

Modelling Deprivation at Local Level

Aims

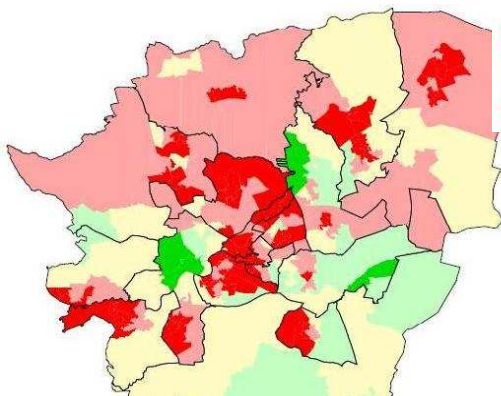
Doncaster MBC and Doncaster PCT, using neighbourhood renewal funding, commissioned Mayhew Associates (MA) to undertake a detailed assessment of population and deprivation in Doncaster. Based on administrative data sources, MA *nkm techniques* were used to estimate the Doncaster population. The resulting database was combined with a household characteristics data base to model deprivation across the Borough. A local model of deprivation is of inestimable use in tracking the effect of local initiatives over relatively short timescales and focusing resources on areas of greatest need. The National Index of Multiple Deprivation (IMD 2007) is published triennially at Lower Super Output Area (LSOA) level only.

What we did

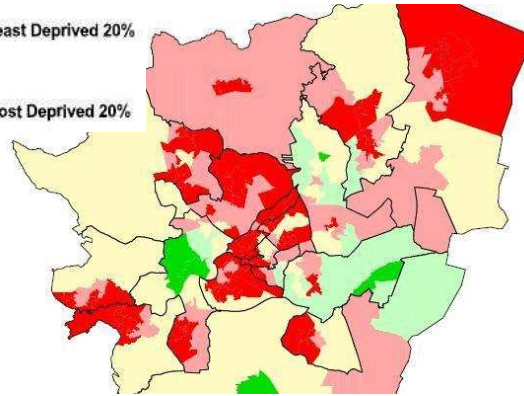
In partnership with the PCT and local authority, we obtained and linked data from each agency to the Local Property Gazetteer. We then created linear regression models to fit variables described in the databases to the IMD 2007 at LSOA level. The unavailability of certain datasets, primarily those owned by DWP, presented a problem. Modelling at LSOA level, however, is possible using published aggregate data.

Results (Deprivation at LSOA Level)

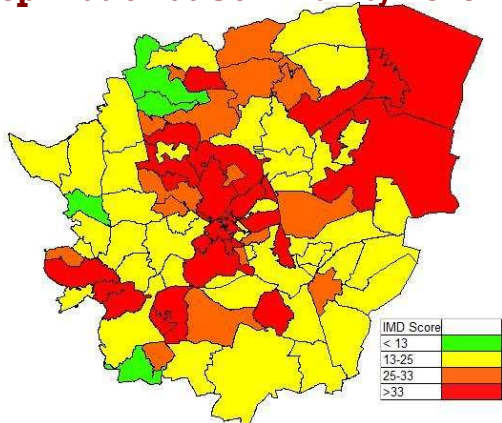
IMD 2007



Modelled IMD



Deprivation at Community Level



The *nkm* database at household level can be aggregated to any geography. The following map uses a subset of 7 indicators to map deprivation for Doncaster's 88 Communities. This eliminates anomalies where communities of high deprivation bordering communities with low deprivation are contained within the same LSOA. The Denabies (Old and Main) are cases in point. Further work is needed to refine the model with access to DWP data as the top priority.

Tailoring services to local needs