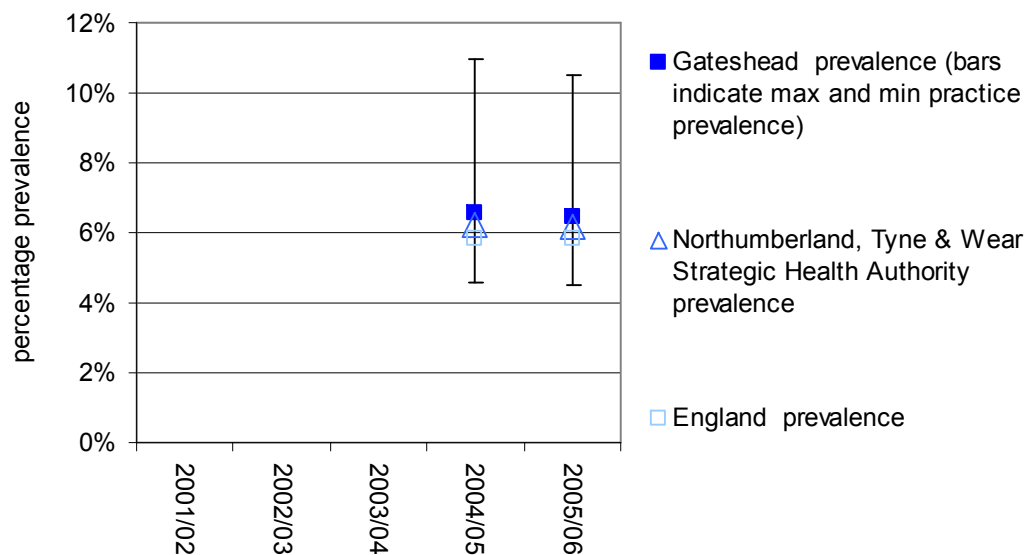
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<sup>3</sup> Boseley S., "The asthma plague", 4 November 2005, Guardian, available on the internet at [www.guardian.co.uk](http://www.guardian.co.uk)

## 15.1 Prevalence of asthma in primary care

Asthma is caused by a narrowing of the bronchial airways, which changes in severity over short periods of time (either spontaneously or under treatment). The condition leads to cough, wheezing and difficulty in breathing.

Average percentage prevalence of asthma among people of all ages.



Year	Gateshead					NTW StHA prevalence	England prevalence
	no. on disease register	prevalence	minimum practice prevalence	maximum practice prevalence	practice prevalence interquartile range		
2001/02	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002/03	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004/05	13383	6.57%	4.56%	10.96%	1.48%	6.23%	5.82%
2005/06	13149	6.45%	4.51%	10.53%	1.57%	6.17%	5.83%

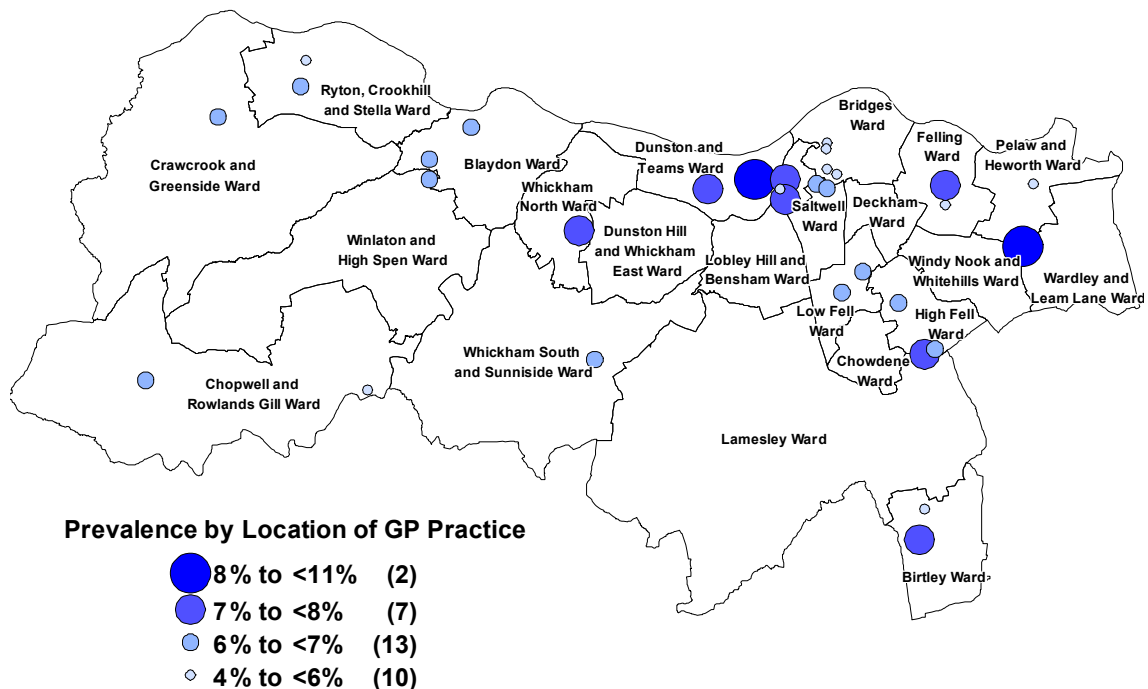
Source: NHS Information Centre at [www.ic.nhs.uk](http://www.ic.nhs.uk)

n/a = not available, NTW StHA = Northumberland, Tyne & Wear Strategic Health Authority

Criteria for inclusion: people of all ages who have been diagnosed with asthma, excluding service users who have been diagnosed with asthma but have not been prescribed any asthma-related drugs in the past twelve months

## 15.2 Prevalence of asthma in primary care by location of Gateshead GP practice

Prevalence data down to GP practice level is now published on the NHS Information Centre website (see link below). The map below shows levels of prevalence by location of GP practice, with a larger dot in a darker shade of blue representing higher prevalence. This measure is not perfect as GP practice lists are typically drawn from a wide geographical area and overlap, particularly in central Gateshead.

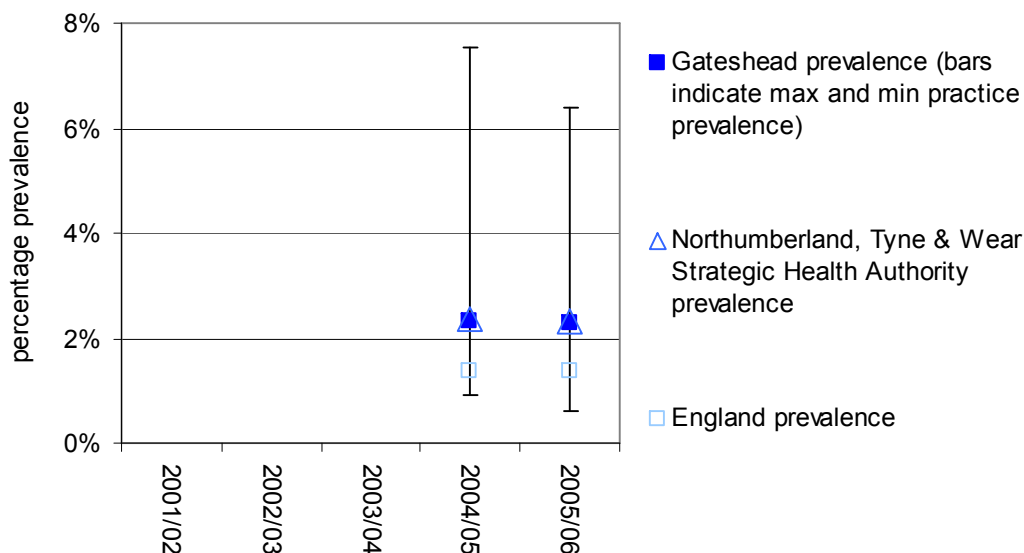


Source: NHS Information Centre at [www.ic.nhs.uk/qof](http://www.ic.nhs.uk/qof)

### 15.3 Prevalence of chronic obstructive pulmonary disease (COPD) in primary care

COPD is a disease of adults, particularly those over 45, with a history of smoking or inhalation of airborne pollution. It is diagnosed when the forced expiratory volume in 1 second (FEV) is less than 60% of the expected value for the patient's age and height and the patient does not respond to steroid drugs and bronchodilators.

Average percentage prevalence of COPD among people of all ages.



Year	Gateshead					NTW StHA prevalence	England prevalence
	no. on disease register	prevalence	minimum practice prevalence	maximum practice prevalence	practice prevalence interquartile range		
2001/02	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002/03	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004/05	4730	2.32%	0.90%	7.56%	1.10%	2.35%	1.36%
2005/06	4637	2.28%	0.60%	6.42%	1.16%	2.32%	1.38%

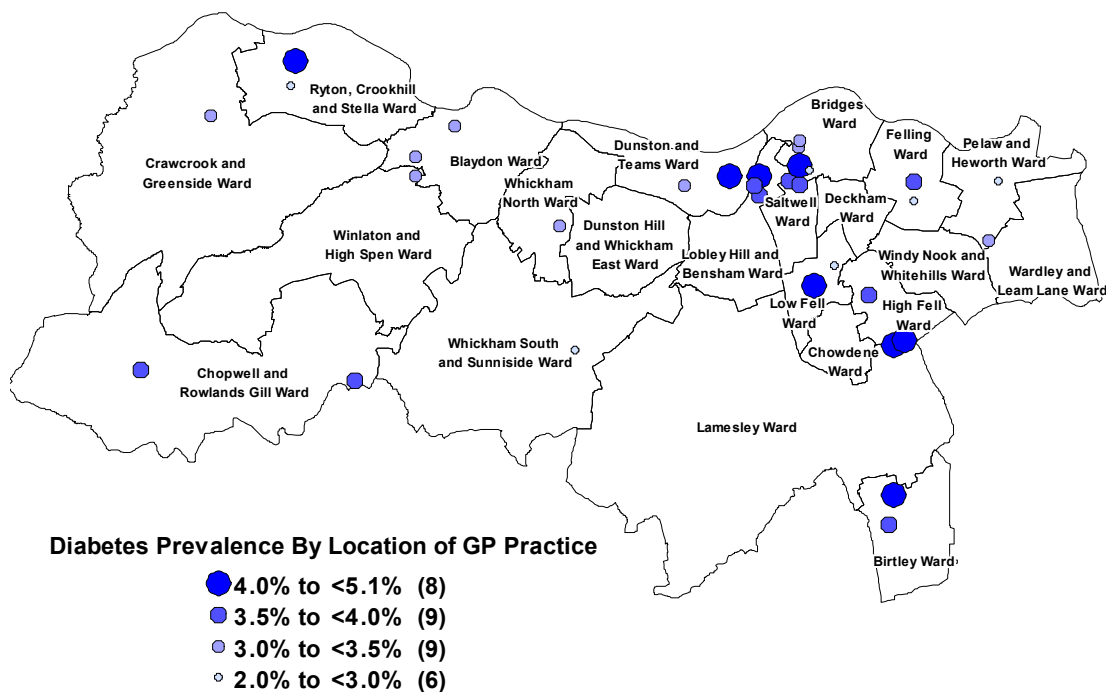
Source: NHS Information Centre at [www.ic.nhs.uk](http://www.ic.nhs.uk)

n/a = not available, NTW StHA = Northumberland, Tyne & Wear Strategic Health Authority

Criteria for inclusion: people of all ages on a GP list diagnosed with COPD.

## 15.4 Prevalence of COPD in primary care by location of Gateshead GP practice

Prevalence data down to GP practice level is now published on the NHS Information Centre website (see link below). The map below shows levels of prevalence by location of GP practice, with a larger dot in a darker shade of blue representing higher prevalence. This measure is not perfect as GP practice lists are typically drawn from a wide geographical area and overlap, particularly in central Gateshead.



Source: NHS Information Centre at [www.ic.nhs.uk/gof](http://www.ic.nhs.uk/gof)

## 15.5 Mortality from bronchitis and emphysema, indirectly age-standardised mortality ratios, people of all ages

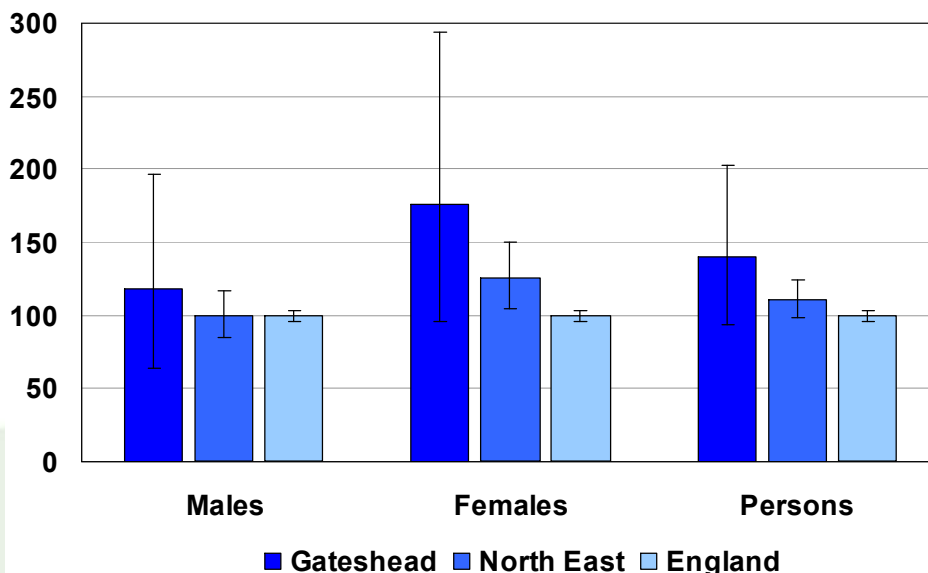
Indirectly standardised mortality ratios<sup>4</sup> (SMR) due to bronchitis and emphysema (ICD10 J40-J43), three year pooled.

		2002-04 (Pooled)			
		No. of deaths	SMR	Confidence Interval	
				Lower	Upper
Gateshead	Males	14	118	64	197
	Females	14	175	96	294
	Persons	28	141	94	203
North East	Males	154	100	85	117
	Females	129	126	105	149
	Persons	283	110	98	124
England	Males	3,030	100	96	104
	Females	1,973	100	96	105
	Persons	5,003	100	97	103

Source: Clinical and Health Outcomes Knowledge Base at [www.nchod.nhs.uk](http://www.nchod.nhs.uk)

### Mortality from bronchitis and emphysema (ICD10 J40-J43) 2002-04 (Pooled) All ages

Indirectly standardised ratios (SMR) with 95% confidence intervals



<sup>4</sup> SMRs are a comparison of mortality in England (the reference population) with mortality in the study population, here Gateshead or the NE. A ratio of 100 indicates that the level of mortality in the study population e.g. Gateshead is the same as expected mortality if age-specific mortality rates for England are applied to the Gateshead population. Mortality is standardised to the age structure of the study population. As Gateshead and the NE have different population structures the SMRs for each area are not comparable.