

APPENDIX 1

Sources of Data

This report has presented analysis of data from a variety of sources. These sources are set out below.

A1.1 Populations

For each year the Office for National Statistics (ONS) calculates mid-year population estimates based on a final mid-1991 (or mid-1981) estimate derived from the 1991 (or 1981) Census with allowances for subsequent births, deaths, migration and ageing of the population. These are available at health authority level and have been used to calculate the yearly rates for each health authority and form the basis of the estimates for PCG and Townsend Quintile populations (see A2.1 below). For England and Wales population estimates from the 20th Century Mortality File (see A1.2 below) have been used.

A1.2 Deaths

Information on deaths notified to Registrars of Births and Deaths is collated nationally by ONS including the information given on death certificates. Each health authority receives an annual extract of information relating to deaths of its residents in a particular year. Prior to 1993 these extracts were supplied to the regional health authorities for dissemination to health authorities. Records with no legitimate age or sex or no year of death were removed before carrying out the calculations as were records where the PCG (derived from postcode) did not match the district. In all only a very small number of deaths were removed.

Information on deaths in England and Wales as a whole was obtained from the 20th Century Mortality File, a database compiled by ONS of all deaths registered in England and Wales between 1901 and 1998, aggregated by age, sex, year and cause of death. Population estimates for each year are also supplied.

A1.3 Births

The numbers of live births is derived from the Vital Statistics returns produced by ONS. The Government Actuary's Department calculates the national population projections. These figures are then used by ONS to produce projections for sub-national populations such as HAs. The data used in calculating the projected birth rates were based on the 1996 population projections. These are currently being updated; the 1998 national projections are available already but not yet at a sub-national level.

A1.4 Hospital Activity

All health authorities receive information on treatment of their residents in NHS Trusts, currently through the Nation-Wide Clearing Service (NWCS) as Minimum Data Sets (MDS). Health authorities hold data retrospectively for a number of years although data quality and availability differs between health authorities. Prior to 1997/98, hospital activity data for Trent Region health authorities were collected through a region-wide Patient Information System (PIS) by the regional health authority. This information was archived when regional health authorities were abolished. Data from this archive have been used to supplement MDS data where necessary – before 1993 for Doncaster, before 1994 for Barnsley and before 1997 for Rotherham.

As for the deaths records with no legitimate age or sex were removed before carrying out the calculations, but there was a larger number of records where the postcode-derived PCG did not match the district code. These were left in the analysis at district level but left out of the PCG calculations.

A1.5 Cancer registrations

Trent Cancer Registry collects information about people resident in the region when they are diagnosed with cancer. Notification can come from hospitals, when a diagnosis of cancer is made, from the death certificate (if the cancer has not been diagnosed before death), or, more recently, and only in some districts, from the pathology laboratories. The analyses in this report are derived from these individual records, supplied to the health authorities by the Registry.

A1.6 Lifestyle surveys

Health authorities regularly carry out surveys of the health and health-related behaviour (e.g. smoking) of their resident populations. This is frequently done by means of a postal questionnaire. In 1992 and 1994 lifestyle surveys were carried out region-wide by Trent RHA. Barnsley and Rotherham Health Authorities carried out lifestyle surveys in 1997 and 1998 respectively. Doncaster HA has carried out a survey in 2000, which is currently being analysed.

A1.7 Dental Health

Data on registrations are kept by the British Dental Institute. The Director of Dental Public Health in each health authority keeps records of dental health obtained from regular surveys of children in the areas. Five year olds are surveyed every two years, with surveys carried out in the intervening years on 12 year olds and 14 year olds alternately.

A1.8 Cervical Cytology

Invitation and attendance for cervical cancer screening is monitored by local screening services. Aggregate information on attendance rates is available for each year from the Department of Health (form KC61) and it is these returns on which the analysis in this report is based.

A1.9 Air Quality Data

Local authorities use TEOM (Tapered Element Oscillating Microbalance) devices to measure levels of PM10 particulates in the air. The devices are generally placed in areas where pollution levels are likely to be highest, for example near to busy roads. Readings from devices in different locations should not be compared with each other as the precise distance from the road and exposure to weather can have a substantial effect on readings. The national standards are set in gravimetric measurements and the TEOM readings have been converted to gravimetric for this report.

A1.10 Prescribing Data

The Prescriptions Pricing Authority (PPA) collects information on prescribing from all GP practices and NHS Trusts. Health authorities are then allowed access to aggregated information relating to prescribing in their area. A variety of different units are used;

- i) Items; number of prescriptions issued for a particular drug or class of drugs.
- ii) Net Ingredient Cost (NIC); the total value that has been prescribed of a particular drug or class of drugs (£ sterling).
- iii) Defined Daily Doses (DDD); One DDD is defined as an average daily dose of a particular drug that would normally be prescribed. The number of DDDs gives an indication of how much of the drug has been prescribed, regardless of the size of tablets used or the amount prescribed per prescription.
- iv) Patient Units; the number of patients on GP's lists, adjusted (standardised – see section A2.2) to take account of the age/sex distribution of the list. Older people, in general, place greater demands on prescribing budgets than younger people, therefore a practice or PCG/PCT with a lot of old people will have more PUs than a practice with the same list size but dominated by younger people. Several versions exist and are used in different circumstances; in this report PUs indicate standard Pus; STAR-PUs are also used.

A1.11 Teenage Pregnancies

ONS collects information on birth registrations and legal abortions which are then used to calculate the number of teenage conceptions. To calculate a rate for under 16s an estimate of the female population aged 13-15 is used, based on the ONS mid-year estimates. For under 18s an estimate of the population of women aged 15-17 is used. The annual data used here were purchased from ONS specifically for this report.

A1.12 Birthweight

Birthweights are collected by ONS from birth notification information provided to Registrars of Births and Deaths, by local health services. Data used in this report were taken from the Public Health Common Data Set, an annual comparative analysis made available to all health authorities by the Department of Health.