

CHAPTER 1

Population, Overall Health and Regeneration

The general aim of all health authorities is to improve the health of the population they serve. Demographic changes can and should lead to changes in priorities for all strategic bodies including health authorities. By way of introduction to the analysis section of this report trends in birth, death and hospital activity rates are described. While no specific targets exist for these 'top-level' indicators, they form the background to the HImPs; if the specific targets in the HImP are met this will undoubtedly lead to a reduction in overall death rates and eventually to demographic change.

All three health authorities covered by this report have markedly fewer very old people than are seen in other parts of the UK, as a result of higher mortality rates at all stages of life. Detailed demographic analyses, including district and ward populations have been presented in previous annual reports (Patterson, 1999; Radford, 1999) and are available on the Health Action Zone Database (www.health-action.syorks.co.uk) and hence are not reproduced here.

1.1 Death Rates for All Causes

Mortality rates in England and Wales and the South Yorkshire Coalfields have fallen consistently over the last 20 years (figure 1.1a). However, throughout this period higher rates have been experienced in all parts of the Coalfields area than nationally. The trends appear similar to the national pattern and there is no evidence from these figures of a widening gap between national and local death rates. Rates in Doncaster East PCG appear to be falling more slowly than in other places whereas those in Rotherham PCG are falling more quickly.

Doncaster has a target 'to improve the under 75 age standardised mortality rate in the most deprived 20% of enumeration districts in Doncaster at a faster rate than the rest of the population'. Figure 1.1b shows the reductions in the most deprived areas, compared with the rest the purple line on the right-hand graph is simply a repeat of the rates presented on the left-hand graph, for ease of comparison (see Appendix 2 for fuller explanation of this analysis).

The figure illustrates that people living in the most deprived areas of each health authority have experienced much higher mortality rates than the those living in less deprived areas. Nevertheless in the deprived areas of the three health authorities declines in death rates over the last 20 years have been more marked compared with more affluent ones. We should, however, be cautious in interpreting these results as the trends could be affected by changing demographics before and after the 1991 Census.

1.2 Birth Rates

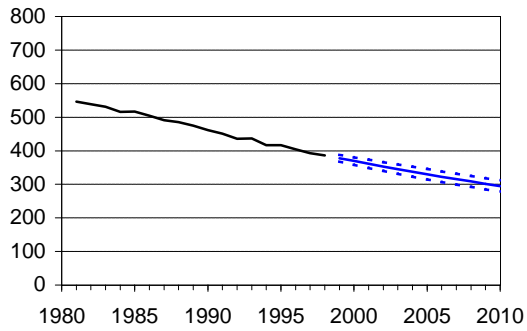
Figure 1.2 shows that birth rates in both England and Wales and in the South Yorkshire Coalfields have been declining steadily since 1990. Population projections based on the 1996 population show these trends will continue until the end of the current decade when they will begin rising again. It is worth noting that since 1997 birth rates have declined faster than predicted both nationally and locally.

Figure 1.1a - Death Rates for All Causes

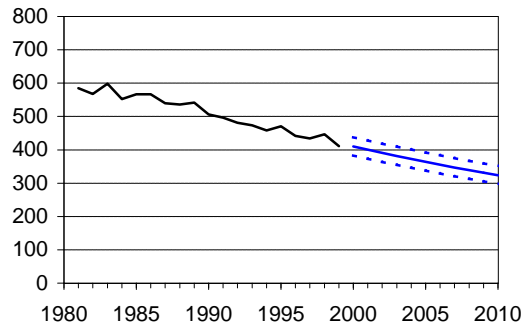
Directly Standardised Rates per 100,000 Resident Population
ICD-9 001-999 All persons aged under 75

Sources: ONS: Annual Abstracts of Deaths, Mid-Year Estimates of Population and 20th Century Mortality in England & Wales; Trent RHA: Deaths prior to 1992.

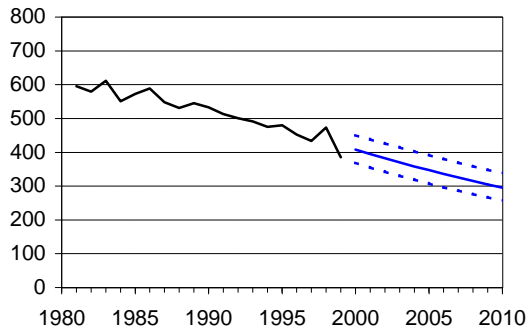
England & Wales



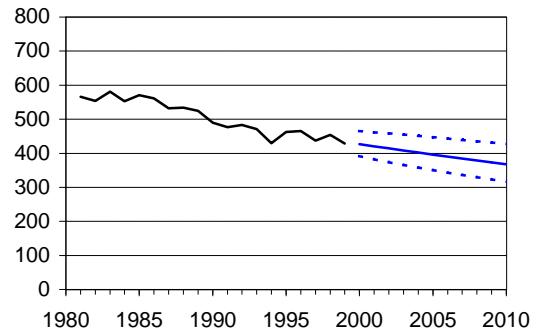
South Yorkshire Coalfields HAZ



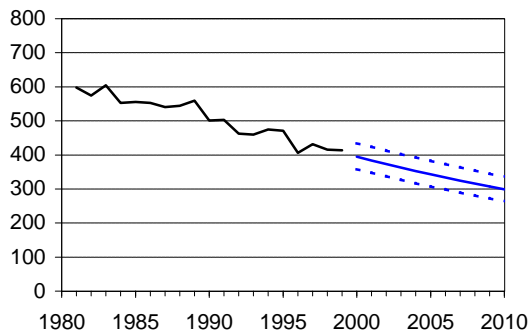
Barnsley HA



Doncaster HA



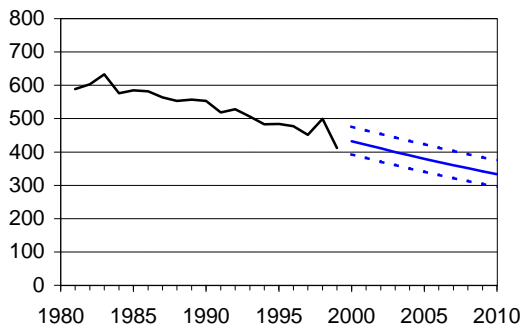
Rotherham HA



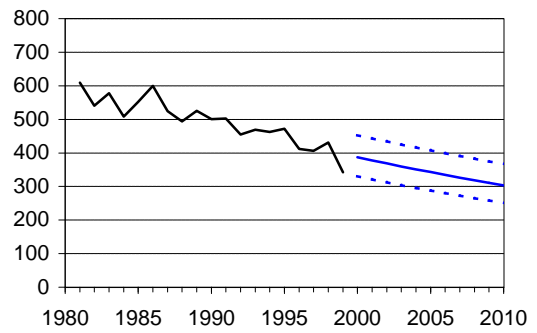
— Directly Standardised Rate
— Forecast Rate
..... 95% Confidence Interval

Rates forecast with 95% confidence intervals
by Holt's Method on logit-transformed data.

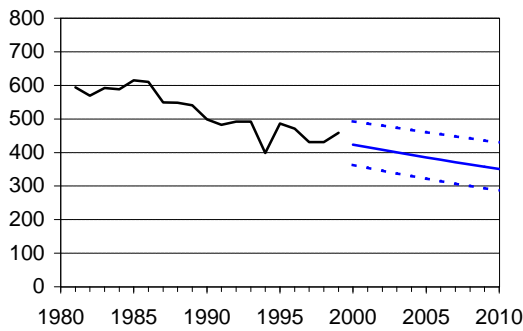
Barnsley East PCG



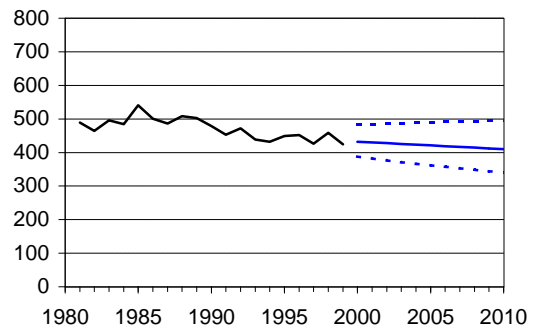
Barnsley West PCG



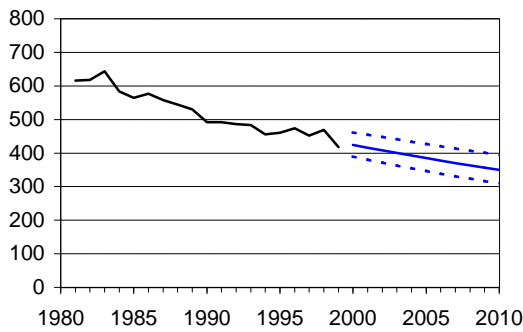
Doncaster Central PCT



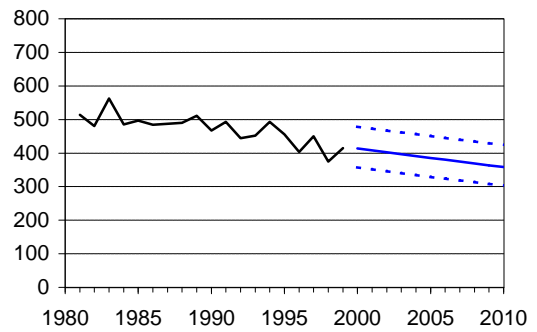
Doncaster East PCG



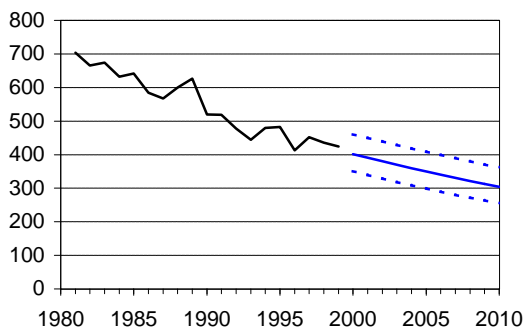
Doncaster West PCG



Rother Valley PCG



Rotherham PCG



Wentworth PCG

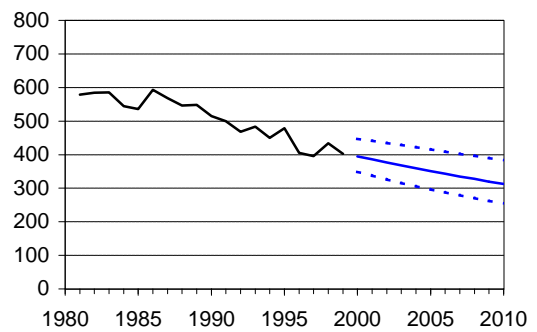


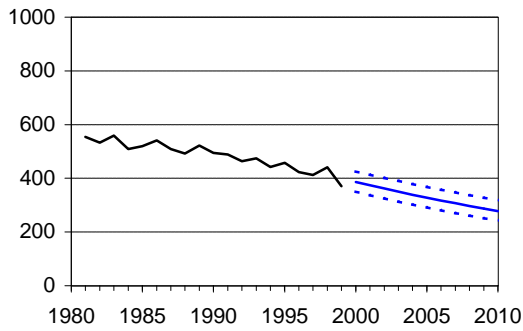
Figure 1.1b - Death Rates for All Causes

Directly Standardised Rates per 100,000 Resident Population
ICD-9 001-999 All persons aged under 75

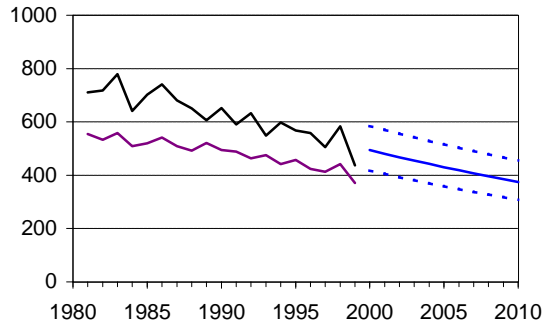
Sources: ONS: Annual Abstracts of Deaths, Mid-Year Estimates of Population and 20th Century Mortality in England & Wales; Trent RHA: Deaths prior to 1992.

— Directly Standardised Rate 95% Confidence Interval
— Forecast Rate — Quintiles 1-4 (replicated from left hand graph)

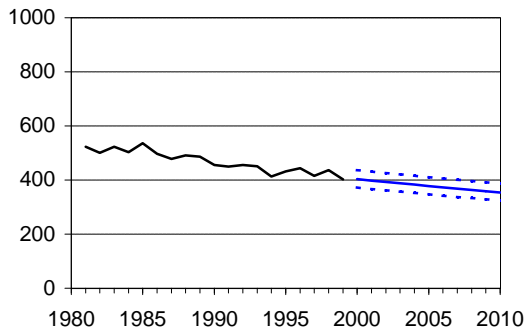
Barnsley Quintiles 1-4



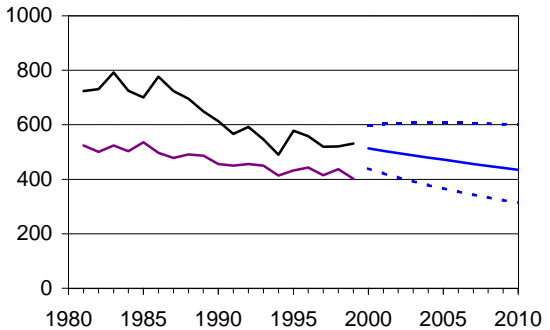
Barnsley Quintile 5 (Most Deprived)



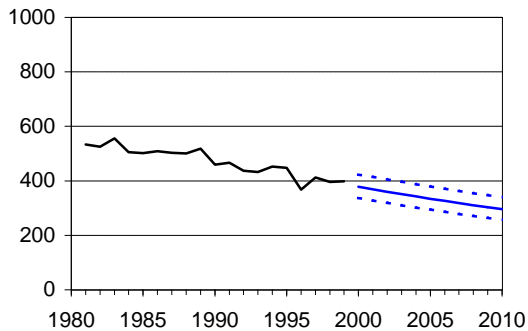
Doncaster Quintiles 1-4



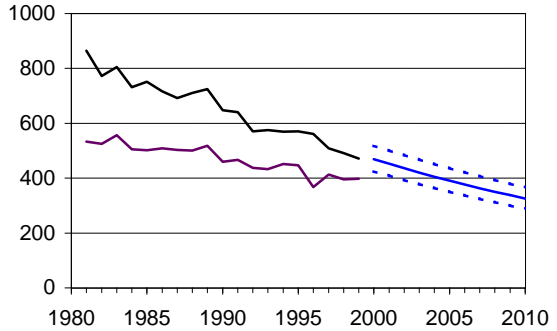
Doncaster Quintile 5 (Most Deprived)



Rotherham Quintiles 1-4



Rotherham Quintile 5 (Most Deprived)

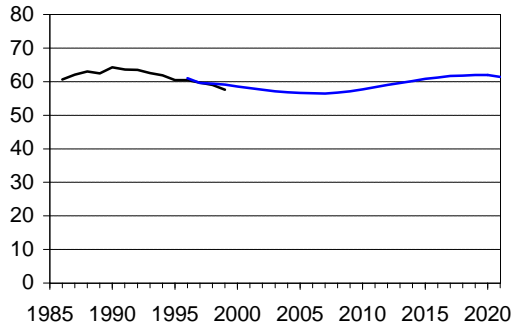


Rates forecast with 95% confidence intervals by Holt's Method on logit-transformed data

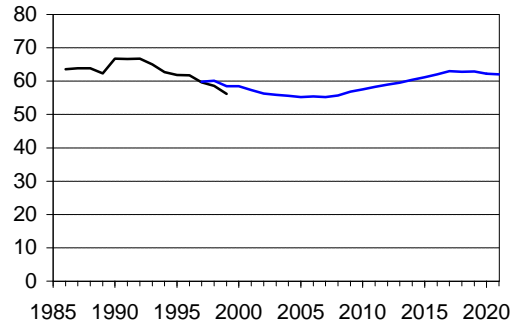
Figure 1.2 - Birth Rates
 General Fertility Rate
 Rates per 1000 Females aged 15-44

Sources: ONS 1996 Subnational Population Projections

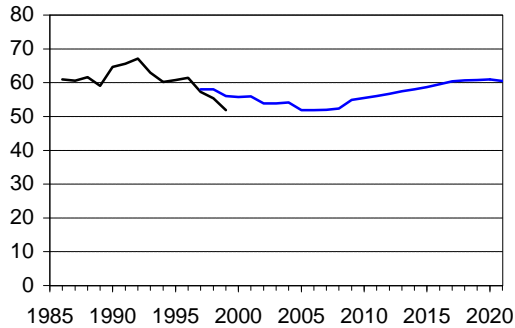
England & Wales



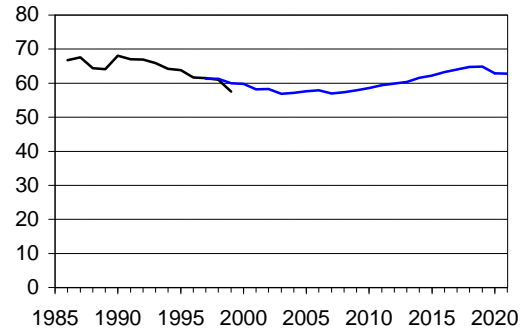
South Yorkshire Coalfields HAZ



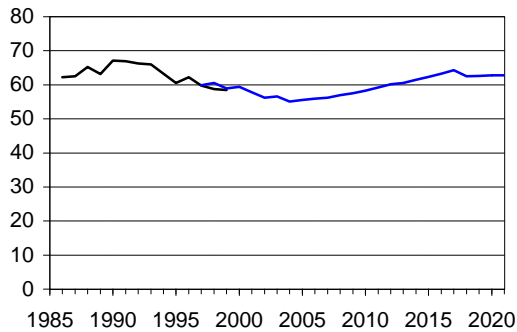
Barnsley HA



Doncaster HA



Rotherham HA



— Rate
 — Projected Rate

Figure 1.3 - Admission rates for All Causes

Directly Standardised Rates per 100,000 Resident Population
 All codes excluding well babies and renal dialysis
 All persons all ages

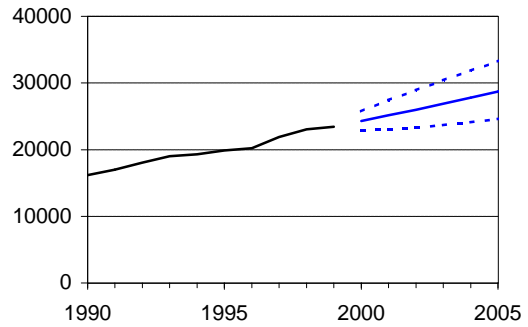
Sources: CMDS, Trent Region PIS Archive, ONS Mid-Year Estimates of Population

Notes: Admission rates include: First admissions (first FCEs), emergency admissions, elective admissions and day cases.

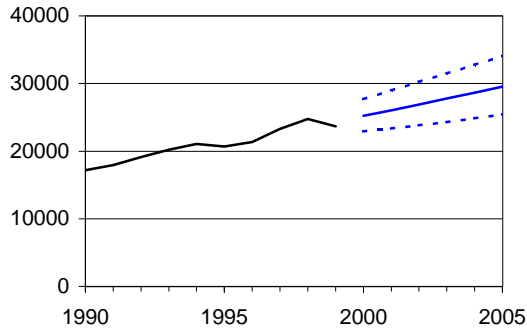
England and Wales

Data Not Available

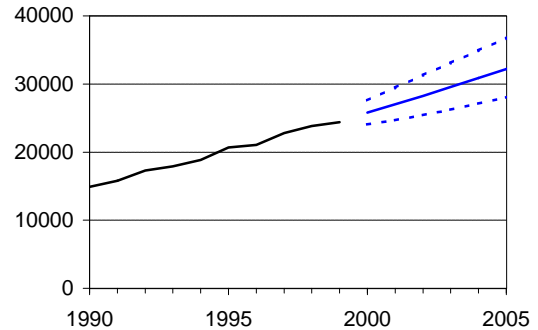
South Yorkshire Coalfields HAZ



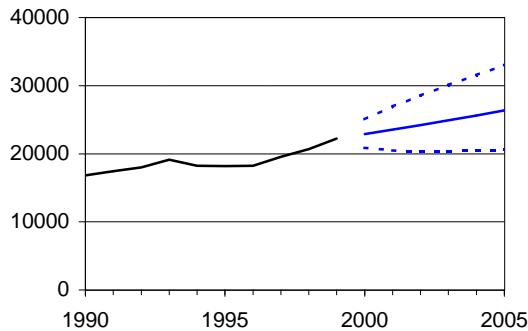
Barnsley HA



Doncaster HA



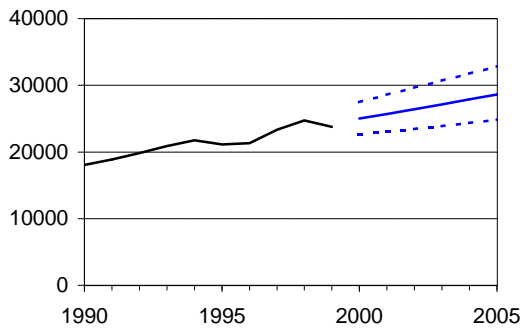
Rotherham HA



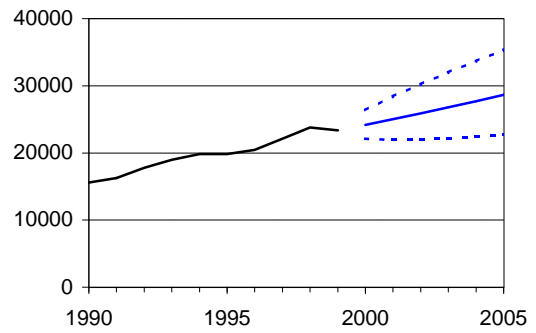
— Directly Standardised Rate
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Rates forecast with 95% confidence intervals
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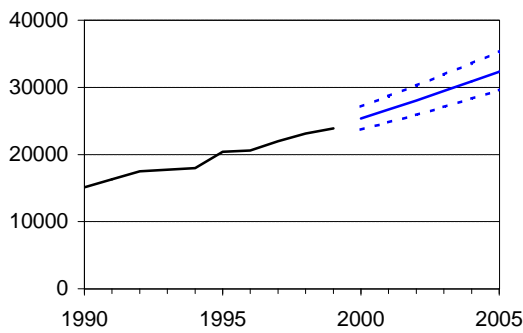
Barnsley East PCG



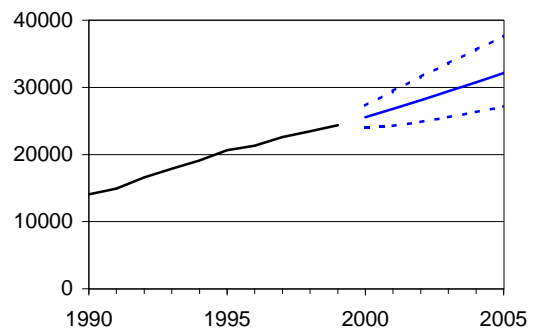
Barnsley West PCG



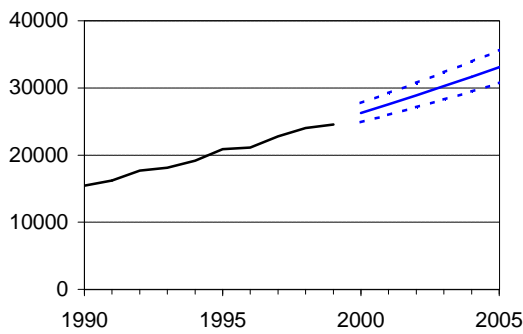
Doncaster Central PCT



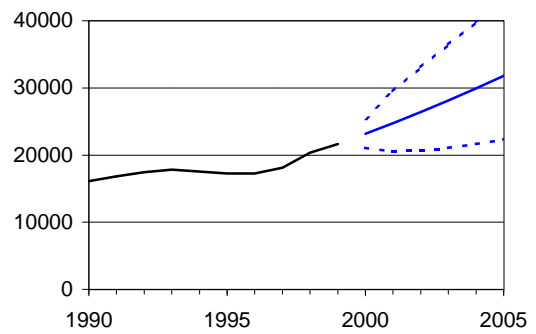
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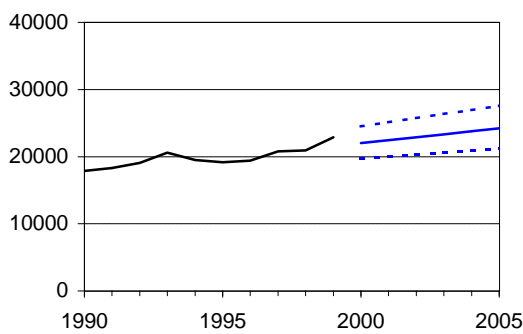
Doncaster West PCG



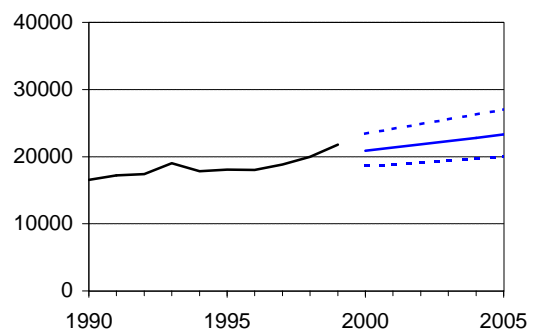
Rother Valley PCG



Rotherham PCG



Wentworth PCG



1.3 Overall Hospital Admission Rates

Admissions to hospital have been increasing year on year over the past nine years. Figure 1.3 shows that this is true in both the health authorities and the PCGs/PCT. This may be partly explained by the increasing numbers of elderly people in their populations. The elderly have more admissions per head than younger age groups. However an increasing ageing population does not necessarily mean increasing levels of illness or need for services (Normand, 1998). Other explanations include the availability of new or improved treatments, changes in expectations or increased propensity to refer.

For planning purposes, the projected increases in activity are considered together with changes in length of stay, increased use of day case surgery, other changes in clinical practice and demographic changes in more detailed analysis. The apparent dip in the trend for Rotherham is probably a result of a partial absence of data between 1993 and 1996 (see section 5.2).

References.

- Normand C (1998). Ten Popular Health Economic Fallacies. *J Public Health Med* **20**:129-132.
- Patterson W (1999). *Annual Report of the Director of Public Health*. Rotherham Health Authority.
- Radford J (1999). *Annual Report of the Director of Public Health*. Doncaster Health Authority.