Chronic Obstructive Pulmonary Disease
Regional Summary

Chronic Obstructive Pulmonary Disease (COPD) describes a group of conditions which include emphysema and chronic bronchitis. 100,000 people in Yorkshire and the Humber, or 1.9% of the population, are diagnosed with COPD. However, there are an estimated 177,000 people with COPD, suggesting that 43% of people with the disease are not currently diagnosed.

COPD is the fifth largest killer disease in England. In Yorkshire and the Humber more people die from COPD (31.1 per 100,000) than from colorectal cancer (17.4 per 100,000) or chronic liver disease (10.4 per 100,000).

A progressive illness, COPD is disabling and the number of people dying as a result of COPD increases with age.

The direct cost of COPD to the health system in Yorkshire and the Humber is £77m: or an average of £5m a year for every PCT. The broader economic cost of COPD has been put at £3.8 billion for lost productivity in the UK economy as a whole. 25% of people with COPD are prevented from working due to the disease with at least 20 million lost working days a year among men and 3.5 million lost days among women every year.

A recent national audit showed that readmission rates in Yorkshire were 32% and that the average length of stay a day longer than the national average (Yorkshire 6 days, England 5 days).

The information contained in this profile summarises the provision of services across the Yorkshire and Humber region against service usage, patient outcomes and expenditure information.

This information is designed to allow the identification of differences in service provision and the potentially related variation seen at primary care/ provider trust level in outcomes and service usage for those with COPD. It is hoped that this information will generate discussion as to the drivers of any variation reported and encourage identification and adoption of best practice.

More detailed information is available in the accompanying profiles available for each Primary Care Trust in the Yorkshire and Humber region.
### Service Provision and Cost

#### Service Provision:

<table>
<thead>
<tr>
<th>Trust</th>
<th>Does the Trust offer a community pulmonary rehabilitation service?</th>
<th>Does the Trust run an early discharge scheme for those with COPD?</th>
<th>Does the Trust have an oxygen assessment service for LTOT, ambulatory oxygen and short burst/intermittent oxygen?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHS Barnsley</td>
<td>Yes</td>
<td>Yes</td>
<td>In Development</td>
</tr>
<tr>
<td>NHS Bassetlaw</td>
<td>Not Known</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>NHS Bradford &amp; Airedale</td>
<td>Yes</td>
<td>No</td>
<td>In Development</td>
</tr>
<tr>
<td>NHS Calderdale</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>NHS East Riding of Yorkshire</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>NHS Hull</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>NHS Kirklees</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>NHS Leeds</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>NHS North Yorkshire &amp; York</td>
<td>Yes</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>NHS North Lincolnshire</td>
<td>No</td>
<td>Yes</td>
<td>All</td>
</tr>
<tr>
<td>NHS North Lincolnshire CTP</td>
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<td>Yes</td>
<td>All</td>
</tr>
<tr>
<td>NHS Rotherham</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>NHS Sheffield</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>NHS Wakefield</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>NHS Wakefield Lincolnshire</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>NHS West Yorkshire</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>NHS West Yorkshire &amp; York</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>NHS Sheffield</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>NHS Wakefield Lincolnshire</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Yorkshire &amp; Humber SHA</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</tbody>
</table>

#### Service Cost:

<table>
<thead>
<tr>
<th>Trust</th>
<th>Patient Outcomes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHS Barnsley</td>
<td>18% Above</td>
</tr>
<tr>
<td>NHS Bassetlaw</td>
<td>25% Below</td>
</tr>
<tr>
<td>NHS Bradford &amp; Airedale</td>
<td>26% Below</td>
</tr>
<tr>
<td>NHS Calderdale</td>
<td>19% Above</td>
</tr>
<tr>
<td>NHS Doncaster</td>
<td>23% Below</td>
</tr>
<tr>
<td>NHS East Riding of Yorkshire</td>
<td>19% Above</td>
</tr>
<tr>
<td>NHS Hull</td>
<td>26% Below</td>
</tr>
<tr>
<td>NHS Kirklees</td>
<td>30% Above</td>
</tr>
<tr>
<td>NHS Leeds</td>
<td>26% Below</td>
</tr>
<tr>
<td>NHS North Yorkshire &amp; York</td>
<td>30% Above</td>
</tr>
<tr>
<td>NHS North Lincolnshire</td>
<td>24% Below</td>
</tr>
<tr>
<td>NHS North Lincolnshire CTP</td>
<td>2% Below</td>
</tr>
<tr>
<td>NHS Rotherham</td>
<td>22% Above</td>
</tr>
<tr>
<td>NHS Sheffield</td>
<td>25% Below</td>
</tr>
<tr>
<td>NHS Wakefield</td>
<td>45% Above</td>
</tr>
<tr>
<td>NHS Wakefield Lincolnshire</td>
<td>1% Below</td>
</tr>
<tr>
<td>NHS West Yorkshire</td>
<td>26% Below</td>
</tr>
<tr>
<td>NHS West Yorkshire &amp; York</td>
<td>26% Above</td>
</tr>
<tr>
<td>Yorkshire &amp; Humber SHA</td>
<td>3% Below</td>
</tr>
</tbody>
</table>

### Patient Outcomes

#### Chart 3: The percentage of patients with COPD with a record of FeV1 in the previous 15 months, 2009-10

- **England**: 88.5%
- **Yorkshire & Humber SHA**: 87.8%
- **NHS Wakefield**: 85.6%
- **NHS Sheffield**: 85.9%
- **NHS Rotherham**: 86.6%
- **NHS North Yorkshire & York**: 92.1%
- **NHS North Lincolnshire**: 85.6%
- **North East Lincolnshire CTP**: 88.7%
- **NHS Leeds**: 86.6%
- **NHS Kirklees**: 88.2%
- **NHS Hull**: 90.9%
- **NHS East Riding of Yorkshire**: 94.1%
- **NHS Doncaster**: 89.4%
- **NHS Calderdale**: 85.7%
- **NHS Bradford & Airedale**: 86.6%
- **NHS Bassetlaw**: 86.2%
- **NHS Barnsley**: 86.8%

#### Chart 4: Years of life lost due to bronchitis, emphysema & other COPD with 95% confidence limits, 2007-09

- **England**: Directly Age-Standardised Rate per 100,000 Population
- **Yorkshire & Humber SHA**: Directly Age-Standardised Rate per 100,000 Population
- **NHS Wakefield**: Directly Age-Standardised Rate per 100,000 Population
- **NHS Sheffield**: Directly Age-Standardised Rate per 100,000 Population
- **NHS Rotherham**: Directly Age-Standardised Rate per 100,000 Population
- **NHS North Yorkshire & York**: Directly Age-Standardised Rate per 100,000 Population
- **NHS North Lincolnshire**: Directly Age-Standardised Rate per 100,000 Population
- **North East Lincolnshire CTP**: Directly Age-Standardised Rate per 100,000 Population
- **NHS Leeds**: Directly Age-Standardised Rate per 100,000 Population
- **NHS Kirklees**: Directly Age-Standardised Rate per 100,000 Population
- **NHS Hull**: Directly Age-Standardised Rate per 100,000 Population
- **NHS East Riding of Yorkshire**: Directly Age-Standardised Rate per 100,000 Population
- **NHS Doncaster**: Directly Age-Standardised Rate per 100,000 Population
- **NHS Calderdale**: Directly Age-Standardised Rate per 100,000 Population
- **NHS Bradford & Airedale**: Directly Age-Standardised Rate per 100,000 Population
- **NHS Bassetlaw**: Directly Age-Standardised Rate per 100,000 Population
- **NHS Barnsley**: Directly Age-Standardised Rate per 100,000 Population

Source: National Centre for Health Outcomes Development, the NHS Information Centre for Health and Social Care
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**July 2011**
Z Scores:

Interpreting the chart:
The source data for the outcome measures shown on the chart can be found in the Spend and Outcome Tool. Further information on z-scores and how to interpret the chart are given below:

A z score essentially measures the distance of a value from the mean in units of standard deviations. A positive z score indicates that the value is above the mean, whereas a negative z score indicates that the value is below the mean. A z score

Lower Spend, Better Outcome

Higher Spend, Worse Outcome

The spend measure used in the chart is Programme Budgeting reported spend on respiratory conditions, which is taken from the Department of Health Programme budgeting toolkit.

The outcome measure used in the chart is Morality from bronchitis and emphysema and COPD: Under 75 Directly age-standardised rates (DSR) per 100,000 European Standard population, 2007-2009, which is taken from the Clinical and Health Outcomes Knowledge Base.

The information presented in Chart 5 is taken from the Spend versus Outcomes Tool (SPOT) created by the Association of Public Health Observatories for the Department of Health. The SPOT tool and more detailed factsheets for each PCT are available from the link below:

http://www.yhpho.org.uk/SPOT

Further information on z-scores and how to interpret the chart are given below:

Z Scores:

A z score essentially measures the distance of a value from the mean (average) in units of standard deviations. A positive z score indicates that the value is above the mean, whereas a negative z score indicates that the value is below the mean. A z score

Admissions Per 1,000 COPD Patients Registered

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Nights in Hospital

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Chart 7: Number of COPD admissions by main hospital provider trusts, 2009-10

- York Teaching Hospital: 528
- Sheffield Teaching Hospitals: 334
- Scarborough and N. E. Yorkshire: 844
- Rotherham: 959
- N. Lincolnshire and Goole Hospitals: 1,131
- Mid Yorkshire Hospitals: 1,449
- Leeds Teaching Hospitals: 1,628
- Hull and East Yorkshire Hospitals: 1,305
- Harrogate and District: 244
- Doncaster & Bassetlaw Hospitals: 446
- Calderdale and Huddersfield: 966
- Bradford Teaching Hospitals: 902
- Barnsley Hospital: 909
- Airedale: 407

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Chart 8: Standardised average length of stay for COPD admissions by main hospital provider trusts, 2009-10

- York Teaching Hospital: 6.7
- Sheffield Teaching Hospitals: 8.8
- Scarborough and N. E. Yorkshire: 7.7
- Rotherham: 6.2
- N. Lincolnshire and Goole Hospitals: 7.7
- Mid Yorkshire Hospitals: 6.7
- Leeds Teaching Hospitals: 6.3
- Hull and East Yorkshire Hospitals: 6.9
- Harrogate and District: 6.9
- Doncaster & Bassetlaw Hospitals: 7.4
- Calderdale and Huddersfield: 7.8
- Bradford Teaching Hospitals: 4.4
- Barnsley Hospital: 5.9
- Airedale: 7.7

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Chart 9: Emergency readmission rate within 30 days of a previous discharge for patients with COPD by main hospital provider trusts, 2009-10

- Yorkshire and Humber SHA: 23.8%
- York Teaching Hospital: 17.3%
- Sheffield Teaching Hospitals: 22.7%
- Scarborough and N. E. Yorkshire: 16.5%
- Rotherham: 23.8%
- N. Lincolnshire and Goole Hospitals: 19.7%
- Mid Yorkshire Hospitals: 25.4%
- Leeds Teaching Hospitals: 26.4%
- Hull and East Yorkshire Hospitals: 26.3%
- Harrogate and District: 21.3%
- Doncaster & Bassetlaw Hospitals: 21.5%
- Calderdale and Huddersfield: 25.1%
- Bradford Teaching Hospitals: 26.9%
- Barnsley Hospital: 23.7%
- Airedale: 24.1%

Source: East Midlands Quality Observatory

Chart 10: Emergency readmission rate within 72 hours of a previous discharge for patients with COPD by main hospital provider trusts, 2009-10

- England: tbc
- Yorkshire and Humber SHA: tbc
- York Teaching Hospital: tbc
- Sheffield Teaching Hospitals: tbc
- Scarborough and N. E. Yorkshire: tbc
- Rotherham: tbc
- N. Lincolnshire and Goole Hospitals: tbc
- Mid Yorkshire Hospitals: tbc
- Leeds Teaching Hospitals: tbc
- Hull and East Yorkshire Hospitals: tbc
- Harrogate and District: tbc
- Doncaster & Bassetlaw Hospitals: tbc
- Calderdale and Huddersfield: tbc
- Bradford Teaching Hospitals: tbc
- Barnsley Hospital: tbc
- Airedale: tbc

Source: East Midlands Quality Observatory

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