

## APPENDIX 2:

### Uses of data variables/useful references

The definition of each data variable used in the analysis (description, including time period and source of data, comments and caveats about its use and which of the three deprivation measures the variable is used for) is given in Appendix 1. This Appendix contains further information on the data variables and outlines some possible uses and associations of the data. This may be useful for those wishing to gain further understanding of the implications of the data or who need to use it to prepare funding applications. The information is given under headings for domains, as used in Appendix 1, and should be used in conjunction with the information in Appendix 1.

### Accidents

- *Hospital admissions following accidents for those aged less than 5*
- *Hospital admissions following accidents for those aged 35-64*
- *Hospital admissions following accidents for those aged less than 75*
- *Hospital admissions following accidents for those aged 75 and over*
- *Hospital admissions following accidents all ages*
- *Hospital admissions following falls for those aged 65 and over (in Admissions)*
- *Cyclist accidents*
- *Fires (accidental and deliberate)*
- *Pedestrian accidents*

### Key points:

- A social class gradient exists for Road Traffic Collisions (RTCs) and childhood accidents, including fires.
- Although the child pedestrian accident rate is falling, pedestrian accidents are highly related to social and economic status with those in the lowest socio-economic groups five times more likely to be killed in such accidents than those in the higher groups.
- A quarter of cyclists killed and a third of those injured are children.
- Children are vulnerable to all types of accidents. Overall those born into social class IV and V are twice as likely to die in childhood accidents than those born into other social classes.
- Household fires are a significantly greater risk in poor households and multi-ethnic, low-income areas.

### Useful references and websites:

[www.thinkroadsafety.gov.uk](http://www.thinkroadsafety.gov.uk)

*The Independent Inquiry into Inequalities in Health Report*. Chairman Sir Donald Acheson. The Stationery Office, November 1998. Available at: [www.archive.official-documents.co.uk/document/doh/ih/ih.htm](http://www.archive.official-documents.co.uk/document/doh/ih/ih.htm) (particularly Mobility, Transport and Pollution chapter).

[www.rosopa.co.uk/roadsafety/index.htm](http://www.rosopa.co.uk/roadsafety/index.htm) (for information on road, cycle and pedestrian safety and links to other useful sources of information).

[www.rosopa.com/homesafety/advice/fire/policy.htm](http://www.rosopa.com/homesafety/advice/fire/policy.htm) (for information on Home Safety Policy Statements : Fire and Heat

Roberts I. Deaths of children in house fires (editorial). *BMJ*. 1995;311:1381-1382

Roberts I, Power C. Does the decline in child injury mortality vary by social class: a comparison of class specific mortality in 1981 and 1991. *BMJ*. 1996;313:784-6.

Istre G, McCoy M, Carlin D, McClain J. Residential fire related deaths and injuries among children: fire play, smoke alarms and prevention. *Injury Prevention* 2002; 8: 128-32

Lyons R, Jones A, Deacon T, Heaven M. Socioeconomic variation in injury in children and older people: a population based study. *Injury Prevention* 2003;9: 33-37

## Admissions

- *Day case admissions (all ages, <16, 35-64, <75, 75+)*
- *Elective inpatient admissions (all ages, <16, 35-64, <75, 75+)*
- *Emergency admissions (all ages, <16, 35-64, <75, 75+)*
- *Other admissions (all ages, <16, 35-64, <75, 75+)*
- *First outpatient attendances (all ages, <16, 35-64, <75, 75+)*
- *Elective admissions (all ages, <16, 35-64, <75, 75+)*
- *All admissions (all ages, <16, 35-64, <75, 75+)*
- *Serious Accidents (all ages, 35-64, <75, 75+)*
- *Falls (all ages, 35-64, 65+, <75, 75+)*
- *All cancers (all ages, 35-64, <75, 75+)*
- *Breast cancer (all ages, 35-64, <75, 75+)*
- *Colorectal cancer (all ages, 35-64, <75, 75+)*
- *Lung cancer (all ages, 35-64, <75, 75+)*
- *Prostate cancer (all ages, 35-64, <75, 75+)*
- *CHD (all ages, 35-64, <75, 75+)*
- *Heart attack (all ages, 35-64, <75, 75+)*
- *Heart attack / angina (all ages, 35-64, <75, 75+)*
- *Angioplasty (all ages, 35-64, <75, 75+)*
- *CABG (all ages, 35-64, <75, 75+)*
- *CABG/PTCA (all ages, 35-64, <75, 75+)*
- *CVD (all ages, 35-64, <75, 75+)*
- *Asthma (all ages, 35-64, <75, 75+)*
- *Diabetes (all ages, 35-64, <75, 75+)*
- *Depression (all ages, 15-74, 35-64, <75, 75+)*
- *Self harm (all ages, 35-64, <75)*
- *Depression / self harm (all ages, 35-64, <75, 75+)*
- *Anxiety (15-74)*
- *Schizophrenia (15-74)*

- *Poisoning (all ages, 35-64, <75)*
- *Hip (all ages, 35-64, <75, 75+)*
- *Knee (all ages, 35-64, <75, 75+)*

### **Key points:**

- Hospital admissions data provide a useful source of information on illnesses treated in hospital. Admission rates depend on a variety of factors including the level of illness, the propensity for people to take up care and the level of services provided. Although the poor experience more illness they do not always access health care.
- Emergency admissions have been shown to increase with deprivation, particularly in older age groups.
- Data from hospital admissions can be used to measure progress against population health targets, such as those in *Saving Lives: Our Healthier Nation* (1999). They may also be useful when planning implementation of the National Service Frameworks and may be used to look at, for example, chronic disease management or at inequalities in access.
- Hospital admission data can also be useful in development local Health Improvement Programmes and other local work to reduce health inequalities.
- **Diabetes**
  - Approximately 2-3% of the UK population have diabetes. However, many people with diabetes remain undiagnosed.
  - Two main types of diabetes are: Type 1 (insulin dependant) and Type 2 (non-insulin dependant). Both may lead to serious complications; including CHD, stroke, renal failure, amputation and blindness.
  - Those who are: overweight/obese, physically inactive, older, have a family history of diabetes, or who are less affluent are at higher risk of developing diabetes.
  - Diabetes is up to six times more common in South Asians and up to three times more common among African-Caribbean groups.
- **Mental Health**
  - At any one time around one adult in six suffers from a form of mental illness ranging from common conditions such as depression, through to schizophrenia - maybe as many as 9 million people are affected.
  - Up to one in four consultations with a GP concern a mental health issue.
  - One in ten children aged under 16 have a mental health problem.

- Increased rates of mental ill health is more common in some ethnic groups, it is also linked with unemployment, poverty and deprivation, and living in poor and overcrowded accommodation.
- **CHD / Cancer and inequalities**
  - The incidence of lung cancer among men and women in the most deprived areas is around twice that in the most affluent areas, and death rates are around two and a half times higher.
  - Death rates from circulatory disease (CHD and stroke) are higher in more deprived areas, for instance they are 25% higher in the northwest than in the southeast of England.
  - Physically active people have 20-30% reduced risk of premature death and up to 50% reduced risk of major chronic disease such as CHD, stroke, diabetes and cancer.
  - Obesity and overweight increases the risk of the biggest killer diseases, such as heart disease, cancer and diabetes.
  - People from lower social groups eat around half the fruit and vegetables of people from professional groups.
  - An estimated one in three deaths from cancer and one in three deaths from CHD are attributable to poor diet.
  - Reducing fat intake, particularly saturated fat, can help lower the risk of CHD and some cancers.

### **Useful references and websites:**

The White Paper 'Choosing Health' (2004) sets out the public health agenda for the future. Policy information and publications related to, or produced as a result of, the commitments made by the White Paper can be found at [www.dh.gov.uk/en/Publichealth/Choosinghealth](http://www.dh.gov.uk/en/Publichealth/Choosinghealth)

[www.dh.gov.uk/en/healthcare/index.htm](http://www.dh.gov.uk/en/healthcare/index.htm) and [www.dh.gov.uk/en/socialcare/index.htm](http://www.dh.gov.uk/en/socialcare/index.htm) (for links to all Health and Social Care Topics including the published National Service Frameworks and disease specific plans as well as information about forthcoming NSFs).

[www.dh.gov.uk/en/publicationsandstatistics/statistics/hospitalepisodestatistics/index.htm](http://www.dh.gov.uk/en/publicationsandstatistics/statistics/hospitalepisodestatistics/index.htm) (for information about Hospital Episode Statistics and a mechanism for requesting tailor made analyses and also an overview of central health statistics).

Bernard S, Smith LK. Emergency admissions of older people to hospital: a link with material deprivation. *J Pub Health Medicine* 1998;20: 97-101

Hansell A, Bottle A, Shurlock L, Aylin P. Assessing and using hospital admission data. *J Pub Health Medicine* 2001;23: 51-56

## Benefits

- *Attendance Allowance*
- *Income Support (all ages, <15, <18, )*
- *Pension Credit (60+)*
- *Disability Living Allowance*
- *Incapacity Benefit claimants*

### **Key points:**

- Ward and Lower Super Output Area/Data Zone level statistics were revised on 6th February 2007. All breakdowns now match national totals as a result of a revision to the rounding methodology and an update of the underlying data. Although all small area totals are within 5 of the true value, aggregating them to form Local Authority totals is not recommended due to the fact that it is the sum of rounded figures. (Source: Department for Work and Pensions - DWP)
- The majority of individuals who experience persistent low income are dependant in part on at least one of the principal state benefits - benefits data is therefore a marker of low income and one of the best proxy markers of poverty. Work in Scotland in the late 1990's found that benefits claims show the greatest potential as proxy markers of poverty.
- More than half of the recipients of Income Support at any one time are now long-term recipients.
- The number of older people and pensioners claiming income support is a marker of low income in older age.
- Attendance allowance – an indicator of the intensity of need experienced by individuals requiring assistance with activities of daily living - can be used as a marker of levels of disability and illness. Disability can be associated with social isolation.
- Children are more likely than adults to live in households with low income and there are a range of negative outcomes that are increased amongst children growing up in low-income households and those facing financial difficulty. These include leaving school early, lower educational qualifications, more contact with the police, low wages and unemployment. Children's cognitive development in their early years is linked to the labour market status and earnings of their parents.
- Disability Living Allowance and Incapacity Benefit are both markers of levels of disability and illness. By limiting access to employment for those of working age disability is a risk factor for poverty and deprivation and may also be associated with social isolation. A 1998 Briefing from the Scottish Poverty Information Unit contains some useful information about the links between poverty and disability (although some of the specific information about benefits may now be out of date).

- There are important links between transport and social exclusion – two thirds of the poorest fifth of the population have no car. In the absence of good public transport this can affect access to employment, healthcare and education.
- Since 1993 the amount of families in receipt of working families tax credit has risen from 518,000 to 1,377,300 (2003) – an increase of 265%. (Source: Inland Revenue 2007)
- Pension Credit replaced the Minimum Income Guarantee (MIG) on 6 October 2003, adding a Savings Credit element to the Guarantee element already present under MIG. Claimants receiving MIG on 6 October 2003 were automatically transferred onto Pension Credit. (Source: Office for National Statistics - ONS)

**Useful references and websites:**

[www.cabinetoffice.gov.uk/social\\_exclusion\\_task\\_force.aspx](http://www.cabinetoffice.gov.uk/social_exclusion_task_force.aspx) (The Social Exclusion Unit)

More specific – the report *Preventing Social Exclusion* can be found at [www.cabinetoffice.gov.uk/social\\_exclusion\\_task\\_force/~media/assets/www.cabinetoffice.gov.uk/social\\_exclusion\\_task\\_force/publications\\_1997\\_to\\_2006/preventing%20pdf.ashx](http://www.cabinetoffice.gov.uk/social_exclusion_task_force/~media/assets/www.cabinetoffice.gov.uk/social_exclusion_task_force/publications_1997_to_2006/preventing%20pdf.ashx)

The report *Making the connections: Final Report on Transport and Social Exclusion, Report by the Social Exclusion Unit February 2003* can be found at:

[www.cabinetoffice.gov.uk/social\\_exclusion\\_task\\_force/~media/assets/www.cabinetoffice.gov.uk/social\\_exclusion\\_task\\_force/publications\\_1997\\_to\\_2006/making\\_transport\\_2003%20pdf.ashx](http://www.cabinetoffice.gov.uk/social_exclusion_task_force/~media/assets/www.cabinetoffice.gov.uk/social_exclusion_task_force/publications_1997_to_2006/making_transport_2003%20pdf.ashx)

The Joseph Rowntree Foundation *Child Poverty and its consequences* (March 1999). Accessible at: [www.irf.org.uk/knowledge/findings/socialpolicy/389.asp](http://www.irf.org.uk/knowledge/findings/socialpolicy/389.asp) [www.povertyinformation.org/show.php?contentid=2](http://www.povertyinformation.org/show.php?contentid=2) (The Scottish Poverty Information Unit). See Research Findings No.2 *Lone Parents Poverty and Homelessness* (June 2000) and Briefing No. 7 *Disability and Poverty* (December 1998). Also of interest is Briefing No. 1 *Defining Poverty* (October 1997). This is also a source for many other statistics about Scottish Poverty.

Comprehensive information about benefits is available from the Department of Work and Pensions – see [www.dwp.gov.uk/lifeevent/benefits/index.asp](http://www.dwp.gov.uk/lifeevent/benefits/index.asp)

More specific information can also be found via the following links:

[www.dwp.gov.uk/lifeevent/discare/](http://www.dwp.gov.uk/lifeevent/discare/)

[www.dwp.gov.uk/lifeevent/famchild/](http://www.dwp.gov.uk/lifeevent/famchild/)

[www.jobcentreplus.gov.uk/JCP/Customers/WorkingAgeBenefits/Incomesupport/index.html](http://www.jobcentreplus.gov.uk/JCP/Customers/WorkingAgeBenefits/Incomesupport/index.html)

[www.jobcentreplus.gov.uk/JCP/Customers/WorkingAgeBenefits/Jobseekerallowance/index.html](http://www.jobcentreplus.gov.uk/JCP/Customers/WorkingAgeBenefits/Jobseekerallowance/index.html)

[www.thepensionservice.gov.uk/pensioncredit/home.asp](http://www.thepensionservice.gov.uk/pensioncredit/home.asp)

[www.thepensionservice.gov.uk/atoz/atozdetailed/retirement.asp](http://www.thepensionservice.gov.uk/atoz/atozdetailed/retirement.asp)

## Crime

- *Acquisitive Crime reports*
- *Youth justice referrals*
- *Dwelling burglaries*
- *Non-dwelling burglaries (building other than dwelling)*
- *Criminal Damage*
- *Thefts from Motor Vehicles*
- *Thefts*
- *Domestic violence incidents*
- *Assaults & Wounding*
- *Theft of motor vehicles*
- *Anti-social behaviour incidents*
- *Robberies*
- *Sexual Offences*

### **Key points:**

- It is believed that there is a link between drug misuse and crime. A South Bank University study (Hough, Mc Sweeney & Turnbull, 2001) revealed that “people who try illicit drugs are more likely than others to commit other forms of law-breaking” but “only a small proportion of users ... finance their use through crime.”
- Research identified a strong relationship between levels of drug use and particular geographical areas: Inner city areas have higher levels of drugs use than rural areas; Areas classified as high disorder tend to have higher levels of drugs use than areas classified as low disorder.
- Areas with high crime rates tend to be areas with high relative deprivation (income inequality), low social capital and high mortality rates.
- Possession of a criminal record is a barrier to employment for young adults, which may leave them disadvantaged and at increased risk of re-offending. Research suggests that children who become involved in crime before the age of 15 tend to become the most persistent offenders with longer criminal careers.
- The Joseph Rowntree Foundation report that factors associated with or found to increase the risk of a young person starting to offend include: low income, living in deteriorated inner city areas, a high degree of impulsiveness and hyperactivity, low intelligence and school attainment, poor parental supervision with harsh and erratic discipline and parental conflict and broken families.
- The numbers of young people found guilty by the courts in England and Wales has fallen in the past fifteen years but reports of the types of offences committed by young people have risen dramatically. This difference is thought to be due to procedural changes in the criminal justice system.

- There is some evidence that domestic violence is more common in families of the unemployed. Research using a British Crime Survey self-completed questionnaire found that the proportion of women assaulted by a partner was higher in households with an annual income of below £5000. Rates of child abuse and neglect have also been shown to be associated with levels of deprivation and unemployment.

### **Useful references and websites:**

The Joseph Rowntree Foundation *Understanding and preventing youth crime*. Social Policy Research 93 (April 1996). Available at:

[www.jrf.org.uk/knowledge/findings/socialpolicy/SP93.asp](http://www.jrf.org.uk/knowledge/findings/socialpolicy/SP93.asp)

The Home Office. *Domestic Violence: Findings from a new BCS self-completed questionnaire*. (Report from the Research, Development and Statistics Directorate, 1999).

Available at: [www.homeoffice.gov.uk/rds/pdfs/r86.pdf](http://www.homeoffice.gov.uk/rds/pdfs/r86.pdf)

The Home Office. *Domestic Violence: Breaking the chain Multi-Agency Guidance for addressing domestic violence* (2000). Available at:

[www.crimereduction.homeoffice.gov.uk/dv/dv08d.htm](http://www.crimereduction.homeoffice.gov.uk/dv/dv08d.htm)

Hough, McSweeney and Turnbull (2001) - *Evidence to the Home Affairs Committee Inquiry into drug policy – Annex A: Drugs and Crime: what are the links?* – Drugscope online report.

A summary of information about the links between drugs and crime can be found at [www.drugscope.org.uk/resources/mediaguide/crime.htm](http://www.drugscope.org.uk/resources/mediaguide/crime.htm)

Aust and Condon (2003) – *Geographical Variations in Drug Use. Key findings from the 2001/02 British Crime Survey. England and Wales*. – London: Home Office, 67pp. - Available at:

[www.homeoffice.gov.uk/rds/pdfs2/hosb1503.pdf](http://www.homeoffice.gov.uk/rds/pdfs2/hosb1503.pdf)

[www.neighbourhood.gov.uk/page.asp?id=911](http://www.neighbourhood.gov.uk/page.asp?id=911) Social Exclusion Unit: Crime

### **Demography**

- *Population aged 65+*
- *Population aged 75+*
- *Population aged 85+*
- *Population aged working age*
- *Population aged <16*
- *Households in socio-economic group 6 or 7*
- *General Fertility Rate*
- *Density (number of persons per hectare)*
- *Households with no access to car/van*
- *Residents with no access to car/van*
- *Lone parent households*
- *Lone pensioner households*
- *Household spaces with no residents: secondary/holiday homes*
- *Migration (in and out)*
- *Ethnicity*

### **Key points:**

- Pensioners tend to have lower than average incomes (they are over represented in the bottom half of the income distribution – 60% of pensioners are in the bottom 40% of the income distribution and 30% of pensioners are in the bottom 20% of the income distribution).
- Those living alone are more likely to be socially isolated. An increasing body of evidence suggests that social isolation is detrimental to health.
- Lone parent families tend to be in the bottom of the income distribution and are more vulnerable to low income than all other family types. Children in lone parent families are more likely to report chronic sickness. The Scottish Poverty Information Unit has published a report investigating the links between lone parenthood, poverty and homelessness.
- Occupational social class is used as a measure of deprivation as it is likely to reflect material resources/income. Mortality rates across all age groups are higher and life expectancy lower in lower social classes.
- Population density can be used as a measure of rurality.

### **Useful references and websites:**

[www.jrf.org.uk](http://www.jrf.org.uk) (The Joseph Rowntree Foundation)

[www.neighbourhood.gov.uk/page.asp?id=630](http://www.neighbourhood.gov.uk/page.asp?id=630) (The Social Exclusion Unit)

Information on the Standard Occupational Classification 2000 can be found at [www.statistics.gov.uk/nsbase/methods\\_quality/ns\\_sec/soc2000.asp](http://www.statistics.gov.uk/nsbase/methods_quality/ns_sec/soc2000.asp)

Information on the new National Statistics Socio-economic Classification can be found at [www.statistics.gov.uk/methods\\_quality/ns\\_sec](http://www.statistics.gov.uk/methods_quality/ns_sec)

Davey-Smith G, Hart C, Wyatt G, Hole D, Hawthorne V. Individual social class, area-based deprivation, cardiovascular disease risk factors and mortality: the Renfrew and Paisley study. *J Epidemiol Community Health* 1998;52: 399-405

Kivimäki M, Lawlor DA, Davey Smith G, Kouvonen A, Virtanen M, Elovainio M, Vahtera J. Socioeconomic position, co-occurrence of behaviour-related risk factors and coronary heart disease: the Finnish Public Sector Study. *American Journal of Public Health*. 2007; 97: 874-879

See also the references listed under **Benefits**.

## Deprivation

- *IMD score (2004 and 2007)*
- *IMD income domain (2004 and 2007)*
- *IMD employment domain (2004 and 2007)*
- *IMD health domain (2004 and 2007)*
- *IMD education domain (2004 and 2007)*
- *IMD barriers domain (2004 and 2007)*
- *IMD crime domain (2004 and 2007)*
- *IMD environment domain (2004 and 2007)*
- *IMD IDACI (2004 and 2007)*
- *IMD IDAOPi (2004 and 2007)*
- *Townsend score*
- *DG1: % lone parent households*
- *DG2: % of households with dependent children with no central heating*
- *DG3: % of households with dependent children that are renting*
- *DG4: % of households with dependent children with inadequate space*
- *DG5: % of households with dependent children with no access to car/van*
- *DG6: % of households with dependent children with no earners*

### **Key points:**

- These variables demonstrate different ways of measuring poverty and deprivation.
- The Low Cost Budget Households Index, developed by David Gordon for use in rural areas, is a good predictor of levels of poverty (as measured by the low cost budget approach). It is not available using the 2001 census data and ward boundaries, the 6 variables which were part of the indicator are included.
- The Townsend Material Deprivation score is a widely used index thought to give a good measure of material deprivation. It looks at four variables taken from census data that are combined to form an overall score. This ranks areas relative to others. Advantages include that it can be used to look at small areas and that it is highly correlated with measures of ill health such as SMRs or long-term limiting illness. Disadvantages include that it indicates deprivation better in urban than rural areas and that it does not indicate the proportion of people in an area that are deprived.
- Townsend is derived from census data, which is often out of date.  
One of the elements of the Low Cost Budget score was no (central) heating, this has been retained in the child score. Other forms of heating are ignored by this indicator and existence of central heating does not necessarily imply usage. An alternative indicator developed by the Centre for Sustainable Energy (CSE) and Bristol University is The Fuel Poverty Indicator (FPI). The FPI avoids commonly used measures of fuel poverty which are now known to be imprecise, such as entitlement to specific welfare benefits or general indices of deprivation. Instead it is statistically derived from 2001 Census and 2003 English House Condition Survey data.

- The revised Index of Multiple Deprivation consists of a new set of indicators, developed by the Department of Social Policy and Social Work at Oxford University and published by the Office of the Deputy Prime Minister (ODPM) in 2007. These new indicators are based on routine sources of information that are available at census super output area level and are multi-dimensional, thus reflecting different aspects of deprivation. One advantage of the IMD over other measures is that it uses recent data as well as census data and is therefore updateable. It can also distinguish between different aspects of deprivation. Disadvantages include:
  - Some domains are derived from only a few sources
  - Different weighting of the variables means that one source can be more important than another, without the justification for the weightings being clear.
- In recent years a large body of work has emerged, looking at inequalities in health. This has been overtly linked to health and social policy.

### **Useful references and websites:**

Index of Multiple Deprivation. Further information available at:

[www.communities.gov.uk/publications/communities/incidiciesdeprivation07](http://www.communities.gov.uk/publications/communities/incidiciesdeprivation07)

A good summary of the different deprivation indices can be found at [www.lancs.ac.uk/fass/ihr/publications/justinwood/indicesofdeprivationfinal.pdf](http://www.lancs.ac.uk/fass/ihr/publications/justinwood/indicesofdeprivationfinal.pdf) This is a working paper from PAT 18 – *Measuring deprivation: a review of indices in common use*.

*The Independent Inquiry into Inequalities in Health* Report (Chair Sir Donald Acheson) 1998. Full report available at:

[www.archive.official-documents.co.uk/document/doh/ih/ih.htm](http://www.archive.official-documents.co.uk/document/doh/ih/ih.htm)

[www.statistics.gov.uk/cci/nugget.asp?id=1006](http://www.statistics.gov.uk/cci/nugget.asp?id=1006) Office for National Statistics: Social Inequalities: Living Standards

A report of the evidence presented to the inquiry can be found in: Gordon D, Shaw M, Dorling D, Davey-Smith, G (eds). *Inequalities in Health*, 1999. Policy Press, Bristol

Other interesting analysis and commentary can be found in: Shaw M, Dorling D, Gordon D, Davey-Smith G (eds). *The Widening Gap: Health, Inequality and Policy in Britain*. 1999. Policy Press, Bristol.

Davey-Smith G. Income inequality, *BMJ* 2000;320;1200-1204

Davey-Smith G, Whitely E, Dorling D, Gunnell D. Area based measures of social and economic circumstances: cause specific mortality patterns depend on the choice of index. *J Epidemiol Community Health*. 2001; 55:149-150

Gordon D. *Budget allocation and child poverty in Somerset*. University of Bristol: 1996

Gordon D. Census based deprivation indices: their weighting and validation. *J Epidemiol Community Health*. 1995; 49 (Suppl 2):S39-44

Fuel Poverty details on Centre for Sustainable Energy website:  
[www.fuelpovertyindicator.org.uk/](http://www.fuelpovertyindicator.org.uk/)

Area based measures of social and economic circumstances: Cause specific mortality patterns depend on the choice of index

G Davey Smith, E Whitley, D Dorling, D Gunnell. Journal of Epidemiology and Community Health. London: Feb 2001. Vol. 55, Iss. 2; p. 149 (2 pages)

## Education

- *Absences – authorised and unauthorised*
- *Attainment targets at key stages 1 – 4*
- *GCSE attainments*
- *Fixed exclusions*
- *Permanent exclusions*
- *Statement of Educational Need*
- *People aged 16-74 with no qualifications*
- *People aged 16-74 with higher qualification*
- *People aged 16 – 19 in education*
- *People aged 16 – 19 in work based learning*
- *People aged 16 – 19 not in employment, education or learning*

### **Key points:**

- Children in Local Authority Care often experience multiple problems relating to education. A lack of educational qualifications can lead to a difficult transition to adult life.
- Children with Statements of Special Educational Need often have a range of physical, emotional and learning problems and thus face multiple disadvantages. Pupils with a statement of special educational needs are four times more likely to be excluded and children in care are 10 times more likely to be excluded.
- The number of school exclusions has increased many-fold since 1990. There is a strong link between truancy, school exclusion and crime. In the past it has been found that over one third of juvenile offences are committed during school periods by those who are truanting, excluded from school or without a school place. A high proportion of those who are excluded from school, particularly at secondary level, do not return to mainstream education.
- Truancy is also connected with bullying, caring responsibilities undertaken by children, child employment and general family instability. There is a direct link between time lost from education and crime in later life, with a third of all prisoners having been regular truants from school and half of all male prisoners having been excluded from classes.

- Young people who have had problems at school are more likely to go on to experience other forms of social exclusion. Lack of qualifications, poor behaviour at school, truancy and exclusion are all associated with delinquency and a high risk of offending.
- Central to preventing social exclusion has been the drive to increase educational attainment in core areas of the national curriculum. There have been better test and exam results at all key stages between 1997 and 2007.
- Lack of basic skills, and level 2 (or GCSE standard) qualifications in particular, is a strong driver of other forms of social exclusion. Adults with literacy levels below level 1 are twice as likely to be unemployed or inactive compared with those with literacy skills at level 2 or above.
- Level 2 qualifications act as a springboard to a future of employment with training opportunities. For example, 34% of young people with no qualifications and 17% of those with qualifications below level 2 are not in full-time education, training or employment, compared with only 7% of those with qualifications at level 2.
- Educational attainment at all key stages has increased since 1997. There have been improvements for all the main ethnic minority groups; there has also been progress in schools in disadvantaged areas. However, some groups of children are still underachieving at school.
- At Key Stage 1 (seven-year-olds), there have been improvements in reading, writing and maths. For example, the proportion of pupils achieving Level 2 or above in maths rose from 84% in 1997 to 90.1 % in 2007.
- At Key Stage 2 (11-year-olds), there has been an increase in the proportion of pupils achieving Level 4 or above in English and maths between 1997 and 2007 – from 63% to 80.6% for English and from 62% to 77.4% for maths.
- At Key Stage 3 (14-year-olds), there have been improvements in maths, English and science. The proportion of pupils achieving Level 5 or above in English rose from 57% to 75% in 2007.
- The proportion of 16-year-old pupils gaining five or more GCSE A\*–C grades has increased from 46.3% in 1997/98 to 58.1% in 2006/07.
- More generally, there is a clear, evidenced link between social deprivation, poverty and the incidence of pupils with special educational needs both with, and without Statements of SEN. The County Council recognises the importance of this relationship for schools with a socially deprived population of pupils, by providing additional SEN funding (called School Action funding), distributed by a formula including a school-specific social deprivation index.

### **Useful references and websites:**

'Truancy and School Exclusion'. Social Exclusion Unit. Available at:  
[www.cabinetoffice.gov.uk/social\\_exclusion\\_task\\_force/~media/assets/www.cabinetoffice.gov.uk/social\\_exclusion\\_task\\_force/publications\\_1997\\_to\\_2006/truancy\\_socialex%20pdf.ashx](http://www.cabinetoffice.gov.uk/social_exclusion_task_force/~media/assets/www.cabinetoffice.gov.uk/social_exclusion_task_force/publications_1997_to_2006/truancy_socialex%20pdf.ashx)

'Every Child Matters: Change for Children' [www.everychildmatters.gov.uk/](http://www.everychildmatters.gov.uk/) looks at all aspects of child health and welfare.

Information on the Social Exclusion Unit project on children in care can be found at [www.socialexclusion.gov.uk/page.asp?id=50](http://www.socialexclusion.gov.uk/page.asp?id=50)

The Department for Education and Skills – [www.dfes.gov.uk/index.htm](http://www.dfes.gov.uk/index.htm) and [www.dfes.gov.uk/publications/carematters/](http://www.dfes.gov.uk/publications/carematters/)

Many of the above bullet points are taken from the reports listed in [www.cabinetoffice.gov.uk/social\\_exclusion\\_task\\_force/publications.aspx#published97](http://www.cabinetoffice.gov.uk/social_exclusion_task_force/publications.aspx#published97)

The more recent website for the Social Exclusion Unit is at [www.neighbourhood.gov.uk/page.asp?id=630](http://www.neighbourhood.gov.uk/page.asp?id=630)

Office for National Statistics Social Inequalities: Education  
[www.statistics.gov.uk/cci/nugget.asp?id=1003](http://www.statistics.gov.uk/cci/nugget.asp?id=1003)

### **Environment, Health & Housing**

- *Land use*
- *Distance to GP, primary school, post office, supermarket/convenience store*
- *Deaths all cause (all ages, <65, 65+, <75, 75+)*
- *Deaths cancers (all ages, <75)*
- *Deaths breast cancer*
- *Deaths colorectal cancer*
- *Deaths lung cancer*
- *Deaths prostate cancer*
- *Deaths accidents*
- *Deaths all circulatory disease (all ages, <75)*
- *Deaths CHD (all ages, <75)*
- *Deaths all respiratory disease (all ages, <75)*
- *Deaths suicides*
- *Live births <2500g*
- *Self-reported General Health*
- *Limiting long-term illness (all ages, <75)*
- *Provision of Unpaid care*
- *Council tax banding*
- *Renting households*
- *Social housing*
- *Households with dependent children*
- *Households with non-dependent children*
- *Households with inadequate space*
- *Households with no central heating*
- *Household without sole use of bathroom*

### **Key points:**

- SMRs are used as a proxy measure of health in an area and are highly correlated with deprivation (particularly in those aged under 65). Particular causes of death are more likely to reflect the influence of socio-economic factors.
- The incidence of lung cancer among men and women in the most deprived areas is around twice that in the most affluent areas, and death rates are about 2 and a half times higher.
- The risk of long term limiting illness increases with deprivation. The association between deprivation and long-term limiting illness is thought to be stronger than the association between deprivation and mortality. The prevalence of most common diseases increases with deprivation. Manual workers are twice as likely to develop long term limiting illness before retirement than professional workers.
- The risk of having a low birth weight baby increases with deprivation. Those born in social class IV and V are 25% more likely to be underweight as babies. Low birth weight babies are at increased risk of disease and death both in childhood and adult life. Women who were low birth weight babies in turn are more likely to give birth to low birth weight babies, as are teenage mothers.
- Over recent years there has been a steady increase in the number of households using central heating. This has been particularly pronounced for poorer households. Nevertheless a higher proportion of low-income households have no central heating. Pensioner couples dependant mainly on state retirement pensions are the most likely of any household type to be without central heating.
- Children living in local authority housing are more likely to report chronic illness. 80% of households in social housing have a weekly income of less than £200 and in 70% of such households the head of the household is not in paid work.
- Poorer households are much more likely to suffer overcrowding than rich households: those in the lowest fifth of income distribution are now more than ten times as likely to suffer from overcrowding as those on average earnings. Overcrowding is more prevalent among local authority and housing association properties than in other tenures. The least crowded households are those owned outright. Overcrowding may have a detrimental impact on health, for example by facilitating the spread of infectious diseases.

### **Useful references and websites:**

The website for the National Service Framework for Children contains information on factors influencing children's health at:

[www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/ChildrenServices/fs/en](http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/ChildrenServices/fs/en).

For links to all the published National Service Frameworks and disease specific plans (Cancer, Coronary Heart Disease, Mental Health, Older People and Diabetes) see [www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/HealthAndSocialCareArticle/fs/en?CONTENT\\_ID=4070951&chk=W3ar/W](http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/HealthAndSocialCareArticle/fs/en?CONTENT_ID=4070951&chk=W3ar/W)

Information on child poverty and social exclusion can be found via the Sure Start website at [www.surestart.gov.uk](http://www.surestart.gov.uk)

Reports by the Social Exclusion Unit can be found at [www.cabinetoffice.gov.uk/social\\_exclusion\\_task\\_force/publications.aspx#published97](http://www.cabinetoffice.gov.uk/social_exclusion_task_force/publications.aspx#published97)

The responsibility for housing has now moved to the Department for Communities and Local Government [www.communities.gov.uk/housing](http://www.communities.gov.uk/housing)

[www.statistics.gov.uk/cci/nugget.asp?id=1007](http://www.statistics.gov.uk/cci/nugget.asp?id=1007) Office for National Statistics: Social Inequalities: Health

National suicide rates as an indicator of the effect of suicide on premature mortality  
David Gunnell, Nicos Middleton. The Lancet. London: Sep 20, 2003. Vol. 362, Iss. 9388; p. 961

Biddle L, Brock A, Brookes S, Gunnell D. BMJ 2008; 336: 539-542

## **Income and employment**

- *Job seekers*
- *Unemployed people aged 16-74*
- *Total weekly income*
- *Net weekly income*

### **Key points:**

- Unemployment is an important determinant of poverty and a good proxy indicator of poverty/deprivation.
- The unemployed have been shown to have higher levels of depression and chronic sickness; families of the unemployed also have poorer health.
- Mortality in the unemployed (particularly from suicide and lung cancer) and their children and spouses is raised.
- Families of the unemployed are more likely to have a child on the child protection register, higher rates of domestic violence and divorce.

### **Useful references and websites:**

Reports by the Social Exclusion Unit can be found at [www.cabinetoffice.gov.uk/social\\_exclusion\\_task\\_force/publications.aspx#published97](http://www.cabinetoffice.gov.uk/social_exclusion_task_force/publications.aspx#published97)

The responsibility for employment has now moved to the Department for Work and Pensions [www.dwp.gov.uk/asd/asd5/rrs-index.asp](http://www.dwp.gov.uk/asd/asd5/rrs-index.asp)

[www.workingforhealth.gov.uk](http://www.workingforhealth.gov.uk)

<http://sticerd.ise.ac.uk/dps/case/cp/paper4.pdf> Social Exclusion Unit: Employment and Opportunity

[www.statistics.gov.uk/cci/nugget.asp?id=1004](http://www.statistics.gov.uk/cci/nugget.asp?id=1004) Office for National Statistics: Social Inequalities: Work

Lewis G, Sloggett A. Suicide, deprivation and unemployment: record linkage study. *BMJ*, 1998; 317: 1283-6

Gunnell D J, Peters T J, Kammerling R M, Brooks J. Relationship between parasuicide, suicide, psychiatric admissions and socio-economic deprivation. *BMJ*, 1995; 311:226-30.

### **Public health (wider determinants of health)**

- *Fuel poverty*
- *Smokers*
- *Binge drinkers*
- *Obesity (reception and year 6, adults)*
- *Fruit and vegetables (adults and children)*
- *Teenage births in hospital (<16, <18)*
- *Teenage conceptions*
- *Carers*

### **Key points:**

Children and adults in social classes IV and V eat around half the fruit and vegetables of people in other social classes.

- The prevalence of obesity in children aged 2 to 10 years has increased from 9.6% in 1995 to 15.5% in 2002. Obese children, especially girls, are more likely to come from lower social groups.
- In 2004, 16% of males and females in social classes I and II were classified as obese, compared to 23% of males and 29% of females in social classes IV and V.
- There is a high prevalence of alcohol dependence amongst single homeless people – the severity of dependency worsens with housing circumstance, with the highest levels (50%) amongst rough sleepers.
- 31% of routine and manual groups smoke, compared with 26% of the total population.
- Children born to teenage mothers have the highest infant mortality rate of 7.9 per 1,000 live births (the rate is lowest for mothers in 30-34 age group at 4.3 per 1,000 live births).

### **Useful references and websites:**

Policy documents, information and resources relating to sexual health, alcohol misuse, substance misuse, mental health, tobacco, obesity, healthy living, 5 A Day, Food in Schools programme can be found at

[www.dh.gov.uk/en/PublicHealth/Healthimprovement](http://www.dh.gov.uk/en/PublicHealth/Healthimprovement)

See also public health White Paper Choosing Health (2004) at [www.dh.gov.uk/en/Publichealth/Choosinghealth](http://www.dh.gov.uk/en/Publichealth/Choosinghealth)

Our health, our care, our say White Paper published in November 2006, sets out how health and social care services will change in the future can be found at [www.dh.gov.uk/en/Healthcare/Ourhealthourcareoursay](http://www.dh.gov.uk/en/Healthcare/Ourhealthourcareoursay)

## Social Services

- *Social Services Clients (U18, 18+, 65+, 75+)*
- *Homecare Clients (18+, 65+, 75+)*
- *Children on Child Protection Register*
- *Child Disability caseload*

### **Key points:**

- Newly initiated child referrals to Social Services provide a proxy measure for newly presenting social need in children. The child protection register data identifies areas with vulnerable children. Rates of child abuse and neglect have been shown to be associated with levels of deprivation and unemployment.
- Information about those in receipt of Home Care represents an indicator of the distribution of individuals who require assistance with basic activities of daily living and who meet the eligibility criteria for Social Services Department support.
- Referrals to social services of adults and of older people are a measure of the level of newly initiated Social Services Department activity provided as a proxy for newly presenting social need in adults/older people.

### **Useful references and websites:**

'Every Child Matters: Change for Children' <http://www.everychildmatters.gov.uk> looks at all aspects of child health and welfare.

The Department for Children, Schools & Families – [www.dcsf.gov.uk](http://www.dcsf.gov.uk)

Ofsted, the official body for inspecting schools. Provides links to school reports and official publications - [www.ofsted.gov.uk](http://www.ofsted.gov.uk)

The National Website for Area Child Protection Committees contains useful information and resources – <http://www.everychildmatters.gov.uk/lscb/>

See also the Department of Work and Pensions at [www.dwp.gov.uk/index.asp](http://www.dwp.gov.uk/index.asp), and Sure Start at [www.surestart.gov.uk/](http://www.surestart.gov.uk/)