Hull PCT Health Outcome and Expenditure Comparison for Chronic Obstructive Pulmonary Disease 2009/2010

Key findings

- Whilst all respiratory system programmes in Hull for 2009/2010 have lower spend compared to England, spend is not significantly different from the England average. Hull ranks 15th lowest for spend out of the 16 PCTs in the Industrial Hinterlands cluster.

- For 2006-2008 Hull has a worse outcome for bronchitis, emphysema and chronic obstructive pulmonary disease (COPD) mortality compared to England, outside one standard deviation of the England average, which may require further investigation. Hull has the 14th worst outcome for bronchitis, emphysema and COPD mortality out of the 16 PCTs in the Industrial Hinterlands cluster.

Introduction

Programme budgeting is a well-established technique for assessing investment in health programmes rather than services. The purpose of this report is to provide an overall view of Hull PCT's health outcome and expenditure for COPD, which has been highlighted as a key priority goal for World Class Commissioning, and given the high prevalence of behavioural and lifestyle risk factors for COPD and high COPD mortality rates, will remain a key priority following the NHS re-organisation.
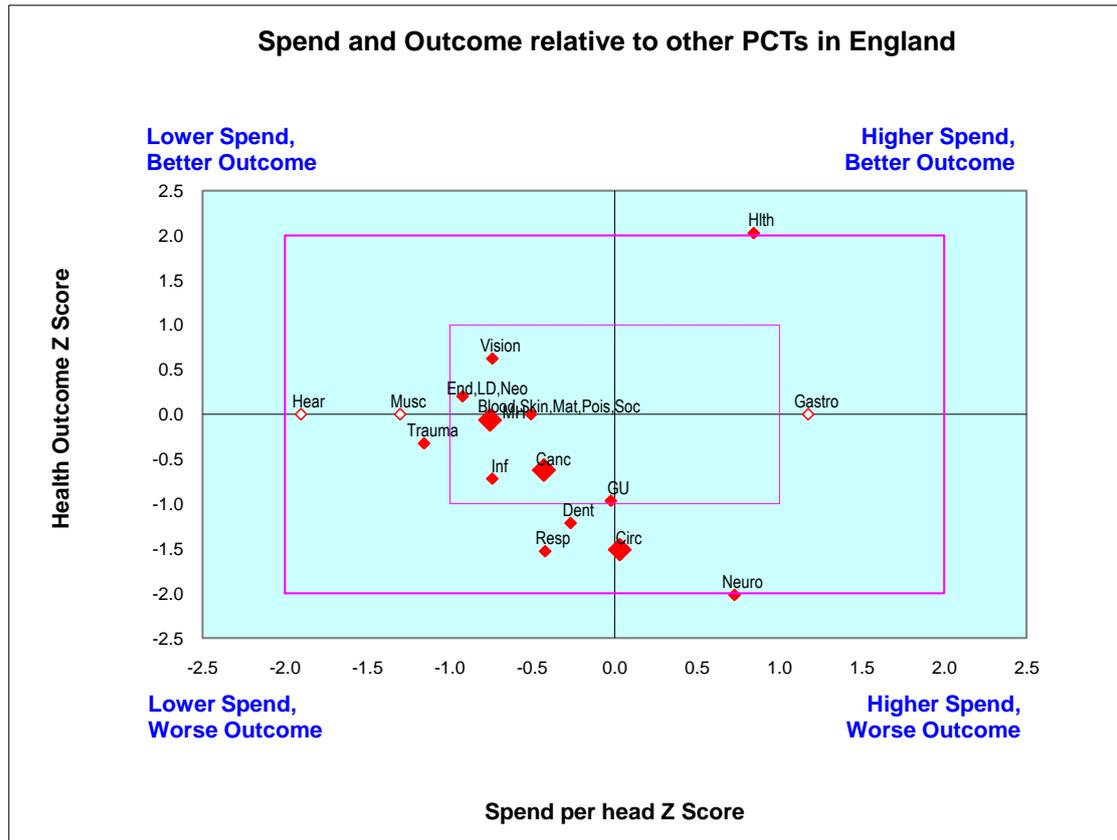
The Health Outcome and Expenditure Comparison Tool supplied by Yorkshire and Humber Public Health Observatory and Department of Health highlights better/worse outcomes for spend across individual programmes relative to the England average, and the Office for National Statistics (ONS) Industrial Hinterlands cluster rank for 2009/2010. The comparison tool displays two quadrant charts, which select an individual outcome against overall spend on a programme. When comparing outcomes for Hull to England, it is likely that the prevalence of risk factors and mortality will be higher in Hull due to its increased deprivation relative to England.

The outcome defined in the World Class Commissioning Strategy for COPD is 'number of people diagnosed and registered in primary care with COPD'. The government is currently (March 2011) undertaking a consultation on appropriate public health outcomes ("Healthy Lives, Healthy People: Transparency in Outcomes. Proposals for a Public Health Outcomes Framework"). It is possible that the key outcome measures for Hull will change. The proposed indicator for COPD relates to mortality from chronic respiratory diseases in persons less than 75 years of age. Therefore, it is not known which indicator(s) will be selected for respiratory disease.

Figures 1 and 2 display programme spend per head for 2009/2010 on all respiratory programmes in Hull, against bronchitis, emphysema and COPD morality under 75 years, directly aged-standardised rate, per 100,000 European Standard population. The indicator has not been updated from the previous tool, which uses 2006-2008 data.

National Comparison

Figure 1: National Quadrant

Spend and Outcome relative to other PCTs in England

◇ No outcome indicators readily available
◆ Outcome indicators available

Programme Area Abbreviations

Infectious Diseases	Inf	Hearing	Hear	Disorders of Blood	Blood
Cancers & Tumours	Canc	Circulation	Circ	Maternity	Mat
Respiratory System	Resp	Mental Health	MH	Neonates	Neo
Endocrine, Nutritional & Metabolic	End	Dental	Dent	Neurological	Neuro
Genito Urinary System	GU	GI System	Gastro	Healthy Individuals	Hlth
Learning Disabilities	LD	Musculoskeletal	Musc	Social Care Needs	Soc
Adverse effects & poisoning	Pois	Trauma & Injuries	Trauma		

The quadrant chart categorises each programme into four quadrants in terms of expenditure and outcome relative to the England average. Each dot represents a programme budget category. The three largest spending programmes nationally (Mental Health, Circulatory Diseases and Cancer) are represented by larger dots. A z-score is given to each programme measuring the distance of a value from the mean (average) in units of standard deviations. A programme outside the solid pink +/- 2 z-scores box indicates that the data is significantly different from the England average. Approximately 5% of outcomes and expenditures will be outside this box.

If the programme lies to the left or right of the solid pink box, the programme is significantly different on spend and if it lies outside the top or bottom of the box the programme is significantly different on outcome. Programmes outside the box at the corners are significantly different from the England average for both spend and outcome. Programmes outside the dotted pink +/- 1 z-score box, may require further investigation. Approximately 30% of outcomes and expenditure will be outside this box.

Figure 1 indicates lower spend in Hull on all respiratory system programmes compared to England. Programme spend per head for 2009/2010 was £79 compared to the England average £84. Spend is inside one standard deviation of the England average, indicating no significant difference.

Figure 1 indicates worse outcome in Hull on bronchitis, emphysema and COPD mortality compared to England. For 2006-2008 mortality from bronchitis, emphysema and COPD in Hull was 21 per 100,000 (under 75 years), compared to the England average 12 per 100,000 (under 75 years). The outcome is outside one standard deviation of the England average, which may require further investigation.

ONS Cluster Comparison

Figure 2: ONS Cluster Quadrant
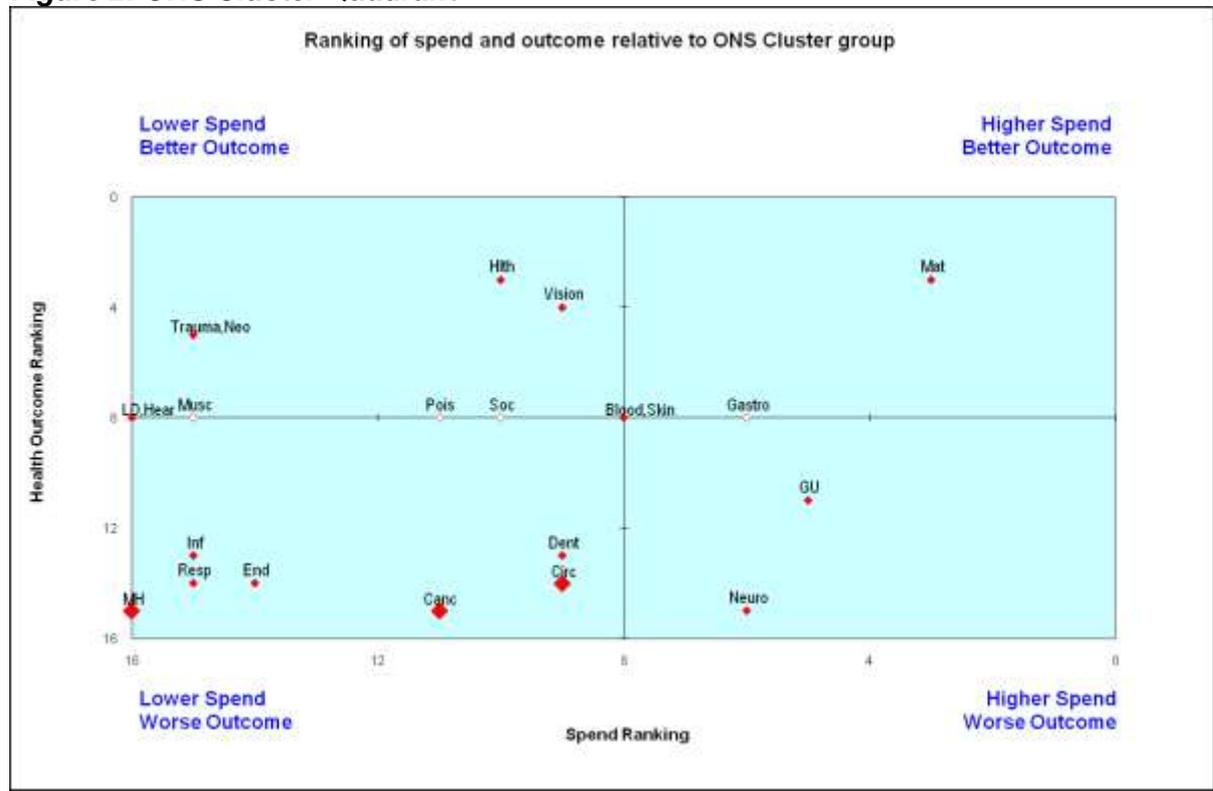
◇ No outcome indicators readily available
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Programme Area Abbreviations

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The ONS cluster quadrant categorises each programme into four quadrants in terms of expenditure and outcome relative to the ONS cluster group Industrial Hinterlands. Rather than producing z-scores previously used in the national comparison quadrant, the spend and health outcomes are ranked, with 1 denoting the highest spend or the best health outcome. Clusters are used to group PCTs together according to key characteristics common to the population in that grouping. Hull has been grouped in the Industrial Hinterlands cluster, however it is most unlike all the other PCTs within this cluster.

Figure 2 indicates respiratory system programmes in Hull are ranked 15th lowest for spend out of the 16 PCTs in the Industrial Hinterlands cluster. Hull's spend per head for 2009/2010 was £79 compared to the cluster average £92.

For bronchitis, emphysema and COPD mortality, Hull is ranked 14th lowest out of the 16 PCTs in the Industrial Hinterlands cluster. For 2006-2008 mortality from bronchitis, emphysema and COPD in Hull was 21 per 100,000 (under 75 years) compared to the cluster average 18 per 100,000 (under 75 years).

Comparison with previous years

Table 1 displays outcome and expenditure analysis for the last three years. The quadrant chart for 2007/2008 uses 2005-2007 CHD mortality data, whilst quadrant charts for 2008/2009 and 2009/2010 uses 2006-2008 CHD mortality data. Hull's programme spend per head for 2007/2008 on all respiratory programmes was £93, compared to £115 for 2008/2009 and £79 for 2009/2010. Spend is outside two standard deviations of the England average (higher than England) for 2007/2008 and 2008/2009 and ranked 1st for both years out of the 16 PCTs in the Industrial Hinterlands cluster. However, for 2009/2010 spend is inside one standard deviation of the England average, indicating no significant difference and ranked 15th lowest out of the 16 PCTs in the Industrial Hinterlands cluster.

For 2005-2007 mortality from bronchitis, emphysema and COPD for Hull was 19 per 100,000 (under 75 years) compared to 21 per 100,000 (under 75 years) for 2006-2008. Outcome is outside one standard deviation of the England average (higher than England) for 2005-2007 and 2006-2008, with 2005-2007 ranking 12th lowest out of the 16 PCTs in the Industrial Hinterlands cluster compared to 14th lowest for 2006-2008.

Table 1: Outcome and expenditure analysis

Hull	2007/08	2008/09	2009/10
Spend: all respiratory programmes	£93	£115	£79
Outcome: mortality from bronchitis and emphysema and COPD, under 75 years, DSR per 100,000	19	*21	*21

*2006-2008 data

Data Sources and Definitions for 2009/2010

PB category	Health Outcome Indicator	Data Source
Infectious Diseases	Mortality from infectious and parasitic diseases. Directly Standardised Rate (DSR) per 100,000 European Standard Population. 2006 - 2008. All ages. Persons	National Centre for Health Outcomes Development (NCHOD)
Cancers and Tumours	% of women aged 53 - 70 screened for breast cancer, 2009-2010	Healthcare commission
Endocrine, Nutritional and Metabolic	% of diabetic patients whose last HbA1c was 8 or less 2009-2010	Quality and Outcomes Framework, Information Centre
Mental Health	% of patients on enhanced CPA receiving follow up (face to face or telephone) within 7 days of discharge 2007/2008	Healthcare commission
Neurological	Mortality from epilepsy: Under 75 Directly age-standardised rates (DSR) per 100,000 European Standard population, 2006-2008 persons	National Centre for Health Outcomes Development (NCHOD)
Vision	Total sight tests per 100,000 population, 2009-2010	The Information Centre for Health and Social Care, Primary Care
Circulatory System	Mortality from coronary heart disease: Under 75s, directly age-standardised rates (DSR) per 100,000 European Standard population, 2006 - 2008	National Centre for Health Outcomes Development (NCHOD)
Respiratory system	Mortality from bronchitis and emphysema and COPD: Under 75 Directly age-standardised rates (DSR) per 100,000 European Standard population, 2006-2008	National Centre for Health Outcomes Development (NCHOD)
Dental Problems	Decayed missing and filled teeth 5 year olds 2007-2008	BASCD
Trauma and injuries	Mortality from accidents: Directly age-standardised rates (DSR) per 100,000 European Standard population, 2006-2008	National Centre for Health Outcomes Development (NCHOD)

PB category	Health Outcome Indicator	Data Source
Genitourinary	Deaths within 30 days admission, all genito urinary admissions excluding day cases, standardised rates, all ages FY 2008/2009	National Centre for Health Outcomes Development (NCHOD)
Maternity	% low birth weight births (live and still) <2500gms, 2008	National Centre for Health Outcomes Development (NCHOD)
Conditions of neonates	Neonatal infant mortality per 1,000 births (infants aged less than 28 days), 2006-2008	National Centre for Health Outcomes Development (NCHOD)
Healthy individuals	Smoking quit rates (successful quitters), per 100,000 population aged 16+ years, 2009-2010	The Information Centre for Health and Social Care, Lifestyles Statistics