

CHAPTER 4

Accidents

4.1 Death Rates for Accidents

Figure 4.1a shows mortality rates for accidents. Numbers are small and even at national level the time series is relatively unstable and the prediction intervals wide. However, as with other *Saving Lives: Our Healthier Nation* targets (Department of Health, 1999), the national forecast appears to be very much in line with the target. The local results are not inconsistent with the national trends with targets well within prediction intervals.

It is important to note that the trend in the South Yorkshire Coalfields is predicted to rise, yet in each individual health authority the rates are predicted to fall. The reason for this is that the forecasting tool uses a different model to predict the trend in each case. The small numbers make precision difficult, as revealed by the wide confidence intervals. The model gives greater weight to more recent data. Thus it is the confidence intervals which are important when interpreting these graphs. The confidence intervals show that rates, particularly in Barnsley and Doncaster, could increase, therefore early partnership work is needed to ensure the target is met.

Figure 4.1b illustrates that death rates for accidents have been higher in the most deprived parts of Doncaster and Rotherham but have declined sharply in Rotherham. As in previous charts, the purple line on the right-hand graph is simply a replica of the rates presented on the left-hand graph, for ease of comparison (see section 1.1 for a fuller explanation).

Despite being dropped from the NHS Plan, accidents remain a public health priority. However it is not a problem which health authorities can tackle alone but instead needs to be tackled in partnership with other agencies. National government and local authorities, particularly, have a leading role in preventing deaths.

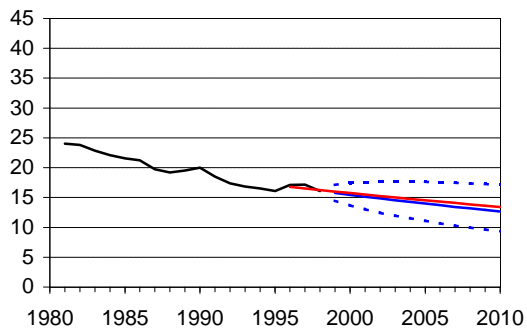
Figure 4.1a - Death Rates for Accidents

Directly Standardised Rates per 100,000 Resident Population
ICD-9 E800-E949 All persons all ages

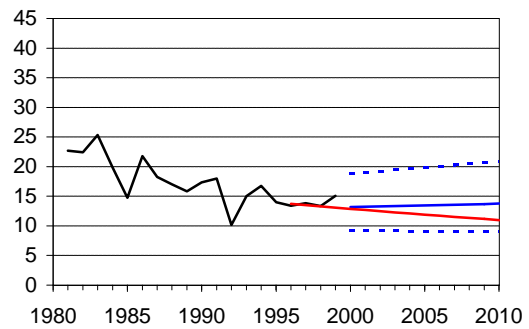
Target: (*Saving Lives: Our Healthier Nation*) To reduce death rates by 20% by 2010 from the 1995-7 baseline.

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

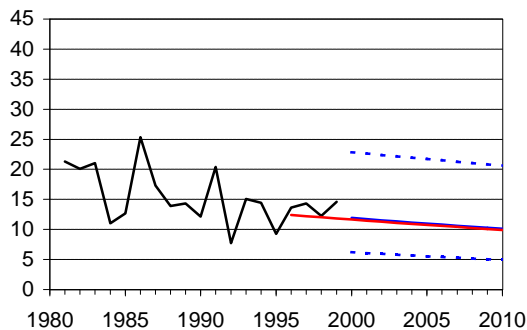
England & Wales



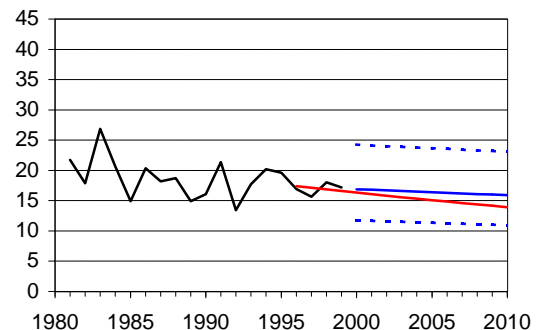
South Yorkshire Coalfields HAZ



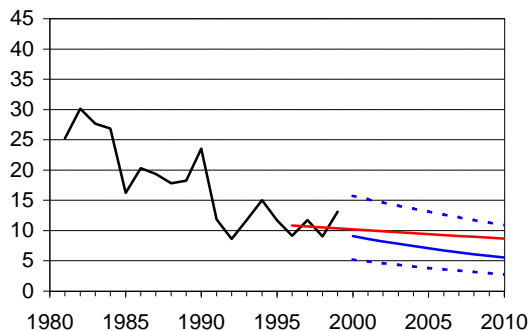
Barnsley HA



Doncaster HA



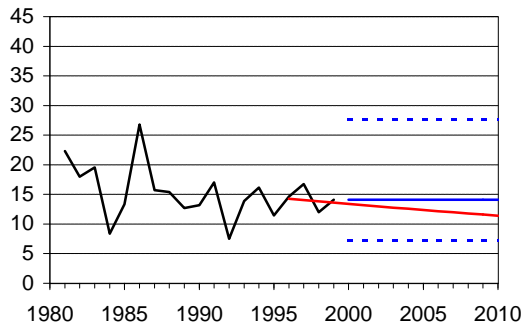
Rotherham HA



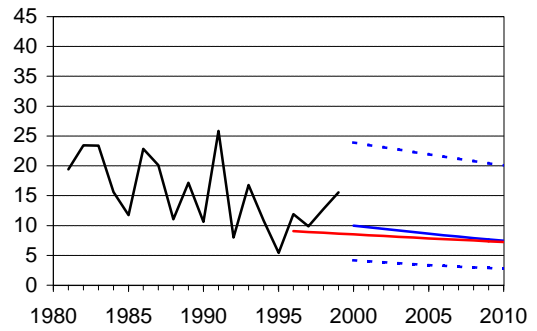
— Directly Standardised Rate
— Forecast Rate
..... 95% Confidence Interval
— OHN Target Line

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

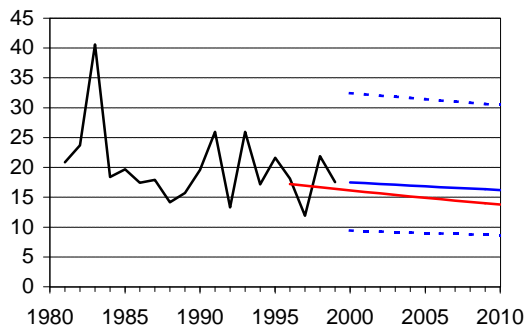
Barnsley East PCG



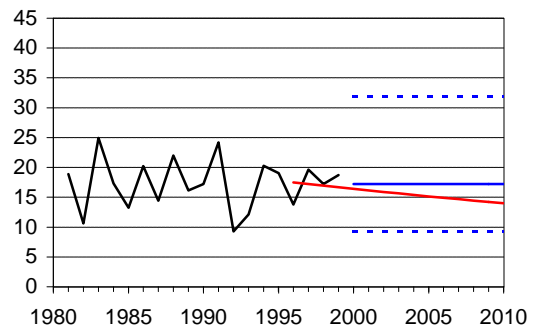
Barnsley West PCG



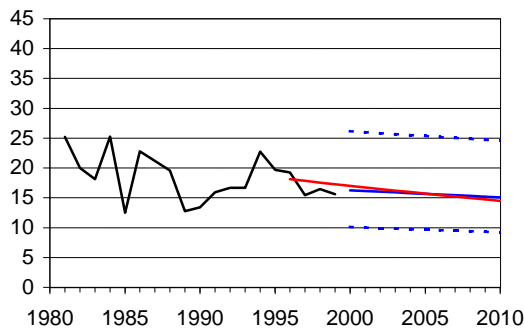
Doncaster Central PCT



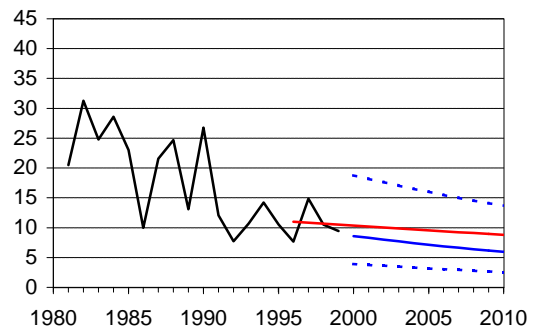
Doncaster East PCG



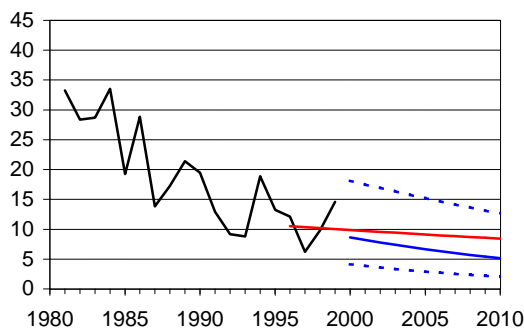
Doncaster West PCG



Rother Valley PCG



Rotherham PCG



Wentworth PCG

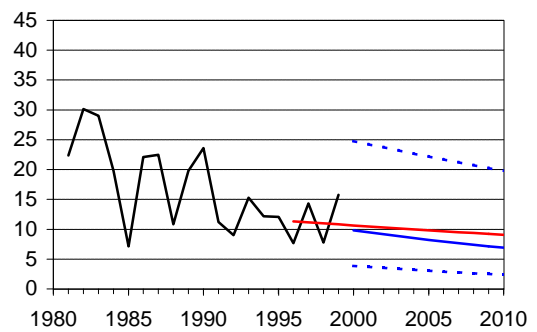


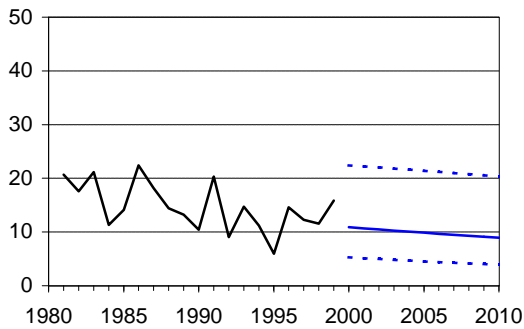
Figure 4.1b - Death Rates for All Accidents

Directly Standardised Rates per 100,000 Resident Population
ICD-9 E800-E949 All persons all ages

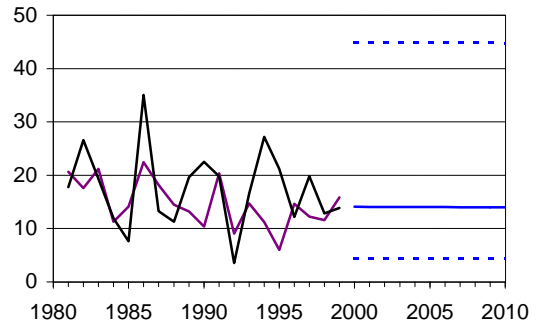
Sources: ONS: Annual Abstracts of Deaths, Mid-Year Estimates of Population and 20th Century Mortality in England & Wales; Trent RHA: Deaths prior to 1992.

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

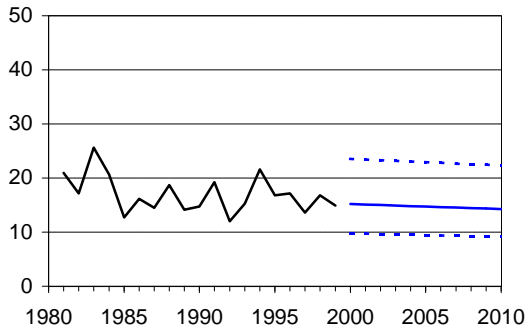
Barnsley Quintiles 1-4



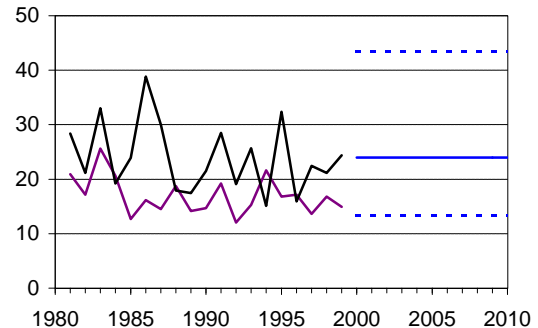
Barnsley Quintile 5 (Most Deprived)



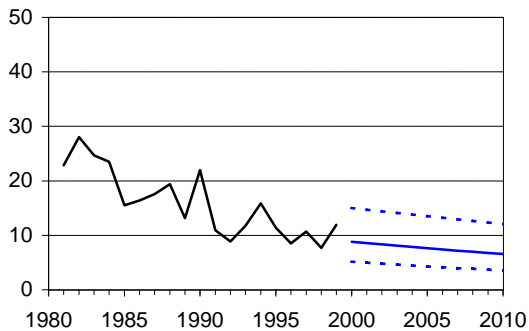
Doncaster Quintiles 1-4



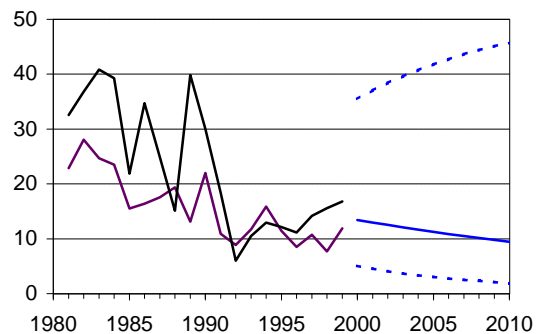
Doncaster Quintile 5 (Most Deprived)



Rotherham Quintiles 1-4



Rotherham Quintile 5 (Most Deprived)



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

4.2 Hospital Admission Rates for Serious Accidents

In recognition of the fact that deaths from accidents represent only a tiny proportion of the burden of accidents on health services and society, *Saving Lives: Our Healthier Nation* included a target for 'serious accidents', defined as accidents requiring at least four days stay in hospital.

Figure 4.2a shows trends in and forecasts of admission rates for these 'serious accidents'. There is no evidence for concern around this target, no health authority or PCG/PCT being forecast to miss the target (taking into account the 95% confidence intervals). However the width of the confidence intervals demonstrates the difficulty of forecasting 11 years into the future on the basis of only ten years of historic data

Figure 4.2b suggests that the higher rates experienced in the early 1990s by those living in more deprived areas have not been maintained; the gap appears to have narrowed. We should, however, be cautious in drawing this conclusion, for the same reasons discussed in section 3.2.

Reference:

Department of Health (1999). *Saving Lives: Our Healthier Nation*. London: The Stationery Office.

Figure 4.2a - Admission Rates for Serious Accidents

Directly Standardised Rates per 100,000 Resident Population

Primary Diagnosis: ICD-9 800-999, ICD-10 S00-T98

With Secondary Diagnosis: ICD-9 E800-E949, ICD-10 V00-V99, W00-X59, Y40-Y84

All persons all ages

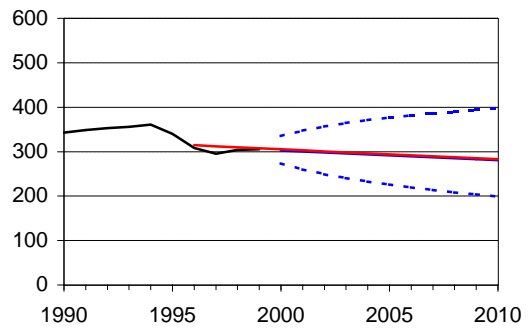
Target: *Saving lives: Our Healthier Nation*) To reduce the rate of serious injury from accidents by at least one tenth by 2010 from the 1995-7 baseline.

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

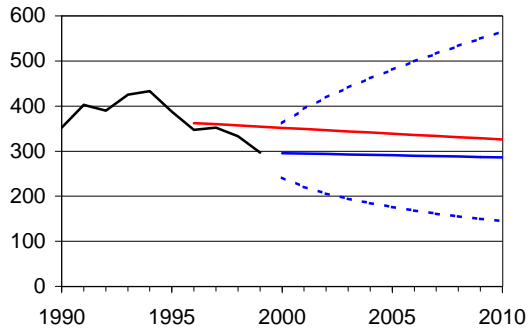
England and Wales

Data Not Available

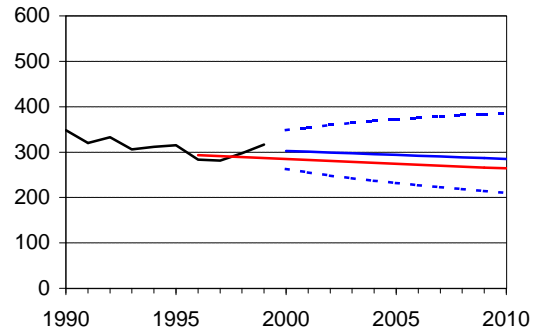
South Yorkshire Coalfields HAZ



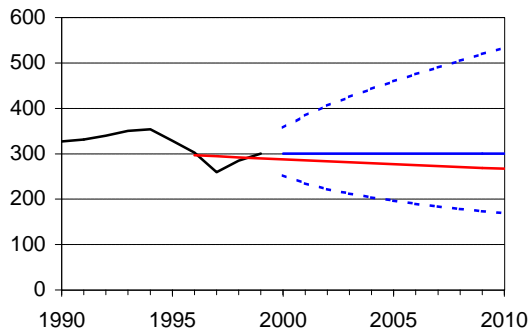
Barnsley HA



Doncaster HA



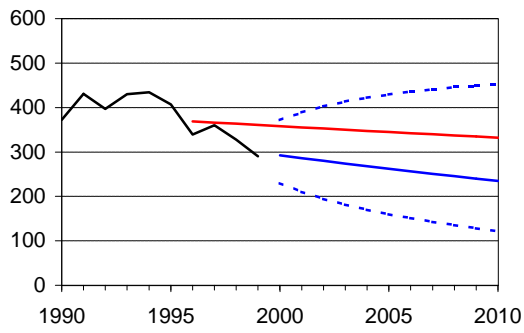
Rotherham HA



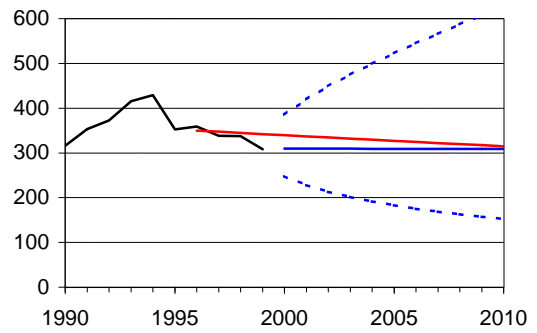
— Directly Standardised Rate
 — Forecast Rate
 95% Confidence Interval
 — OHN Target Line

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

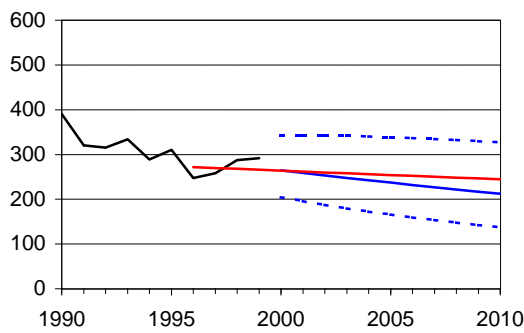
Barnsley East PCG



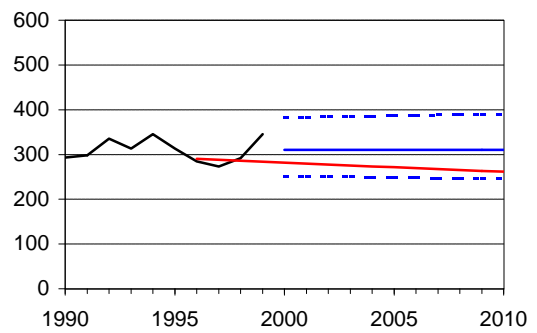
Barnsley West PCG



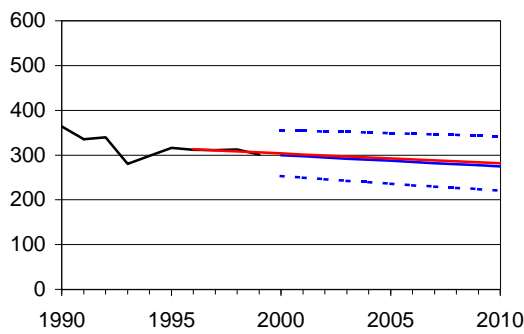
Doncaster Central PCT



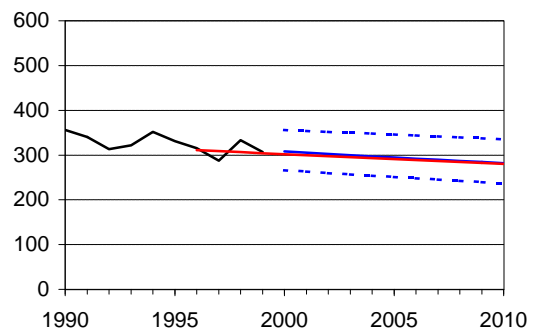
Doncaster East PCG



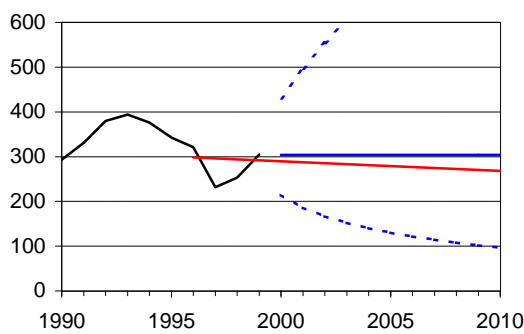
Doncaster West PCG



Rother Valley PCG



Rotherham PCG



Wentworth PCG

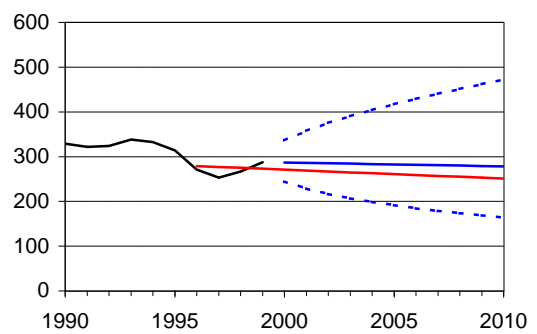


Figure 4.2b - Admission Rates for Serious Accidents

Directly Standardised Rates per 100,000 Resident Population

Primary Diagnosis: ICD-9 800-999, ICD-10 S00-T98

With Secondary Diagnosis: ICD-9 E800-E949, ICD-10 V00-V99, W00-X59, Y40-Y84

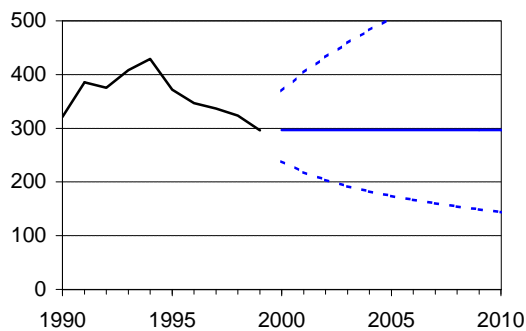
All persons all ages

Target: Doncaster: To reduce the rate of serious injury from accidents in the most deprived 20% of enumeration districts at a faster rate than the rest of the population.

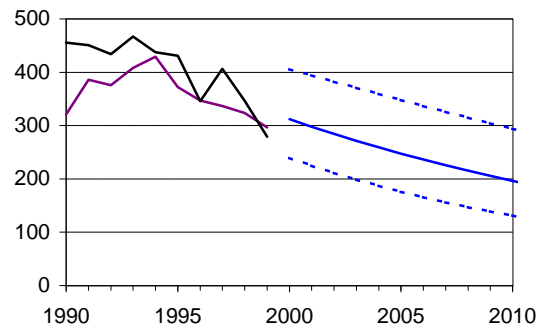
Sources: CMDS, Trent Region PIS Archive, ONS Mid-Year Estimates of Population.

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

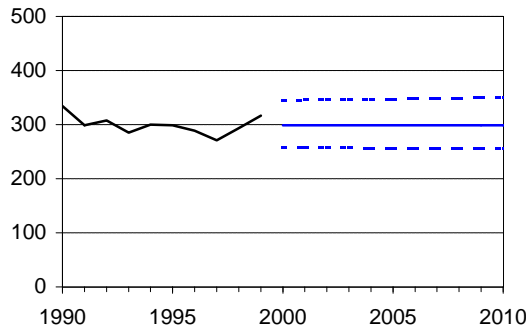
Barnsley Quintiles 1-4



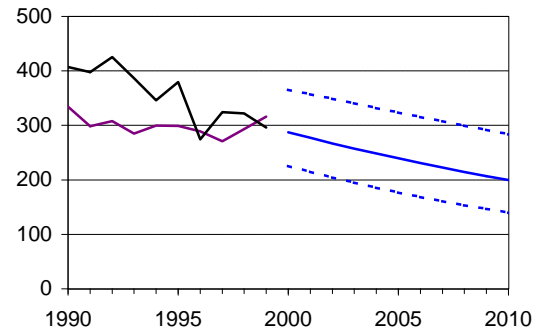
Barnsley Quintile 5 (Most Deprived)



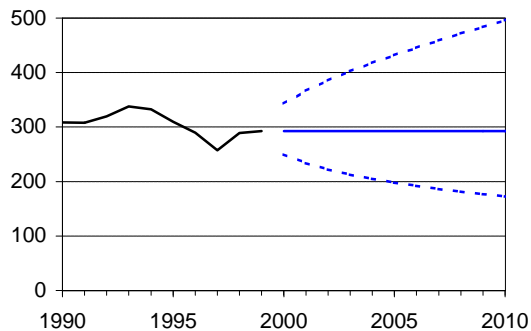
Doncaster Quintiles 1-4



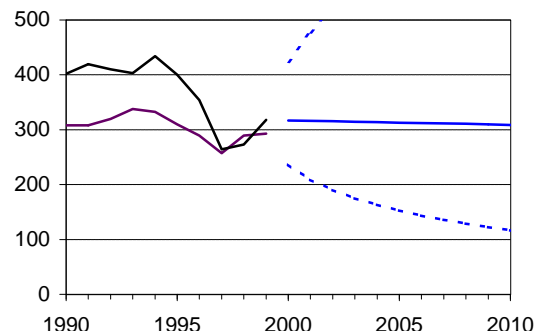
Doncaster Quintile 5 (Most Deprived)



Rotherham Quintiles 1-4



Rotherham Quintile 5 (Most Deprived)



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