

VI TECHNICAL BACKGROUND TO COMPARISON OF OUTCOMES FOR MORBIDITY, UTILISATION AND ACCESSIBILITY INDICATORS

A.204 The focus in this work is on monitoring differences between areas on the basis of three categories:

- (a) the 20% most deprived wards compared to non-deprived areas and the Northern Ireland average;
- (b) the 20% worst wards in terms of the particular indicator (e.g. wards with the highest hospital admission rates) compared to the Northern Ireland average. An analysis of Section 75 groups is also included for this category; and
- (c) the 20% most rural wards compared with non-rural wards and the Northern Ireland average.

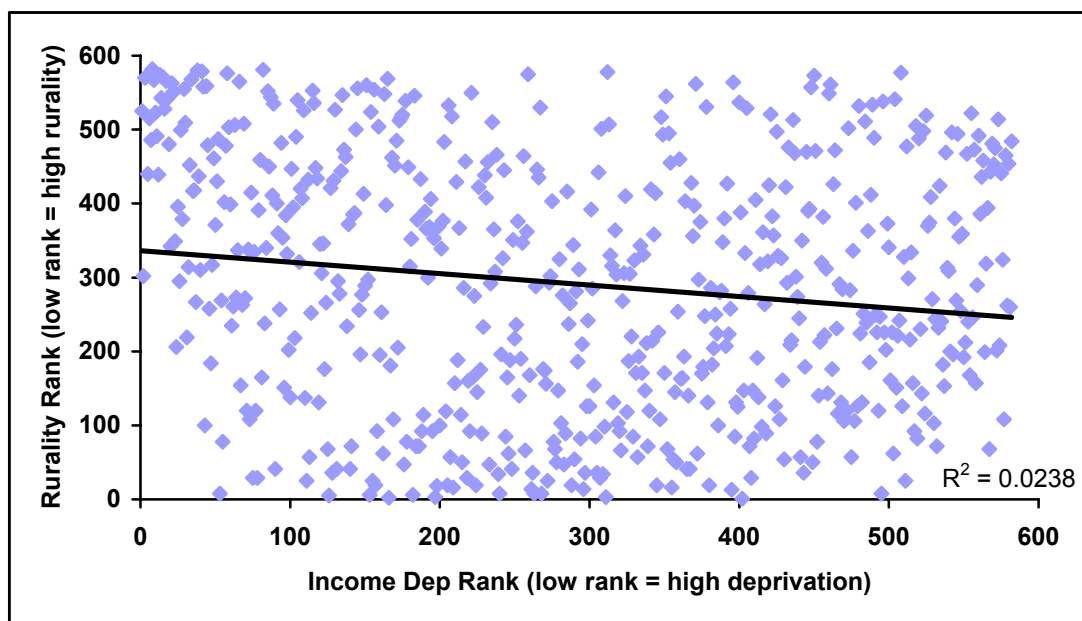
A.205 **Under category (a)**, the 20% most deprived wards were identified using an update of the Noble Income Domain Measure to 1992 ward boundaries. The Noble Measures of Deprivation were published by NISRA in July 2001 based on 1984 electoral ward. The Income Domain Measure was updated using data on households in receipt of benefits from the Social Security Database and constructed in the same way as Noble. The Noble Multiple Measure of Deprivation was not chosen because it is not straightforward to update to 1992 ward boundaries and also because it contains variables on health that may conflict with the indicators on health in the monitoring system.

A.206 **Under category (b)**, additional analysis was carried out in relation to the Section 75 Equality Groups. The Department has collated data at ward level in respect of the majority of the nine equality groups (or suitable proxies for the groups). The majority of this information is from the 2001 Census of Population. No information is available on sexual orientation. Data on political preference are available on first votes cast within District Electoral Areas (DEAs) in the June 2001 local council elections from the

Electoral Office. As this is not available at electoral ward level it has not been possible to provide analysis on political opinion.

- A.207 In instances where a direct count of the numbers in a specific group were not available a suitable proxy was used. For example, the aggregate of attendance allowance and incapacity benefit claimants was used as a proxy for those with/without a disability. However, as there may be issues surrounding take-up of social security benefits, an alternative disability proxy was created based on numbers self-reporting a limiting long-term illness at the 2001 Census of Population.
- A.208 More detail on the source of data for each equality group and the geographical level at which it was available is given in Table A.92.
- A.209 **Under category (c)**, the 20% most rural wards have been identified using the population density variable from the 2001 Census of Population. All other wards have been classified as non-rural. NISRA is currently developing standard definitions for rural and urban areas and this work will refine the categorisation of areas.

Figure A.79 Scatter plot of rurality vs income deprivation measure



Source: 2001 Census of Population/Department for Social Development/Project Support Analysis Branch

- A.210 The relationship between the rurality and deprivation level of each ward was investigated. This showed that there was no correlation between

rurality and deprivation (Figure A.79). This means that a rural ward is just as likely to be affluent as deprived.

Table A.92 Sources and availability of data for equality groups in Northern Ireland.

Equality Group	Source of Data
Men and women generally	Northern Ireland 2001 Census Small Area Statistics (KS01)
Persons of different marital status	Northern Ireland 2001 Census Small Area Statistics (KS04)
Persons with different religious beliefs	Northern Ireland 2001 Census Small Area Statistics (KS07a)
Persons with/without dependants	Persons with or without dependent children - Northern Ireland 2001 Census Small Area Statistics (KS21) Persons who provide unpaid care - Northern Ireland 2001 Census Small Area Statistics (KS08)
Persons with/without limiting long-term illness	Northern Ireland 2001 Census Small Area Statistics (KS08)
People of different ages	Northern Ireland 2001 Census Small Area Statistics (KS02)
Persons of different political belief	First preference votes cast in District Council Elections in June 2001
Persons with/without a disability	Persons in receipt of Attendance Allowance or Disability Living Allowance from the Social Security Database (GIS) as at February 2002
Persons from different racial backgrounds	Ethnic group - Northern Ireland 2001 Census Small Area Statistics (KS06)

Source: Project Support Analysis Branch

Notes on Morbidity/Utilisation Indicators

A.211 Standardised mortality rates (SMRs): These are a widely used indicator of the health status of a population and in particular the SMR for those people aged under 75 is viewed as a good measure of premature mortality. SMRs are particularly useful for comparing the health status of people living in different geographic areas as they take account of the age/gender profile of each area. The process of *standardising* involves a comparison of the actual number of events occurring in an area with the aggregate number expected if the age/sex specific rates in the standard population were

applied to the age/sex groups of the observed population. In the case of SMRs, a value of 100 equals the average mortality for Northern Ireland. Any value greater than 100 indicates above average mortality.

- A.212 Life expectancy: This is another widely used measure of the population's overall health status. Life expectancy can be defined as the number of years a baby born in a particular area or population can be expected to live if it experienced the current age-specific mortality rates of that particular area or population throughout its life. This was calculated using deaths over 1999-2001 and 2001 Census of population data.
- A.213 Infant mortality rate: This refers to the number of deaths for babies aged less than one per 1,000 live births. This includes births to non-Northern Ireland residents.
- A.214 Standardised cancer incidence rates: The Northern Ireland Cancer Registry collates information on cancer incidence. An incident case is a new case of cancer. Cancer incidence statistics have been presented for the years 1993-1999 in the form of standardised cancer incidence rates for different geographical areas. The standardising process has already been described above for SMRs.
- A.215 Teenage birth rates: Data are not available to measure the number of conceptions to teenagers in Northern Ireland but a proxy measure of births to teenage mothers aged 13-19 has been used.
- A.216 Immunisation uptake rates: These were calculated by finding the percentage of children born in 1998 receiving immunisation for DPT (Diphtheria, polio, tetanus), Pertussis (Whooping cough), Hib - Haemophilus Influenzae Type b, Men C – Meningitis C, MMR – Measles, Mumps, Rubella before reaching their second birthday. This data was supplied from the Child Health System.
- A.217 Standardised dental registration rates: The Central Services Agency holds data on patients who are registered with a dentist. The registration period lasts for 15 months and may be renewed with the agreement of the dentist and patient. The rates are standardised to the population registered with a GP on the Central Health Index at November 2002. The standardising process has already been described above for SMRs.

- A.218 Standardised admission rates: Rates have been calculated for inpatient admissions in the year April 2001 – March 2002 to acute hospitals based on data from the Hospital Inpatients system for (i) all admissions (ii) emergency admissions only (iii) elective admissions only. The standardising process has already been described above for SMRs. Day cases and regular day and night admissions have been excluded from this analysis.
- A.219 Waiting times: Excess waiters are described as those patients who have waited more than 18 months for elective admission to hospital (or 12 months for cardiac surgery). The percentage of elective admissions involving excess waits was calculated based on data from the Hospital Inpatients System for the year April 2001 – March 2002.
- A.220 Ambulance response times: The Northern Ireland Ambulance Service records details of ambulance response times to incidents. The response time is measured from the time of the call to the arrival of the ambulance at the incident. The analysis here is based on calls in the month of September 2002.

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