

## Hull PCT Health Outcome and Expenditure Comparison for Diabetes 2009/2010

### **Key findings**

- Whilst endocrine, nutritional and metabolic programmes in Hull have lower spend compared to England, spend is not significantly different from the England average. Hull ranks 14<sup>th</sup> lowest for spend out of the 16 PCTs in the Industrial Hinterlands cluster.
  
- For 2009/2010 Hull has a higher proportion of diabetic patients whose last HbA1c (measure of blood sugar control) was 8 or less compared to England, but not significantly different from the England average. Hull has the 14<sup>th</sup> worst outcome for diabetic patients whose last HbA1c was 8 or less 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 diabetes, which has been highlighted as a key priority goal for World Class Commissioning.

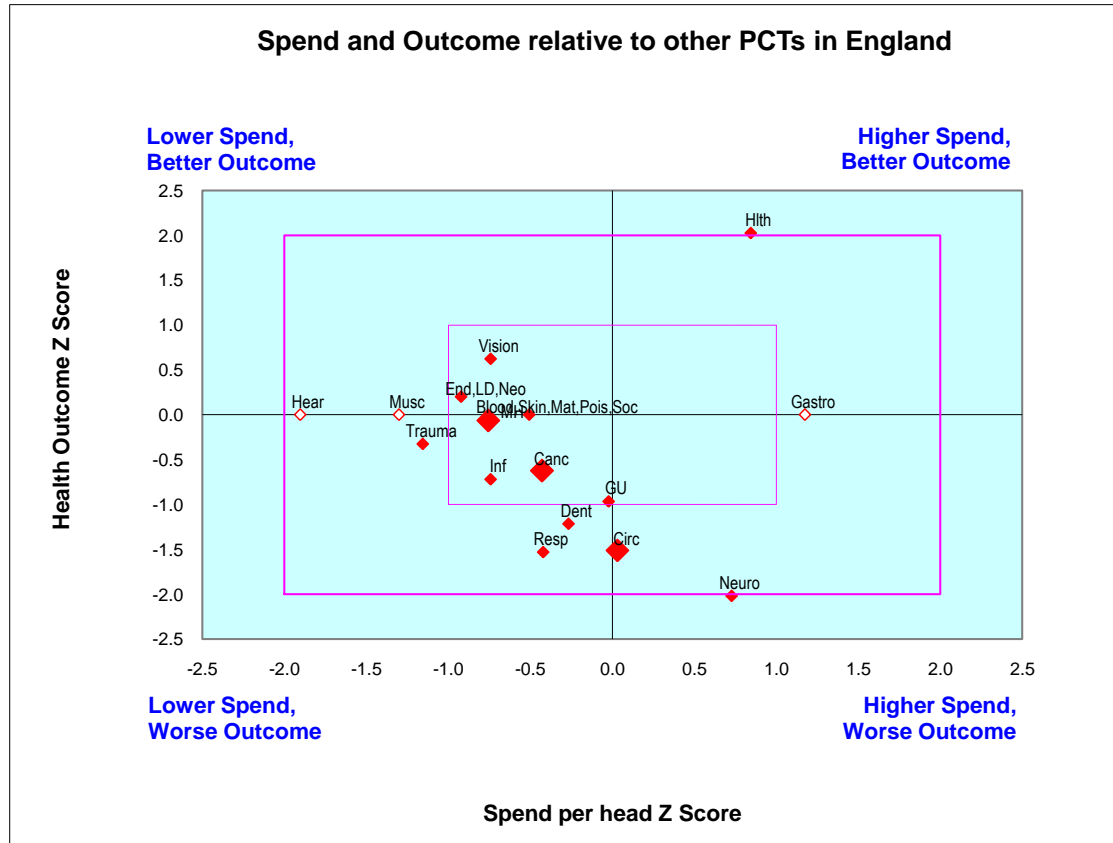
The Health Outcome and Expenditure Comparison Tool supplied by Yorkshire and Humber Public Health Observatory and Department of Health highlights better/worse outcomes for spend across individual programmes relative to the England average, and the Office for National Statistics (ONS) Industrial Hinterlands 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 diabetes is 'Patients on the diabetes register whose last measured HbA1c was under 7'. 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 diabetes relates to prevalence of recorded diabetes. Therefore, it is not known which indicator(s) will be selected for endocrine, nutritional and metabolic conditions.

Figures 1 and 2 display Hull's programme spend per head for 2009/2010 on all endocrine, nutritional and metabolic programmes against percentage of patients in whom last measured HbA1c was 8 or less for 2009/2010. The previous tools measured outcome as percentage of patients in whom last measured HbA1c was 7.5 or less.

## National Comparison

**Figure 1: National Quadrant Chart**



### 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  $\pm 2$  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.

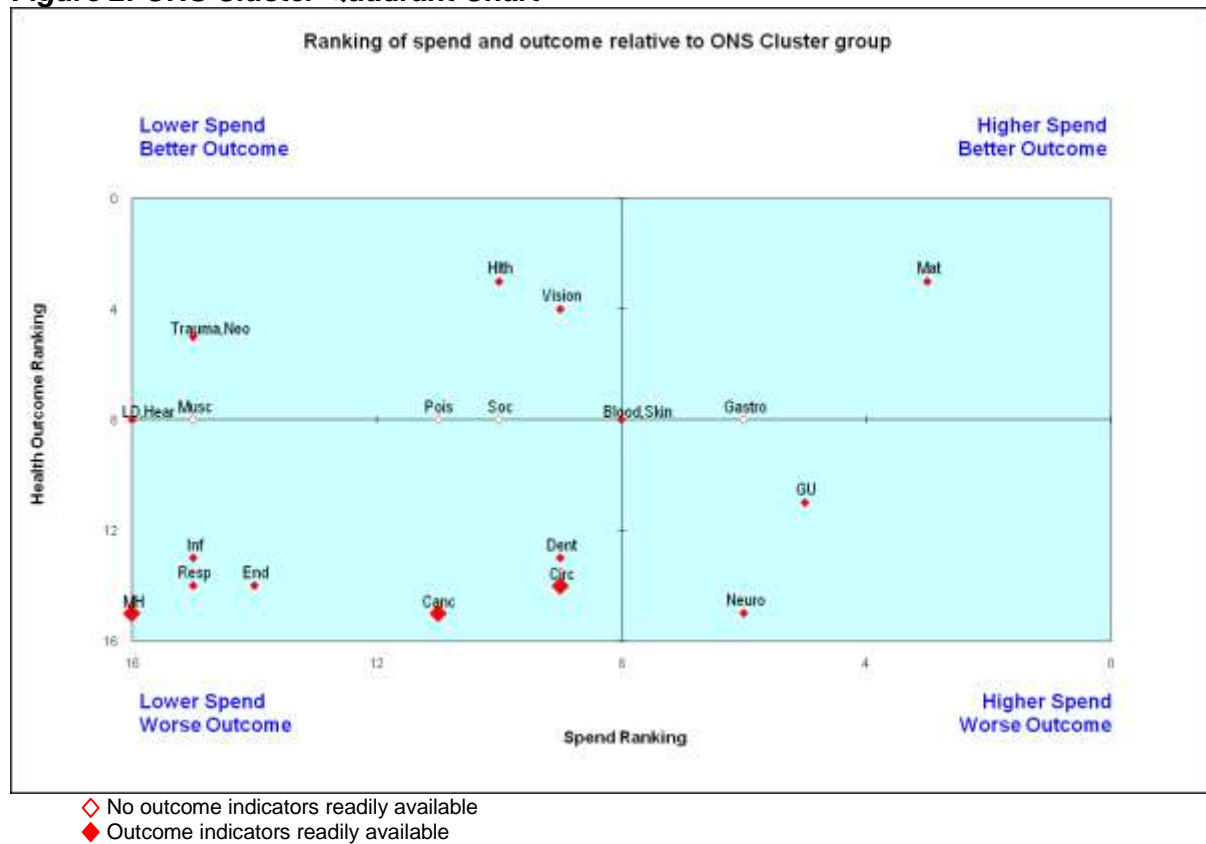
If the programme lies to the left or right of the solid pink box, the programme is significantly different on spend and if it lies outside the top or bottom of the box the programme is significantly different on outcome. Programmes outside the box at the corners are significantly different from the England average for both spend and outcome. Programmes outside the dotted pink  $\pm 1$  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 for endocrine, nutritional and metabolic programmes compared to England. Programme spend per head for 2009/2010 was £42 compared to the England average £49. Spend is inside one standard deviation of the England average, indicating no significant difference.

Figure 1 indicates better outcome in Hull for blood sugar levels of diabetic patients compared to England. For 2009/2010 the percentage of diabetic patients whose last HbA1c was 8 or less in Hull was 78% compared to the England average 77%. Outcome lies within one standard deviation of the England average, indicating no significant difference.

## ONS Cluster Comparison

**Figure 2: ONS Cluster Quadrant Chart**



### 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 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 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 endocrine, nutritional and metabolic programmes in Hull rank 14<sup>th</sup> lowest for spend out of the 16 PCTs in the Industrial Hinterlands cluster. Hull's spend per head for 2009/2010 was £42 compared to the cluster average £54.

For blood sugar levels of diabetic patients, Hull is ranked 14<sup>th</sup> lowest out of the 16 PCTs in the Industrial Hinterlands cluster. For 2009/2010 the percentage of diabetic patients whose last HbA1c was 8 or less in Hull was 78% compared to the cluster average 80%.

## Comparison with previous years

Table 1 displays outcome and expenditure analysis for the last three years. The quadrant chart for 2007/2008 and 2008/2009 uses percentage of patients in whom last measured HbA1c was 7.5 or less, whilst the quadrant chart for 2009/2010 uses percentage of patients in whom last measured HbA1c was 8 or less. Hull's programme spend per head on all endocrine, nutritional and metabolic programmes was £37 for 2007/2008 and 2008/2009, compared to £42 for 2009/2010. Spend is within one standard deviation of the England average for 2007/2008, outside one standard deviation for 2008/2009 (lower than England) and inside one standard deviation for 2009/2010. For 2007/2008 Hull ranked 12<sup>th</sup> lowest for spend out of the 16 PCTs in the Industrial Hinterlands cluster, 16<sup>th</sup> lowest for 2008/2009 and 14<sup>th</sup> lowest for 2009/2010.

For 2007/2008 the percentage of Hull diabetic patients whose last HbA1c was 7.5 or less was 68% compared to 69% for 2008/2009, whilst the percentage of Hull diabetic patients for 2009/2010 whose last HbA1c was 8 or less was 78%. Outcome is within one standard deviation of the England average for 2007/2008, outside for 2008/2009 (higher than England) and inside for 2009/2010. Hull ranked 12<sup>th</sup> lowest for outcome out of the 16 PCTs in the Industrial Hinterlands cluster for 2007/2008, 7<sup>th</sup> in 2008/2009 and 14<sup>th</sup> in 2009/2010.

**Table 1: Outcome and expenditure analysis**

Hull	2007/08	2008/09	2009/10
Spend: all endocrine, nutritional and metabolic programmes	£37	£37	£42
Outcome: % of diabetic patients whose last HbA1c was 7.5/8 or less	68%	69%	*78%

\*<8

### 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)

<b>PB category</b>	<b>Health Outcome Indicator</b>	<b>Data Source</b>
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