



**Gwent Health Authority**

**Caerphilly County Borough Council**

## **Caerphilly Health & Social Needs Study**

### **Stage 2**



**The Caerphilly Research Collaboration**

# Caerphilly Health & Social Needs Study: Stage 2

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## Executive Summary

1. In the Caerphilly Health & Social Needs Study Stage 1 report we demonstrated patterns of multiple deprivation in Caerphilly county borough using routinely available 1991 census and public health datasets. In this Stage 2 report we demonstrate a wide range of new multi-agency data shared between Gwent Health Authority and Caerphilly county borough council. These data include means tested benefits and other low income data, unemployment, non-means tested disability benefits, council tax bands, educational achievement, crime & disorder and social services data.
2. This Stage 2 report shows a wider picture of multiple deprivation within the borough, highlighting the electoral divisions of greatest need. In particular, the patterns of multiple deprivation across all the categories of data relating to children living in the most deprived areas is stark, highlighting both the need for evidence-based interventions and further research to assess their impact. The report further develops the health and social needs assessment required by the Caerphilly Local Health Action Plan and the Gwent Health Improvement Programme for strategic planning to regenerate communities and reduce health inequalities.
3. The information presented is of crucial importance to Caerphilly county borough council in fulfilling its statutory responsibilities in relation to Community Leadership. It will further inform the delivery of services, the development of local area action plans as part of the Community Planning process, and the resulting priorities of the Objective 1 partnership. The information will also further inform existing statutory processes and national initiatives relating to children's services, community care, education, housing, community safety and area regeneration. The report further highlights the importance of adopting an 'Investment for Health' approach across Caerphilly county borough including work to develop Health Impact Assessment methodology for use as a routine tool for all decision making.
4. In developing a method for sharing data and regular data update, Stage 2 has highlighted the strengths and weaknesses that exist at local level in relation to data quality and exchange, both within and between organisations. A full metadata dataset has been written in a *Microsoft Access* database with a user-friendly front end to provide a standard for description of spatial datasets and extending this work within the other local authorities in Gwent and Wales, in collaboration with the Health of Wales Information Service (HOWIS), the Local Government Data Unit and the proposed Wales Centre for Health.
5. The work of Stage 2 has enabled the specific objectives of the proposed Stage 3 population survey work to be formulated. Stage 3 has been designed to estimate small area individual level data on a range of lifestyle, health, social and environmental factors. These individual level data will be analysed with the multi-agency data identified in this report in multilevel models which aim to further our understanding of the relationships between the wide range of determinants of health, and health and social outcomes.

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# Chapter 1 Introduction

## 1.1 Policy Context

### Background

The county borough of Caerphilly contains some of the most deprived electoral wards in Wales and England<sup>1-4</sup>. Work undertaken by CASE – the Centre for Analysis of Social Exclusion at the London School of Economics and Political Science - shows that two wards in the Upper Rhymney Valley, Moriah and Twyn Carno, are in the highest ranking 5% of wards in England and Wales on both the Work Poverty (% of working age population not working or on a scheme) and Breadline Britain Indices<sup>5</sup>.

Since the establishment of the National Assembly for Wales there has been a strengthening of health policy based on a determination to tackle the underlying causes of poor health. This policy drive towards improving the health of the people of Wales is gaining considerable momentum. The importance of tackling inequalities in health is also recognised in the stated policy aim of “bringing the health of people with the worst health in Wales up to those with the best health”.

*Better Health Better Wales*<sup>6</sup> and the *Strategic Framework*<sup>7</sup> set out the National Assembly’s plans and priorities to improve health. It recognises the need to combat the underlying factors, which lead to poor health such as housing, poor education and unemployment. Better Health is now incorporated as one of the priorities of ‘*www.BetterWales.com*’<sup>8</sup> which sets out the long-term strategic vision for Wales. This vision extends to combating poverty and social disadvantage, spreading economic prosperity, and removing inequalities in health, education and social care.

At the national level the ‘*Strategic Framework*’<sup>7</sup> has recognised the importance of developing an all-Wales information strategy including the development of *The Health of Wales Information System (HOWIS)*. The Wales Office of Research and Development strategy for health related research and development ‘*Making a Difference*’<sup>9</sup> has highlighted the valuable contribution that research has to make in the area of the determinants of health. Chapter 3 of the Strategy entitled ‘*Sustainable Health and Well being– The Public Health Research Agenda*’, shows how a greater understanding of the determinants of health should enable policy makers at the national and local level to improve public policy in areas such as environment, employment, housing, access to leisure, health and social care, education and other services.

### Strategic Planning: Working in Partnership

One of the principles underpinning all areas of the Assembly’s work is to operate in partnership. Locally, great importance has been attached to multi-sectoral partnership working to improve health and health services and in particular much closer working between the NHS, corporate local government and other partner organisations. The establishment of *Local Health Groups*<sup>10</sup> (as sub-committees of Health Authorities) and *Local Health Alliances*<sup>11</sup> (led by local authorities in each of the 22 unitary areas) to address the social, economic and environmental determinants of health has provided a real focus for action. Co-terminosity of boundaries between such bodies in Wales provides an added important opportunity for development of common data sets, joint strategic planning, and delivery of services.

The exchange of information is of crucial importance and Gwent Health Authority, Gwent NHS Healthcare Trust and the five local authorities have developed a joint Information Sharing Protocol to facilitate this (see online cymruweb <http://gwentweb>).

The introduction of a range of new statutory duties and responsibilities now formally commit local authorities and health authorities to work together and with others in areas such as health improvement, primary care, children's services, community care, education, community safety, transport planning, environmental improvement and community regeneration. Health Alliances, Children's First, Sure Start, Children and Youth Partnership, Regional Planning database, Crime and Disorder, Drugs and Alcohol and Objective 1 are a few examples of where partnerships are developing. Shared information and evidence will be crucial to inform joint priorities and investment across these cross cutting areas. For example, the Social Services White Paper – *Building for the Future*<sup>12</sup> and imminent new arrangements for '*Joint priorities between the NHS and Social Services*' to facilitate the delivery of seamless care, specifically highlight the need for joint information at local, group and individual level in order to improve services. Similarly, the recent Audit Commission report on community safety – *Safety in Numbers*<sup>13</sup> highlights the importance of utilising relevant data from partnership agencies to inform crime and disorder audits and gain a better understanding of the incidence of crime and its causes and risk factors.

### **Local Policy Framework**

Locally, all these issues are embraced within a new, developing policy framework that includes the *Gwent Health Improvement Programme*<sup>14,15</sup> (online: <http://gwent-ha.wales.nhs.uk>) and a *Caerphilly county borough Community Planning* process (online: <http://www.caerphilly.gov.uk>).

The *Gwent Health Improvement Programme* published up by Gwent Health Authority provides a significant opportunity to establish a strategic vision for the improvement of health and health services. It incorporates local health action plans agreed jointly with Caerphilly Local Health Group, Gwent Healthcare NHS Trust, Caerphilly county borough council and other partners to provide a common agenda. The need for public health research and shared information to inform evidence based investment decision-making is clearly highlighted. The Health Improvement Programme is accompanied by the flexibility to pool budgets to facilitate joint working with local authorities.

The 1998 White Paper '*Local Voices: Modernising local government in Wales*'<sup>16</sup>, enacted in the Local Government Act 2000 places a new duty on Caerphilly county borough council in its community leadership role to co-ordinate the production of an overarching '*Community Strategy*'. The duty comes with new powers to promote the social, economic and environmental well-being of residents. The community planning process thereby encompasses issues key to tackling the wider determinants of health.

Within Caerphilly county borough the approach to community planning is well advanced and has been agreed by a Standing Conference of over 50 partner organisations. To ensure effective community involvement, seven local area forums have been established. The first forums have agreed a local plan of action, informed by the Stage 1 study and consistent with borough-wide strategic priorities. These plans have been used as a major building block for the Local Partnership's Objective One Action Plan.

As part of the community planning process, the local authority has also given commitment and executive leadership to the establishment and development of the Caerphilly Local Health Alliance to champion action on the local determinants of health. It is under the auspices of this multisector partnership that this work will be disseminated locally.

As part of these processes, there is a clear acknowledgement of the importance of achieving greater understanding of *Health Impact Assessment*<sup>17</sup> and investing in policies that impact on the determinants of health. There is clear commitment to ensure that action is based on an understanding of the health and social needs of the local population.

## **The Need for a Community Focus**

The National Assembly's publications on '*Mapping Social Exclusion in Wales*'<sup>18</sup> and '*The Welsh Health Survey 1998*'<sup>19</sup> already present a picture of wide variations in health and social measures between the 22 unitary authorities in Wales. The recently published '*Welsh Index of Multiple Deprivation*'<sup>20</sup> illustrates stark differences in a range of aggregated data at electoral division level, highlighting the urgent need to bridge the gaps between the most and least deprived communities.

'*Better Wales*' stresses the importance of targeting the most disadvantaged communities and a new approach to community regeneration has been launched entitled '*Communities First*'<sup>21</sup>, which seeks to target action at local community level.

A key factor in seeking to take action at a small area level is the availability of data to facilitate shared decision making and local priorities for action. This is recognised at the UK National level in the Government's National Strategy for Neighbourhood Renewal '*Bringing Britain Together*'<sup>22</sup>. Following on from this, the report of the Social Exclusion Units Policy Action Team 18 '*Better Information*'<sup>23</sup> has highlighted the need for information to be a central, rather than a peripheral issue in regeneration activities. Recommendations for the Office of National Statistics to establish and improve the availability of '*Neighbourhood Statistics*' for England and Wales are being implemented.

This report seeks to provide timely additional information at small area level to inform shared decision making for health improvement and community regeneration. Identifying key factors relating to local communities, previously masked at the larger population level, and mapping key local authority service data at community level will be of value to both professionals and politicians. It is hoped that these data will further inform local strategy development, facilitate effective local programmes for intervention and service delivery, provide some reliable baselines for later comparison and be seen as part of a broader partnership process to regenerate local communities.

## **Developing the National scene**

The links between local determinants of health, and health and social outcomes have already informed both local and national overarching policy developments. The incorporation of such understanding into the establishment of local *Policy Agreements* between Local Government and the National Assembly and the development of indicators for measuring progress on sustainable development, '*Sustainable Wales – Measuring Progress*'<sup>24</sup>, can be seen as further commitment to progress the public health agenda.

This report and the partnership working behind it will be of relevance to the developing national information agenda for Wales including the '*Health of Wales Information Service*' (HOWIS), the proposed extension of '*Neighbourhood Statistics*', the new '*Local Government Data Unit*' as part of SYNIAD and the development of the proposed '*Wales Centre for Health*'.

The dissemination of information and local research on the determinants of health to support evidence based decision making and the promotion of good practice in data collection, sharing and use will be important priorities for the future. This report provides a firm foundation on which to build both locally and across the rest of Wales.

## 1.2 The Caerphilly Health & Social Needs Study

The Caerphilly Health & Social Needs Study commenced in October 1998. The Study was designed in four stages, with the following aims and objectives.

### Aims

- (i) To achieve a greater understanding of the relationships between social, environmental and economic deprivation and health in the Caerphilly county borough, in comparison to the other boroughs in the Gwent Health Authority area, and to inform the development of local community regeneration strategies for health improvement and better targeting of resources.
- (ii) To establish a robust methodology for sharing and joint analysis of information between Gwent Health Authority and Caerphilly county borough council, and to inform the development of the health needs assessment information required for use by the Local Health Group and Local Health Alliance for developing the Health Improvement Programme.

### Objectives

#### Stage 1

- (i) To report the descriptive and comparative epidemiology of social, environmental and economic deprivation at small area level in Caerphilly county borough and the Gwent Health Authority area, sharing and integrating data from the following Health and Local Authority data sets:
  - Census data - local base statistics;
  - Local Authority data e.g. free school meals, unemployment;
  - Vital statistics (population, births and deaths);
  - Welsh Public Health Common Data set.
- (ii) To use *MapInfo* mapping software to present profiles of Gwent and the county borough of Caerphilly, to highlight areas of greatest social, economic and environmental need and health outcomes.

#### Stage 2

- (i) Further analysis of the data sets aggregated in Stage 1, to identify gaps in knowledge, highlight areas for special study and generate hypotheses on the relationship between social, environmental and economic deprivation and health within Caerphilly county borough that may be tested by further research;
- (ii) Develop research protocols and seek funding from grant awarding bodies and government agencies to carry out this work.

#### Stage 3

- (i) To undertake a population based quantitative health and lifestyle survey to obtain non-routine social, environmental and health status data to enhance knowledge and test hypotheses identified in Stage 2;
- (ii) Publish the results to inform health and social policy.

#### Stage 4

- (i) To undertake qualitative research to enhance knowledge and test hypotheses identified in Stage 2;
- (ii) Publish the results and disseminate widely.

## Progress to date

Stage 1, a review and analysis of routinely available data was published in March 1999, entitled<sup>4</sup>:

Caerphilly Health & Social Needs Study. *Stage 1: A study of socio-economic deprivation and health inequalities in Caerphilly county borough.*

As planned, the Stage 1 study has already been used by both authorities for health needs assessment, local action plans and the Gwent Health Improvement Programme to develop strategies including Children First and make bids for additional resources from a variety of funds including European Structural Funds, the New Opportunities Fund and other initiatives. Stage 1 has also served as a template for joint health & social needs assessment initiatives with other county boroughs in Gwent which are currently in progress.

This report builds on Stage 1 and seeks to create still greater understanding of the health and social needs of the local population. The new information presented in this report will prove crucial in facilitating future local decision making and will aid applications for future additional funding most notably from the Objective 1 process and the proposed new European Public Health Strategy.

Due to the complexity of identifying, extracting and processing Caerphilly county borough council data held within a variety of departments and databases, Stage 1 was only able to present a small amount of multi-agency data, concentrating on routinely available data from the 1991 census and the Welsh Public Health Common Dataset. It was originally envisaged that all the data would be described and mapped in Stage 1, leaving Stage 2 purely as an analytical report. However, since this was not possible, the objectives of Stage 2 have widened to include the objectives of Stage 1, i.e. sharing of a wide range of multi-agency data and presenting these data in choropleth maps, before undertaking statistical analysis.

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# Chapter 2    Methods

## 2.1    Sources of data

### 2.1.1 Electoral division boundary files

Data in the Stage 1 report were presented for the 36 Caerphilly and 134 Gwent 1991 census wards. Boundary re-organisation in 1998 resulted in the merger of Machen ward with Bedwas & Trethomas, Tir-Phil into New Tredegar and Abertysswg into Moriah, to create 33 Caerphilly electoral divisions and 131 Gwent electoral divisions. All data presented in this report use these electoral division boundaries. Social Services Teams are based on census ward boundaries, but these data have been processed by electoral division.

### 2.1.2 Caerphilly county borough council

New sources of data were identified from datasets held by the Chief Executive's, Education, Environmental Services & Housing and Social Services Directorates within Caerphilly county borough council. These new datasets included a wide range of means tested and non-means tested benefits, unemployment counts, educational achievement, children with special educational needs, and council tax bands.

Department of Social Security (DSS) benefits data on numbers of claimants were supplied to the Chief Executive's Directorate at electoral division level for the whole of Gwent by the Improvement and Development Agency, a government agency that works UK wide to support local government. Means tested benefits data available were Family Credit, Income Support, Income based Job Seekers Allowance and Disability Working Allowance. Due to the very small number of claimants, data on Disability Working Allowance were not used in this study. Non-means tested benefit data on Disability Living Allowance, Attendance Allowance, Long-term Incapacity Benefit and Long-term Severe Disablement Allowance were available.

We received all benefits data as number of claimants in several age group sub-categories. Dates of the data extracts received for the different benefits varied between May 1998 and March 1999. In order to avoid the problem of random variation associated with small numbers of claimants within sub-categories, we chose to present and analyse only those sub-categories where the number of claimants was large enough to allow a meaningful analysis. Appropriate denominators were extracted from the Health Authority general practice administrative *Exeter* database for April 2000, or 1991 census population counts where specific sub-classifications were necessary. Full details are shown in table 2.2 and the metadata in appendix 1.

The Chief Executive's Directorate requests aggregate electoral division data on unemployment counts from the NOMIS database (National Online Manpower Information Service). Data for April 1998 were used in this study. The economically active denominator is available from the 1991 census, but was re-estimated by Caerphilly county borough council for April 1996 by weighting the 1991 data by the ratio of the electoral roll to census population for those two years. The denominator was estimated for males aged 16 to 64 and females aged 16 to 59, but no sub-division was possible to calculate the denominator for males aged 16 to 59.

Data from the Education Directorate for the school year 1998/99 related to educational achievement at Key Stages 1, 2, 3 and 4 (GCSE), free school meal uptake and children with Special Educational Needs (SEN). In the absence of individual postcoded data, educational achievement data for the proportion of children achieving level 2+ at key stage 1 (6 to 7 year olds in Year 2, the final year of primary school) and core subject indicators at Key Stage 2 (10 to 11 year olds in Year 6, the final year

of junior school) were assigned by the Education Directorate to the electoral division of residence based on catchment populations.

Key Stage 1 data originated from schools in *Microsoft Excel* format. Key Stages 2, 3 and 4 data were supplied to Caerphilly county borough council in text format by WJEC, the Welsh Joint Education Committee. Free school meals data and the school roll denominator originated from the National Assembly for Wales' Schools Census (Stats 1) return in *Microsoft Excel*. Data on special educational needs were held by the Education Directorate in a *Foundations Systems* database.

Key Stage 3 and GCSE data were allocated to the electoral division of residence by matching the school roll for name and date of birth against an *Exeter* age-sex register download in *Microsoft Access* software to identify a postcode. 88% of pupils were allocated to an electoral division this way, the remainder 12% were matched manually. Too few cases could be matched using this method for Key Stage 3 data and it was decided the catchment population method was likely to be too inaccurate for secondary school populations. Key Stage 3 data were therefore not used in the analysis.

Data on free school meals were directly linked to the electoral division of residence using the postcode. Data on children with special educational needs were held by Caerphilly county borough council by postcode. An anonymised download was geocoded (using *Postpoint Professional* to within one metre of the property postcode centroid ) to provide an accurate grid reference for each record. The records were then displayed and linked to an *ED-Line* boundary file in *Map Info* to derive enumeration district and electoral division codes for each record.

The code of practice on the identification and assessment of special educational needs recommends the general adoption of a staged model of special educational needs. From a five stage classification, we present aggregate data for stages 3,4 & 5 where as a minimum, teachers and the special educational needs co-ordinator are supported by specialists from outside the school and where the numbers were sufficient for analysis. Full definitions for the five stage classification are given in appendix 2 and see online <http://dfes.gov.uk/sen/lea>).

The Council Tax and Benefits division supplied data on the proportion of houses in each council tax band, A to H by electoral division on 1 February 1999. Data on void council properties (a council property vacant of up to 10 weeks) and hard-to-let (vacant for over 10 weeks) properties were available but not useable at electoral division due to incomplete data. Means tested housing benefit (rented council properties only) and council tax benefit (all properties eligible, means tested) were not available in the timescale of the study.

Crime and disorder data are collated by Gwent Police by Police Beat Code. These data were incompletely postcoded and so were manually aggregated into the electoral division by the Police. Data for the period April 1998 to March 1999 were received from Gwent Police by Caerphilly county borough council on burglaries from dwellings, other burglaries, criminal damage, disorder crimes, thefts from vehicles, vehicle thefts, violent crimes and total crimes. Expressing these crime data as a rate is problematic due to the difficulty in specifying appropriate denominators. The data are recorded by place of occurrence, not by the residence of the perpetrator or victim. Burglaries per 1000 dwellings and violent crimes per 1000 population appear meaningful, but there are no readily available denominators for the other categories of crime. Despite the likelihood of numerator/denominator mismatch and hence bias, total crimes are expressed here as a rate per 1000 population.

Caerphilly county borough council has five Social Service Teams covering geographical areas aggregated from census wards, shown in table 2.1 and figure 2.1 below.

**Table 2.1 Social Service Teams and census wards**

<b>Risca Team:</b> Abercarn Cross Keys Crumlin Newbridge Risca East Risca West	<b>Blackwood Team:</b> Argoed Blackwood Cefn Forest Pengam Penmaen Pontllanfraith Ynysddu	<b>Bargoed Team:</b> Aberbargoed Bargoed Gilfach Hengoed Nelson Ystrad Mynach St Cattwg Maesycwmmer
<b>Caerphilly Team:</b> Aber Valley Bedwas & Trethomas Machen Llanbradach Morgan Jones Penyrheol St James St Martins	<b>Rhymney Team:</b> Abertysswg Darren Valley Moriah New Tredegar Pontlottyn Twyn Carno Tir-phil	

**Figure 2.1 Social Service Teams and census wards**



Social Services data were extracted from the Caerphilly Social Services Information Database (SSID), which covers all the key business functions within the Social Services Directorate: Case Management, Resource Management, Finance and Personnel. The SSID package also supports a series of sub-systems, each of which consists of a collection of modules aimed at addressing discrete business activities. A small joint working group met to establish the potential for sharing aggregate data from SSID to Gwent Health Authority. The remit was to consider the:

- ❖ Types and format of data suitable for exchange in aggregate format from SSID to Health Authority, and;
- ❖ Electronic processes for data exchange and analysis.

The process started with Caerphilly Social Services IT department using *Business Objects* as a reporting tool to manipulate, interrogate and transfer aggregate data from SSID to *Microsoft Excel*. This exercise was concerned with the approach and process for sharing aggregate data rather than consideration of the most desirable data items. Therefore, a selection of data items, were chosen to test the process.

The data items used were unique ID (created by SSID), age, sex, postcode and category. The service areas considered were referrals, assessments, placements in independent (private and voluntary sector) residential homes, placements in local authority residential homes, placements in nursing homes, home care, day care, meals on wheels, looked after children, child protection and aids and adaptations. A data file was produced for each service area, which contained one record for each contact. These data files were geocoded and electoral division codes attached. Data were aggregated to electoral division level for analysis.

When using aggregate data sets it is important to consider certain criteria before deciding whether the data file is appropriate for sharing. The two main criteria to consider are whether the:

- ❖ File contains a sufficient amount of records to maintain anonymity, and;
- ❖ Data dictionary is appropriate to ensure anonymity when linked to other available data sets or local knowledge.

As a result of applying the criteria above, it was decided not to use the file relating to child protection. This file of 216 records was considered to be too small to analyse at the small area level. As well as the problem of random variation, aggregate numbers of less than five events per electoral division could lead to identification, especially when linked to a wider knowledge base.

Electoral division crude rates per 1000 population (using the *Exeter* age-sex register April 2000) for the 9-month period from 01/04/99 to 31/12/99 were calculated for home care, meals on wheels, referrals and assessments. Data on looked after children were available by age from 0 to 21 and by social service team, but not electoral division. Residential and nursing home placements were not included in the analysis due to lack of relevant denominators and hence meaningful electoral division rates. Data on day care and aids and adaptations were not available.

The following definitions are used by Caerphilly county borough council Social Services Directorate:

Referral - the start of the assessment/care management process, where information is both given to the service user (or his/her referrer) and taken by the duty officer. The information gathered at this point will initiate the screening process, which will decide the necessity and urgency of intervention in a case. The duty officer will take full details from the referrer to ensure he/she has clear information on the difficulties encountered. This may require further contacts with other relevant people, such as carers and health service staff, to provide sufficient information for the team manager to allocate appropriately.

Assessment - the process of defining the strengths and needs of an individual, agreeing desired outcomes and deciding whether the person qualifies for assistance. It will involve the individual and their family, carers or advocates and representatives of one or more agencies. It may be undertaken by one or more people from a range of disciplines or agencies but will be recorded by the Social Services Directorate. It does not include reviews of already established need, but does include re-assessment prompted by change of circumstances.

One patient referred may subsequently undergo several assessments, so that numbers of assessments by electoral division are greater than the number of referrals. An individual may also be referred more than once in a given time period if a new problem arises after a previous assessment is completed.

Home care includes traditional home help services and services designed to assist a client to function as independently as possible and/or continue to live in their own home. Meals on wheels are hot or frozen meals served at home following an assessment by social services.

## **Gwent Health Authority**

### *Office for National Statistics*

ONS mortality data for the underlying cause of death were extracted for the years 1994-1998 for people aged under 75 years. The causes of death analysed were all-causes for males, females and persons; and coronary heart disease (ICD-9 410-414), cerebrovascular disease (430-438), respiratory (460-519), all malignant neoplasms (cancers) (140-208), lung cancer (162), breast cancer (174) and all accidents and adverse effects (E800-E949) for persons. Electoral division SMRs were estimated, standardised to the 1991 census population counts. Building on collaborative work between Gwent Health Authority, Torfaen county borough council and the Small Area Health Research Unit (SAHRU), Trinity College Dublin in a European Commission DGXIII funded Info2000 project entitled "The Interactive Well-Being Web Map" (IWWM), smoothed electoral division SMRs were estimated by SAHRU in spatial Bayesian models<sup>2</sup>.

Teenage conception data for teenagers aged 11 to 19 years for 1994-96 were presented in the Stage 1 report. From the most recent ONS data received, we have refined this variable in Stage 2 and calculated unstandardised teenage conception rates for under 16s and under 18s. These data include conceptions which lead to maternities or to abortions under the 1967 Act. They do not include conceptions resulting in spontaneous abortion during the first 23 weeks gestation nor illegal abortions. The date of conception is estimated by ONS using recorded gestation for stillbirths and abortions and assuming 38 weeks gestation for livebirths. The woman's age at conception is calculated by subtracting the date of her birth from the estimated date of conception. In the small number of cases where the woman did not supply her date of birth, a date is imputed from a comparable record. Teenage conception data relate to the electoral division of a woman's place of usual residence when the maternity or abortion took place, although there is a possibility in the case of some abortions that the informant supplied a temporary address. No information is available for electoral division of usual residence at time of conception.

Aggregate electoral division data are available from ONS for 1992-97 for under 16s and 1992-94 and 1995-97 separately for under 18s. Electoral division data are suppressed for each time period where the number of conceptions is less than three. Due to suppression in two separate time periods, data for under 18s cannot be aggregated over the complete time period of 1992-97. We therefore used data for 1995-97 and the denominator (to ONS standard definitions) from *Exeter* April 2000.

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<sup>1</sup> Gwent Health Authority. *Sustaining Health in Gwent – The Annual Report of the Director of Public Health 1999*. Pontypool, GHA, 2000.

<sup>2</sup> Kelly A. Case studies in Bayesian disease mapping for health and health service research in Ireland. In: Lawson et al (eds.) *Disease Mapping and Risk Assessment for Public Health*. Wiley: London 1999, 349-363.

### *All Wales Perinatal Survey*

Data on low birth weight, defined as less than 2500g, were extracted from a Gwent Health Authority download of the All Wales Perinatal Survey Database (AWPS) for 1994-98. Denominator data on total births was taken from the ONS birth files for the same period.

### *Welsh Cancer Intelligence and Surveillance Unit*

The Welsh Cancer Intelligence and Surveillance Unit (WCISU) supplied incidence data for all malignant neoplasms (ICD-9 140-208), lung (162), female breast (174), colo-rectal (153-154) and prostate (185) for the aggregate years 1994-98. As for SMRs, raw and smoothed standardised incidence ratios (SIRs) were estimated for 1994-98 for persons age under 75. Breast Test Wales provided electoral division data on uptake of Breast Cancer Screening for the second prevalence screening round in Wales for women aged 50 to 64. Data on final non-responders as of 7 February 2000 to an invitation for women aged 20 to 64 for a cervical smear in 1998 was provided by Health Solutions Wales. The data used in the analyses are the proportion of women in each electoral division NOT screened.

### *1991 Census*

1991 Census data were downloaded from C91 Census software as defined in the Stage 1 report. The modified Townsend Overall Health Index (OHI) was re-calculated standardised to Gwent, based on % low birth weight, standardised limiting long term illness (SLLTI), population base 1991 census, and smoothed all-cause SMR for persons aged under 75. Census data definitions from Stage 1, including the method of calculation of the Townsend index of deprivation are repeated in appendix 3 of this report.

### *Hospital activity data*

Gwent Health Authority is currently undertaking an Acute Services Review. It was therefore decided inappropriate to present an analysis of hospital activity data in this report.

### *Commercial Income and Geodemographic and marketing classification datasets*

Gross household income data for 1998 had been purchased previously from a commercially available source (Paycheck - see CACI online: <http://www.caci.co.uk>) which models household income at postcode, enumeration district and electoral division level using a variety of databases including census, lifestyle data and market research.

Two commercially produced geodemographic classification data sets were also purchased: Super Profiles (1999) and ACORN (1999). These are both produced at the enumeration district level.

Super Profiles (Claritas – see online: <http://www.claritas.com>) are a geodemographic classification of households categorised into 10 lifestyle groups based on 1991 census characteristics of the neighbourhood of location and credit and market research information. These 10 lifestyle groups are further sub-divided into 40 target markets and 160 clusters.

The ACORN classification (CACI – see online: <http://www.caci.com>) has developed from a classification of 11 neighbourhood types based on housing characteristics into a geodemographic consumer and marketing profiling tool of six categories sub-divided into 54 groups.

Full details are given in appendix 4.

## Domains

We classified each of the new multi-agency data sets into one of seven domains: Income, Unemployment, Health, Education, Housing, Crime & Disorder and Social Services. Table 2.2 provides a summary of the data used in the analysis. It shows the classification we have used for the domains and sub-domains, the abbreviated variable name, the time period, the data definition and denominator used in the study. Full details are to be found in the metadata summary in appendix 1.

## Metadata

Following an assessment of the utility of the various European metadata standards, the National Geospatial Data Framework (see online: <http://www.ngdf.org>) standards were adopted for use in the Info2000 IWWM project and the Caerphilly Study since they facilitated the most useful description of spatial data sets. A *Microsoft Access* database written as part of the IWWM project was used this Stage 2 study to fully describe the data. These metadata are given in full in appendix 1.

**Table 2.2** *Summary table of data at electoral division level*

Domain	Sub-domain	Variable	Year	Denominator	Abbreviation
Income	Gross household income	% less than £5,000 pa	1998	All households (1991 census)	5K
		% less than £10,000 pa	1998	All households (1991 census)	10K
	Income benefits	% households with children aged 0-15 claiming family credit	March 1999	All households with dependent children (1991 census)	FC
		% children aged 0-15 in family credit households	March 1999	Children 0-15 (GHA Exeter April 2000)	FC_15
		% persons aged 16+ claiming income support	August 1998	Persons 16+ (GHA Exeter April 2000)	IS
		% persons aged 60+ claiming income support	August 1998	Persons 60+ (GHA Exeter April 2000)	IS_60
		% children aged 0-15 in income support households	August 1998	Children 0-15 (GHA Exeter April 2000)	IS_15
		% persons claiming income based job seekers allowance	August 1998	Total economically active population (CCBC 1996)	JSA
		% children 0-15 in income based job seekers allowance households	August 1998	Children 0-15 (GHA Exeter April 2000)	JSA_15
		% free school meals	School year 1998/99	All children aged 4-16 on school roll (NAfW)	Meals
Unemployment	Unemployed	% male	April 1998	Economically active aged 16-64 (CCBC)	Un_m
		% female	April 1998	Economically active aged 16-59 (CCBC)	Un_f
		% total	April 1998	Total economically active population (CCBC)	Un_t

Domain	Sub-domain	Variable	Year	Denominator	Abbreviation
Health	Disability	Standardised limiting long term illness	1991	Residents (1991 Census)	SLLTI
		% permanent sickness	1991	Persons in households (1991 Census)	Sick
		% persons claiming disability living allowance	May 1998	Population aged under 65 (GHA Exeter April 2000)	DLA
		% persons claiming attendance allowance	May 1998	Population aged 65+ (GHA Exeter April 2000)	AA
		% persons claiming long term incapacity benefit	Dec 1998	Population aged 16-64 (GHA Exeter April 2000)	IB
		% persons claiming long term severe disablement allowance	Dec 1998	Population aged 16-64 (GHA Exeter April 2000)	SDA
	Cancer incidence	Smoothed standardised Incidence ratio (SSIR) -all cancers ICD9 140-208	1994-98	Residents (1991 Census)	SIR_cancer
		SSIR Lung (162)	1994-98	Residents (1991 Census)	SIR_lung
		SSIR Breast (174)	1994-98	Residents (1991 Census)	SIR_breast
		SSIR Colo-rectal (153-154)	1994-98	Residents (1991 Census)	SIR_colo
		SSIR Prostate (185)	1994-98	Residents (1991 Census)	SIR_prost
	Cancer screening	% breast not screened	Second prevalence round	Women aged 50-64 in second prevalence round	Scr_breast
		% cervix final non-responder	1998	Women aged 20-64 (GHA Exeter April 1998)	Scr_cx
	Mortality	Smoothed standardised mortality ratio (SSMR) - all cause - persons	1994-98	Residents (1991 Census)	S_pers
		SSMR all cause – male	1994-98	Residents (1991 Census)	S_male
		SSMR all cause – female	1994-98	Residents (1991 Census)	S_fem
		SSMR coronary heart disease (410-414)	1994-98	Residents (1991 Census)	S_chd
		SSMR cerebrovascular (430-438)	1994-98	Residents (1991 Census)	S_cvd
		SSMR respiratory (460-519)	1994-98	Residents (1991 Census)	S_resp
		SSMR accidents & adverse effects (E800-E949)	1994-98	Residents (1991 Census)	S_acc
		SSMR all cancer (140-208)	1994-98	Residents (1991 Census)	S_cancer
		SSMR lung cancer (162)	1994-98	Residents (1991 Census)	S_lung_c
		SSMR breast cancer (174)	1994-98	Residents (1991 Census)	S_breast
	LBW	% low birth weight <2500g	1994-98	Total live and stillbirths 1994-98 (ONS)	LBW
	Teenage conceptions	Teenage conceptions under 16 <sup>a</sup> (girls aged 11-15, including a few under 11)	1992-97	Girls aged 13-15 (GHA Exeter April 2000)	TC16
		Teenage conceptions under 18 <sup>a</sup> (girls aged 11-17, including a few under 11)	1995-97	Girls aged 15-17 (GHA Exeter April 2000)	TC18
	Overall Health	Modified Townsend Overall Health Index	SMR/LBW: 1994-98; SLLTI: 1991	As for each individual variable	OHI

a= expressed as rate per 1000

Domain	Sub-domain	Variable	Year	Denominator	Abbreviation
Education	Achievement	% achieving Key Stage 1 level 2+	School year 1998/99	Total children in year group (NAfW)	KS1
		% achieving Key Stage 2 core subject indicators	School year 1998/99	Total children in year group (NAfW)	KS2
		% achieving Key Stage 4 (5+ GCSEs A-C)	School year 1998/99	Total children in year group (NAfW)	GCSE
	Special Educational Needs	% children aged 4-16 with Special Educational Needs in groups 3-5	School year 1998/99	Total children in year group (NAfW)	SEN
Housing	Council Tax Bands	% households in bands A & B	Feb 1999	All households paying council tax (CCBC)	AB
		% households in bands G & H	Feb 1999	All households paying council tax (CCBC)	GH
Crime & Disorder		Burglaries <sup>a</sup>	Apr 1998-Mar 1999	Dwellings (1991 census)	Burg
		Violent crimes <sup>a</sup>	Apr 1998-Mar 1999	Total population (GHA <i>Exeter</i> April 2000)	Violent
		Total crimes <sup>a</sup>	Apr 1998-Mar 1999	Total population (GHA <i>Exeter</i> April 2000)	Crime
Social services		Referrals all ages <sup>a</sup>	Apr -Dec 1999	Total population (GHA <i>Exeter</i> April 2000)	Ref_all
		Referrals 0-14 <sup>a</sup>	Apr -Dec 1999	Population 0-14 (GHA <i>Exeter</i> April 2000)	Ref_14
		Referrals 15-64 <sup>a</sup>	Apr -Dec 1999	Population 15-64 (GHA <i>Exeter</i> April 2000)	Ref_1564
		Referrals 65+ <sup>a</sup>	Apr -Dec 1999	Population 65+ (GHA <i>Exeter</i> April 2000)	Ref_65
		Assessments all ages <sup>a</sup>	Apr -Dec 1999	Total population (GHA <i>Exeter</i> April 2000)	Assess
		Assessments 0-14 <sup>a</sup>	Apr -Dec 1999	Population 0-14 (GHA <i>Exeter</i> April 2000)	Ass_14
		Assessments 15-64 <sup>a</sup>	Apr -Dec 1999	Population 15-64 (GHA <i>Exeter</i> April 2000)	Ass_1564
		Assessments 65+ <sup>a</sup>	Apr -Dec 1999	Population 65+ (GHA <i>Exeter</i> April 2000)	Ass_65
		Home care <sup>a</sup>	Apr -Dec 1999	Population 65+ (GHA <i>Exeter</i> April 2000)	HC
		Meals on wheels <sup>a</sup>	Apr -Dec 1999	Population 65+ (GHA <i>Exeter</i> April 2000)	MOW

a= expressed as rate per 1000

## 2.2 Analysis

### Data validation

The data received from Caerphilly county borough council were validated as far as possible to identify missing or unlikely values in range checks. Once cleansed, data were added to the final dataset. It was not possible to check the original accuracy of the source data where these data were received from the Improvement & Development Agency, NOMIS or Gwent Police. Extensive checking of rate and ratio calculations was undertaken. All health authority data were extensively checked for accuracy.

### Disease mapping

Relevant denominators (shown in table 2.2) were chosen to convert Caerphilly county borough council data on numbers of claimants into percentages for each electoral division. As in Stage 1, choropleth maps are shown in chapter 3 to describe and present the data to provide a visual impression of the distribution of the data within Caerphilly borough. All variables are mapped except for Key Stage 1 and 2, for which the Education Directorate withheld permission. Where all-Gwent data were available, these were mapped to allow comparison of Caerphilly to the rest of Gwent.

Interpretation of disease maps is not straightforward and can be influenced by choice of scale, symbol and colours<sup>3</sup>. We have presented each map with a consistent scale that divides the distribution of the variable of interest into equal fifths presented in a consistent colour shading scheme. Each map is accompanied by a description and definition of the variable and a table showing the variable value for each electoral division in Caerphilly borough and rank within Gwent.

### Statistics

Descriptive statistics (mean, standard deviation, minimum and maximum values, median and interquartile range) were calculated for each variable.

The relationships between the Townsend index and the variables within each domain were explored using Spearman's rank correlation coefficient to avoid making assumptions about the distributions of the data. Relationships within and between domains were also explored using Spearman's rank correlation coefficient and grouped into three themes; children in families, adults of working age and the elderly.

Super Profiles and ACORN were assessed by firstly choropleth mapping at enumeration district level (they are not modelled to electoral division level) and secondly by investigation of the distributions of the Townsend index, gross household income of less than £5,000 pa and £10,000 pa, standardised LLTI, permanent sickness, lone parent households and elderly living alone variables within each of the Super Profiles and ACORN sub-classifications.

All analysis was undertaken in *SPSS version 8*, and maps prepared in *MapInfo version 6*.

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<sup>3</sup> Lawson AB, Williams FLR. *An Introductory Guide to Disease Mapping*. Chichester: Wiley, 2001.

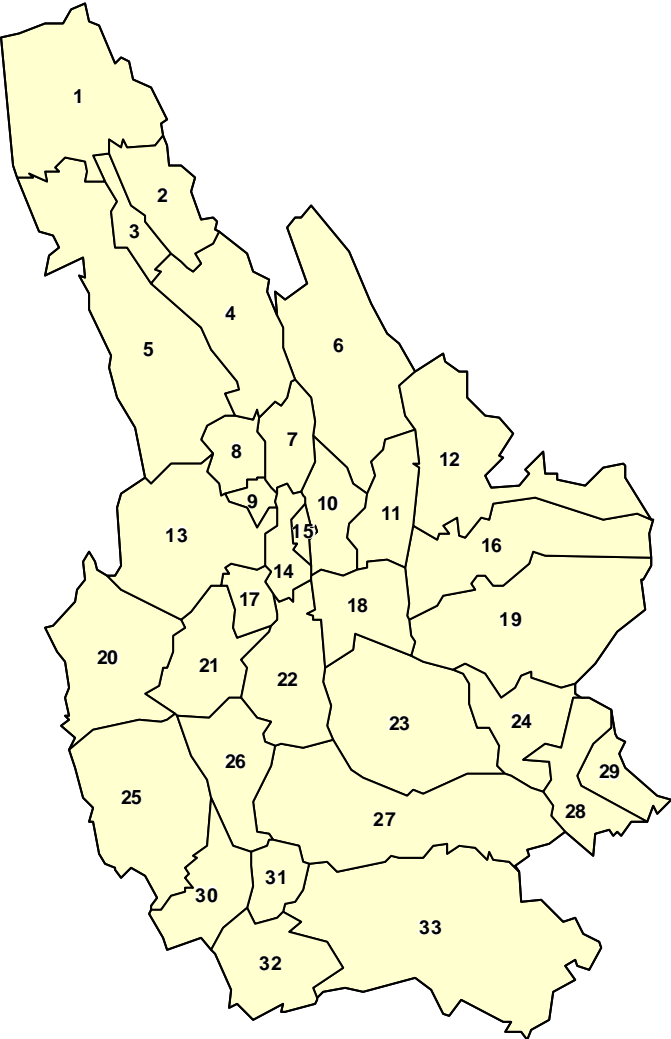
## **Chapter 3    Atlas of multi-agency data**

**Figure 3.0.1 Gwent Health Authority area**



Figure 3.0.1 shows the five County Boroughs within the Gwent Health Authority area.

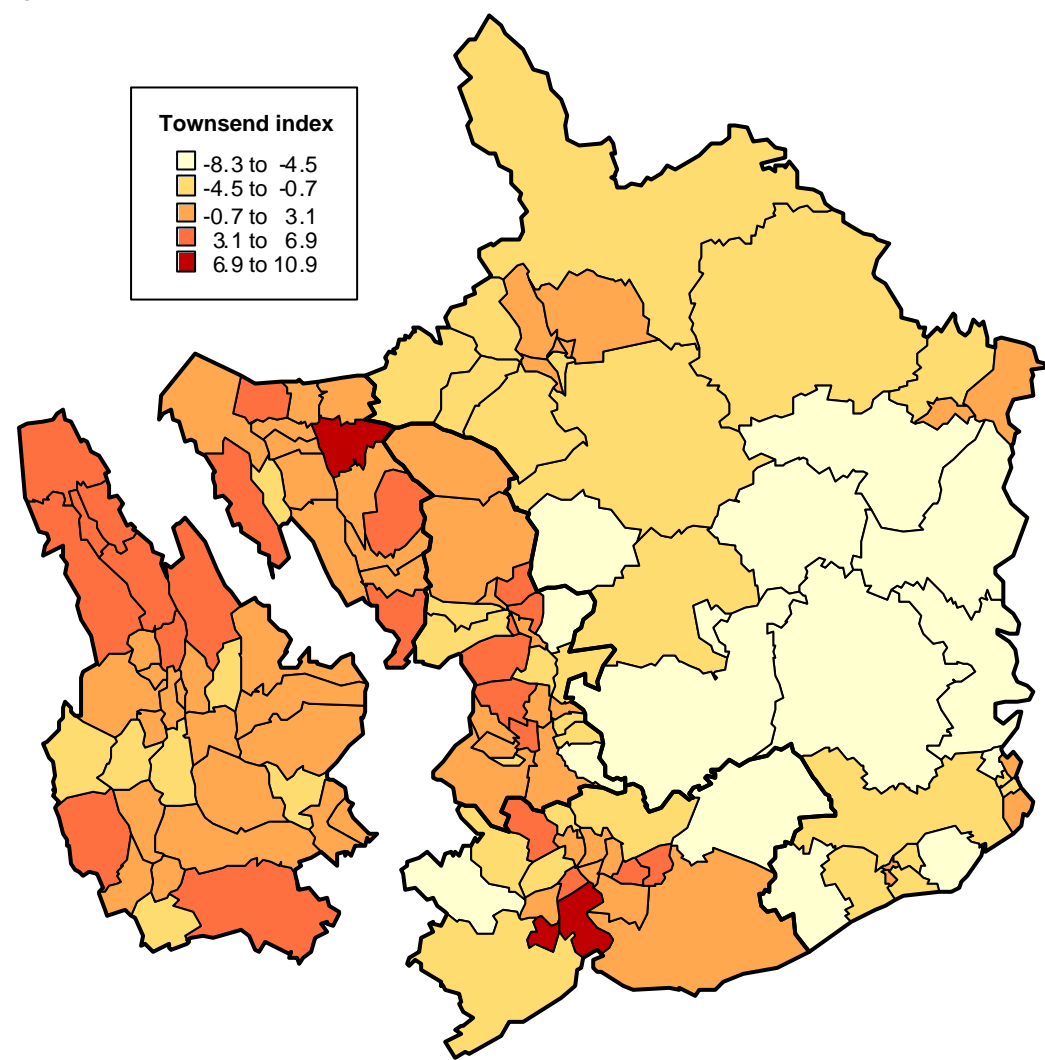
**Figure 3.0.2** *Caerphilly county borough electoral divisions*



No.	Electoral Division	No.	Electoral Division
1	Twyn Carno	18	Pontllantraith
2	Moriah	19	Abercarn
3	Pontlloftyn	20	Nelson
4	New Tredegar	21	Ystrad Mynach
5	Darran Valley	22	Maesycwmmmer
6	Argoed	23	Ynysddu
7	Aberbargoed	24	Crosskeys
8	Bargoed	25	Aber Valley
9	Gilfach	26	Llanbradach
10	Blackwood	27	Bedwas Trethomas & Machen (BT&M)
11	Penmaen	28	Risca West
12	Crumlin	29	Risca East
13	St Cattwg	30	Penyrheol
14	Pengam	31	Morgan Jones
15	Cefn Fforest	32	St Martins
16	Newbridge	33	St James
17	Hengoed		

Figure 3.0.2 shows the 33 electoral divisions in Caerphilly county borough.

Figure 3.1.1 Townsend index of deprivation: electoral divisions



Electoral Division	Score	Gwent rank	Electoral Division	Score	Gwent rank
Moriah	6.0	5	Crumlin	0.7	56
Aberbargoed	6.0	6	Pengam	0.6	58
Twyn Carno	5.5	8	Newbridge	0.0	67
Pontlottyn	4.8	12	Morgan Jones	-0.1	70
Darran Valley	4.1	15	Risca East	-0.2	72
New Tredegar	4.0	16	Ynysddu	-0.2	73
St. James	3.6	19	Abercarn	-0.2	75
Aber Valley	3.4	23	Risca West	-0.3	76
Argoed	3.3	26	Llanbradach	-0.4	78
Bargoed	2.8	28	Blackwood	-0.6	80
Hengoed	2.7	31	Crosskeys	-0.8	83
Cefn Fforest	2.3	33	Maesycwmmmer	-1.4	87
St.Cattwg	1.5	41	Nelson	-1.5	88
BT&M	1.4	45	Penmaen	-2.0	90
Pontllanfraith	1.1	49	Ystrad Mynach	-3.0	104
Gilfach	0.8	53	St. Martins	-3.5	108
Penyrheol	0.8	55			

The Townsend index of social and material deprivation is calculated from unemployment, car ownership, housing tenure and overcrowding census data. The variables are combined to produce an index standardised to the area of study (in this case, Gwent). Scores which are greater than zero indicate higher than average deprivation in Gwent, scores below zero indicate areas that are less deprived than average (see appendix 2).

Figure 3.1.1 shows that the Upper Rhymney Valley electoral divisions as well as Aber Valley and St James are among the most deprived in Gwent.

Source: Census 1991

**Figure 3.1.2 Townsend index of deprivation: enumeration districts**

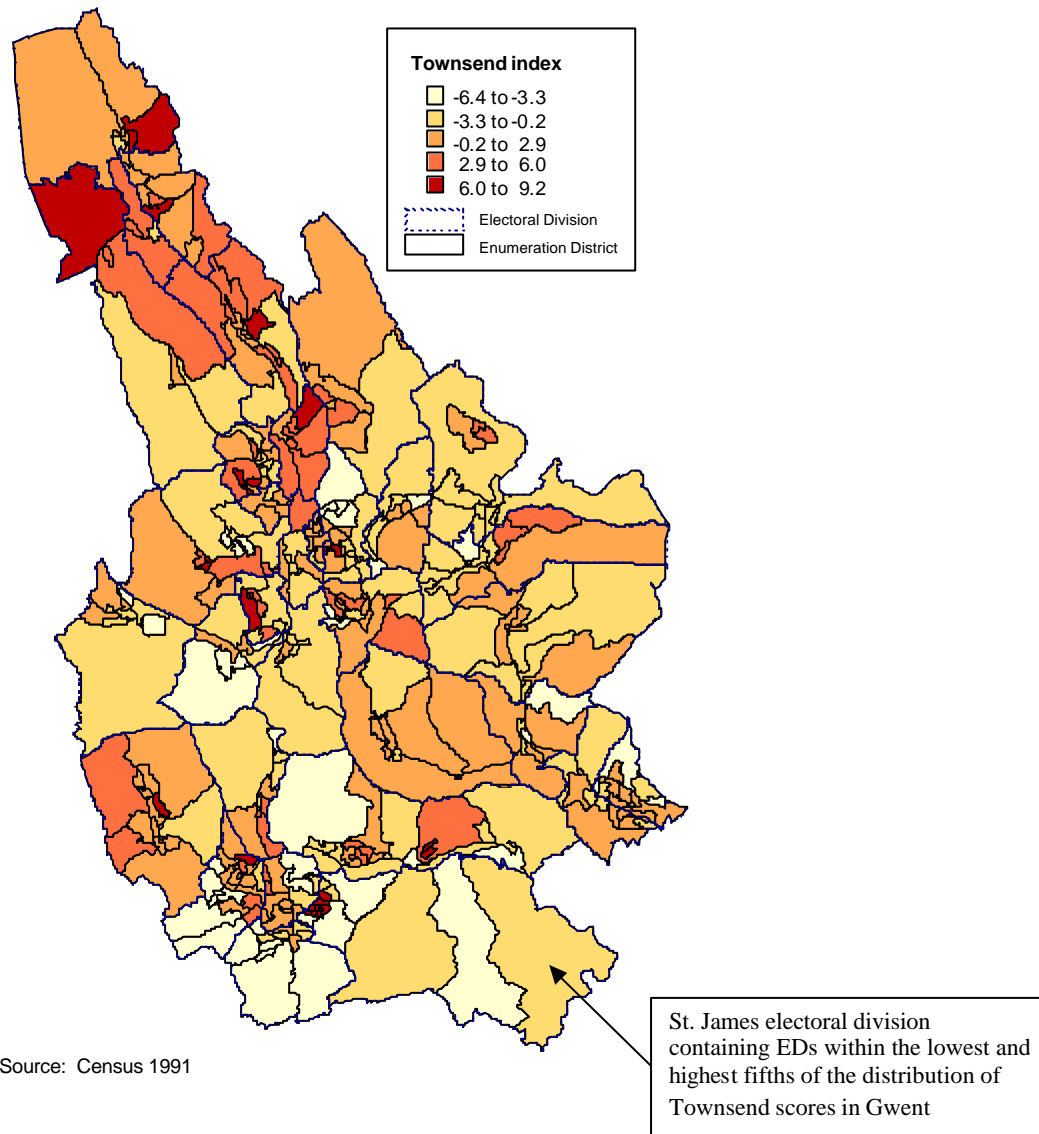
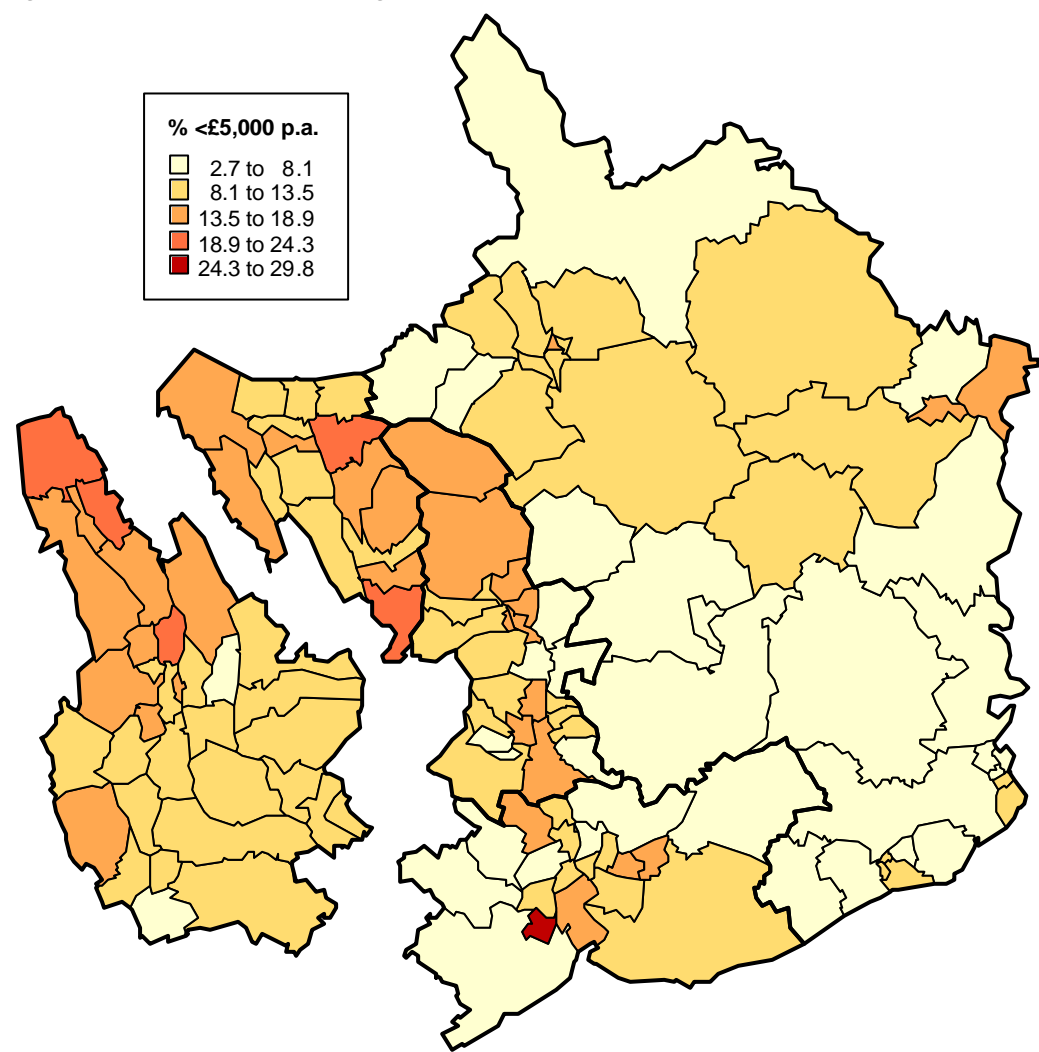


Figure 3.1.2 shows the Townsend index for the 325 enumeration districts in the Borough. It reveals the heterogeneity (or variation) in small area deprivation that exists *within* electoral divisions. The St James electoral division in the South of the Borough is a good example. It contains fourteen enumeration districts, eight of which are less deprived than the Gwent average. However, the remaining six, which form the Lansbury Park estate, are among the most deprived in Gwent.

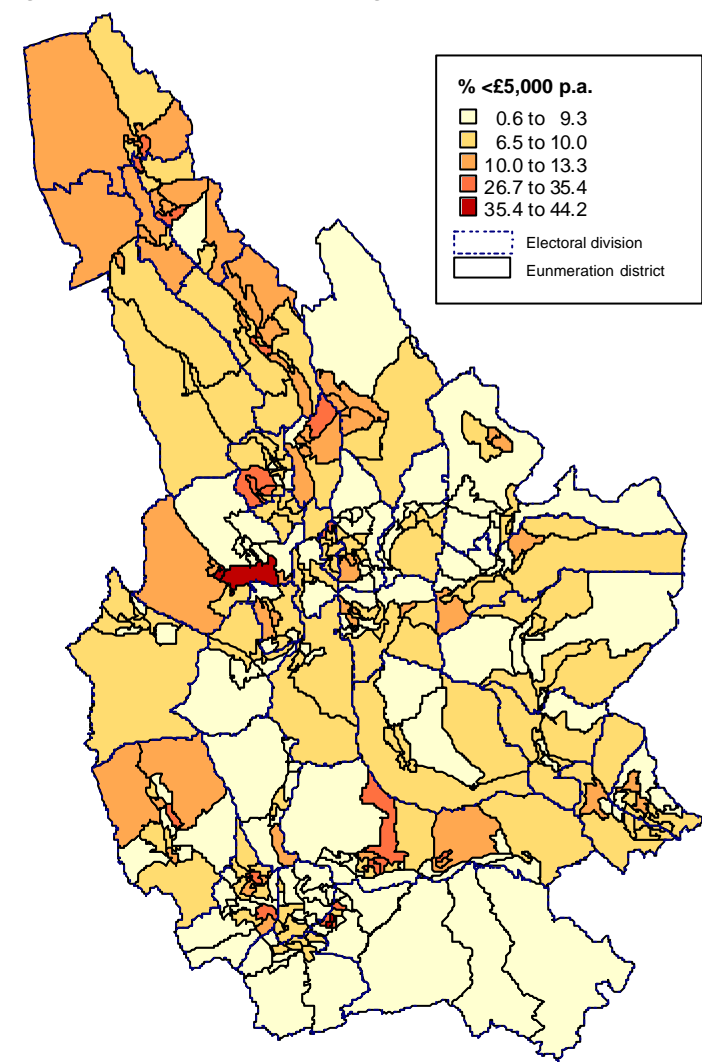
Figure 3.2.1 % households with gross annual income <£5,000



Electoral Division	%	Gwent rank	Electoral Division	%	Gwent rank
Twyn Carno	20.5	3	Risca West	11.9	56
Moriah	20.0	4	Gilfach	11.8	58
Aberbargoed	19.0	6	Ynysddu	11.1	65
New Tredegar	18.3	10	Risca East	10.7	69
Pontlloftyn	16.9	17	Crosskeys	10.7	70
Argoed	16.7	18	St. James	10.5	71
Cefn Fforest	16.0	20	Blackwood	10.0	76
Darran Valley	14.8	25	Abercarn	10.0	77
Aber Valley	14.1	27	Crumlin	9.6	79
St.Cattwg	14.0	28	Nelson	9.6	81
Bargoed	13.9	32	Maesycwmmer	9.5	83
Hengoed	13.9	33	Ystrad Mynach	9.4	86
Pontllanfraith	13.4	38	Morgan Jones	8.9	87
BT&M	13.4	40	Llanbradach	8.5	91
Newbridge	12.8	46	St. Martins	7.8	103
Pengam	12.3	49	Penmaen	7.6	105
Penyrheol	11.9	55			

Figure 3.2.1 shows that electoral divisions with a high proportion of low income households tend to be concentrated in the former mining areas of Caerphilly, Blaenau Gwent and North Torfaen, with areas also in Newport.

**Figure 3.2.2 % households with gross annual income <£5,000: Caerphilly enumeration districts**



Comparison of the electoral division data shown in figure 3.2.1 with the enumeration district data shown in this figure 3.2.1 highlights the within electoral division variation that exists in the proportion of households with gross annual income of less than £5000. The range of these enumeration district low income data is notable, from 0.6% to over 40% of households in some enumeration districts in the borough.

Figure 3.2.3 % households with gross annual income <£10,000

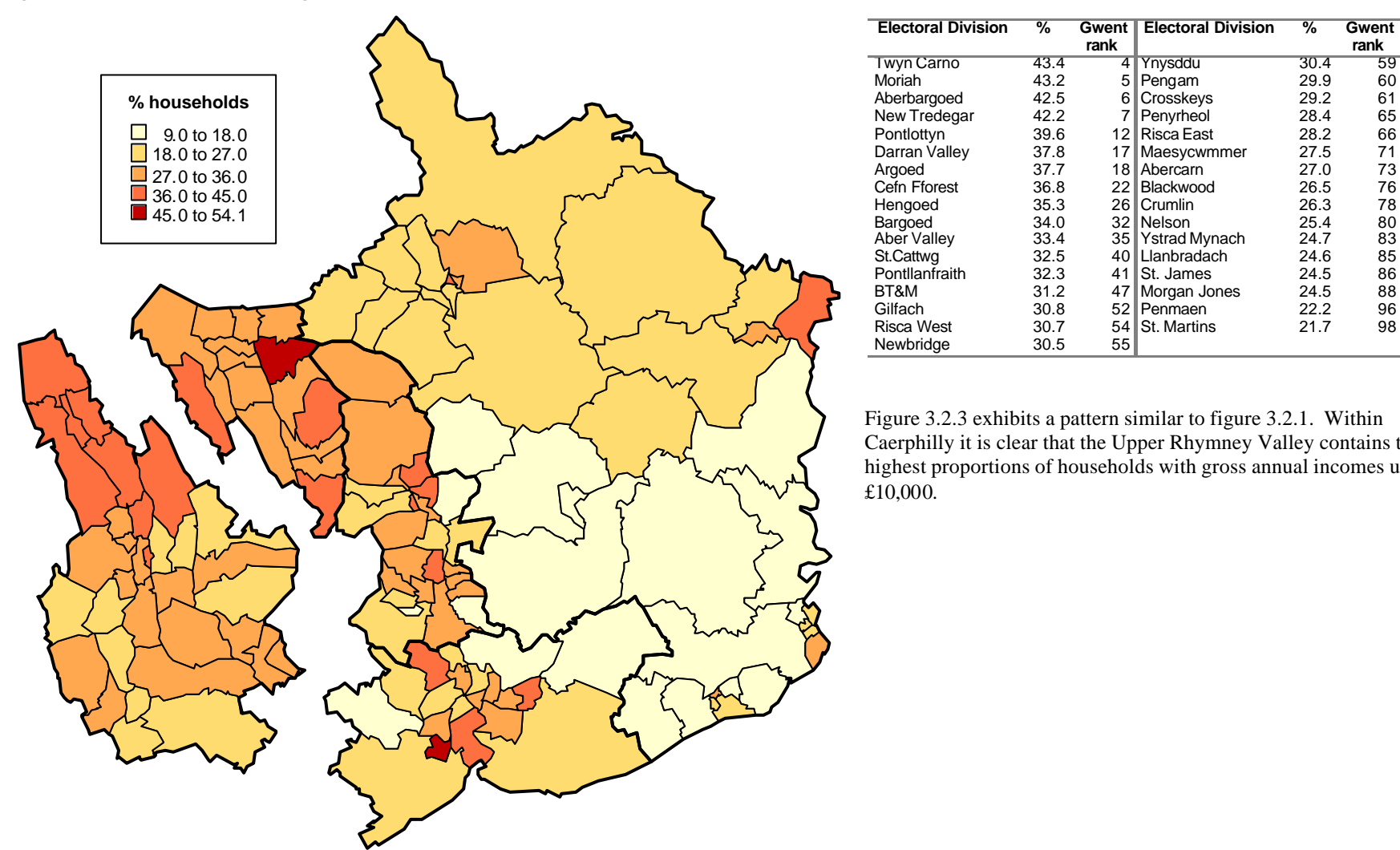


Figure 3.2.3 exhibits a pattern similar to figure 3.2.1. Within Caerphilly it is clear that the Upper Rhymney Valley contains the highest proportions of households with gross annual incomes under £10,000.

Source: CACI

Figure 3.2.4 % households with gross annual income <£10,000: Caerphilly enumeration districts

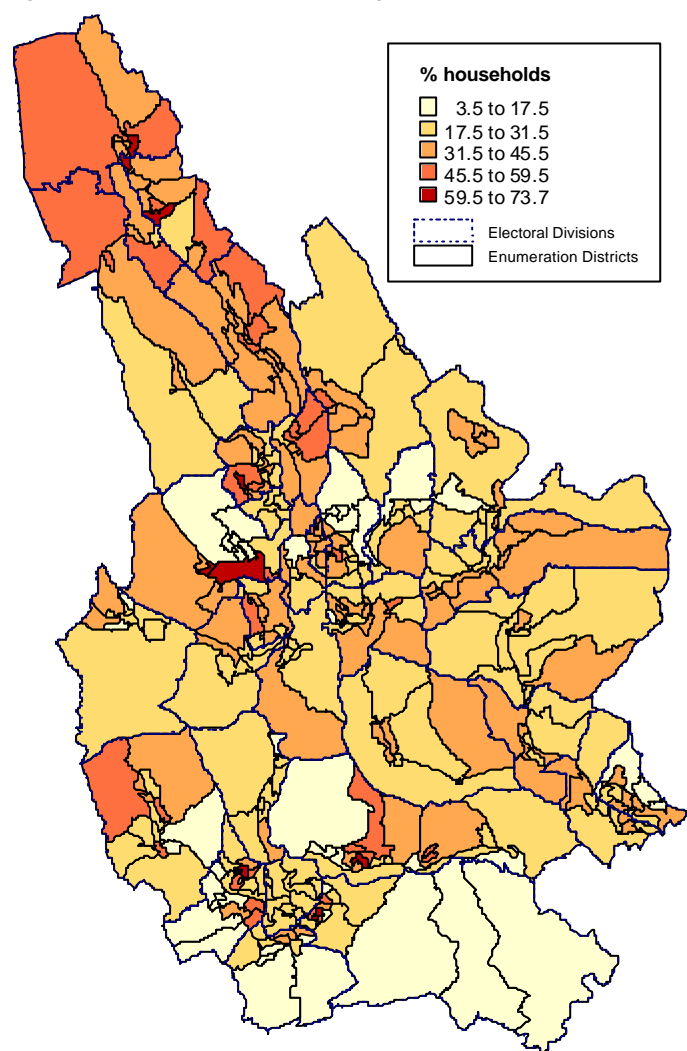
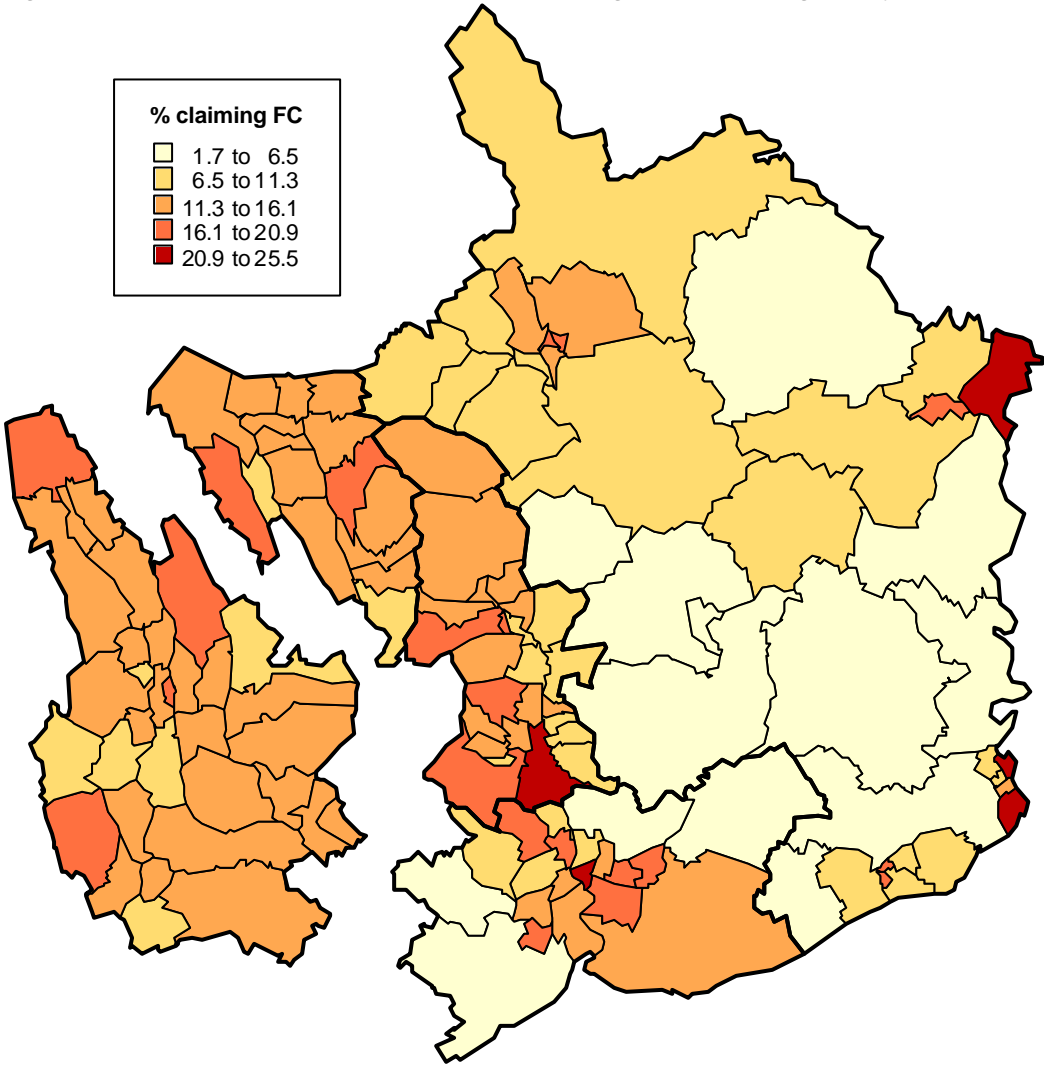


Figure 3.2.4 shows the same data as figure 3.2.3 but at enumeration district level for Caerphilly county borough only. The enumeration districts with the highest proportions of households on gross annual incomes of under £10,000 are scattered throughout the borough from Caerphilly, Graig-y-Rhacca and Lansbury Park in the South to Rhymney in the North.

Figure 3.2.5 % households with dependent children aged 0-15 claiming Family Credit, 1999

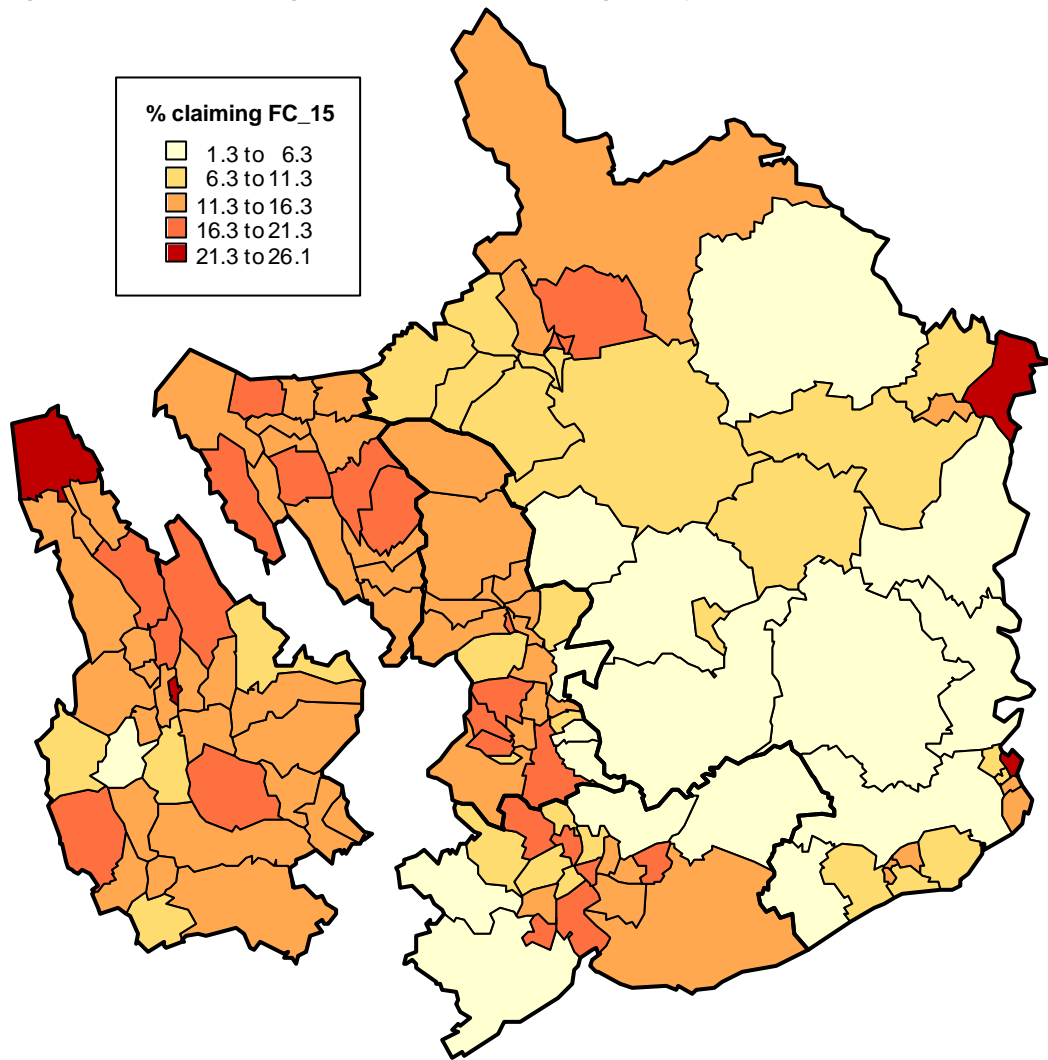


Electoral Division	%	Gwent rank	Electoral Division	%	Gwent rank
Argoed	20.3	6	St. Cattwg	12.5	62
Twyn Carno	18.5	14	Newbridge	12.4	64
Aber Valley	18.3	17	Penyrheol	12.3	65
Cefn Fforest	17.4	20	Hengoed	12.2	67
Risca West	15.7	28	Pontlloftyn	12.2	69
Aberbargoed	15.4	32	Crosskeys	12.2	70
Darran Valley	15.3	33	St. James	12.1	72
Llanbradach	15.1	36	Pontllanfraith	12.0	74
Ynysddu	15.1	37	Bargoed	11.6	78
New Tredegar	14.8	38	Penmaen	11.5	81
Abercam	14.4	43	Nelson	10.9	84
Morgan Jones	13.8	49	Gilfach	10.7	86
Blackwood	13.6	51	Maesycwmmmer	8.9	95
Risca East	13.3	54	St. Martins	8.8	97
Moriah	13.0	56	Crumlin	8.3	100
Pengam	12.8	58	Ystrad Mynach	7.3	112
BT&M	12.6	60			

Family Credit is a benefit for working people on a low or moderate income who are bringing up children. Either parent must be working for 16 hours or more per week. Two or one parent families, employees and the self employed are eligible to claim. This benefit has now been replaced by the Working Families Tax Credit.

Figure 3.2.5 shows the proportion of households with dependent children who are claiming Family Credit. The time lag between the 1991 Census denominator and the 1998 numerator means that the data should be treated with caution. However population changes between 1991 and 1998 are unlikely to substantially change the overall interpretation of these data.

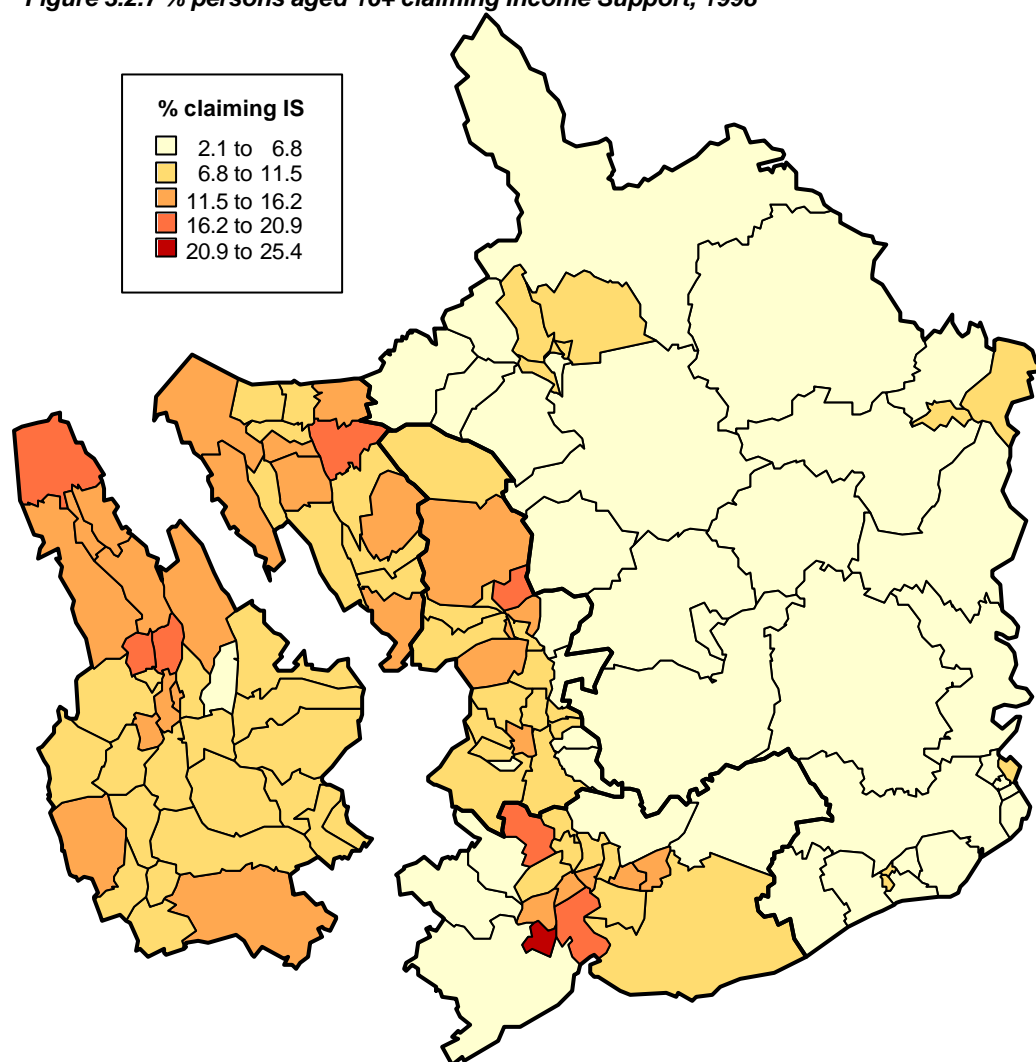
Figure 3.2.6 % children aged 0-15 in families claiming Family Credit, 1999



Electoral Division	%	Gwent rank	Electoral Division	%	Gwent rank
Cefn Fforest	23.9	2	Risca West	13.7	65
Twyn Carno	21.8	4	Pontlloftyn	13.5	66
Argoed	19.6	9	Blackwood	13.2	69
Aber Valley	18.6	15	Gilfach	13.0	71
Aberbargoed	17.7	19	Pengam	13.0	72
Ynysddu	17.6	21	St. Cattwg	13.0	73
New Tredegar	16.5	28	Bargoed	12.6	76
Abercam	15.7	31	Hengoed	12.5	78
Darran Valley	15.7	33	BT&M	12.4	79
St. James	15.6	35	Crosskeys	12.3	81
Risca East	15.4	39	Morgan Jones	12.3	82
Moriah	15.2	43	Nelson	11.2	88
Llanbradach	15.2	44	Maesycwmmmer	9.5	98
Newbridge	14.6	50	Crumlin	9.2	100
Pontllanfraith	14.1	55	St. Martins	8.5	103
Penmaen	14.1	56	Ystrad Mynach	6.2	115
Penyrheol	13.7	64			

Figure 3.2.6 shows the proportion of children aged 0-15 living in families claiming family credit. A similar pattern to the proportion of households with dependent children claiming Family Credit shown in figure 3.2.5 is shown.

Figure 3.2.7 % persons aged 16+ claiming Income Support, 1998

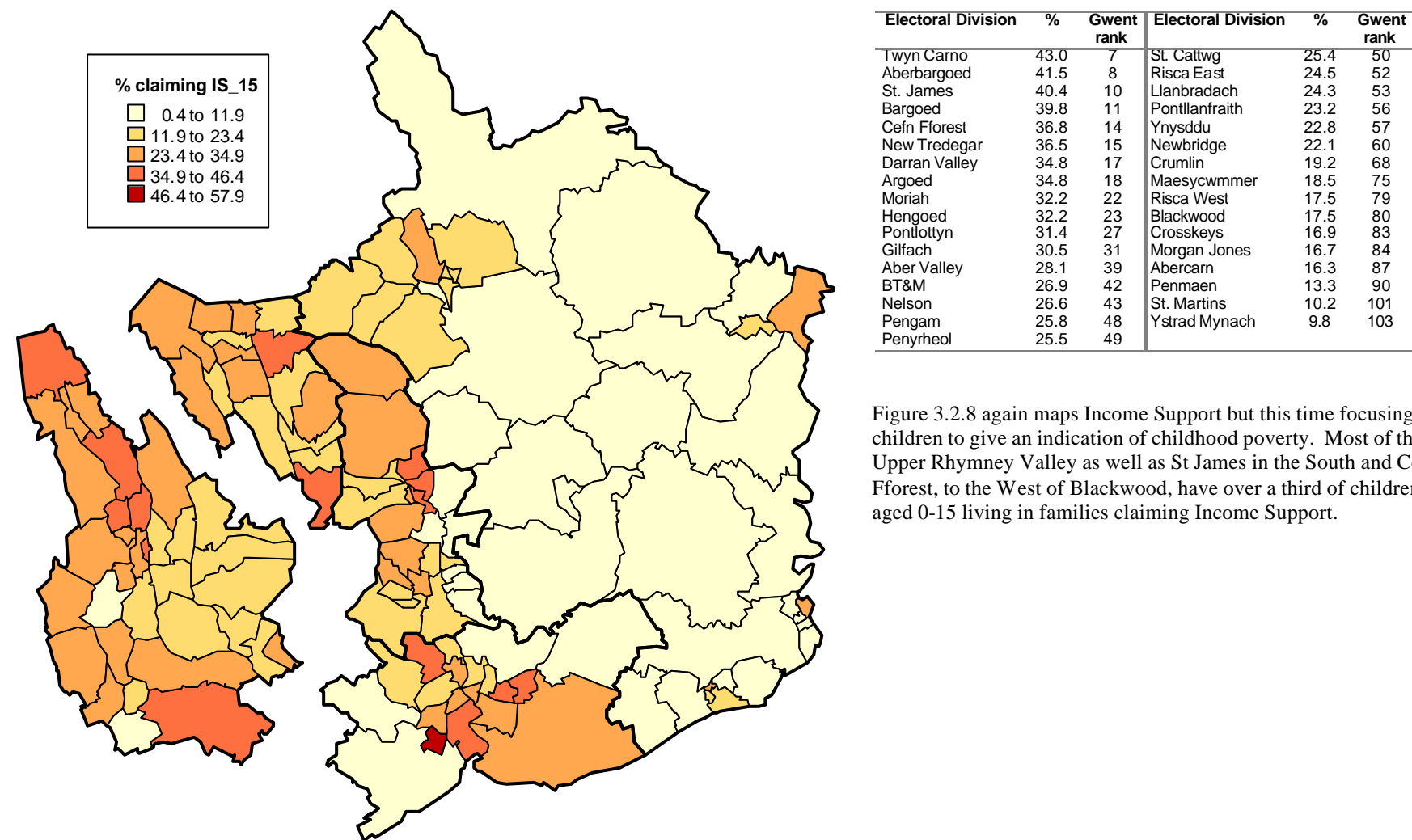


Electoral Division	%	Gwent rank	Electoral Division	%	Gwent rank
Twyn Carno	19.9	3	Nelson	10.5	49
Aberbargoed	16.7	7	Penyrheol	10.5	50
Bargoed	16.4	8	Pontllanfraith	10.1	55
St. James	15.9	9	Llanbradach	10.0	56
New Tredegar	15.5	11	Risca West	9.9	57
Pontllytyn	15.0	13	Newbridge	9.7	58
Moriah	15.0	14	Crosskeys	9.6	62
Hengoed	14.5	17	Blackwood	9.4	65
Cefn Fforest	14.3	19	Risca East	9.2	66
Argoed	13.8	20	Maesycwmmer	9.0	70
Aber Valley	12.9	26	Morgan Jones	8.9	71
Darran Valley	12.6	31	Crumlin	8.7	74
Pengam	11.8	34	Abercarn	7.7	82
BT&M	11.2	38	Ystrad Mynach	7.3	87
St. Cattwg	11.1	41	St. Martins	7.0	90
Gilfach	10.9	43	Penmaen	6.0	98
Ynysddu	10.5	48			

Income Support provides financial help for certain people who are working for less than 16 hours per week (less than 24 hours per week in the case of a partner) whose income, from all sources, is below a minimum level set by Parliament. For each claimant this is their individually assessed *applicable amount*. Claimants must be aged 16 and over. A person claiming this benefit is not required to be available for work because, for example, they are sick, disabled, a lone parent, aged 60 or over, getting Invalid Care Allowance, or pregnant and within 11 weeks of the expected date of confinement. Income Support is an income-related benefit. This means that the amount received depends on an individual's financial resources such as earnings or savings. The payment bridges the gap between current finances and the applicable amount.

Figure 3.2.7 shows that Twyn Carno, at the top of the Rhymney Valley, has the highest percentage of persons in receipt of Income Support in the borough. Most of the Upper Rhymney Valley has relatively high percentages of persons receiving this benefit as well as St James in the South. This is a mixed area incorporating affluent areas such as Rudry and Draethen, but also the deprived Lansbury Park estate on the eastern edge of the town of Caerphilly.

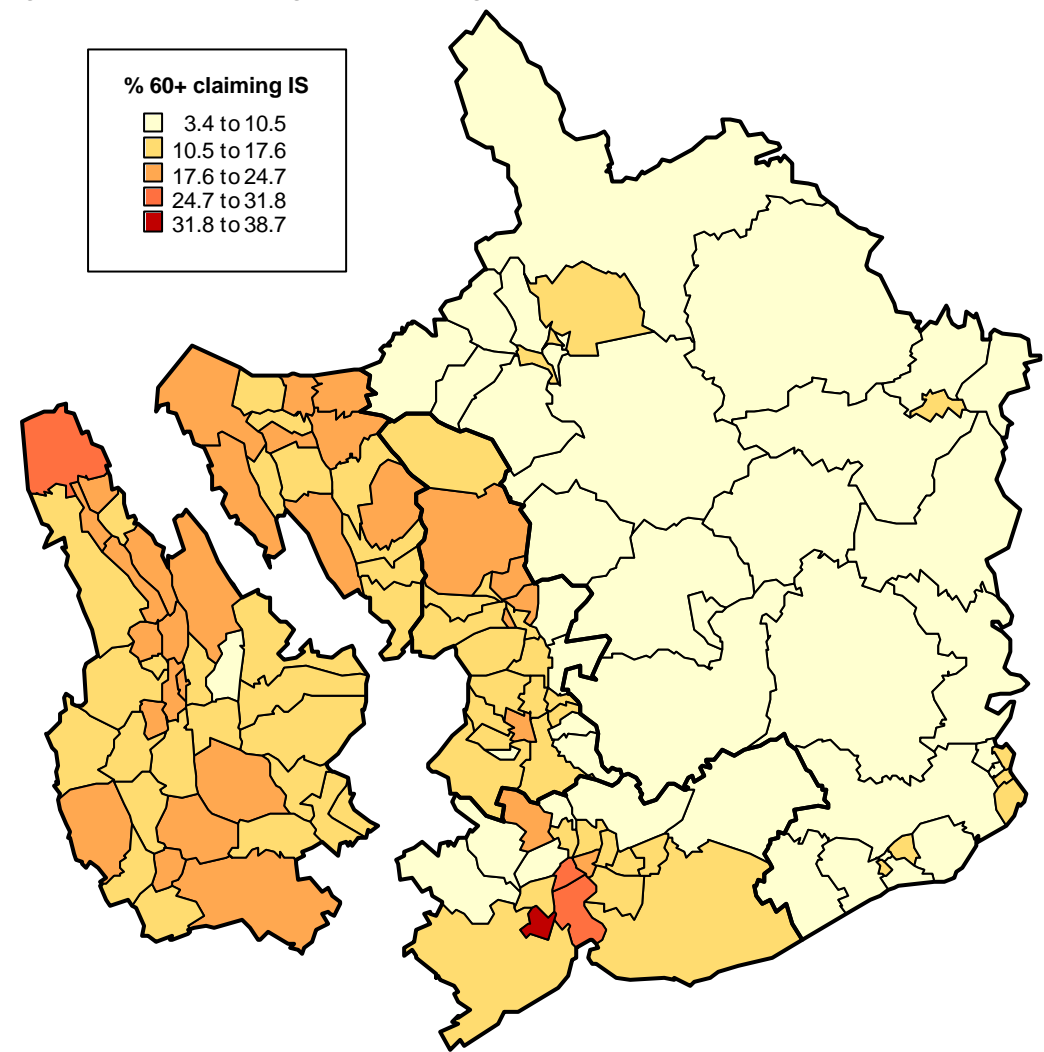
Figure 3.2.8 Children aged 0-15 living in families claiming Income Support, 1998



Source: DSS

Figure 3.2.8 again maps Income Support but this time focusing on children to give an indication of childhood poverty. Most of the Upper Rhymney Valley as well as St James in the South and Cefn Fforest, to the West of Blackwood, have over a third of children aged 0-15 living in families claiming Income Support.

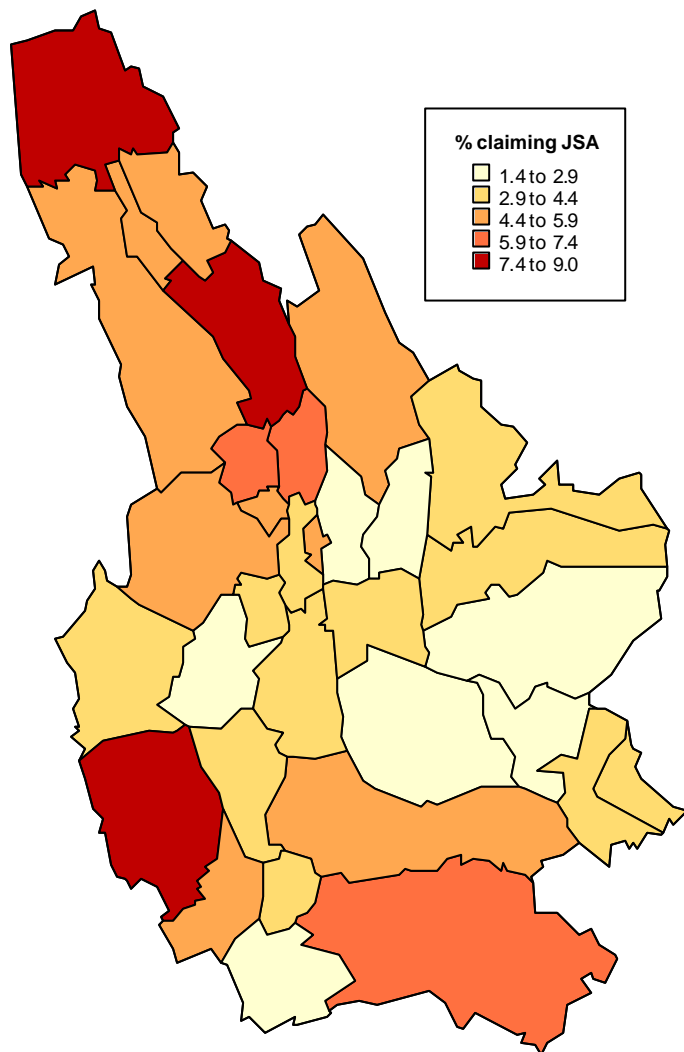
Figure 3.2.9 % persons aged 60+ claiming Income Support, 1998



Electoral Division	%	Gwent rank	Electoral Division	%	Gwent rank
Twyn Carno	24.9	4	BT&M	17.1	38
Pontlloftyn	22.7	5	Crosskeys	16.8	42
Cefn Fforest	22.0	6	Pontllanfraith	16.7	44
Hengoed	21.5	9	Penyrheol	16.5	46
St. James	20.8	14	St. Cattwg	16.2	47
Argoed	20.8	15	Nelson	15.7	49
Moriah	20.6	18	Darran Valley	15.0	54
Bargoed	20.4	19	Newbridge	14.7	56
Aberbargoed	20.4	20	Gilfach	14.5	57
New Tredegar	20.0	21	Crumlin	13.9	64
Ynysddu	19.5	23	Maesycwmmmer	13.5	68
Pengam	18.9	25	St. Martins	13.3	73
Aber Valley	18.7	27	Ystrad Mynach	12.2	80
Morgan Jones	17.9	31	Abercarn	12.0	81
Blackwood	17.5	34	Risca East	11.9	83
Llanbradach	17.4	35	Penmaen	9.8	95
Risca West	17.3	36			

Figure 3.2.9 shows the proportion of persons aged 60 and above who are in receipt of Income Support and gives an indication of the level of pensioner poverty. Once again, Twyn Carno at the top of the Rhymney Valley has the highest proportion of claimants in the borough and most of the Upper Rhymney Valley contains electoral divisions where at least a fifth of persons over 60 are receiving the benefit.

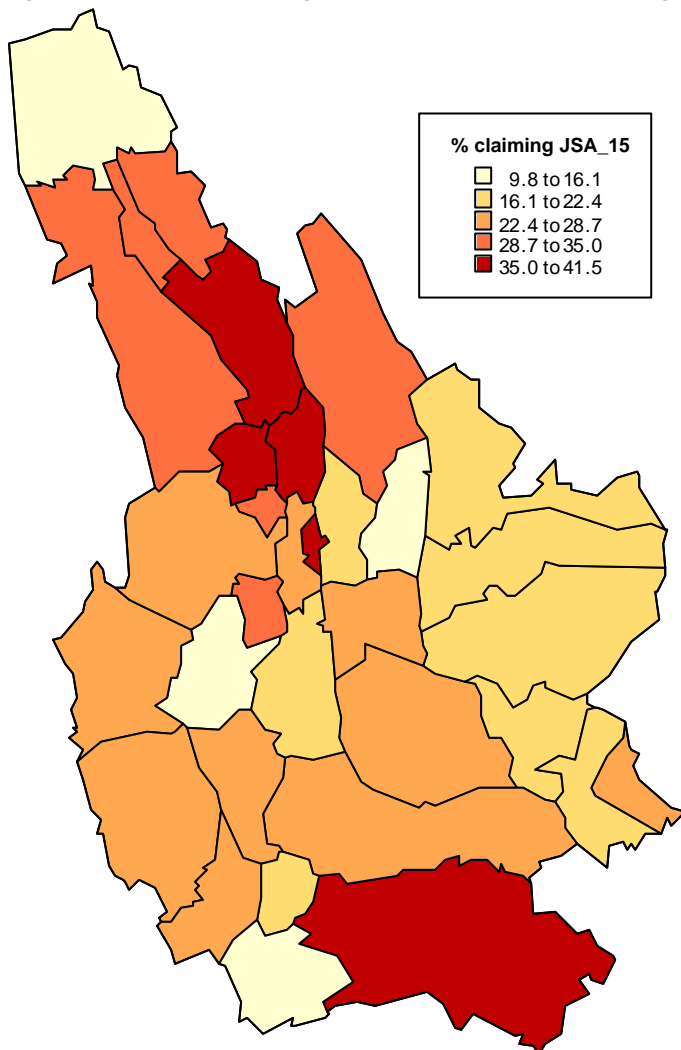
**Figure 3.2.10 % persons claiming Job Seekers Allowance 1998**



Electoral Division	%	Electoral Division	%
New Tredegar	8.9	Morgan Jones	3.9
Twyn Carno	8.9	Crumlin	3.8
Aber Valley	7.9	Pengam	3.7
Bargoed	7.3	Nelson	3.6
Aberbargoed	7.1	Pontllanfraith	3.4
St. James	6.6	Risca East	3.3
Darran Valley	5.8	Newbridge	3.3
Gilfach	5.7	Maesycwmmwr	3.2
Moriah	5.7	Risca West	3.0
Argoed	5.4	St. Martins	2.8
Pontlloftyn	5.2	Ynysddu	2.8
BT&M	4.7	Abercarn	2.7
St.Cattwg	4.6	Blackwood	2.5
Penyrheol	4.6	Crosskeys	2.3
Cefn Fforest	4.5	Ystrad Mynach	2.2
Llanbradach	4.3	Penmaen	1.5
Hengoed	4.1		

Figure 3.2.10 shows the percentage of economically active persons claiming income based Job Seekers Allowance, a benefit payable to unemployed persons. The percentage of claimants varies throughout the borough with the highest levels in parts of the Upper Rhymney Valley and Aber Valley.

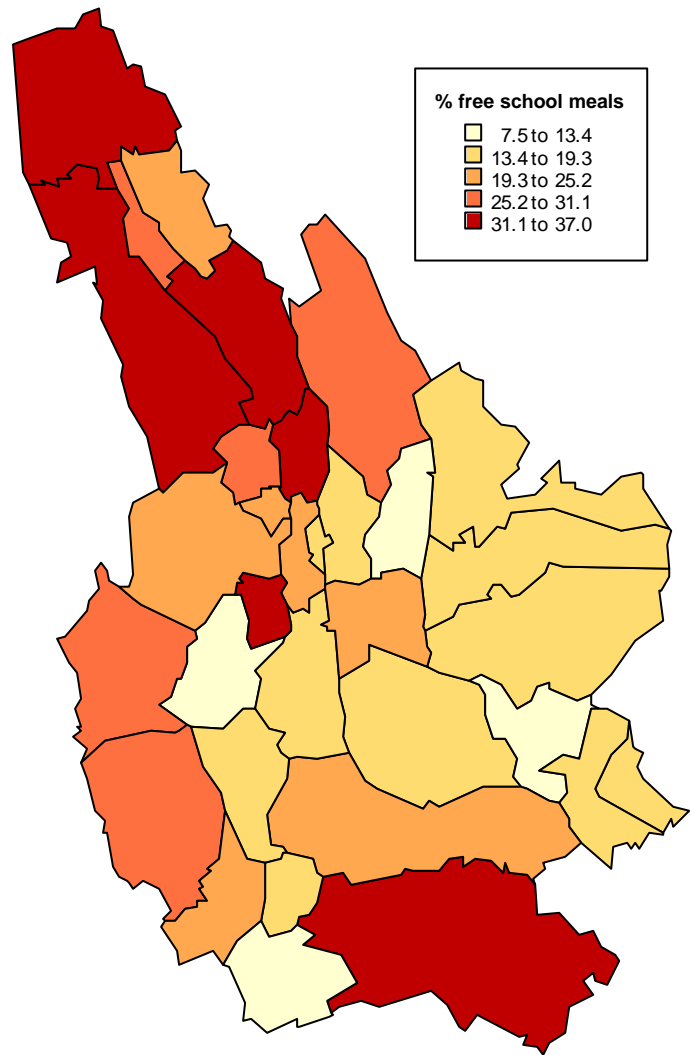
**Figure 3.2.11 % children aged 0-15 in households claiming Job Seekers Allowance 1998**



Electoral Division	%	Electoral Division	%
Aberbargoed	41.5	Risca East	24.5
St. James	40.4	Llanbradach	24.3
Bargoed	39.8	Pontllanfraith	23.2
Cefn Fforest	36.8	Ynysddu	22.8
New Tredegar	36.5	Newbridge	22.1
Argoed	34.8	Crumlin	19.2
Darran Valley	34.8	Maesycwmmwr	18.5
Hengoed	32.2	Blackwood	17.5
Moriah	32.2	Risca West	17.5
Pontlloftyn	31.4	Crosskeys	16.9
Gilfach	30.5	Morgan Jones	16.7
Aber Valley	28.1	Abercarn	16.3
BT&M	26.9	Penmaen	13.3
Nelson	26.6	St. Martins	10.2
Pengam	25.8	Twyn Carno	10.0
Penyrheol	25.5	Ystrad Mynach	9.8
St.Cattwg	25.4		

Figure 3.2.11 reveals that in Aberbargoed, St James, Bargoed, Cefn Fforest, New Tredegar and Argoed over a third of children aged 0-15 years old are living in households where a person is claiming Job Seekers Allowance. These data are therefore an indicator of the high levels of child poverty that exist in the borough.

Figure 3.2.12 % children aged 4-16 receiving free school meals, 1999

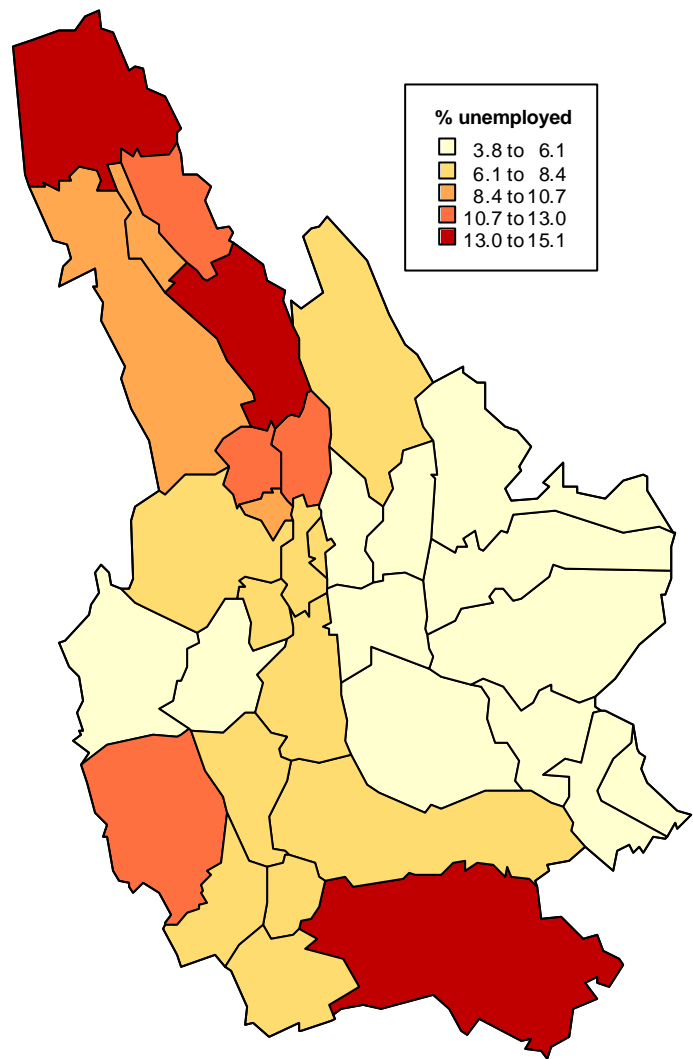


Electoral Division	%	Electoral Division	%
Twyn Carno	36.9	St.Cattwg	19.9
Aberbargoed	36.9	Morgan Jones	18.1
Darran Valley	35.8	Cefn Fforest	18.0
New Tredegar	34.3	Llanbradach	17.9
St. James	33.9	Risca East	17.8
Hengoed	31.5	Risca West	16.1
Bargoed	30.2	Blackwood	16.0
Aber Valley	27.8	Crumlin	14.4
Pontlloftyn	27.0	Maesycwmmmer	14.2
Nelson	25.8	Newbridge	14.0
Argoed	25.8	Ynysddu	13.9
Moriah	25.0	Abercarn	13.6
Penyrheol	24.3	Crosskeys	12.3
BTM	22.8	Penmaen	11.9
Gilfach	22.7	Ystrad Mynach	9.8
Pengam	21.6	St. Martins	7.5
Pontllanfraith	20.7		

Children are eligible for free school meals if their parents are in receipt of Income Support or income based Job Seekers Allowance. This variable, therefore, is a measure of childhood poverty.

Figure 3.2.12 shows that the four electoral divisions with the highest proportion of children receiving free school meals are all in the Upper Rhymney Valley and the fifth is St James in the South. In each of these areas over a third of children are receiving free school meals.

Figure 3.3.1 % males unemployed, 1998

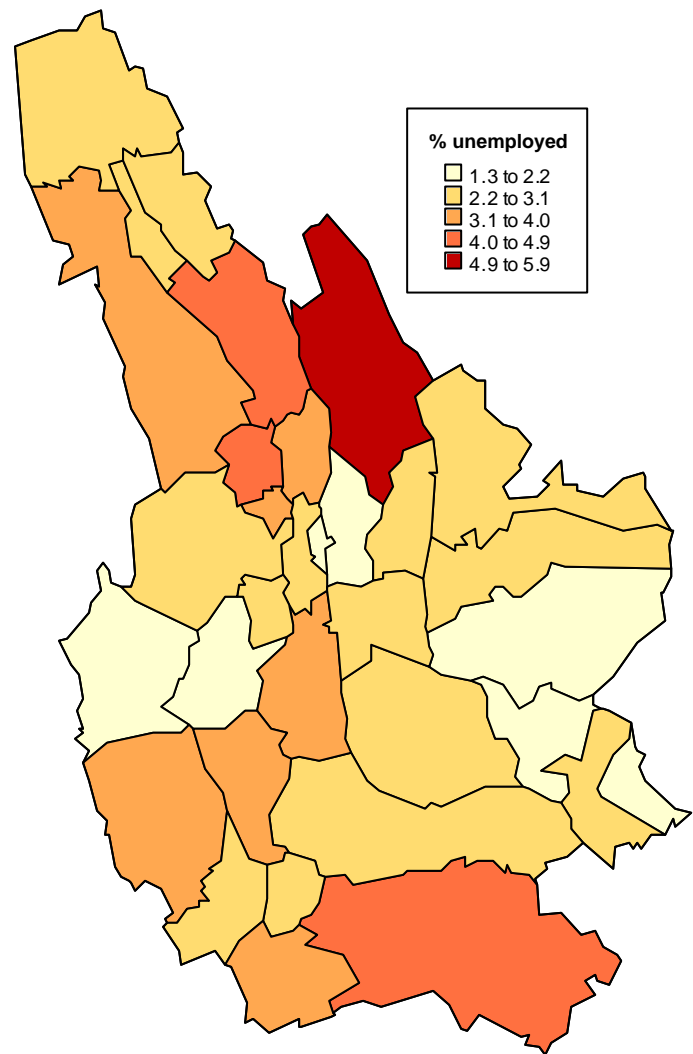


Electoral Division	%	Electoral Division	%
Twyn Carno	15.1	Morgan Jones	6.6
New Tredegar	14.0	St. Martins	6.6
St. James	13.6	Pengam	6.3
Aberbargoed	12.1	Maesycwmmmer	6.2
Bargoed	12.0	Crumlin	6.0
Aber Valley	11.8	Pontllanfraith	5.7
Moriah	11.1	Newbridge	5.5
Darran Valley	10.3	Nelson	5.4
Gilfach	9.1	Abercarn	5.2
Pontlloftyn	8.5	Ystrad Mynach	5.2
BT&M	8.3	Risca East	5.1
Argoed	8.2	Ynysddu	5.1
Hengoed	8.2	Crosskeys	4.2
Penyrheol	8.0	Risca West	4.2
St.Cattwg	7.5	Blackwood	4.0
Cefn Fforest	7.4	Penmaen	3.8
Llanbradach	7.0		

Figure 3.3.1 shows that male unemployment varies considerably across Caerphilly. The Upper Rhymney Valley in the North and St James and Aber Valley in the South have the highest proportion of economically active males unemployed whilst in the former Islwyn area the proportions are lower.

Source: CCBC/NOMIS

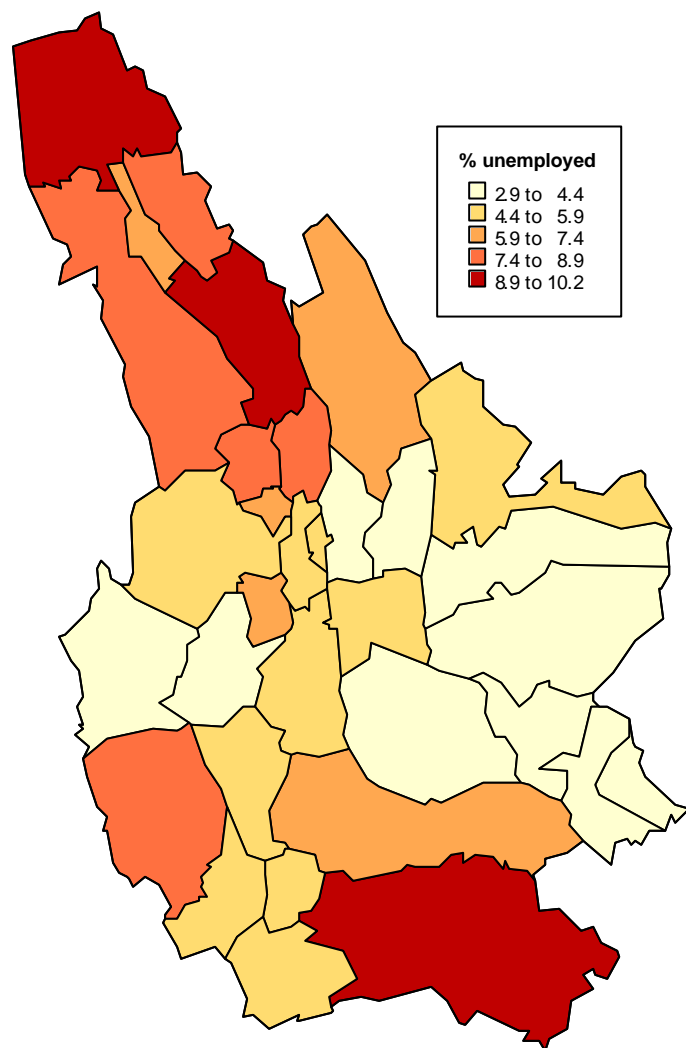
Figure 3.3.2 % females unemployed, 1998



Electoral Division	%	Electoral Division	%
Argoed	5.9	Morgan Jones	2.7
Bargoed	4.4	Newbridge	2.6
New Tredegar	4.4	Penmaen	2.6
St. James	4.2	Ynysddu	2.5
Maesycwmmwr	3.9	St.Cattwg	2.5
Aber Valley	3.8	Pengam	2.3
Gilfach	3.8	Penyrheol	2.3
Aberbargoed	3.5	Risca West	2.2
Llanbradach	3.3	Twyn Carno	2.2
St. Martins	3.3	Blackwood	2.0
Darran Valley	3.1	Abercarn	1.9
BT&M	3.0	Cefn Fforest	1.9
Pontllanfraith	2.9	Risca East	1.9
Moriah	2.9	Nelson	1.9
Crumlin	2.8	Ystrad Mynach	1.6
Hengoed	2.8	Crosskeys	1.3
Pontlloftyn	2.8		

Comparison of figures 3.3.1 and 3.3.2 show that female unemployment levels are lower than for males. Argoed in the North of the former Islwyn area has the highest proportion of unemployed females.

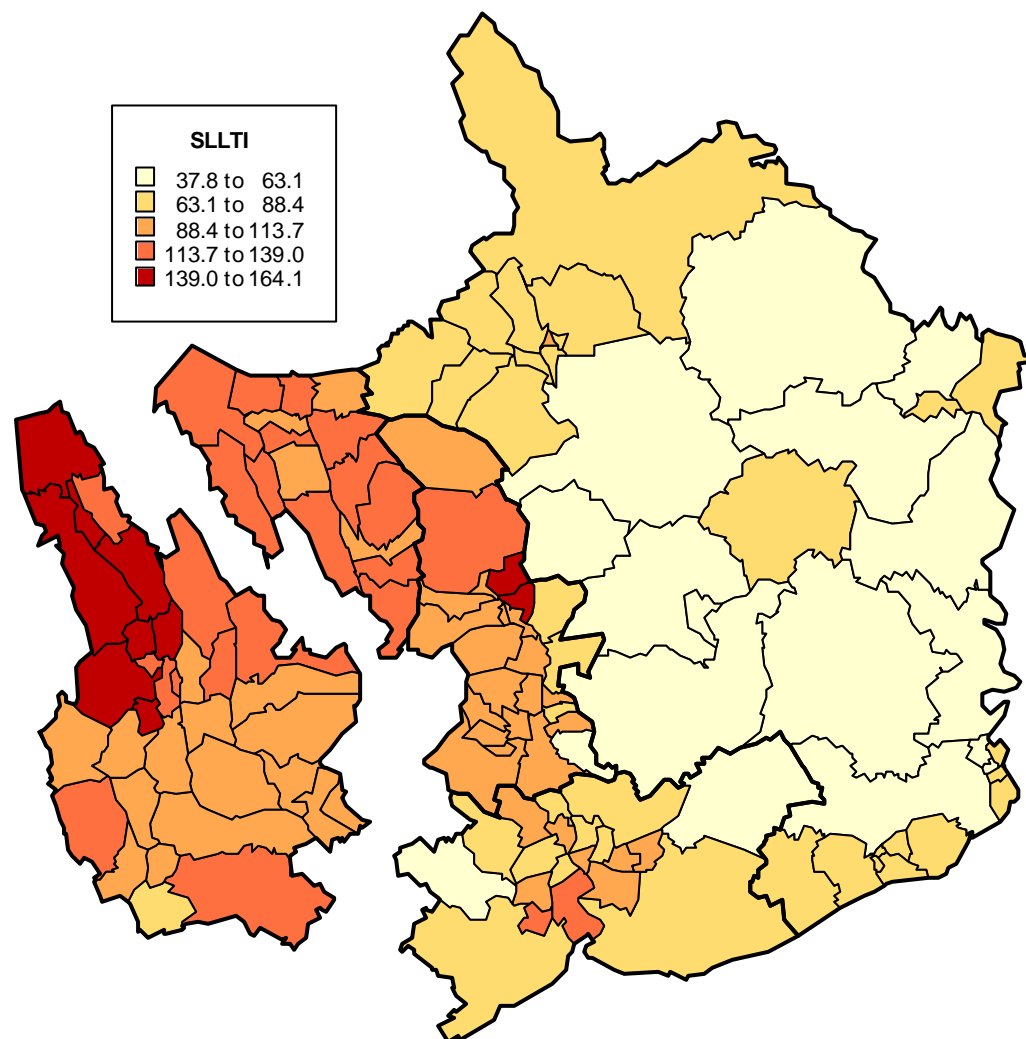
**Figure 3.3.3 % persons unemployed, 1998**



Electoral Division	%	Electoral Division	%
New Tredegar	10.1	St. Martins	5.1
Twyn Carno	9.6	Cefn Fforest	5.0
St. James	9.5	Morgan Jones	4.9
Bargoed	8.8	Crumlin	4.7
Aber Valley	8.6	Pengam	4.6
Aberbargoed	8.5	Pontllanfraith	4.5
Moriah	7.7	Newbridge	4.2
Darran Valley	7.5	Ynysddu	4.0
Argoed	7.3	Nelson	3.9
Gilfach	6.9	Abercarn	3.7
BT&M	6.0	Risca East	3.6
Hengoed	6.0	Ystrad Mynach	3.5
Pontlloftyn	6.0	Penmaen	3.3
Penyrheol	5.5	Risca West	3.3
Llanbradach	5.4	Blackwood	3.1
St.Cattwg	5.3	Crosskeys	2.9
Maesycwmmwr	5.2		

The data presented here show that total unemployment varies substantially throughout the borough. The areas with the highest levels of unemployment are parts of the Upper Rhymney Valley, the Aber Valley and St James electoral divisions.

**Figure 3.4.1 Standardised long term limiting illness ratio**

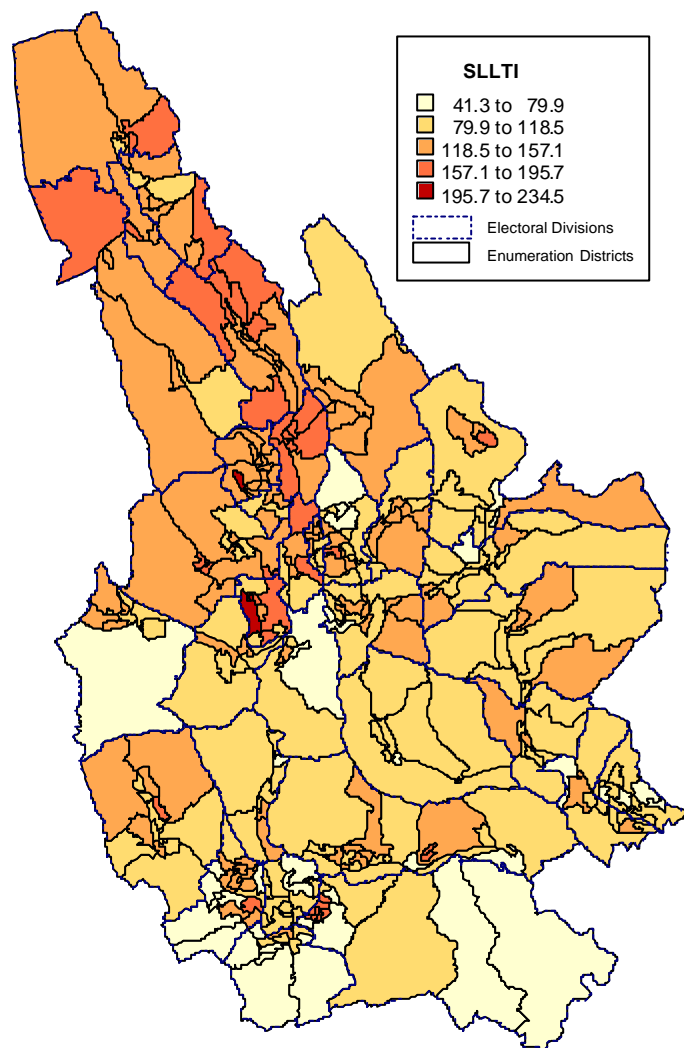


Electoral Division	SLLTI	Gwent rank	Electoral Division	SLLTI	Gwent rank
Aberbargoed	164.0	1	Blackwood	113.0	35
New Tredegar	156.2	2	Nelson	112.4	38
Hengoed	147.3	3	Penyrheol	111.4	39
Bargoed	146.7	4	BT&M	110.7	40
Pontlloftyn	144.4	5	Pontllanfraith	110.1	44
Twyn Carno	143.0	6	Llanbradach	109.0	46
Darren Valley	140.5	8	Crosskeys	108.7	48
St.Cattwg	140.4	9	Ystrad Mynach	107.2	51
Argoed	136.1	11	Abercarn	106.3	53
Pengam	135.1	12	Newbridge	105.9	54
Moriah	129.8	16	Morgan Jones	105.2	57
Gilfach	129.5	17	Risca West	101.9	61
Cefn Fforest	127.0	21	Maesycwmmmer	96.8	65
St.James	120.4	26	Ynysddu	94.2	69
Aber Valley	119.2	28	Risca East	89.5	80
Crumlin	116.6	32	St.Martins	84.0	87
Penmaen	113.9	34			

Limiting long term illness is a self reported measure of long term illness, health problems or handicap which limit the person's daily activities or employment options.

Figure 3.4.1 shows the standardised limiting long term illness ratio for Gwent electoral divisions standardised to the Gwent population. It is clear that the borough has greater numbers of persons with LLTI than would be expected compared to the Gwent average. In fact, Caerphilly borough contains nine of the 10 electoral divisions in Gwent with the highest SLLTI ratios. Within the borough the Upper Rhymney Valley and Bargoed areas have the highest levels of LLTI.

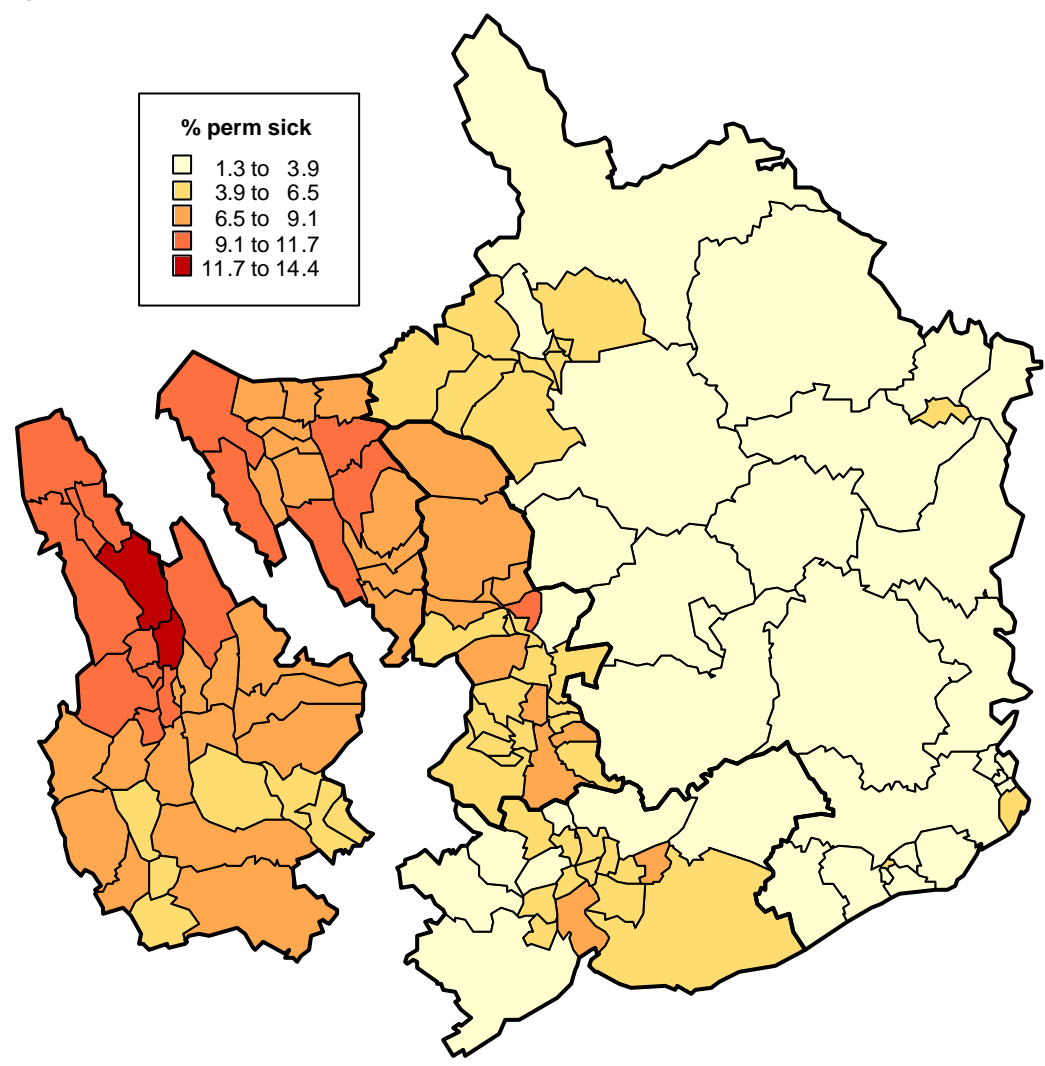
**Figure 3.4.2 Standardised long term limiting illness ratio: Caerphilly enumeration districts**



The two enumeration districts with the highest standardised limiting long term illness ratios are in the electoral divisions of Hengoed and Bargoed. The North of the borough has higher levels than the South with a few exceptions such as Graig-y-Rhacca, Lansbury Park and Treceenydd in the town of Caerphilly and parts of Aber Valley.

Source: Census 1991

Figure 3.4.3 % persons in households with permanent sickness



Electoral Division	%	Gwent rank	Electoral Division	%	Gwent rank
Aberbargoed	14.4	1	Aber Valley	7.5	37
New Tredegar	12.6	2	Pontllanfraith	7.3	38
Bargoed	11.4	3	Penyrheol	7.1	40
Gilfach	10.9	5	Penmaen	7.1	41
Pontlottyn	10.9	6	Abercarn	7.1	42
Darran Valley	10.8	7	St. James	7.1	43
Pengam	10.7	8	Newbridge	7.1	44
St.Cattwg	10.4	9	Maesycwmmmer	7.0	49
Twyn Carno	10.2	10	BT&M	6.9	50
Hengoed	10.0	12	Risca West	6.4	57
Moriah	9.7	17	Crosskeys	6.1	63
Argoed	9.5	18	Morgan Jones	5.7	65
Cefn Fforest	8.2	23	Llanbradach	5.3	69
Crumlin	8.1	25	Ynysddu	5.3	71
Blackwood	7.9	31	Risca East	4.6	82
Ystrad Mynach	7.8	32	St. Martins	4.4	89
Nelson	7.7	35			

Permanent sickness is a self reported measure of inability to work due to a long term sickness or disability.

Caerphilly county borough has particularly high proportions of persons reporting permanent sickness compared to Gwent with the ten electoral divisions with the highest percentages in Gwent all to be found within the borough. Once again the North of the borough has the highest reported levels.

Source: Census 1991

**Figure 3.4.4 % persons in households with permanent sickness: Caerphilly enumeration districts**

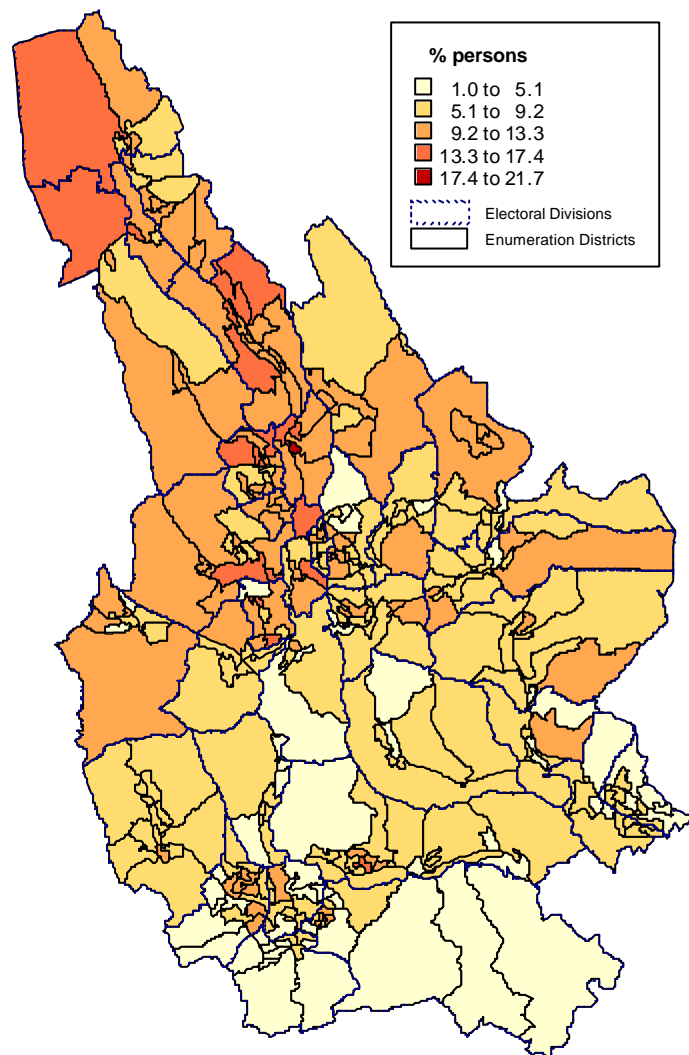
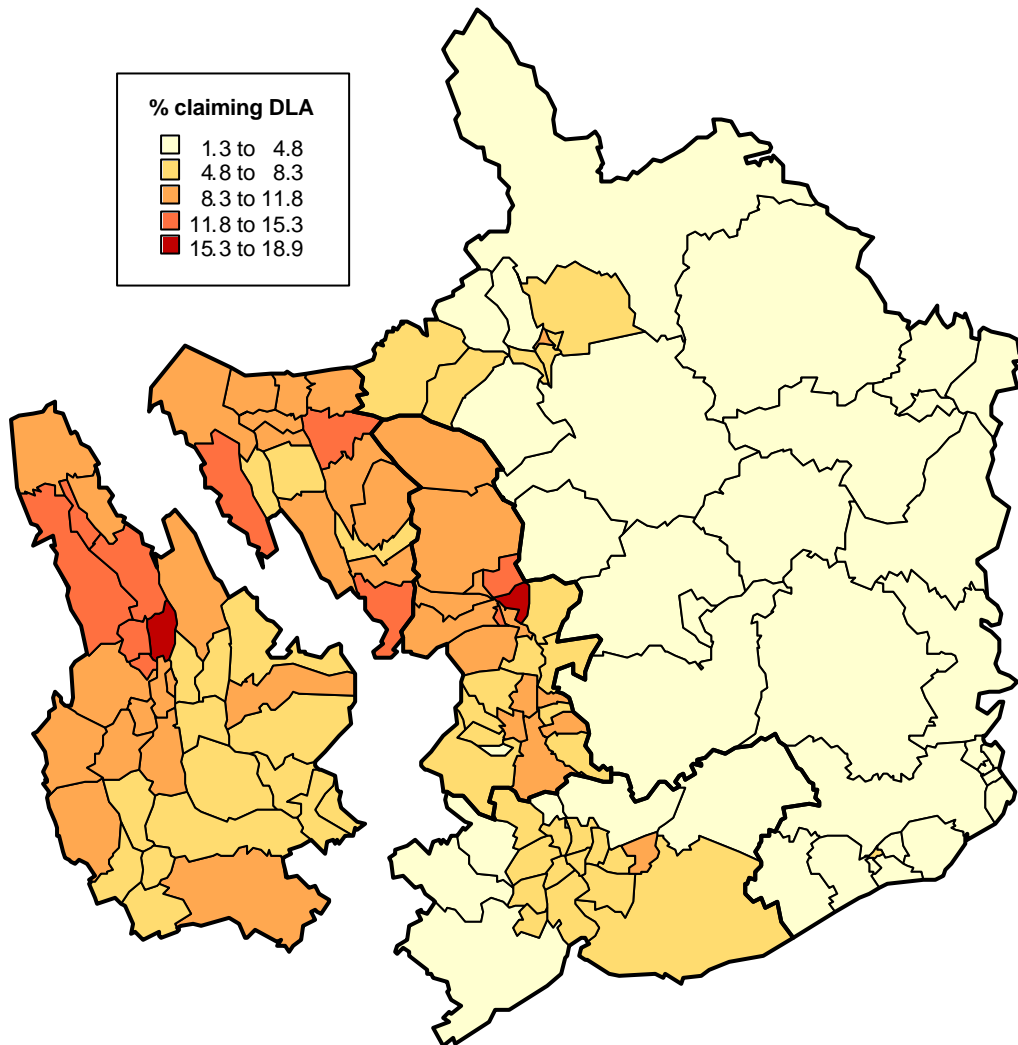


Figure 3.4.4 illustrates the *within* electoral division heterogeneity that exists. As with limiting long term illness, the enumeration districts with the highest proportions are predominantly in the North of the borough.

Source: Census 1991

Figure 3.4.5 % persons <65 claiming Disability Living Allowance, 1998

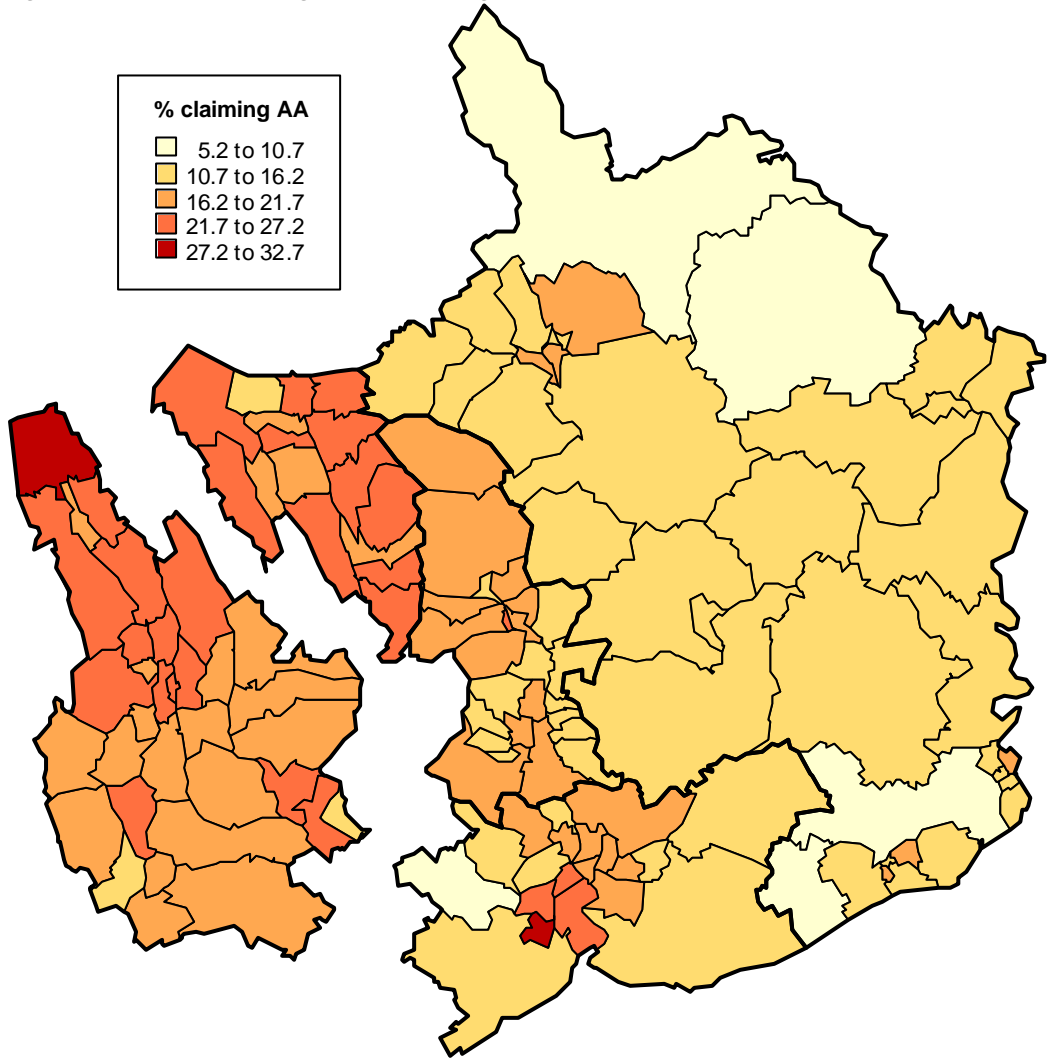


Electoral Division	%	Gwent rank	Electoral Division	%	Gwent rank
Aberbargoed	16.0	2	Argoed	9.2	38
Bargoed	14.5	3	St. James	9.0	40
Gilfach	14.3	4	Crumlin	8.3	50
New Tredegar	13.6	5	Penyrheol	8.1	52
Darran Valley	12.6	8	Llanbradach	8.1	53
Pontlloftyn	12.0	11	BT&M	8.0	54
Cefn Fforest	11.7	14	Pontllanfraith	8.0	55
Hengoed	11.6	15	Abercarn	7.8	57
St. Cattwg	11.6	16	Blackwood	7.4	64
Twyn Cam o	11.5	18	Penmaen	7.3	65
Moriah	11.2	19	Crosskeys	7.2	66
Maesycwmmer	10.9	20	Risca West	6.7	73
Pengam	10.3	27	Morgan Jones	6.6	74
Ystrad Mynach	10.0	29	Ynysddu	6.4	75
Newbridge	9.6	32	St. Martins	5.9	81
Nelson	9.5	34	Risca East	5.2	93
Aber Valley	9.2	37			

Disability Living Allowance (DLA) is paid to people who are disabled and who, as a result, have either personal care needs or mobility needs or both. To qualify for DLA a person must be under 65. Normally help must have been needed for at least three months and is likely to be needed for at least a further six months. DLA payments are split into care and mobility components and within those categories there are higher and lower rates depending on the level of assistance needed.

The proportions of total claimants (combining both components and all rates) are shown in figure 3.4.5. Generally, the proportion of persons receiving this benefit increases towards the North of the borough with the highest proportions clustered around the Bargoed area which also has amongst the highest levels within Gwent as a whole.

Figure 3.4.6 % persons aged 65+ claiming Attendance Allowance, 1998

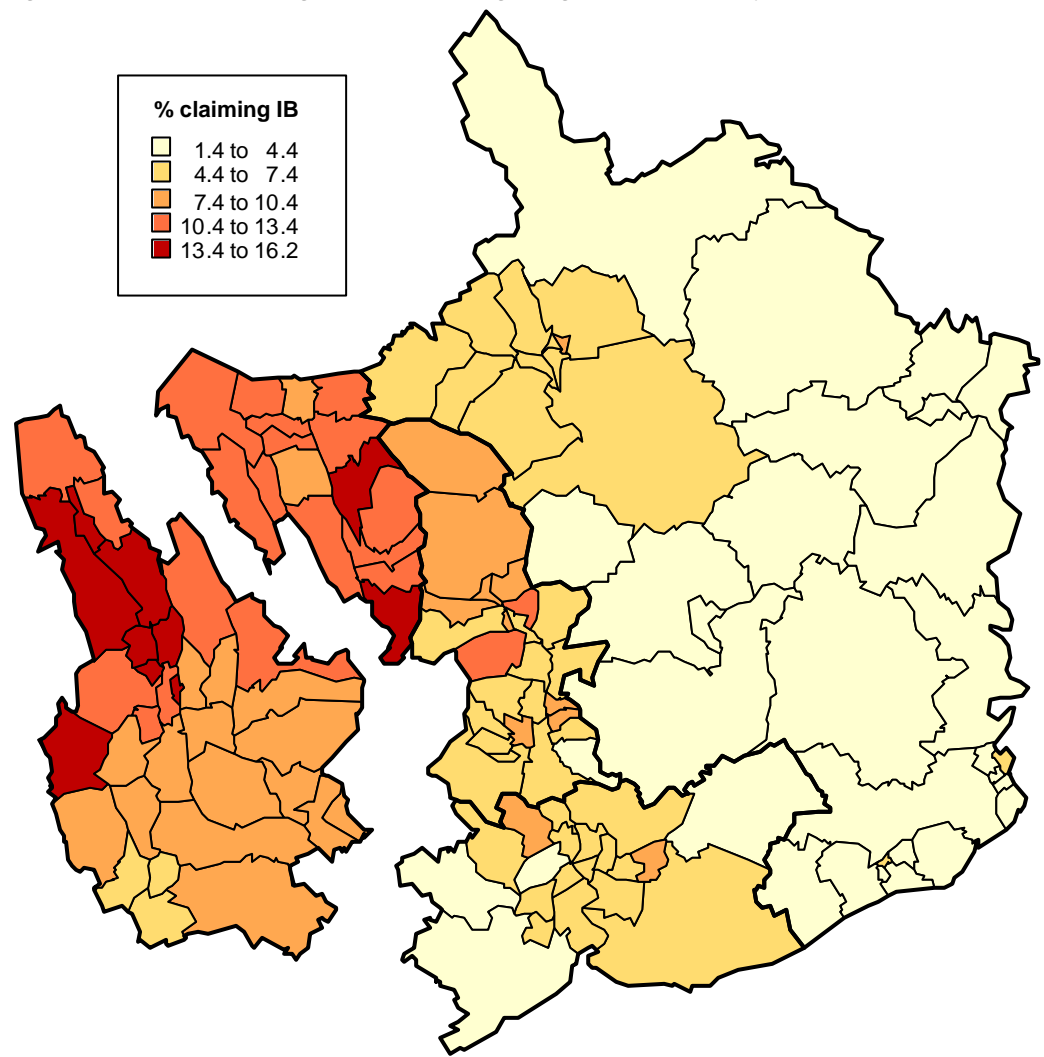


Electoral Division	%	Gwent rank	Electoral Division	%	Gwent rank
Twyn Cano	27.4	2	Newbridge	21.0	36
Aberbargoed	26.7	3	Nelson	21.0	37
New Tredegar	25.5	5	Abercarn	20.8	39
Bargoed	24.6	7	St. Martins	19.8	43
Risca West	24.6	8	Penmaen	19.7	44
Pengam	24.0	11	Crumlin	19.6	46
Crosskeys	23.6	15	Morgan Jones	19.4	47
Argoed	23.2	19	Pontllanfraith	19.3	49
Llanbradach	23.0	20	BT&M	19.1	53
Darran Valley	22.8	21	St. James	18.9	57
St. Cattwg	22.7	23	Ynysddu	18.6	59
Cefn Fforest	22.3	26	Gilfach	18.2	61
Moriah	22.0	28	Pontlottyn	17.5	63
Blackwood	21.8	29	Ystrad Mynach	17.4	64
Hengoed	21.7	31	Penyrheol	16.1	81
Maesycwmmer	21.6	32	Risca East	13.1	106
Aber Valley	21.6	33			

Attendance Allowance is for people who are disabled aged 65 or over who need help with personal care because of their illness or disability. Normally the help must have been needed for at least six months. There are two rates: higher rate for day and night; lower rate for day or night.

Figure 3.4.6 shows the percentage of persons aged 65 or over in receipt of the benefit at all rates. Once again, Caerphilly has relatively high proportions of elderly persons claiming this benefit with the five electoral divisions with the highest percentage of claimants in the borough all being in the highest ten in Gwent. Most of the electoral divisions with the highest percentages of claimants are located towards the North of the borough.

Figure 3.4.7 % persons aged 16-64 claiming Long-Term Incapacity Benefit, 1998

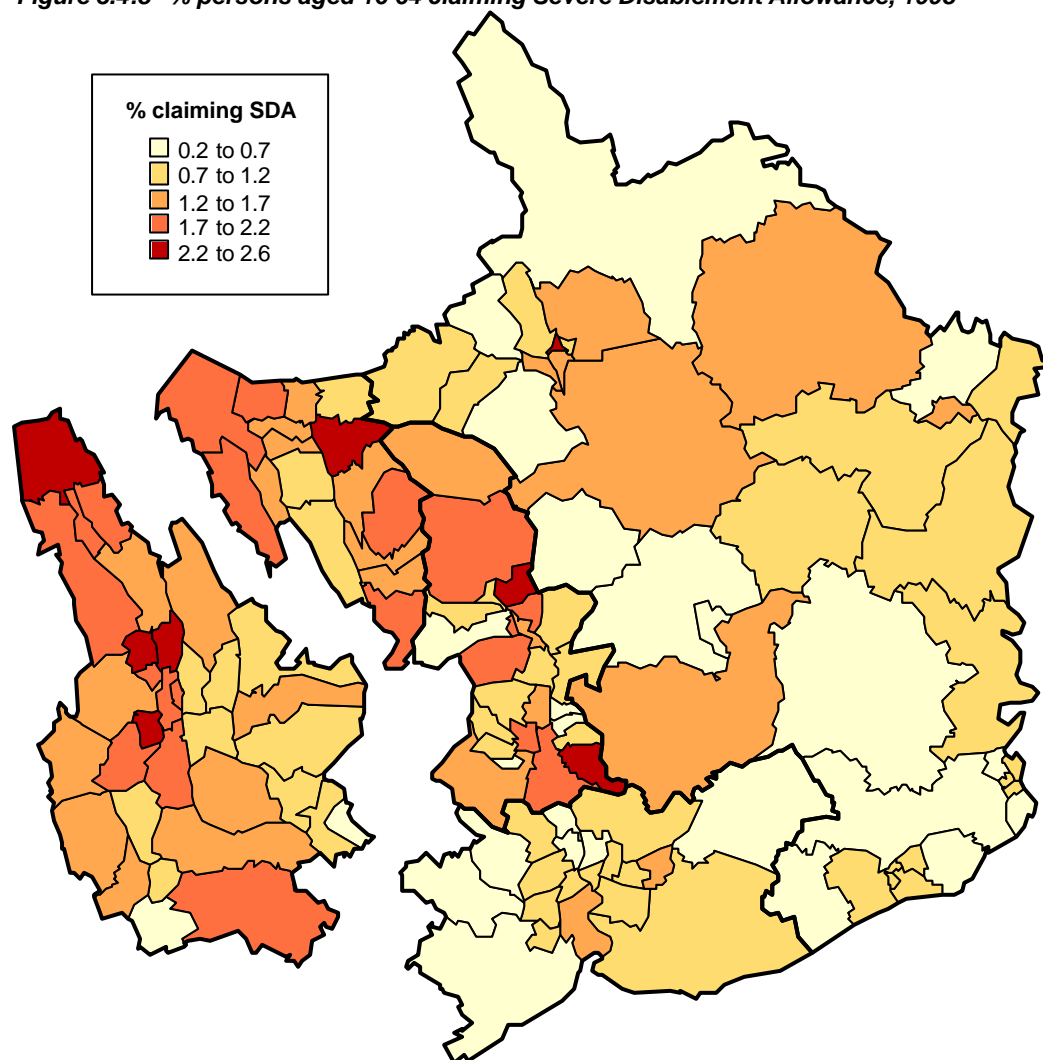


Electoral Division	%	Gwent rank	Electoral Division	%	Gwent rank
Aberbargoed	16.1	1	Aber Valley	9.8	37
Darran Valley	16.0	2	Pontllanfraith	9.6	38
New Tredegar	15.8	3	Ystrad Mynach	9.6	39
Pontlloftyn	15.8	4	Blackwood	9.5	41
Bargoed	15.0	5	Maesycwmmmer	9.5	42
Nelson	14.7	6	Penmaen	9.5	43
Gilfach	13.7	9	Crosskeys	9.2	45
Cefn Fforest	13.5	10	Risca West	8.6	48
Twyn Carno	13.1	12	Ynysddu	8.6	49
St. Cattwg	13.0	13	Llanbradach	8.3	53
Argoed	12.4	18	BT&M	8.3	54
Moriah	12.1	20	St. James	7.8	56
Pengam	11.8	21	Risca East	7.6	58
Crumlin	11.5	22	Penyrheol	7.1	68
Hengoed	10.7	30	Morgan Jones	6.7	76
Newbridge	10.2	33	St. Martins	6.2	78
Abercam	9.9	34			

This benefit is for people who are incapable of work but who cannot get statutory sick pay from an employer, or are self employed, unemployed or non-employed, and have paid enough National Insurance contributions. Long Term Incapacity benefit is paid if a person has been sick for over 52 weeks.

Figure 3.4.7 and the table show the variation between electoral divisions in claimants aged 16-64. Caerphilly county borough contains the six electoral divisions in Gwent with the highest percentages of claimants. All electoral divisions within the borough except Penyrheol, Morgan Jones and St Martins are ranked in the highest 50% of Gwent electoral divisions.

**Figure 3.4.8 % persons aged 16-64 claiming Severe Disablement Allowance, 1998**

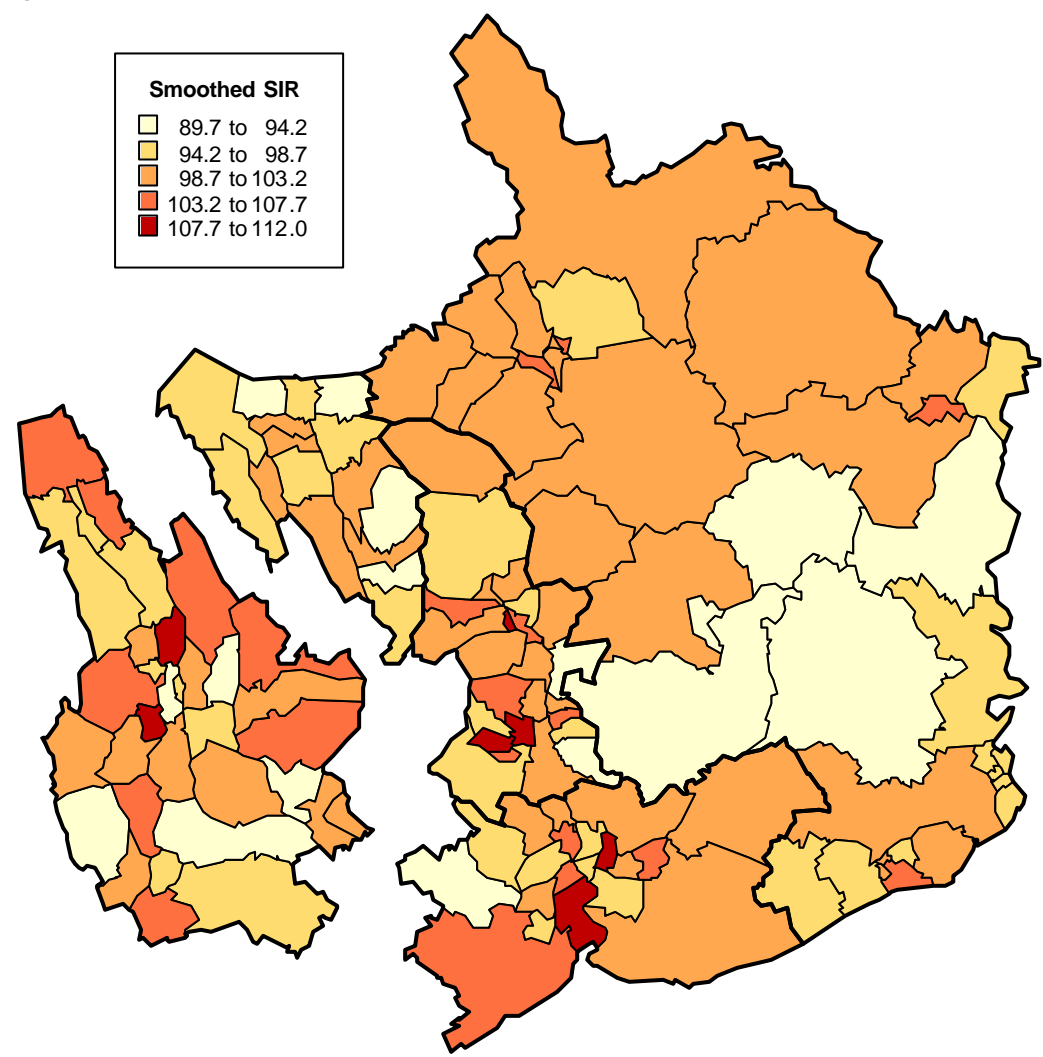


Electoral Division	%	Gwent rank	Electoral Division	%	Gwent rank
Twyn Carno	2.5	3	BT&M	1.4	43
Aberbargoed	2.4	4	Newbridge	1.3	47
Hengoed	2.2	7	Ynysddu	1.3	50
Bargoed	2.2	8	Nelson	1.3	51
Maesycwmmwr	2.1	9	Penyrheol	1.3	53
Moriah	2.1	12	Pontllanfraith	1.2	62
Pontlottyn	2.1	13	Morgan Jones	1.2	63
Ystrad Mynach	2.0	14	Risca West	1.1	68
Cefn Fforest	1.8	20	Penmaen	1.1	69
St. James	1.8	21	Llanbradach	1.0	76
Pengam	1.8	22	Crosskeys	0.9	85
Darran Valley	1.8	23	Blackwood	0.9	88
Gilfach	1.8	25	Crumlin	0.9	92
St. Cattwg	1.7	30	Abercarn	0.8	97
New Tredegar	1.6	33	St. Martins	0.7	107
Aber Valley	1.5	40	Risca East	0.7	110
Argoed	1.4	41			

Severe Disablement Allowance may be claimed by people aged 16 to 64 who have never been able to work, or who have not been able to work for at least 28 consecutive weeks because of illness or disablement. It is paid to these people if they cannot get Incapacity Benefit because they have not paid enough NI contributions. If the disablement began after age 20 they must also be assessed as at least 80 percent disabled for at least 38 consecutive weeks.

Figure 3.4.8 appears to show higher proportions of persons in receipt of this benefit in the Rhymney Valley area compared with the Islwyn area. However, it should be noted that the number of persons claiming this benefit is small relative to the numbers claiming other benefits and the difference between the highest and lowest claiming electoral divisions in the borough is less than 2%.

Figure 3.4.9 Smoothed <75 standardised incidence ratio all cancer, 1994-98



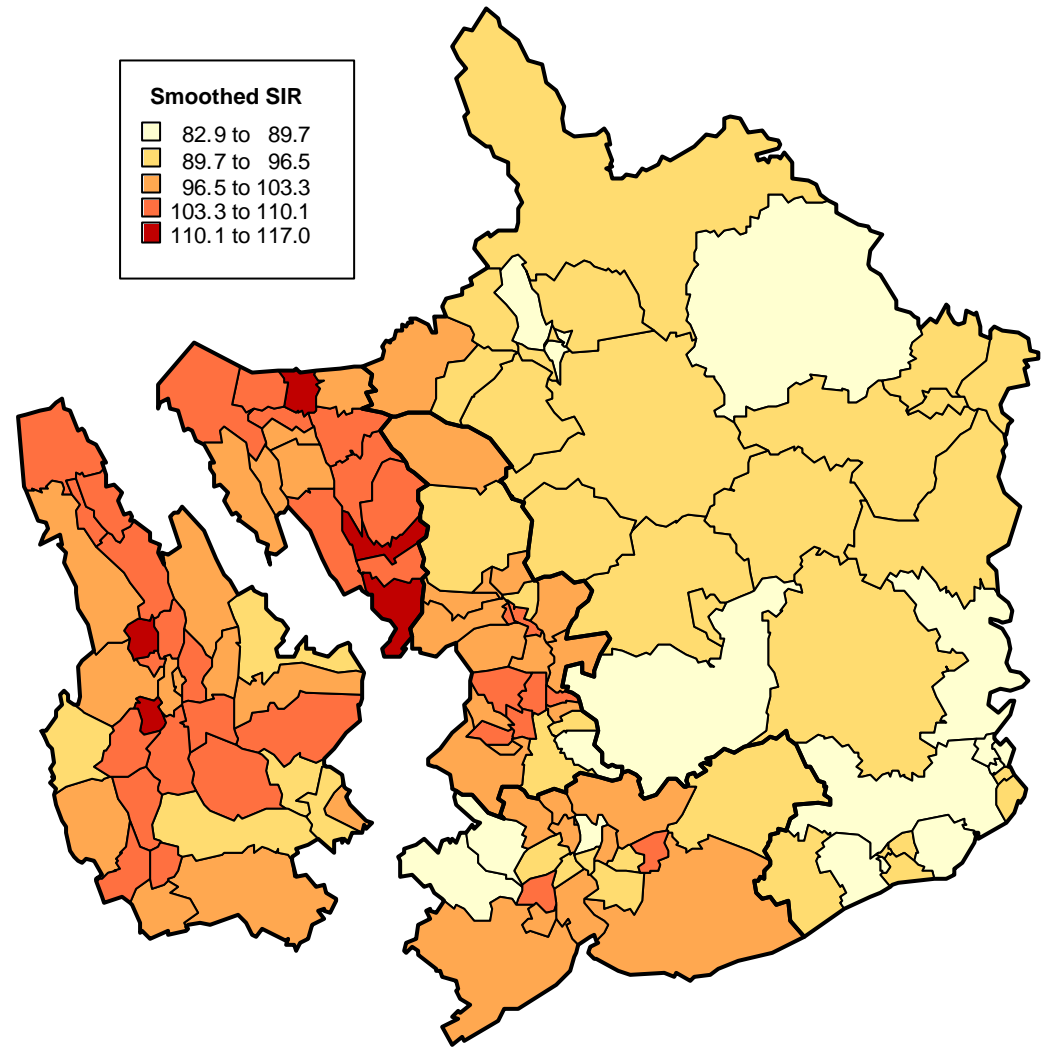
Electoral Division	SIR	Gwent rank	Electoral Division	SIR	Gwent rank
Aberbargoed	107.9	6	Newbridge	99.7	65
Hengoed	107.7	7	Bargoed	99.0	75
Abercam	106.7	11	Risca West	99.0	76
Llanbradach	106.2	14	New Tredegar	98.5	80
St.Cattwg	105.8	16	Darran Valley	97.7	91
St. Martins	105.2	17	Morgan Jones	97.4	94
Argoed	104.2	22	Gilfach	96.9	100
Twyn Carno	103.8	24	Pontlloftyn	96.2	103
Crumlin	103.6	25	Cefn Fforest	94.3	112
Moriah	103.2	28	St. James	94.3	113
Blackwood	102.8	32	Pontllanfraith	94.2	114
Maesycwmmmer	101.6	41	Pengam	94.0	115
Ystrad Mynach	101.6	42	Aber Valley	93.4	119
Nelson	100.2	59	Penmaen	93.2	120
Penyrheol	100.0	60	BT&M	92.4	126
Ynysddu	99.9	61	Crosskeys	91.7	129
Risca East	99.9	63			

Figure 3.4.9 shows the smoothed standardised incidence ratio for all cancers between 1994 and 1998 for persons aged under 75.

A number of electoral divisions in the borough have higher smoothed SIRs than the Gwent average (100) although there is no clear pattern. The five electoral divisions with the highest ratios are in Newport and Torfaen.

Source: WCISU/SAHRU

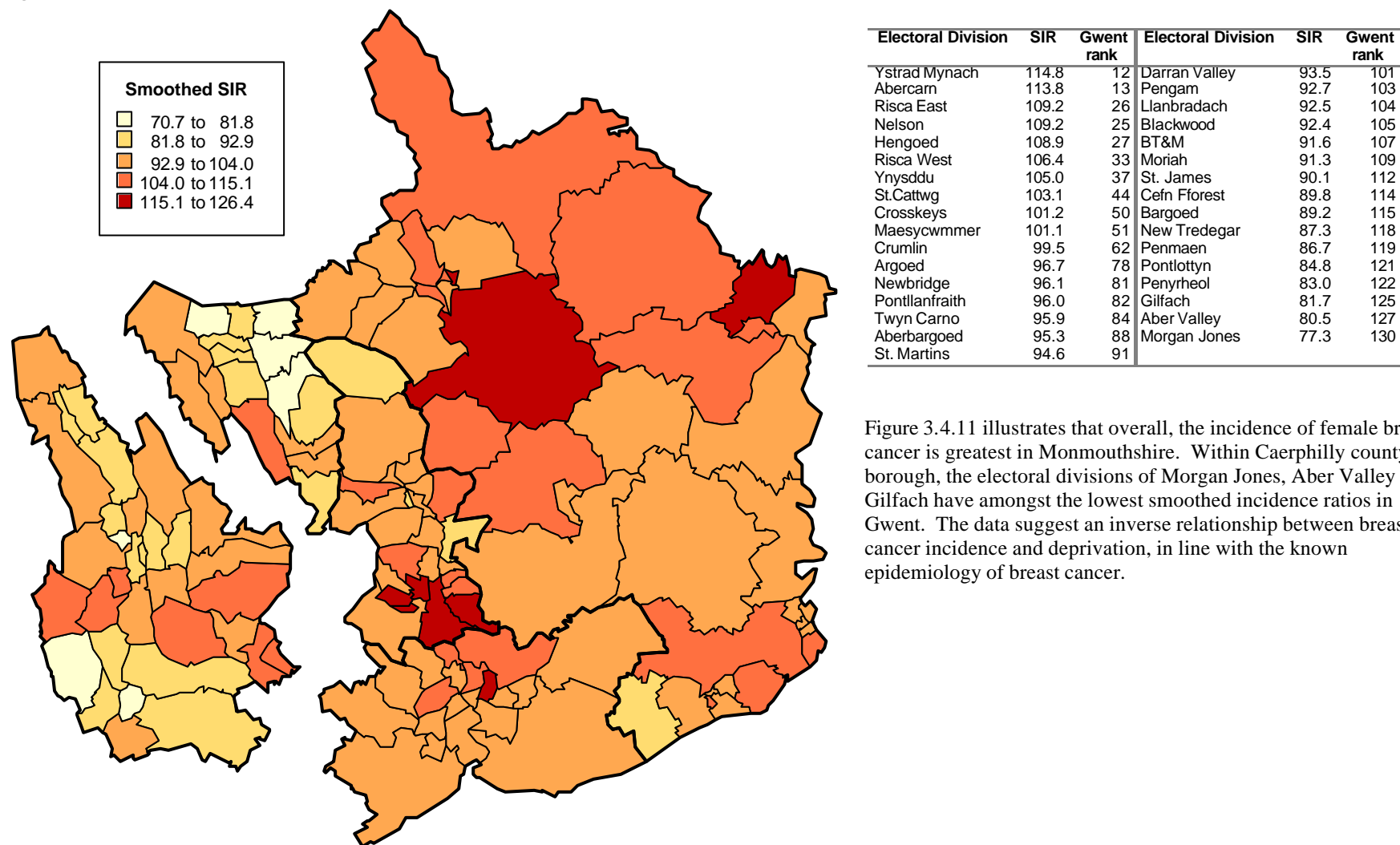
Figure 3.4.10 Smoothed <75 standardised incidence ratio lung cancer, 1994-98



Electoral Division	SIR	Gwent rank	Electoral Division	SIR	Gwent rank
Hengoed	114.2	3	Darran Valley	102.9	42
Bargoed	110.8	5	Argoed	102.5	44
Penyrheol	109.9	6	Penmaen	102.0	46
Twyn Carno	109.2	7	St.Cattwg	101.9	47
Morgan Jones	107.8	9	Newbridge	101.6	49
New Tredegar	106.7	14	Aber Valley	100.8	53
Pontlottyn	106.7	15	Pengam	100.1	56
Aberbargoed	106.2	16	Risca East	100.0	57
Ynysddu	105.6	19	St. Martins	99.4	62
Maesycwmmwr	105.5	20	St. James	97.3	73
Moriah	105.4	21	Cefn Fforest	96.8	76
Abercam	105.1	23	Crumlin	96.4	77
Gilfach	104.6	28	Risca West	96.1	79
Ystrad Mynach	104.6	26	BT&M	95.8	81
Pontllanfraith	103.7	32	Nelson	92.7	97
Llanbradach	103.4	34	Crosskeys	90.7	109
Blackwood	103.3	37			

Figure 3.4.10 and the table show clearly that Caerphilly county borough contains electoral divisions with among the highest smoothed incidence ratios for lung cancer in the under 75s in Gwent. The areas with the highest smoothed SIRs are located throughout the borough from Twyn Carno in the North to Penyrheol in the South. The figure also shows that ratios are also high throughout Blaenau Gwent, but are lower in Monmouthshire.

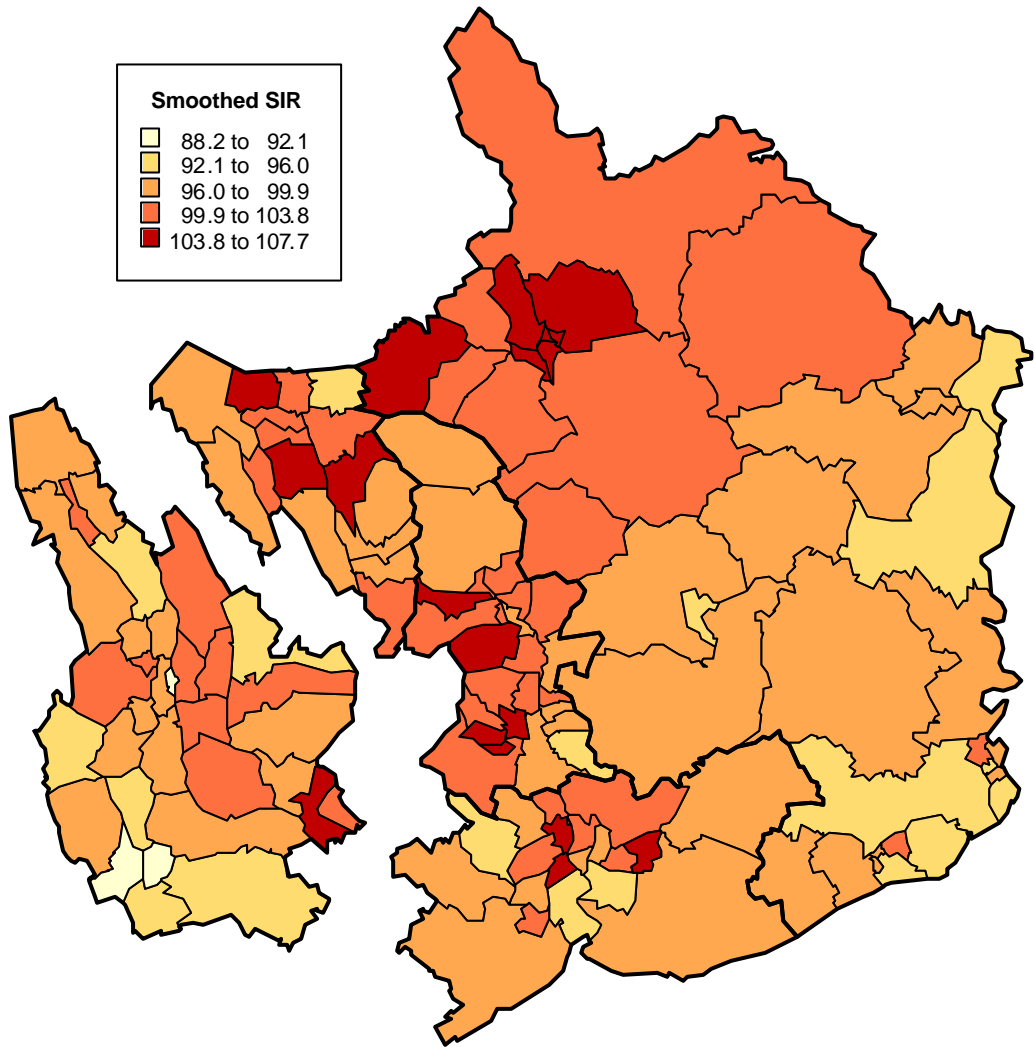
Figure 3.4.11 Smoothed <75 standardised incidence ratio female breast cancer, 1994/98



Source: WCISU/SAHRU

Figure 3.4.11 illustrates that overall, the incidence of female breast cancer is greatest in Monmouthshire. Within Caerphilly county borough, the electoral divisions of Morgan Jones, Aber Valley and Gilfach have amongst the lowest smoothed incidence ratios in Gwent. The data suggest an inverse relationship between breast cancer incidence and deprivation, in line with the known epidemiology of breast cancer.

Figure 3.4.12 Smoothed <75 standardised incidence ratio colorectal cancer, 1994/98

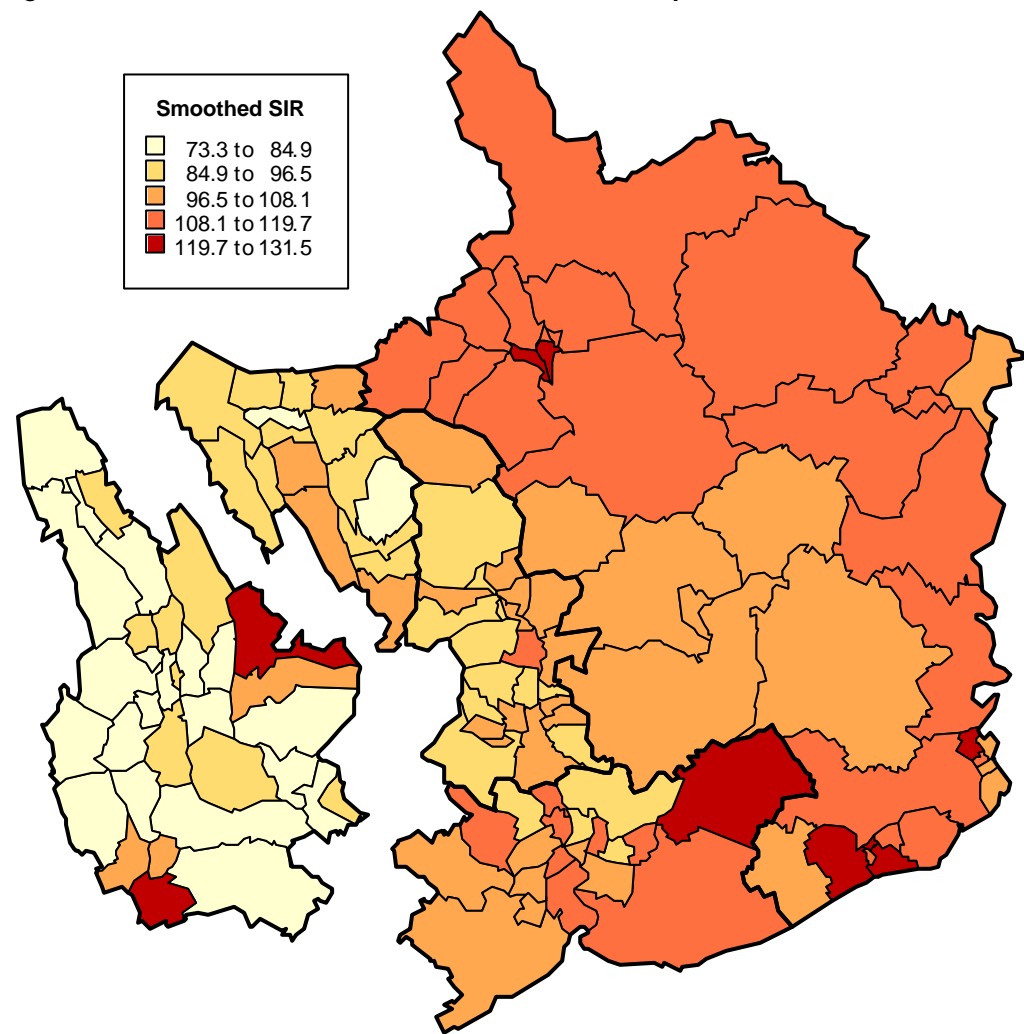


Electoral Division	SIR	Gwent rank	Electoral Division	SIR	Gwent rank
Risca West	103.9	17	Hengoed	98.7	79
Argoed	103.2	24	Twyn Carno	98.3	84
Risca East	101.8	36	Bargoed	97.7	91
Newbridge	101.6	39	BT&M	97.6	93
Penmaen	101.4	41	Moriah	97.3	96
Ynysddu	100.9	46	Crosskeys	97.3	99
Pontlottyn	100.9	45	Pengam	97.0	102
Blackwood	100.7	50	Crumlin	95.8	111
Pontllanfraith	100.6	51	Llanbradach	94.8	115
St.Cattwg	100.5	54	New Tredegar	94.7	118
Gilfach	99.9	60	St. James	94.4	121
Abercam	99.9	62	Nelson	93.9	123
Aber Valley	99.7	64	St. Martins	93.1	127
Darran Valley	98.9	74	Cefn Fforest	91.7	129
Aberbargoed	98.8	75	Morgan Jones	89.9	130
Maesycwmmwr	98.8	76	Penyrheol	88.3	131
Ystrad Mynach	98.7	78			

Figure 3.4.12 and the table show that none of the electoral divisions in Caerphilly county borough fall within the ten with the highest smoothed SIRs in Gwent for colorectal cancer incidence in the under 75 age group.

The areas with the highest smoothed incidence ratios are in Torfaen, Blaenau Gwent and North Monmouthshire.

Figure 3.4.13 Smoothed <75 standardised incidence ratio prostate cancer, 1994-98

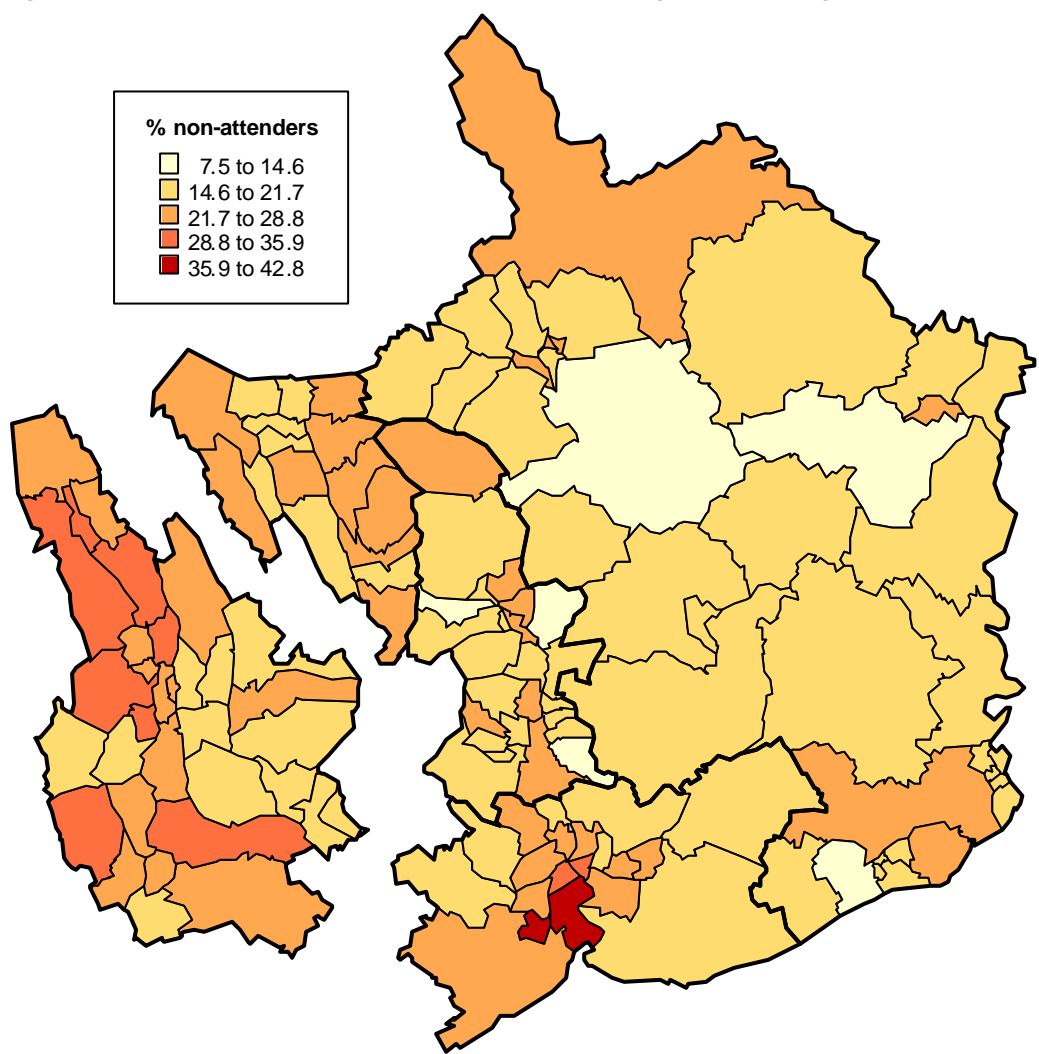


Electoral Division	SIR	Gwent rank	Electoral Division	SIR	Gwent rank
Crumlin	127.5	3	Twyn Carno	83.5	115
St. Martins	122.9	6	St. James	82.2	117
Newbridge	98.8	66	BT&M	81.3	118
Morgan Jones	97.4	73	Penmaen	81.2	119
Penyrheol	97.1	75	Darran Valley	81.2	120
Argoed	95.7	77	Aber Valley	81.1	121
Risca East	95.5	78	Crosskeys	81.1	122
Aberbargoed	94.4	84	Blackwood	80.7	123
Moriah	94.4	85	Gilfach	80.0	124
Cefn Fforest	88.9	100	Abercarn	79.4	125
Ynysddu	87.7	106	Hengoed	78.7	126
Bargoed	85.8	108	Nelson	78.1	127
Maesycwmmmer	85.6	109	Pontllanfraith	76.9	128
Llanbradach	84.8	110	Pengam	75.6	129
Pontlloftyn	84.2	111	New Tredegar	75.6	130
Risca West	84.1	112	St.Cattwg	73.4	131
Ystrad Mynach	84.0	113			

Figure 3.4.13 and the table illustrate that in general Caerphilly county borough has low incidence ratios for prostate cancer in males aged under 75 years. There are, however, two exceptions. Crumlin in the East of the borough and St Martins in the town of Caerphilly have amongst the highest ratios in Gwent. Seven of the ten electoral divisions with the highest smoothed prostate cancer incidence ratios in Gwent are in Monmouthshire.

Further work is required to understand how patterns of case ascertainment and registration might vary across Gwent.

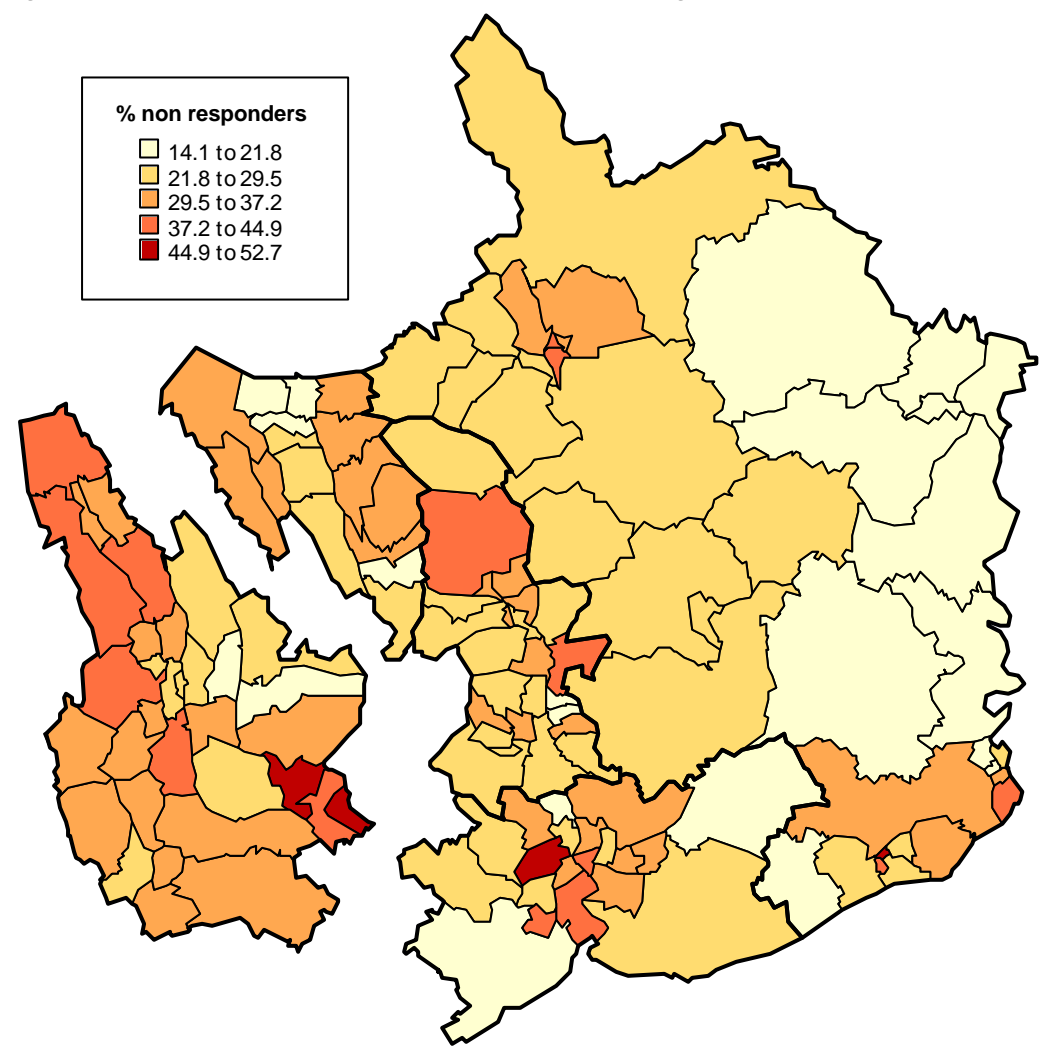
Figure 3.4.14 % non-attenders for breast cancer screening, 2<sup>nd</sup> screening round



Electoral Division	%	Gwent rank	Electoral Division	%	Gwent rank
New Tredegar	32.2	5	Cefn Forest	23.0	42
BT&M	31.9	6	Penyrheol	22.8	44
Darren Valley	30.6	7	Moriah	22.6	45
Aber Valley	30.3	8	Newbridge	22.2	52
Aberbargoed	29.9	9	Ystrad Mynach	21.4	59
Pontlottyn	29.0	10	Abercarn	21.4	61
St.Cattwg	28.9	11	St. Martins	21.1	64
Hengoed	28.8	12	Nelson	21.0	67
Llanbradach	27.8	13	Crosskeys	20.7	70
Argoed	27.5	15	Crumlin	20.3	76
Twyn Carno	27.0	17	Pontllanfraith	20.2	79
Bargoed	26.9	19	Risca East	19.3	88
Gilfach	26.2	22	Penmaen	18.7	93
Maesycwmmer	26.0	23	Blackwood	17.9	99
Pengam	25.4	25	Ynysddu	16.4	113
St.James	25.0	26	Risca West	16.4	114
Morgan Jones	23.9	35			

Figure 3.4.14 and the table illustrate that the percentage of women not attending breast screening appointments is lower than for cervical screening, presented on the next page. However, the Breast Test Wales 70% uptake target was not achieved in four electoral divisions in the borough.

Figure 3.4.15 % final non-responders for cervical screening invitations, 1998

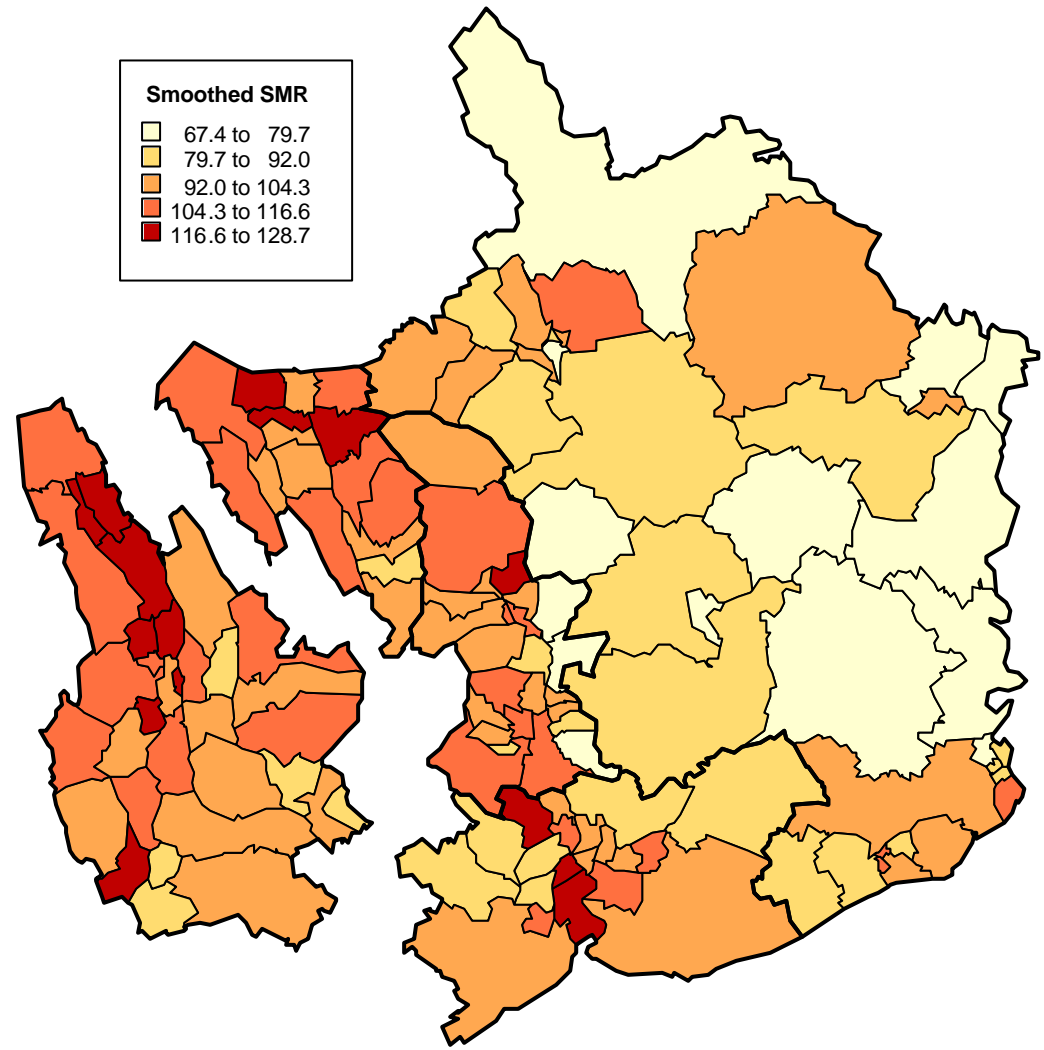


Electoral Division	%	Gwent rank	Electoral Division	%	Gwent rank
Risca East	52.7	1	Morgan Jones	34.8	33
Crosskeys	45.6	3	Pontlloftyn	34.2	36
Risca West	42.4	8	St. Martins	33.7	40
Twyn Carno	41.1	10	Llanbradach	32.6	46
New Tredegar	40.6	11	Aber Valley	30.8	53
Maesycwmmer	39.6	15	Pontllanfraith	29.6	62
Darran Valley	37.7	17	Penyrheol	28.6	68
St.Cattwg	37.4	18	Pengam	26.6	84
Moriah	36.7	21	Argoed	26.0	91
Abercam	36.6	22	Gilfach	25.6	93
Hengoed	36.5	23	Blackwood	24.7	97
Ystrad Mynach	36.1	25	Ynysddu	24.3	99
Nelson	35.6	27	Cefn Fforest	23.3	103
BT&M	35.1	28	Crumlin	21.9	109
Aberbargoed	34.9	29	Penmaen	21.7	110
St. James	34.9	30	Newbridge	21.3	112
Bargoed	34.8	31			

The data presented here refer to women who were invited to attend a screening appointment during 1998 but who had not responded by February 2000.

Figure 3.4.15 shows that Risca East had the highest percentage of non-responders with less than half of the women invited having attended for screening. Over a third of women did not respond in 20 of the 33 electoral divisions in the borough.

Figure 3.4.16 Smoothed person <75 standardised mortality ratio all causes, 1994-98

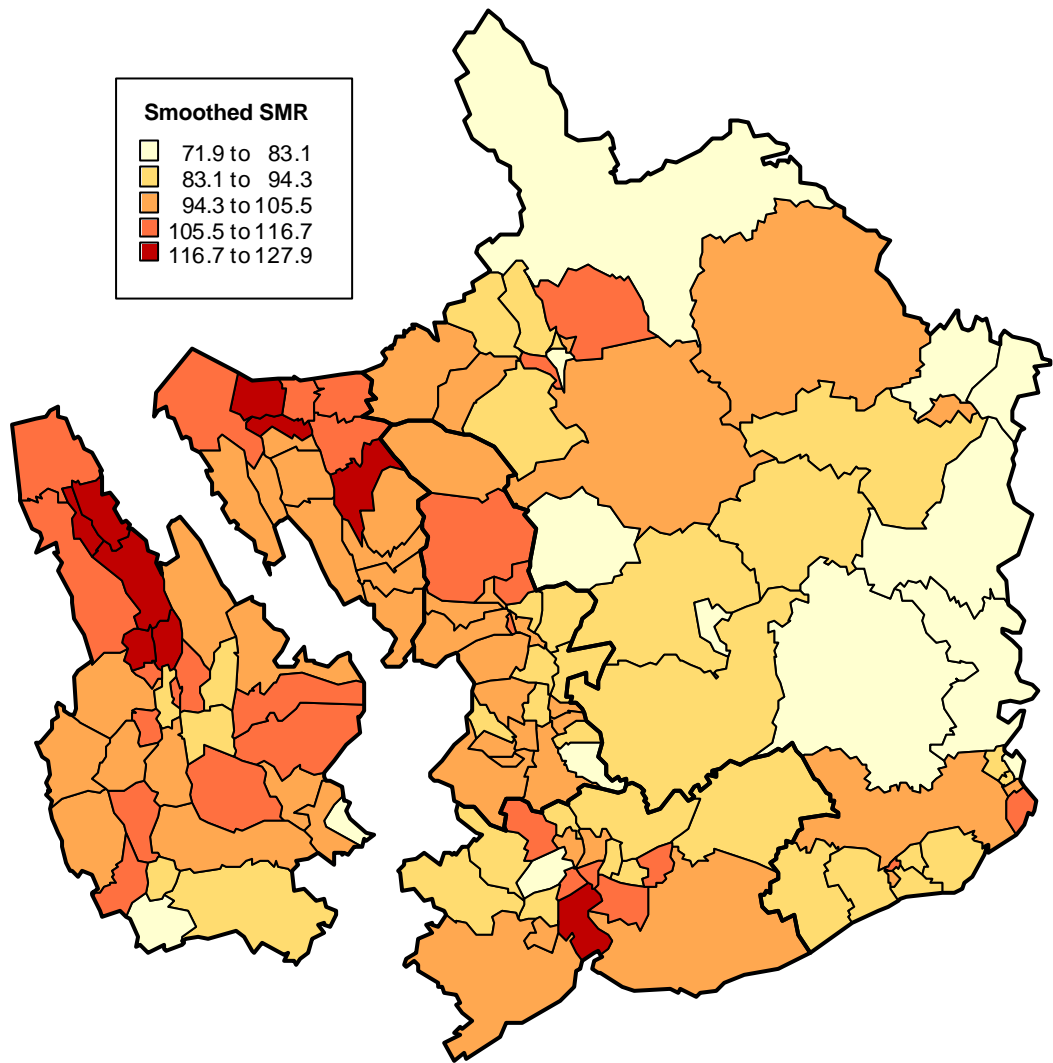


Electoral Division	SMR	Gwent rank	Electoral Division	SMR	Gwent rank
Hengoed	128.7	1	Llanbradach	105.3	42
Aberbargoed	128.6	2	Ynysddu	101.7	55
New Tredegar	126.3	3	Newbridge	101.2	57
Pontlloftyn	124.1	4	BT&M	99.1	64
Moriah	122.9	5	Pontllanfraith	98.8	65
Cefn Fforest	120.6	7	Aber Valley	98.0	66
Bargoed	120.0	9	Ystrad Mynach	97.7	67
Penyrheol	118.5	12	Risca West	97.0	72
Gilfach	116.3	16	Argoed	96.5	75
Twyn Carno	115.8	18	St. James	93.8	83
St.Cattwg	111.7	25	Pengam	93.7	84
Blackwood	110.1	27	Morgan Jones	90.8	93
Darran Valley	110.0	28	Crosskeys	90.3	95
Maesycwmmwr	109.6	30	Penmaen	85.7	104
Crumlin	109.3	31	Risca East	84.8	107
Nelson	108.4	33	St. Martins	83.4	111
Abercam	107.6	35			

Figure 3.4.16 and the table show that the borough has the highest mortality levels in Gwent for all causes in persons aged under 75 years. Caerphilly county borough contains seven of the ten electoral divisions with the highest smoothed SMRs in Gwent for this measure.

The variation in smoothed SMRs between the five boroughs is clearly illustrated.

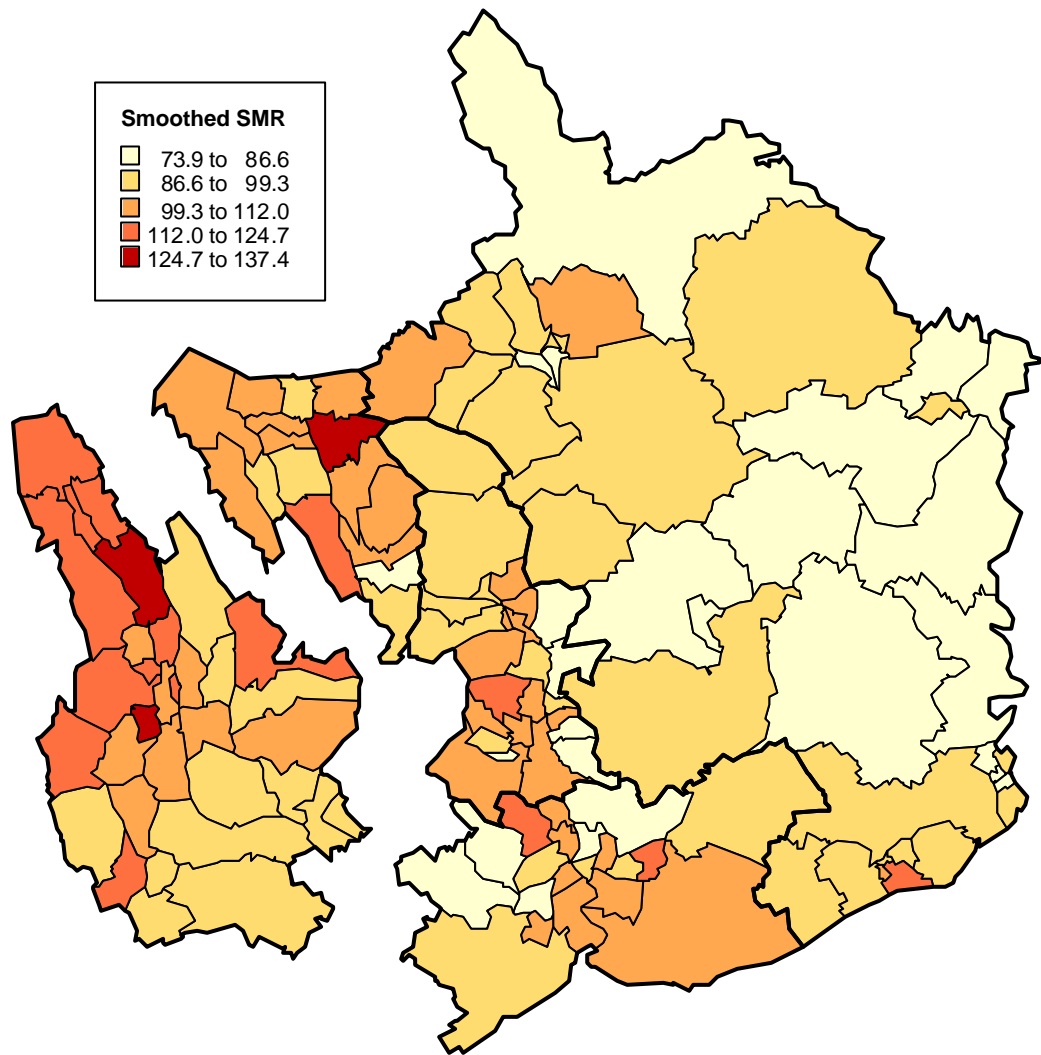
Figure 3.4.17 Smoothed male <75 standardised mortality ratio all causes, 1994-98



Electoral Division	SMR	Gwent rank	Electoral Division	SMR	Gwent rank
Moriah	127.9	1	Argoed	103.0	48
Aberbargoed	125.0	3	Nelson	102.3	52
Bargoed	123.1	5	BT&M	101.6	53
New Tredegar	121.7	7	Crumlin	101.1	54
Pontlottyn	121.2	8	St.Cattwg	101.1	55
Penyrheol	116.1	11	Aber Valley	100.7	57
Gilfach	114.7	15	Crosskeys	96.3	76
Hengoed	114.0	16	Ystrad Mynach	96.3	77
Twyn Carno	112.7	18	Risca West	95.7	79
Cefn Fforest	112.0	20	St. James	93.8	85
Blackwood	111.9	21	Morgan Jones	91.7	93
Newbridge	110.7	23	Pengam	91.4	94
Abercam	106.9	32	Pontllanfraith	91.3	96
Llanbradach	106.4	33	Penmaen	86.1	109
Darran Valley	106.1	35	Risca East	82.4	120
Ynysddu	105.8	36	St. Martins	80.7	123
Maesycwmmwr	105.3	39			

Figure 3.4.17 illustrates that Caerphilly county borough has some of the highest levels of male all cause mortality in the <75 age group. The areas with the highest smoothed SMRs are Moriah, Aberbargoed, New Tredegar and Pontlottyn in the Upper Rhymney Valley. In general, Monmouthshire has the lowest levels of all cause male mortality in the <75s.

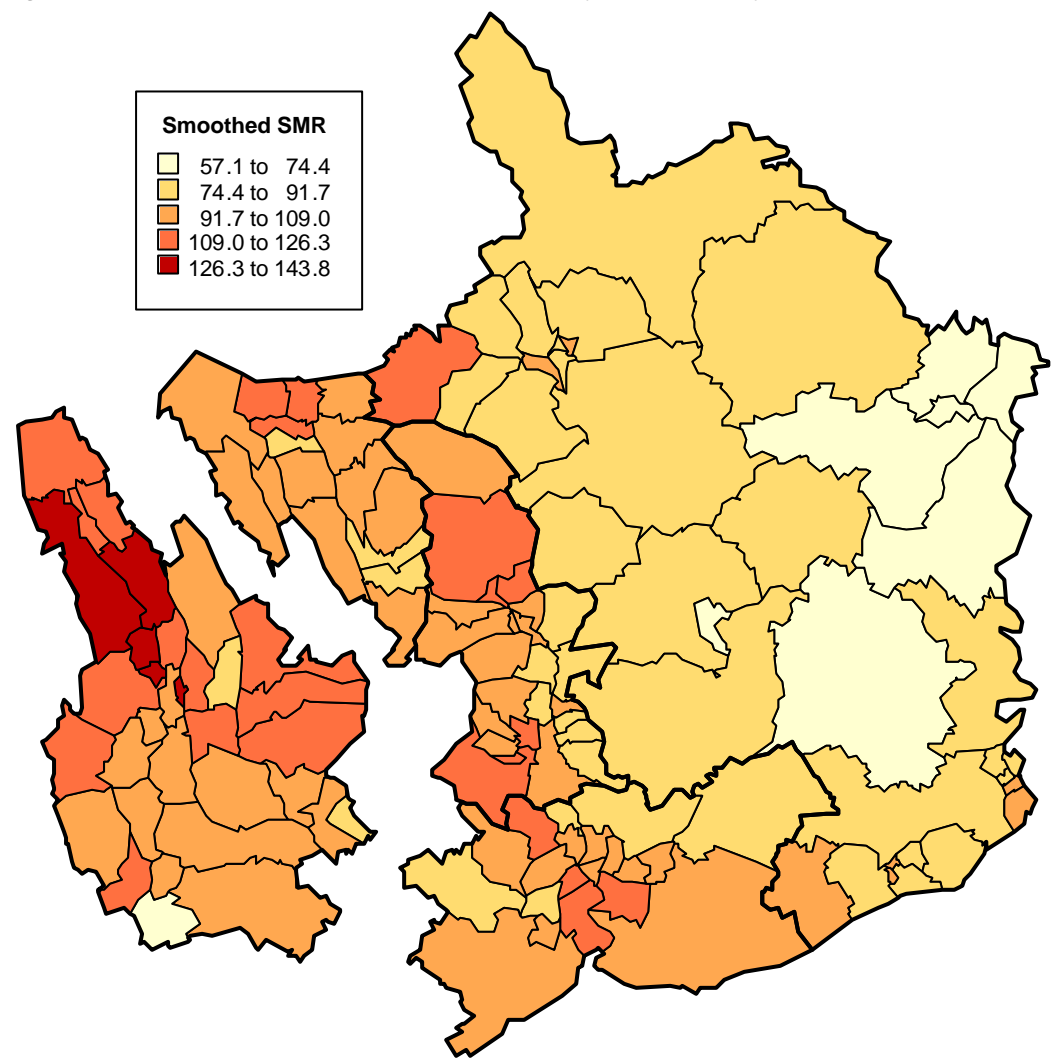
Figure 3.4.18 Smoothed female <75 standardised mortality ratio all causes, 1994/98



Electoral Division	SMR	Gwent rank	Electoral Division	SMR	Gwent rank
Hengoed	137.4	1	Abercarn	104.7	38
New Tredegar	126.0	3	Pengam	104.5	39
St.Cattwg	124.6	4	Ystrad Mynach	103.0	43
Aberbargoed	124.2	5	Llanbradach	100.8	52
Cefn Fforest	123.0	6	Risca West	97.9	64
Pontlloftyn	120.6	8	Aber Valley	97.7	67
Darran Valley	116.7	10	Ynysddu	96.9	68
Penyrheol	116.1	11	St. James	96.3	72
Crumlin	116.0	12	BT&M	95.2	78
Twyn Carno	115.5	14	Argoed	95.1	79
Nelson	113.3	17	Morgan Jones	94.0	84
Moriah	112.7	18	Penmaen	93.1	86
Gilfach	112.3	19	St. Martins	93.1	87
Bargoed	111.3	21	Risca East	92.9	88
Maesycwmmer	111.1	22	Newbridge	87.8	102
Pontllanfraith	109.7	26	Crosskeys	87.5	103
Blackwood	105.9	36			

Figure 3.4.18 and the table show that Caerphilly county borough has high levels of female mortality. Four of the five electoral divisions in Gwent with the highest smoothed SMRs for this measure and 13 of the highest 20 are in the borough.

Figure 3.4.19 Smoothed <75 standardised mortality ratio coronary heart disease, 1994-98



Electoral Division	SMR	Gwent rank	Electoral Division	SMR	Gwent rank
Bargoed	143.8	1	Argoed	102.4	50
New Tredegar	134.2	2	Pengam	101.4	51
Gilfach	132.1	3	Aber Valley	100.1	56
Cefn Fforest	128.1	4	Risca West	99.9	57
Darran Valley	126.4	5	Ystrad Mynach	99.9	58
Pontlloftyn	126.0	6	Ynysddu	99.1	61
Abercam	122.2	7	Hengoed	96.8	67
Aberbargoed	120.8	8	Maesycwmmmer	95.5	72
Twyn Carno	119.3	10	BT&M	94.2	75
Moriah	119.2	11	Llanbradach	94.0	76
Pontllanfraith	117.0	16	Morgan Jones	93.6	78
Blackwood	114.0	19	St. James	93.5	79
St.Cattwg	113.7	20	Crosskeys	92.7	81
Nelson	111.8	23	Penmaen	91.5	85
Crumlin	111.7	24	Risca East	91.4	87
Penyrheol	110.3	27	St. Martins	74.3	124
Newbridge	109.5	30			

Coronary heart disease was the second largest cause of death in the Wales in 1998, after cancers. Figure 3.4.19 and the table show that Caerphilly county borough has particularly high rates of premature mortality for CHD with nine of the ten electoral divisions with the highest smoothed SMRs in Gwent being found in the borough. St Martins in the South of the borough has among the lowest rates of CHD mortality in Gwent.

Figure 3.4.20 Smoothed <75 standardised mortality ratio cerebrovascular disease, 1994-98

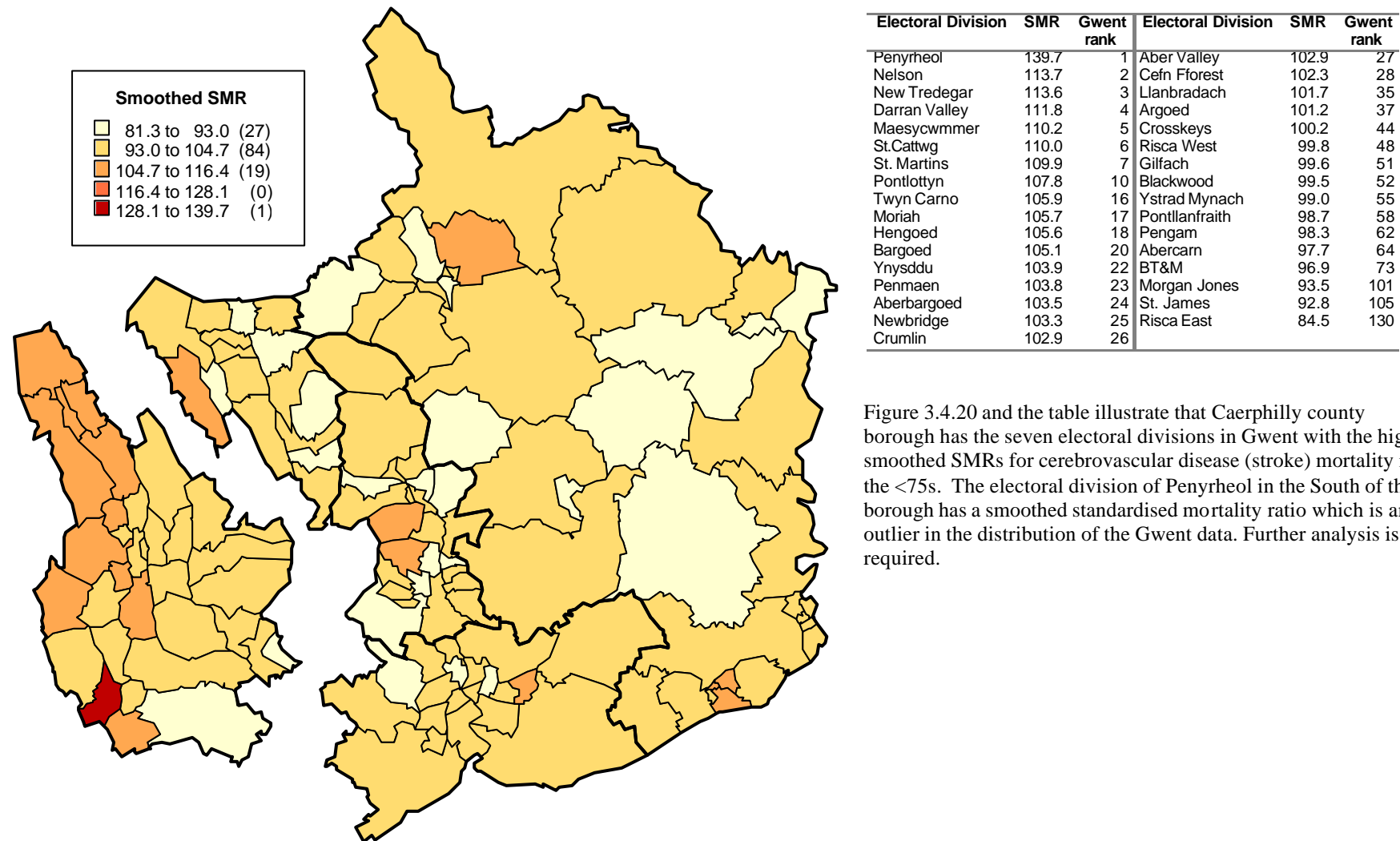
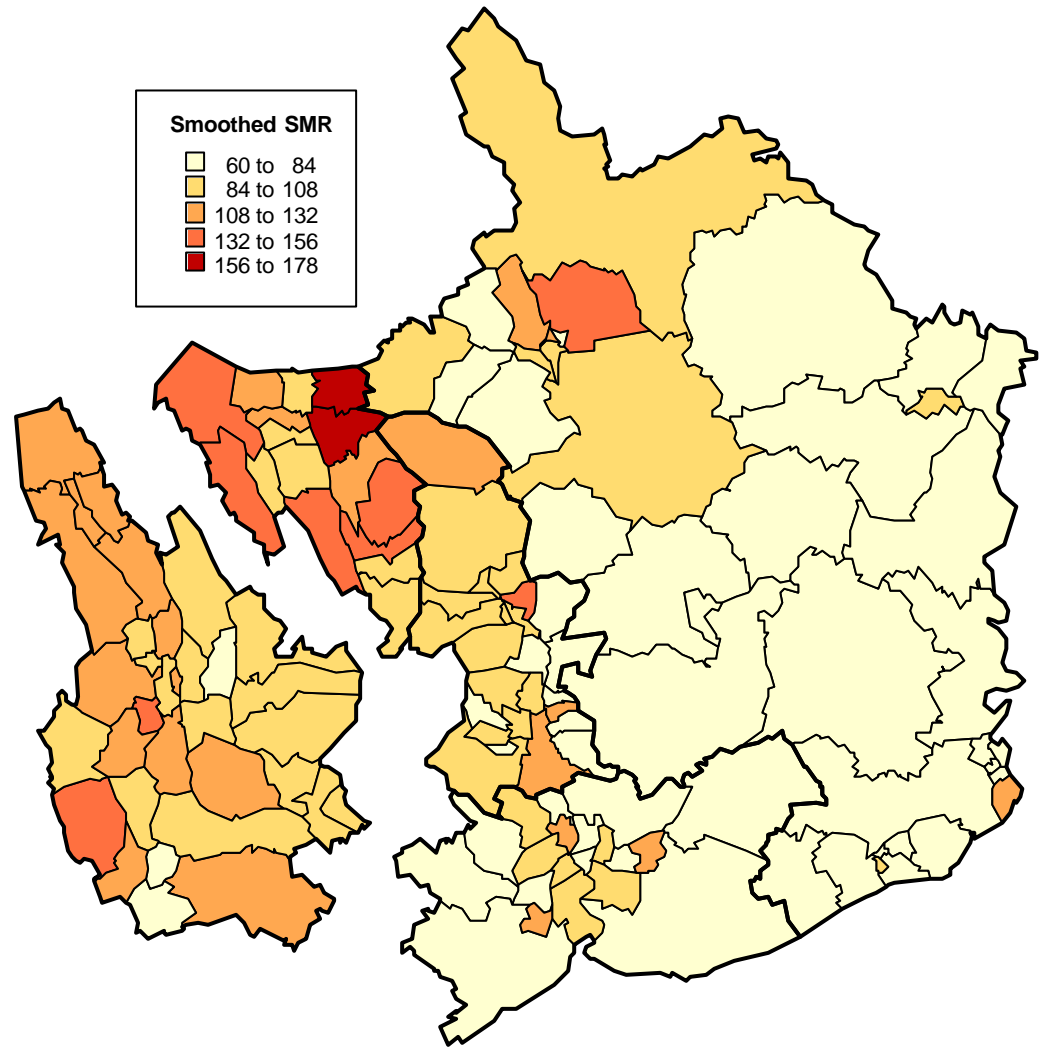


Figure 3.4.20 and the table illustrate that Caerphilly county borough has the seven electoral divisions in Gwent with the highest smoothed SMRs for cerebrovascular disease (stroke) mortality in the <75s. The electoral division of Penyrheol in the South of the borough has a smoothed standardised mortality ratio which is an outlier in the distribution of the Gwent data. Further analysis is required.

Figure 3.4.21 Smoothed <75 standardised mortality ratio respiratory disease, 1994-98



Electoral Division	SMR	Gwent rank	Electoral Division	SMR	Gwent rank
Hengoed	149.5	4	Llanbradach	105.4	44
Aber Valley	147.1	5	Bargoed	103.8	45
Pontlloftyn	130.1	12	Nelson	100.8	51
St.Cattwg	126.9	13	Gilfach	100.6	52
Aberbargoed	126.4	14	Newbridge	99.1	53
Cefn Fforest	125.5	16	Blackwood	98.5	54
Penyrheol	124.3	18	Pengam	97.3	55
Moriah	123.9	19	Pontllanfraith	95.9	56
New Tredegar	123.5	20	Argoed	94.5	58
Twyn Carno	117.5	21	Abercarn	91.2	66
Ystrad Mynach	116.7	24	Crumlin	90.7	67
Maesycwmmer	115.2	25	Risca West	90.2	69
Darran Valley	114.8	27	Crosskeys	89.9	71
Ynysddu	114.2	28	Penmaen	81.1	90
St. James	109.0	35	Morgan Jones	78.7	95
BT&M	107.9	37	St. Martins	63.3	127
Risca East	107.3	41			

Respiratory diseases were the third main cause of death in Wales in 1998. The major causes of death within this category are chronic obstructive airways disease (ICD9 490 to 496) which has a strong association with smoking, and pneumonia (ICD9 480 to 486).

Figure 3.4.21 shows that the electoral divisions of Hengoed and Aber Valley have the highest SMRs in the borough and amongst the highest in Gwent. There are a large number of electoral divisions with SMRs above the Gwent average. Overall, Blaenau Gwent has the highest mortality levels.

Figure 3.4.22 Smoothed <75 standardised mortality ratio all accidents and adverse effects, 1994-98

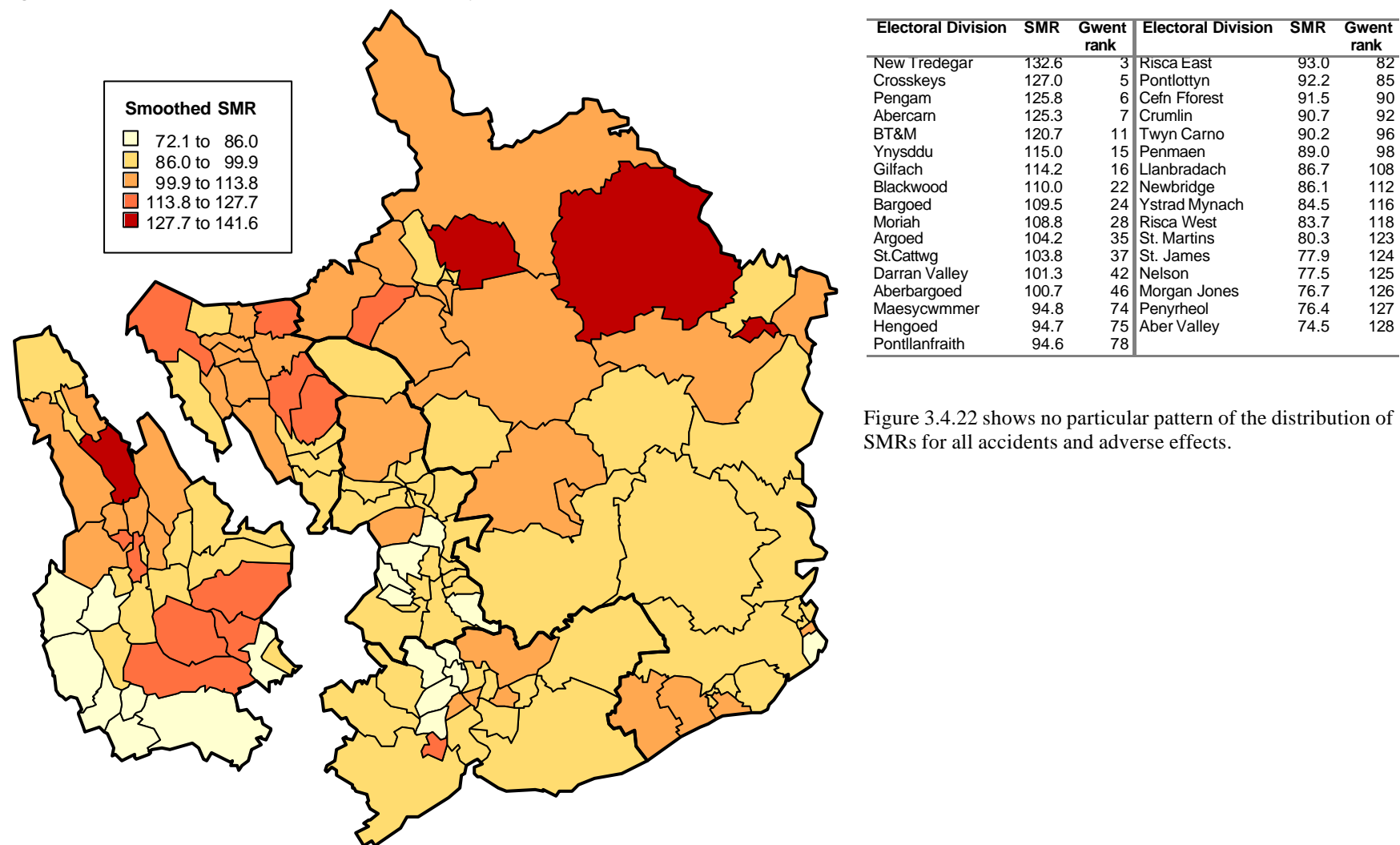
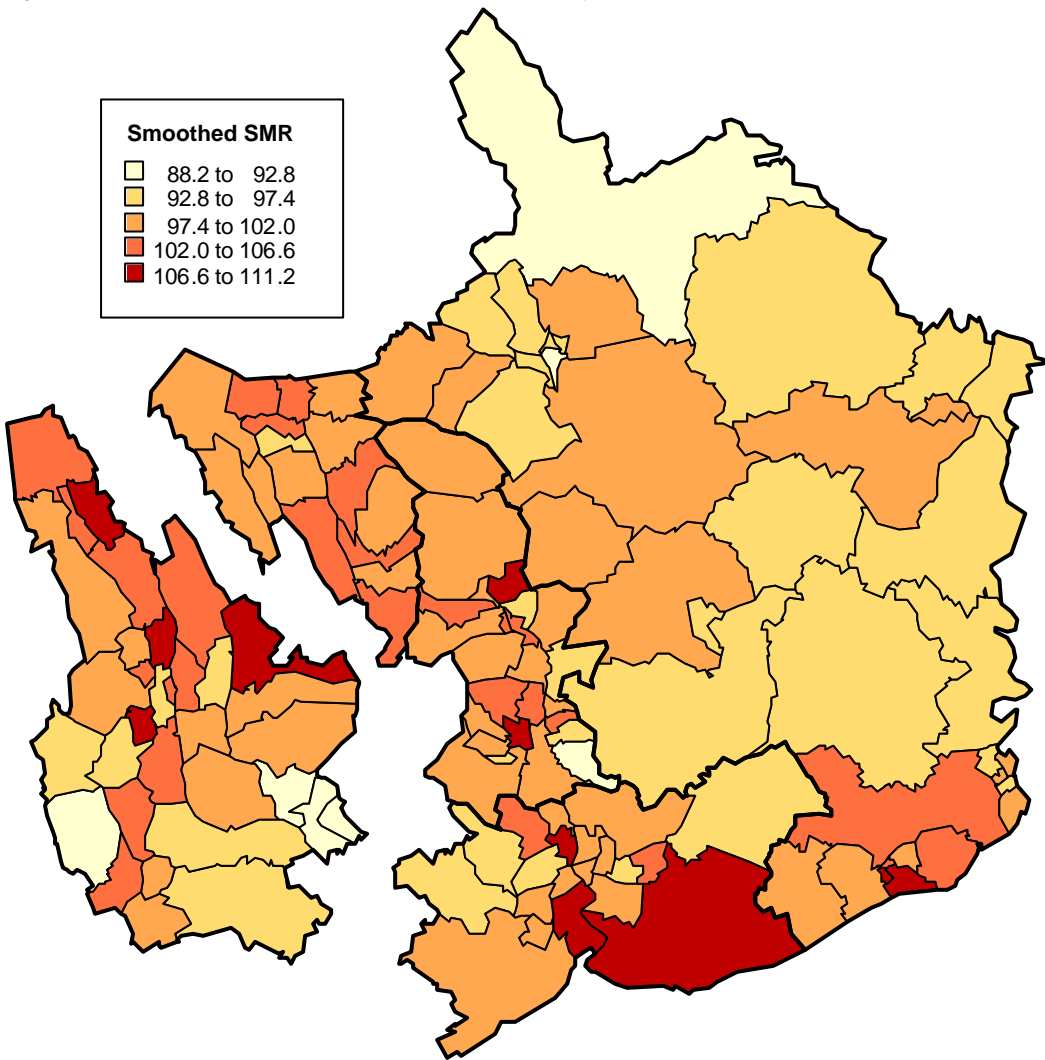


Figure 3.4.22 shows no particular pattern of the distribution of SMRs for all accidents and adverse effects.

Figure 3.4.23 Smoothed <75 standardised mortality ratio all cancers, 1994-98

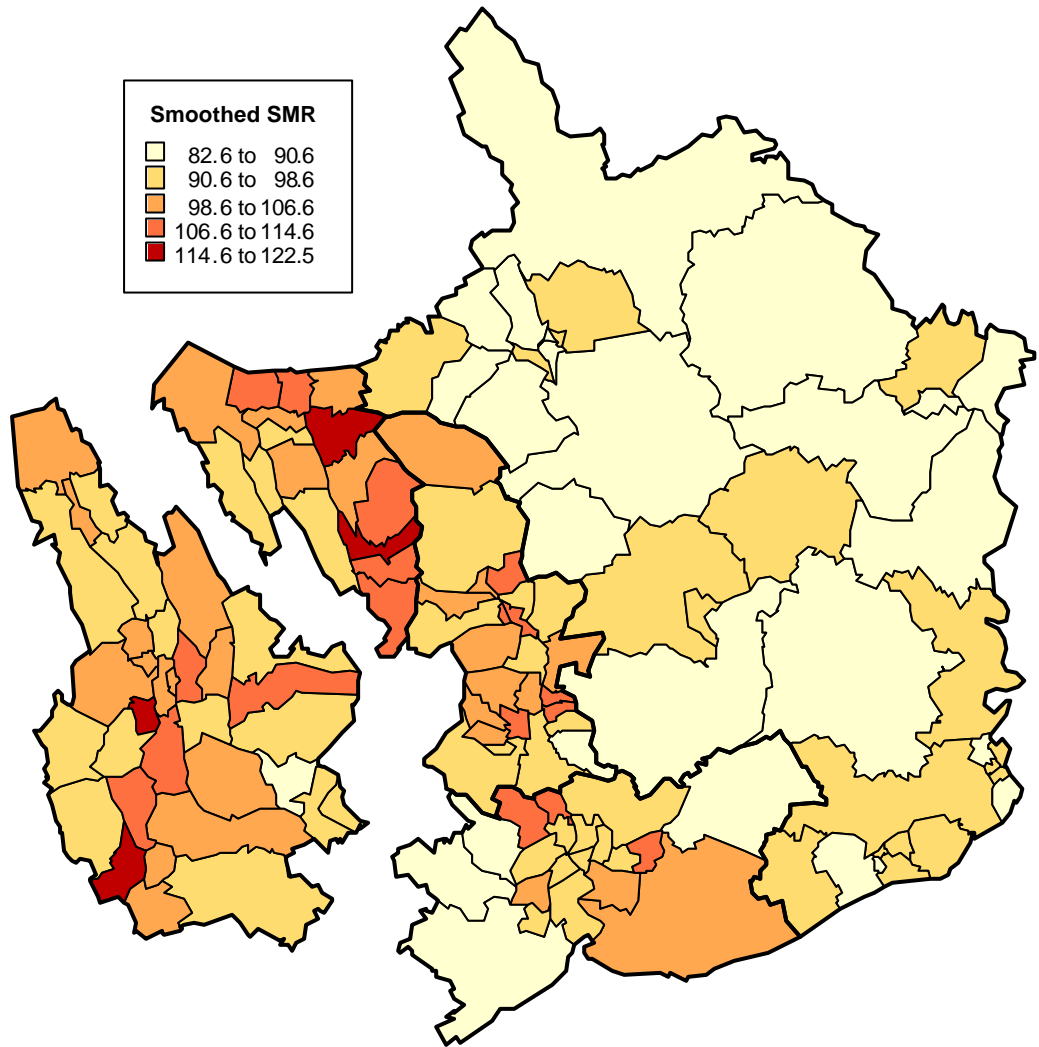


Electoral Division	SMR	Gwent rank	Electoral Division	SMR	Gwent rank
Moriah	111.2	1	Darran Valley	100.3	56
Crumlin	107.7	4	Ynysddu	99.4	67
Hengoed	107.1	9	Abercarn	99.0	73
Aberbargoed	106.6	10	Pontllanfraith	98.3	79
Twyn Carno	106.1	14	St.Cattwg	98.2	82
Blackwood	105.0	21	St. Martins	98.0	85
Cefn Fforest	104.2	22	Ystrad Mynach	96.9	95
Gilfach	104.1	23	Nelson	96.3	101
Llanbradach	104.1	24	Penmaen	96.1	103
New Tredegar	103.4	28	BT&M	94.9	115
Maesycwmmwr	103.3	30	St. James	94.0	118
Penyrheol	103.3	29	Pengam	93.3	123
Pontlloftyn	103.1	32	Crosskeys	92.6	125
Argoed	102.3	38	Risca West	91.5	126
Bargoed	101.4	44	Risca East	91.4	127
Newbridge	100.8	52	Aber Valley	90.6	129
Morgan Jones	100.4	55			

Cancers were the largest cause of mortality in Wales in 1998. Figure 3.4.23 and the table show that overall Caerphilly county borough does not have particularly high levels of cancer mortality compared with the rest of Gwent. However the electoral divisions of Moriah in the Upper Rhymney Valley and Crumlin in the East, ranked 1<sup>st</sup> and 4<sup>th</sup> respectively, have amongst the highest smoothed SMRs in Gwent.

Source: ONS/SAHRU

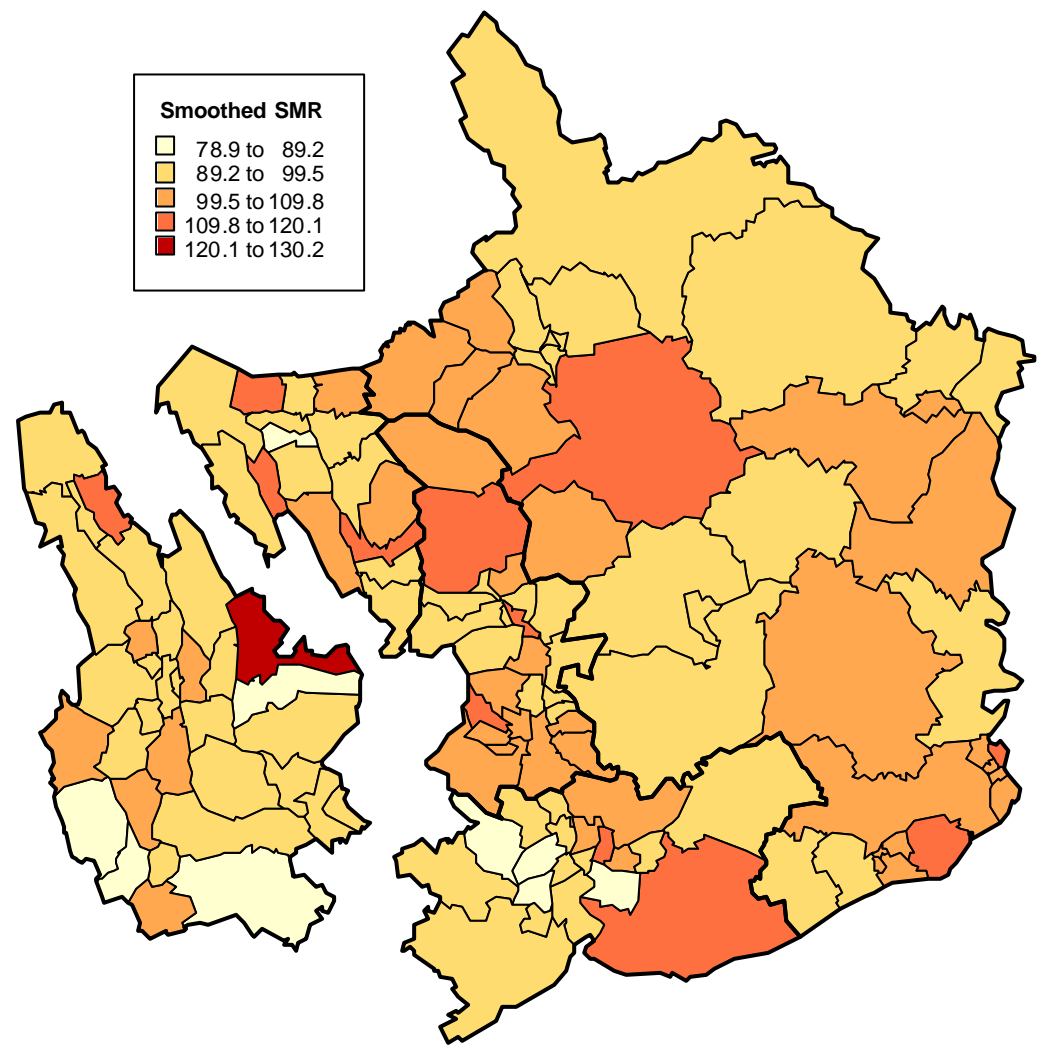
Figure 3.4.24 Smoothed <75 standardised mortality ratio lung cancer, 1994/98



Electoral Division	SMR	Gwent rank	Electoral Division	SMR	Gwent rank
Penyrheol	122.5	1	Morgan Jones	99.9	46
Hengoed	116.5	2	Gilfach	99.7	47
Llanbradach	111.2	9	Pontllanfraith	98.6	55
Blackwood	109.9	10	Aberbargoed	98.0	58
Maesycwmmwr	108.1	15	New Tredegar	97.8	60
Newbridge	107.4	20	Ystrad Mynach	97.6	62
Penmaen	106.1	23	Moriah	97.2	63
Argoed	106.0	24	Nelson	96.9	65
Ynysddu	104.2	28	Darran Valley	96.1	71
Cefn Fforest	102.5	31	Aber Valley	95.5	74
St.Cattwg	102.3	34	Abercarn	94.4	84
Bargoed	101.9	35	Crumlin	94.2	86
St. Martins	101.5	37	Risca East	93.8	88
BT&M	101.4	38	Risca West	91.8	100
Pengam	101.3	40	St. James	90.9	103
Pontlloftyn	101.3	39	Crosskeys	85.4	125
Twyn Carno	100.3	44			

By far the largest single cause of lung cancer is smoking so figure 3.4.24 provides a good indication of the areas where smoking has been most prevalent. The Penyrheol and Hengoed electoral divisions have the highest mortality for lung cancer in the under 75s in Gwent. However, the majority of electoral divisions in Caerphilly county borough have SMRs which are either close to or below the Gwent average.

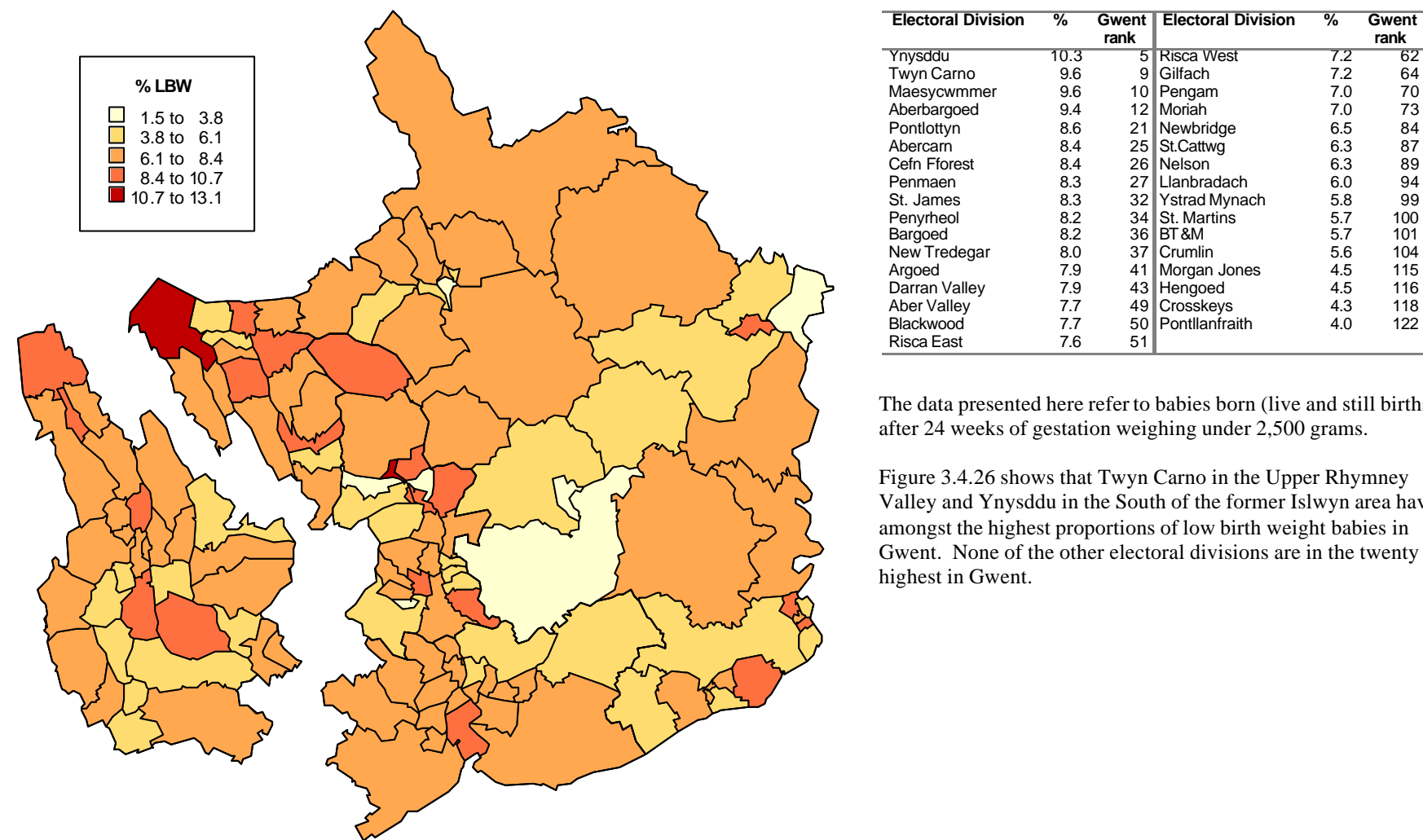
Figure 3.4.25 Smoothed <75 standardised mortality ratio female breast cancer, 1994-98



Electoral Division	SMR	Gwent rank	Electoral Division	SMR	Gwent rank
Crumlin	130.2	1	BT&M	95.0	87
Moriah	116.9	5	Morgan Jones	95.0	88
Blackwood	106.3	24	Risca East	94.8	89
St. Martins	105.8	25	New Tredegar	94.5	90
Bargoed	103.6	33	Penmaen	94.1	95
Llanbradach	101.1	42	Crosskeys	93.7	97
Nelson	101.1	43	Risca West	93.2	101
Maesycwmmwr	100.4	47	Ynysddu	91.4	110
Abercam	97.9	59	Darran Valley	90.6	115
Hengoed	97.8	61	Aberbargoed	89.9	118
Ystrad Mynach	97.8	62	Cefn Fforest	89.7	119
St.Cattwg	97.3	66	Pontllanfraith	89.5	122
Gilfach	97.1	67	Aber Valley	88.5	125
Pontlloftyn	97.0	68	Penyrheol	87.0	127
Argoed	96.6	70	St. James	86.2	128
Twyn Carno	95.5	79	Newbridge	84.5	129
Pengam	95.4	81			

Breast cancer is the most common cancer in females accounting for an average of approximately 25 deaths per year in females aged under 75 years old in Caerphilly borough. The figure shows that the electoral divisions of Crumlin in the East of the borough and Moriah in the Upper Rhymney Valley have higher than average breast cancer mortality compared to Gwent. The remaining electoral divisions have smoothed SMRs which are either close to or below the Gwent average.

Figure 3.4.26 % low birth weight babies (<2500g) 1994-98

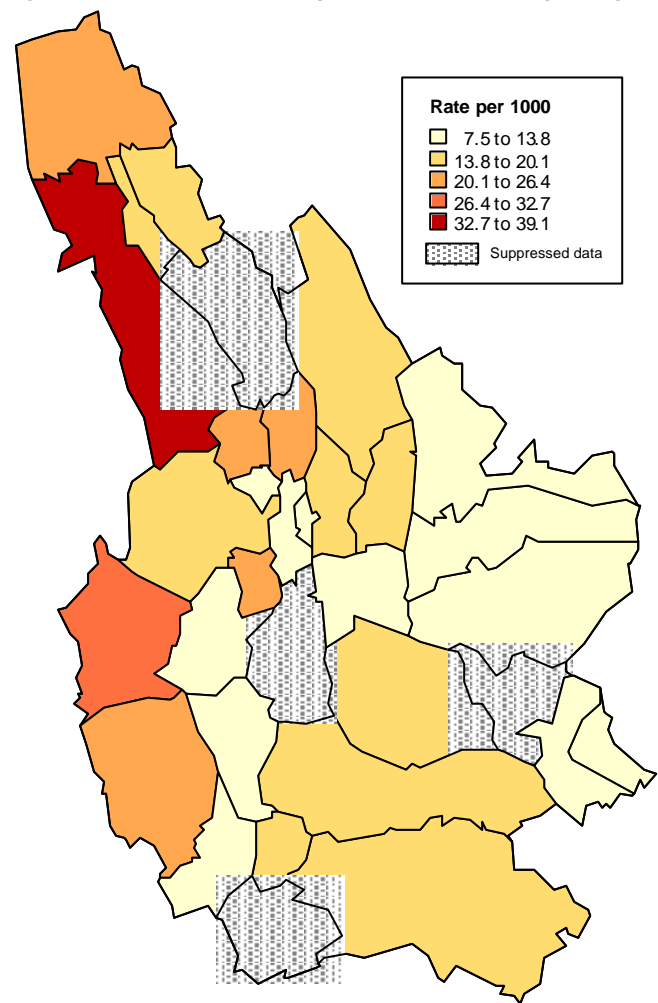


Source: AWPS

The data presented here refer to babies born (live and still births) after 24 weeks of gestation weighing under 2,500 grams.

Figure 3.4.26 shows that Twyn Carno in the Upper Rhymney Valley and Ynysddu in the South of the former Islwyn area have amongst the highest proportions of low birth weight babies in Gwent. None of the other electoral divisions are in the twenty highest in Gwent.

Figure 3.4.27 Annual teenage conception rate, girls aged under 16, 1992-97



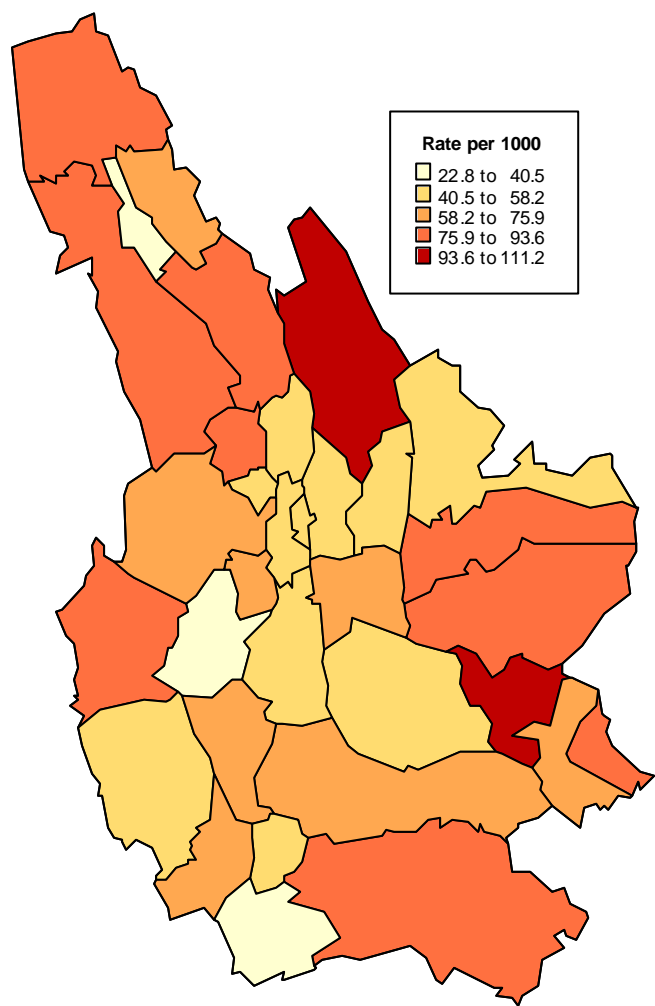
Source: ONS

Electoral Division	Rate	Electoral Division	Rate
Darran Valley	39.0	Gillfach	13.5
Nelson	28.6	Ystrad Mynach	12.6
Hengoed	22.2	Pontllanfraith	12.1
Aber Valley	22.2	Penyrheol	12.0
Bargoed	22.1	Cefn Fforest	11.2
Twyn Carno	21.5	Risca East	11.2
Aberbargoed	21.1	Crumlin	9.6
Pontlottyn	19.6	Llanbradach	8.4
St. James	19.5	Pengam	8.2
Moriah	17.8	Risca West	7.9
St. Cattwg	17.8	Newbridge	7.6
Morgan Jones	16.7	Abercarn	7.6
Ynysddu	15.4	Crosskeys	-
BT&M	15.3	Maesycwmmmer	-
Blackwood	14.9	New Tredegar	-
Penmaen	14.9	St. Martins	-
Argoed	13.9		

Figure 3.4.27 shows the borough wide variation for teenage conceptions in under 16 year olds. Darran Valley in the North has the highest rate with an average annual conception rate of 39 per 1000. At the other end of the scale, the data for Crosskeys, Maesycwmmmer and St Martins electoral divisions have been suppressed by the Office for National Statistics since the number of conceptions in this age group was less than three. Data for New Tredegar are not included since this electoral division contains the old ward of Tir-Phil for which data are suppressed.

These data must be interpreted with caution as they are based on small numbers of conceptions, ranging from a total of three to 21 during the six-year time period and some electoral divisions have small populations in this age group. These small numbers result in wide confidence intervals for the point estimates, so that Darran valley 95% CI is 19.5 to 69.8/1000 and Abercarn is 2.1 to 19.4/1000.

Figure 3.4.28 Annual teenage conception rate, girls aged under 18, 1992-97

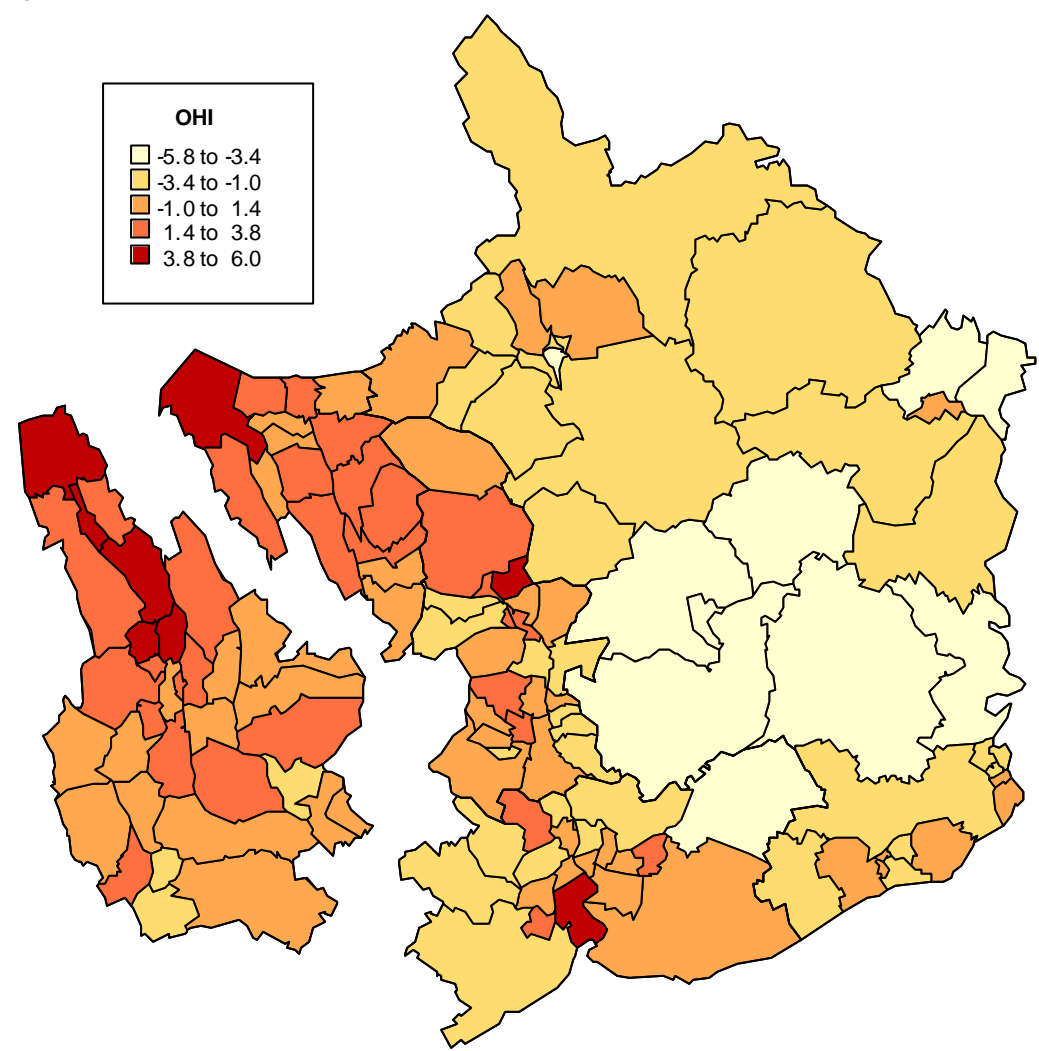


Electoral Division	Rate	Electoral Division	Rate
Argoed	111.1	Risca West	62.5
Crosskeys	100.8	Penyrheol	60.3
Darran Valley	90.9	Aberbargoed	55.6
Nelson	88.2	Ynysddu	54.6
New Tredegar	85.6	Crumlin	51.9
St James	83.3	Maesycwmmer	50.5
Twyn Carno	80.5	Cefn Fforest	50.2
Bargoed	79.8	Morgan Jones	49.9
Abercam	79.5	Blackwood	49.7
Newbridge	79.2	Gilfach	49.0
Risca East	77.3	Aber Valley	47.9
St Cattwg	75.6	Penmaen	47.1
Llanbradach	69.3	Pengam	46.3
Pontllanfraith	65.4	Pontlloftyn	40.4
BT&M	64.9	St Martins	37.3
Moriah	64.0	Ystrad Mynach	22.8
Hengoed	63.4		

Figure 3.4.28 shows the borough wide variation for teenage conceptions in under 18 year olds. Argoed in the North has the highest rate with an average annual conception rate of 111.1 per 1000.

These data must be interpreted with caution as they are also based on small numbers of conceptions, ranging from a total of four to 47 during the three-year time period. These small numbers result in wide confidence intervals for the point estimates, so that Argoed 95% CI is 65.9 to 175.6/1000 and Ystrad Mynach is 7.4 to 53.3/1000.

Figure 3.4.29 Overall Health Index

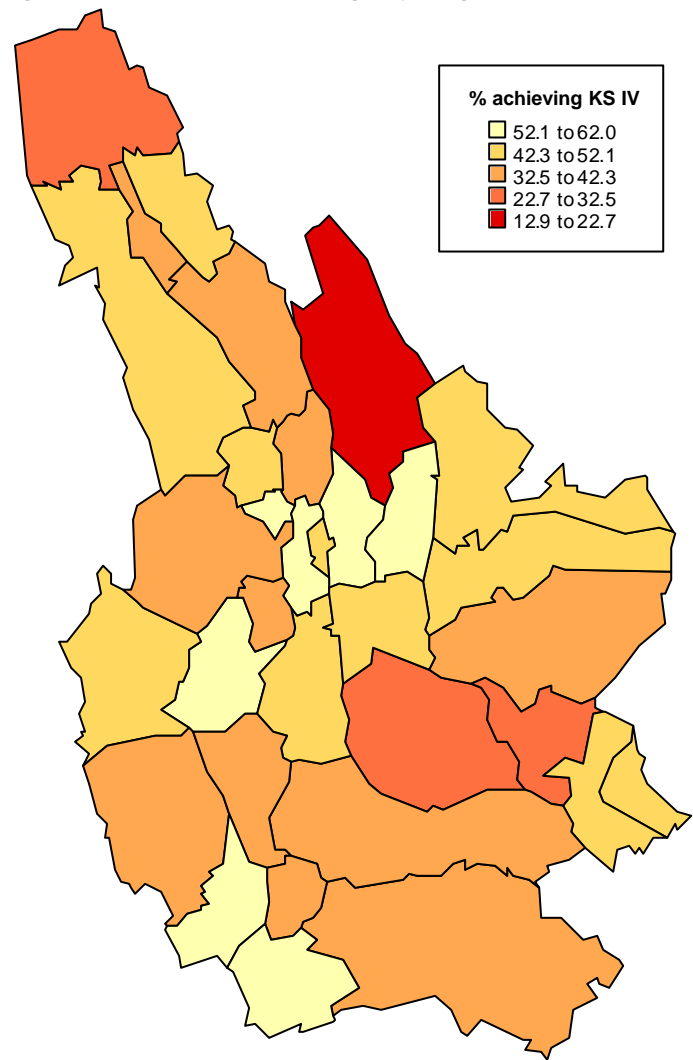


Electoral Division	Score	Gwent rank	Electoral Division	Score	Gwent rank
Aberbargoed	5.91	1	St.James	1.24	44
New Tredegar	4.76	3	Aber Valley	1.19	46
Pontlloftyn	4.46	4	Pengam	1.12	47
Twyn Carno	4.32	6	Nelson	0.95	49
Bargoed	4.02	7	Crumlin	0.82	52
Cefn Fforest	3.44	10	Llanbradach	0.46	58
Moriah	3.00	11	Penmaen	0.43	59
Darren Valley	2.93	12	Newbridge	0.33	60
Hengoed	2.79	13	Risca West	0.24	62
Penyrheol	2.63	14	BT&M	-0.04	69
Gilfach	2.63	15	Ystrad Mynach	-0.22	72
St.Cattwg	2.26	20	Risca East	-0.90	83
Maesycwmmer	2.15	25	Pontllanfraith	-0.96	84
Ynysddu	1.86	29	Morgan Jones	-1.45	92
Argoed	1.82	30	Crosskeys	-1.46	93
Blackwood	1.81	31	St.Martins	-2.15	106
Abercam	1.75	34			

The Overall Health Index (OHI) combines the variables of standardised limiting long term illness ratio, percent low birth weight babies and smoothed persons <75 SMR to calculate an OHI score for each electoral division. Scores above zero indicate worse than average health in Gwent.

Figure 3.4.28 shows that much of the borough, particularly the Upper Rhymney Valley, has higher than average OHI scores with six of the highest ten electoral divisions in Gwent.

Figure 3.5.1 % pupils achieving Key Stage IV (5+ GCSE A\* to C grades) 1998/9

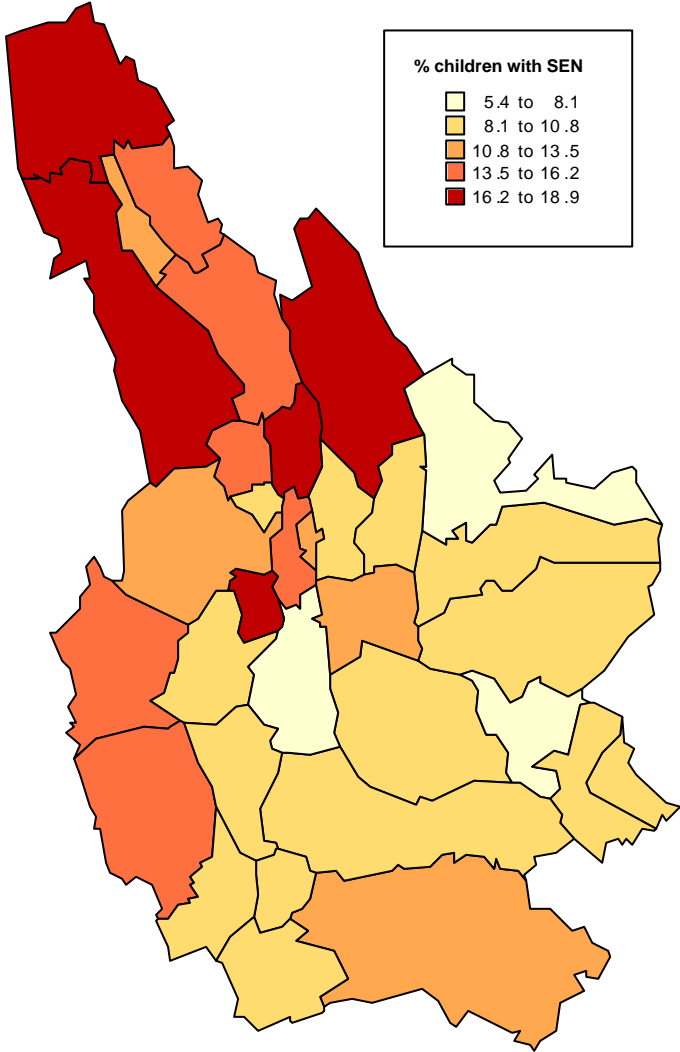


Electoral Division	%	Electoral Division	%
Argoed	12.9	Maesycwmmwr	44.4
Crosskeys	25.0	Cefn Fforest	44.9
Twyn Carno	26.3	Pontllanfraith	45.1
Ynysddu	27.0	Bargoed	47.7
New Tredegar	32.8	Moriah	48.0
Aberbargoed	33.3	Nelson	48.8
Pontlloftyn	33.3	Darran Valley	50.0
Aber Valley	34.3	Risca East	51.1
St. James	34.8	Newbridge	51.5
Abercam	36.0	Penyrheol	53.1
Morgan Jones	37.5	Blackwood	53.9
BTM	37.9	St. Martins	56.1
Llanbradach	39.6	Pengam	57.6
Hengoed	40.3	Penmaen	58.2
St.Cattwg	42.2	Gilfach	61.9
Crumlin	44.2	Ystrad Mynach	61.9
Risca West	44.4		

The Key Stage IV assessment is the GCSE coursework and examinations which are taken by 15/16 year olds before they either leave school or go on to further education.

Figure 3.5.1 shows the percentage of pupils achieving at least five GCSEs at grades A\* to C. Once again, there is a wide variation between electoral divisions. Electoral division percentages were calculated by linking an electoral division to each of the pupils who entered the exams using the postcode. Therefore the data relate exactly to where the pupils live rather than where they go to school.

Figure 3.5.2 % children with statement of special educational need, stages 3,4 & 5

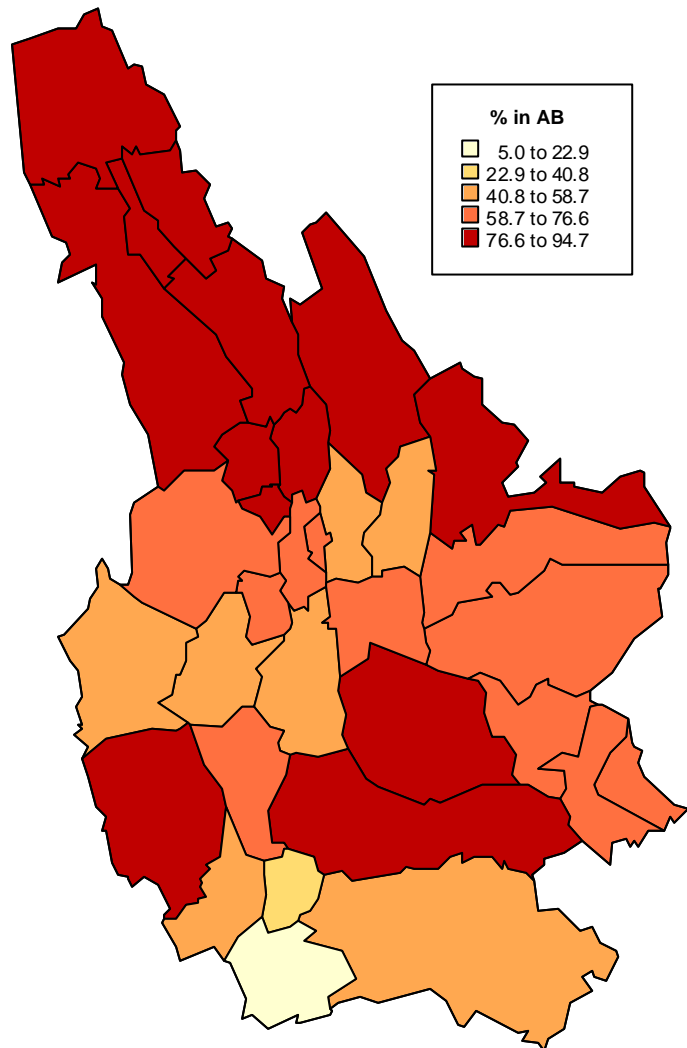


Electoral Division	%	Electoral Division	%
Argoed	18.9	Penyrheol	10.7
Hengoed	17.9	Newbridge	10.1
Darran Valley	17.2	BTM	10.1
Twyn Carno	17.1	Ynysddu	9.9
Aberbargoed	16.4	Morgan Jones	9.9
New Tredegar	15.6	Llanbradach	9.8
Moriah	15.0	Risca East	9.7
Aber Valley	14.7	Gilfach	9.0
Bargoed	14.5	Ystrad Mynach	9.0
Pengam	14.4	Risca West	8.7
Nelson	13.6	Penmaen	8.7
St. James	13.0	Abercarn	8.4
Pontlloftyn	11.9	St. Martins	8.2
Pontllanfraith	11.5	Crumlin	7.7
Cefn Fforest	11.5	Crosskeys	7.6
St.Cattwg	11.1	Maesycwmmer	5.4
Blackwood	10.7		

For a detailed explanation of how special educational needs are classified please see Appendix 1.

Figure 3.5.2 shows that the electoral divisions with the greatest proportion of children aged 4-16 with special educational needs at Stage 3 and above are predominantly in the North of the borough with the exception of Hengoed.

Figure 3.6.1 % households in Council Tax bands A & B, 1999



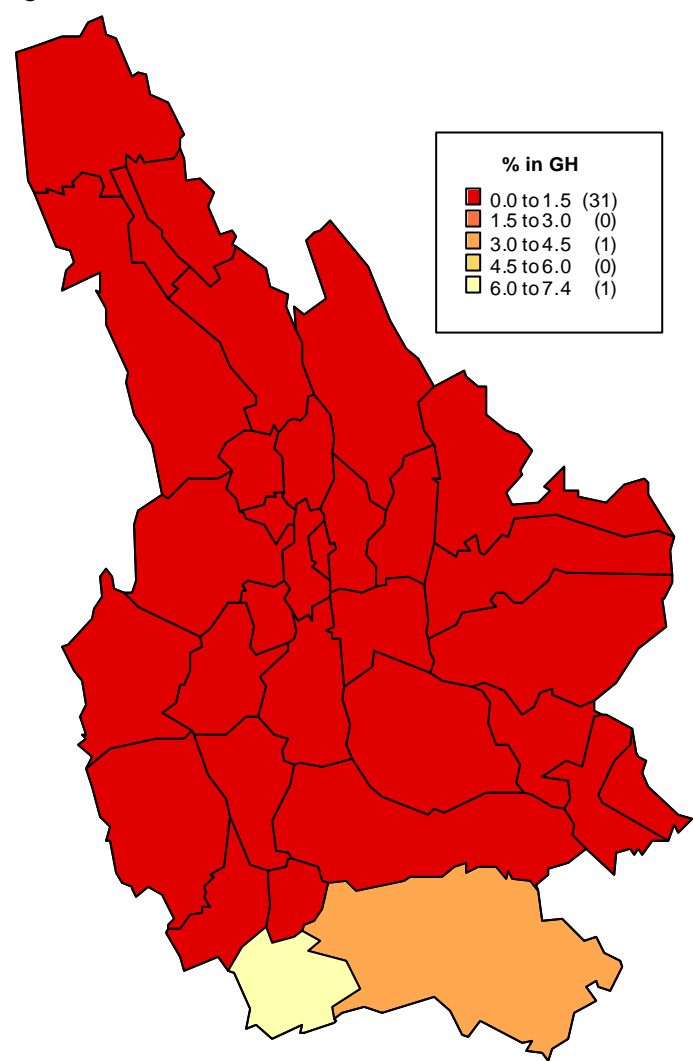
Electoral Division	No.	%	Electoral Division	No.	%
New Tredegar	2104	94.7	Risca East	1847	71.2
Pontlottyn	763	92.7	Cefn Fforest	1074	71.0
Ynysddu	1454	92.6	Pengam	1090	69.0
Darran Valley	985	92.1	St.Cattwg	1845	62.9
Aberbargoed	1367	91.7	Pontllanfraith	2034	61.4
Twyn Carno	1034	91.6	Llanbradach	1135	59.9
Moriah	1891	91.0	Abercarn	2483	59.0
Crumlin	2473	90.8	St. James	1516	58.2
Aber Valley	1805	86.9	Maesycwmmmer	478	53.9
Bargoed	2430	85.8	Penmaen	911	53.5
BT&M	1298	84.8	Nelson	949	50.7
Gilfach	774	81.6	Blackwood	1496	48.0
Argoed	863	77.5	Penyrheol	1856	44.3
Hengoed	1376	75.7	Ystrad Mynach	692	42.6
Risca West	1822	74.1	Morgan Jones	2004	38.5
Newbridge	1960	73.6	St. Martins	36	5.0
Crosskeys	1689	71.6			

Council tax bands are allocated according the following valuation bands:

Bands A & B	Not exceeding £39,000
Band C	Over £39,000 but not exceeding £51,000
Band D	Over £51,000 but not exceeding £66,000
Band E	Over £66,000 but not exceeding £90,000
Band F	Over £90,000 but not exceeding £120,000
Bands G & H	Over £120,000

Figure 3.6.1 shows clearly that there is a high percentage of low value dwellings in the borough. This is particularly true of the Upper Rhymney Valley. There are only five electoral divisions where over 50% of dwellings in bands A&B. The St Martins electoral division in the South-east of the Borough has a very low percentage of low value housing.

Figure 3.6.2 % households in Council Tax bands G & H, 1999

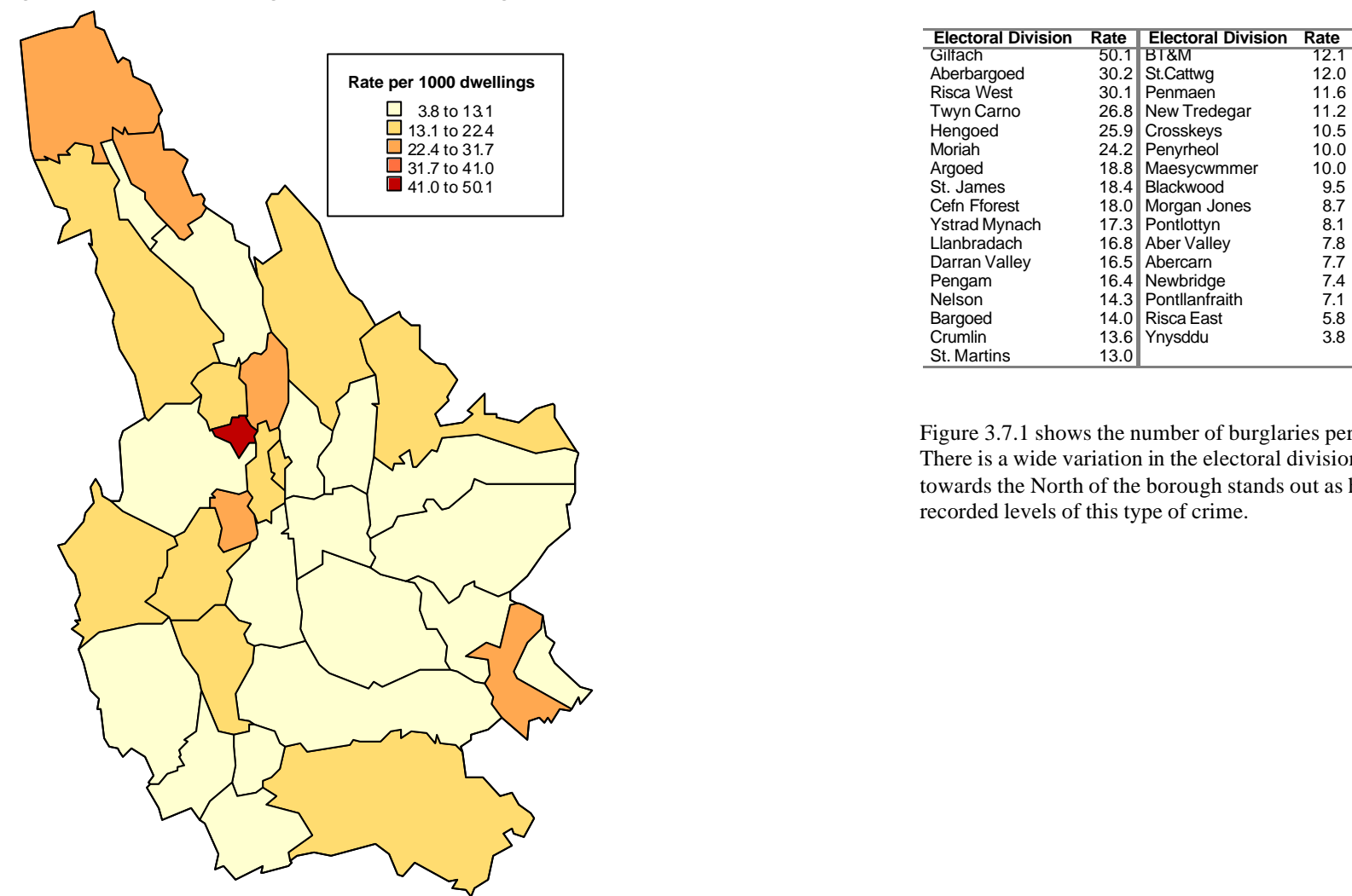


Electoral Division	No.	%	Electoral Division	No.	%
Cefn Fforest	0	0.0	Ynysddu	5	0.3
Darran Valley	0	0.0	St.Cattwg	10	0.3
Aber Valley	1	0.0	Risca West	9	0.4
BT&M	1	0.1	Morgan Jones	21	0.4
Bargoed	2	0.1	Pontllanfraith	16	0.5
Risca East	2	0.1	Ystrad Mynach	8	0.5
Twyn Carno	1	0.1	Pengam	8	0.5
New Tredegar	2	0.1	Penyrheol	22	0.5
Llanbradach	2	0.1	Crosskeys	15	0.6
Pontlloftyn	1	0.1	Newbridge	18	0.7
Moriah	3	0.1	Penmaen	14	0.8
Crumlin	4	0.1	Abercarn	51	1.2
Nelson	3	0.2	Blackwood	39	1.3
Aberbargoed	3	0.2	Maesycwmmmer	12	1.4
Argoed	3	0.3	St. James	112	4.3
Hengoed	5	0.3	St. Martins	53	7.4
Gilfach	3	0.3			

Council tax bands G&H include properties valued at over £120,000.

Figure 3.6.2 shows scarcity of high value housing in the borough. 31 of the 33 electoral divisions in the borough have less than 1.5% of properties in the highest value bands.

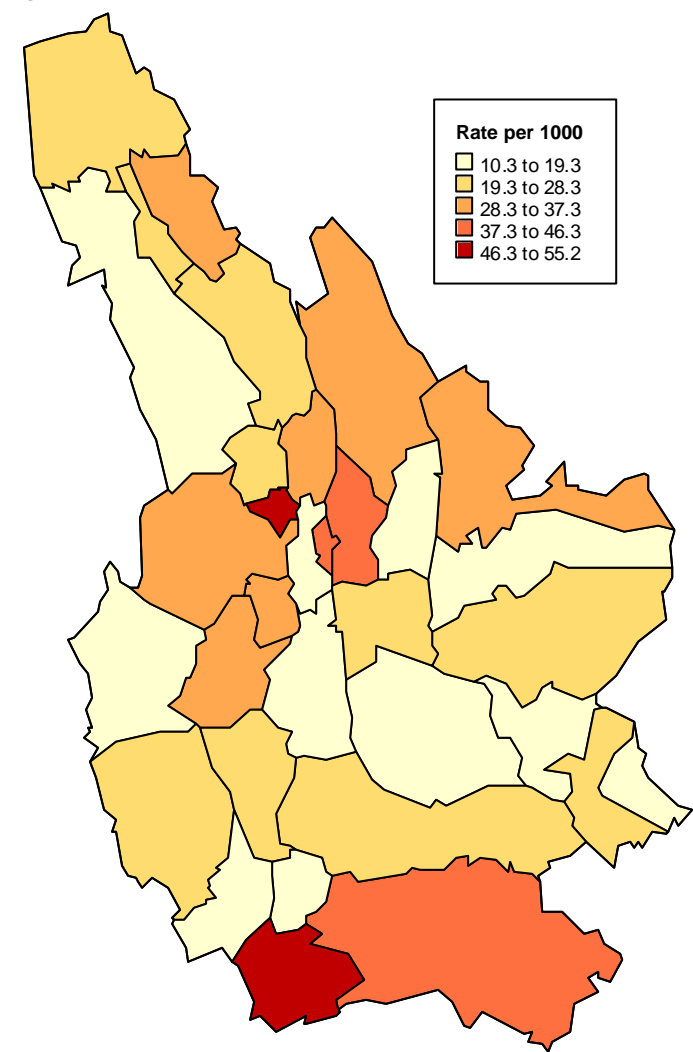
Figure 3.7.1 Number of burglaries per 1000 dwellings, 1998/99



Source: Gwent Police

Figure 3.7.1 shows the number of burglaries per 1000 dwellings. There is a wide variation in the electoral division rates and Gilfach, towards the North of the borough stands out as having highest recorded levels of this type of crime.

Figure 3.7.2 Number of violent crimes per 1000 population, 1998/99

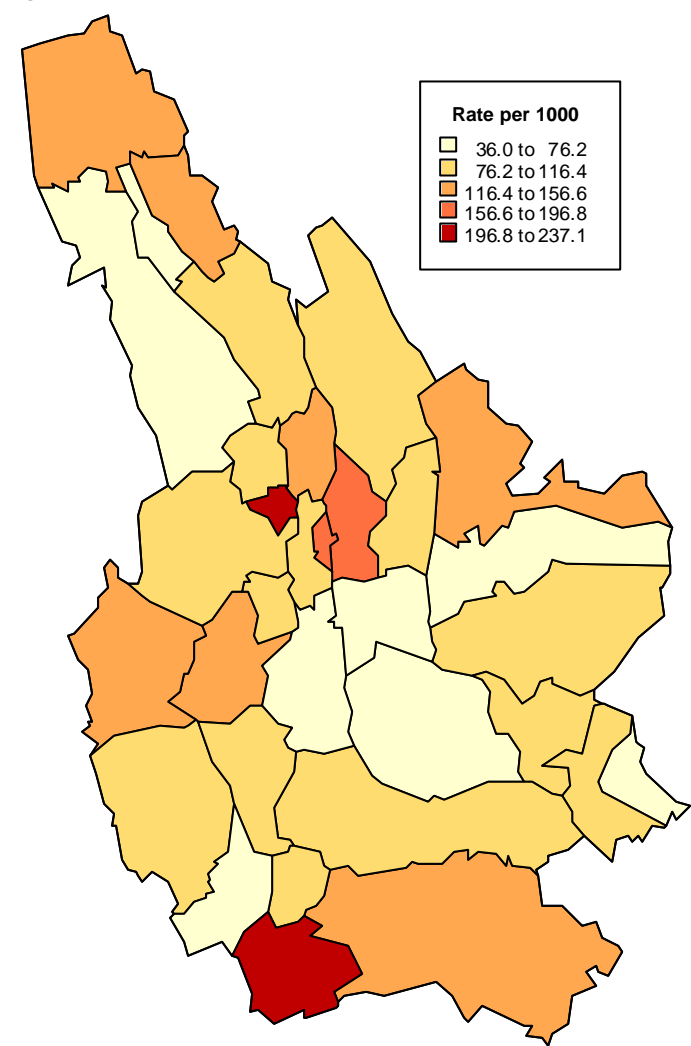


Electoral Division	Rate	Electoral Division	Rate
St. Martins	55.2	BT&M	23.7
Gilfach	48.5	Pontllanfraith	22.0
Cefn Fforest	45.6	Twyn Carno	21.8
Blackwood	42.9	Aber Valley	21.4
St. James	40.8	Abercarn	20.4
Crumlin	31.8	Nelson	18.9
Argoed	31.8	Crosskeys	18.6
Aberbargoed	30.5	Pengam	18.0
Moriah	30.3	Ynysddu	16.5
Ystrad Mynach	30.3	Risca East	15.5
Hengoed	28.7	Penyrheol	15.2
St.Cattwg	28.4	Penmaen	13.9
New Tredegar	25.9	Morgan Jones	13.2
Risca West	25.5	Darran Valley	12.4
Llanbradach	25.1	Newbridge	10.8
Pontlottyn	24.0	Maesycwmmmer	10.3
Bargoed	23.9		

Figure 3.7.2 shows the distribution of rates of violent crime. This covers a wide range of offences including, for example, murder, rape, robbery, assault and harassment.

It should be noted that neither the victim nor the perpetrator of a violent crime necessarily lives in the electoral division where it is committed.

Figure 3.7.3 Total crime per 1000 population, 1998/99



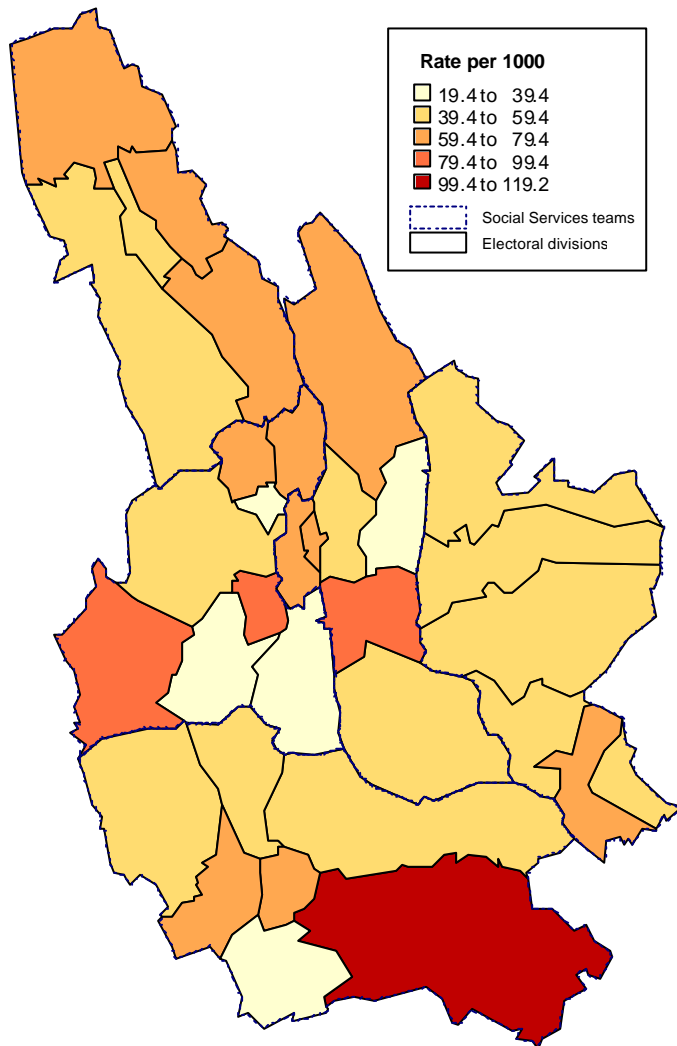
Source: Gwent Police

Electral Division	Rate	Electral Division	Rate
St. Martins	237.0	Hengoed	94.3
Gilfach	207.6	Morgan Jones	92.7
Cefn Fforest	187.6	Crosskeys	91.8
Blackwood	169.7	Penmaen	87.7
Ystrad Mynach	155.2	BT&M	84.8
St. James	131.9	New Tredegar	84.5
Crumlin	126.2	Abercam	84.1
Twyn Carno	126.2	Aber Valley	76.7
Moriah	125.3	Penyrheol	73.6
Nelson	120.3	Pontllanfraith	72.8
Aberbargoed	119.2	Pontlottyn	68.1
Risca West	112.9	Maesycwmmer	64.6
Argoed	107.8	Ynysddu	63.0
St.Cattwg	103.8	Darran Valley	57.1
Llanbradach	101.1	Risca East	55.9
Pengam	99.7	Newbridge	36.0
Bargoed	97.7		

Figure 3.7.3 shows the total number of recorded crimes per 1000 population. There appears to be wide variation in the level of crime throughout the borough.

There are problems associated with this measure used by the Home Office, since there is no appropriate denominator. When presenting data on burglaries of dwellings we have used the total number of dwellings as our denominator. Similarly, with violent crimes the denominator used is total population. Both denominators are related to the respective crime types. However, total crime includes numerous categories, many of which may not be compatible with the total population denominator that has been used and may therefore lead to biased or misleading area based rates.

**Figure 3.8.1 Social Services referrals: persons aged 0-14 per 1000 population, April – December 1999**

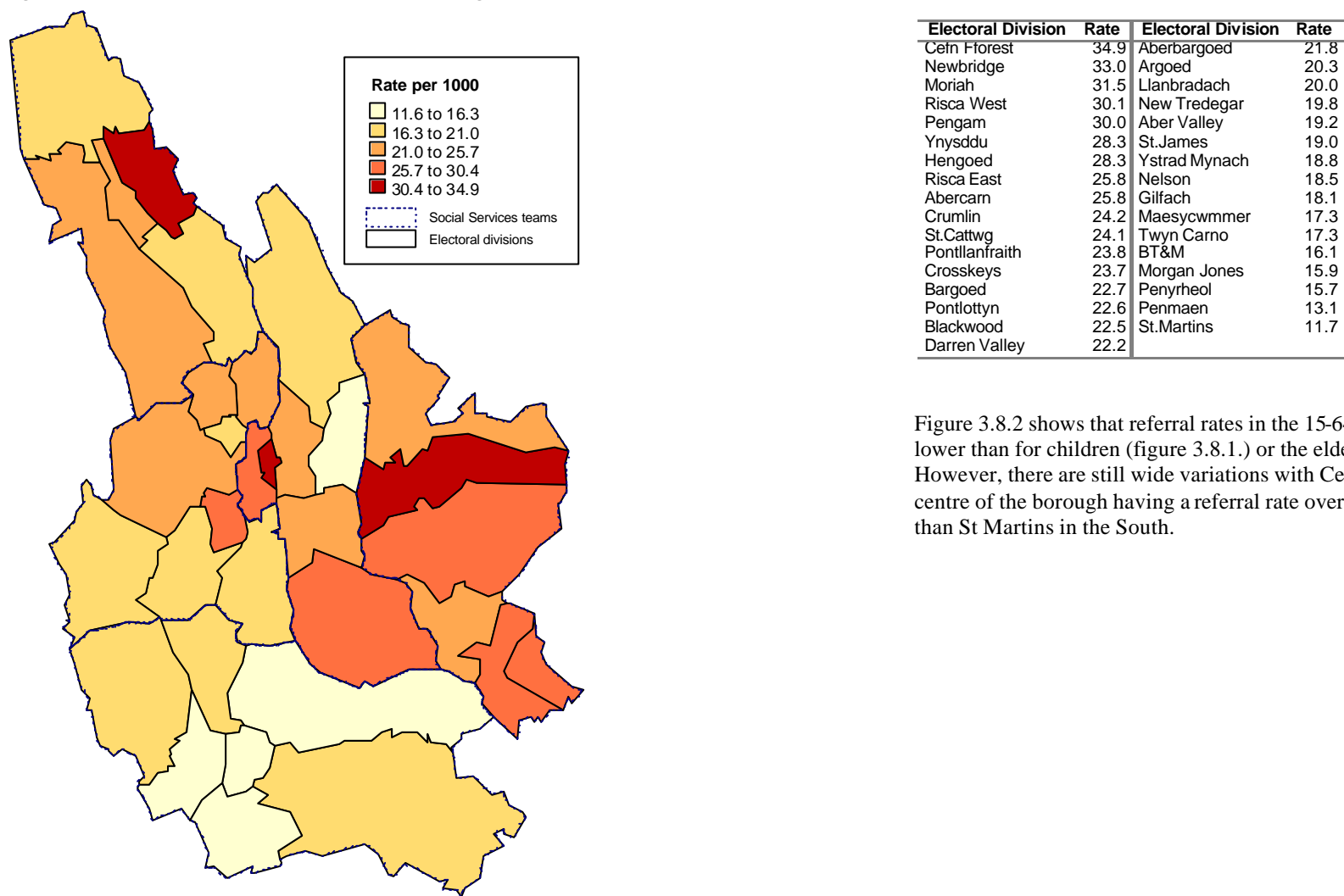


Electoral Division	Rate	Electoral Division	Rate
St.James	119.1	Pontlloftyn	59.0
Hengoed	85.5	BT&M	58.7
Pontllanfraith	81.3	St.Cattwg	57.4
Nelson	79.6	Risca East	56.5
Aberbargoed	77.8	Crosskeys	54.6
Morgan Jones	77.6	Abercarn	54.5
New Tredegar	76.2	Darren Valley	53.4
Bargoed	75.0	Crumlin	47.5
Moriah	69.7	Llanbradach	45.5
Twyn Carno	68.6	Aber Valley	43.3
Cefn Fforest	68.0	Blackwood	40.1
Argoed	65.7	Maesycwmmmer	39.3
Pengam	64.6	Ystrad Mynach	33.8
Risca West	64.4	St.Martins	33.5
Penyrheol	59.6	Gilfach	32.5
Ynysddu	59.4	Penmaen	19.4
Newbridge	59.1		

Referrals are the start of the assessment/care management process, where information is both given to the service user (or his/her referrer) and taken by the duty officer. The information gathered at this point will initiate the screening process, which will decide the necessity, and urgency of intervention in a case. There were 8,946 referrals to Caerphilly Social Services Directorate between April and December 1999.

Figure 3.8.1 shows that the referral rate for 0-14 year olds varies considerably across the borough with the St James electoral division in the South having a particularly high rate in this age group.

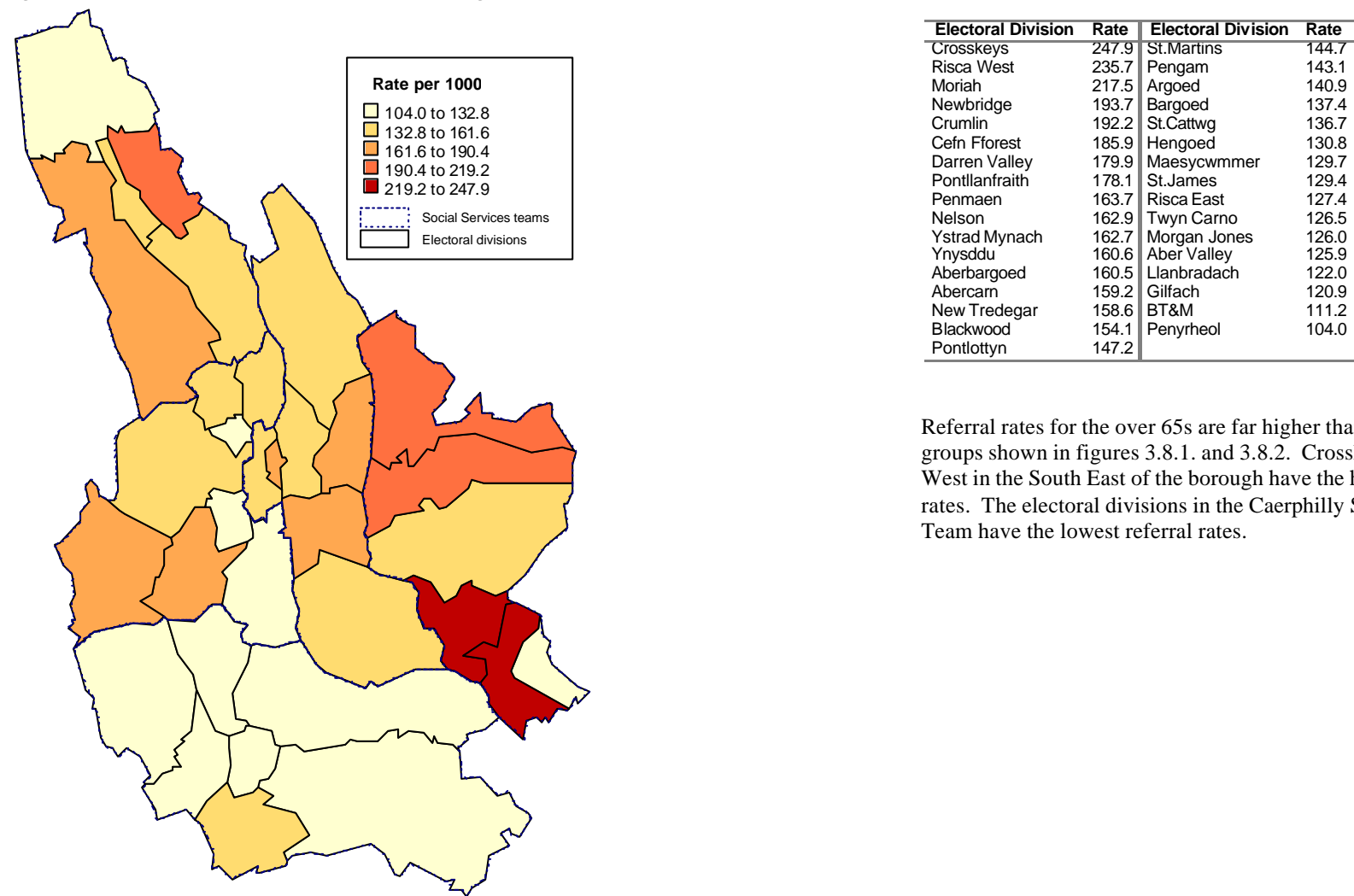
Figure 3.8.2 Social Services referrals: persons aged 15-64 per 1000 population, April – December 1999



Source: CCBC SSID

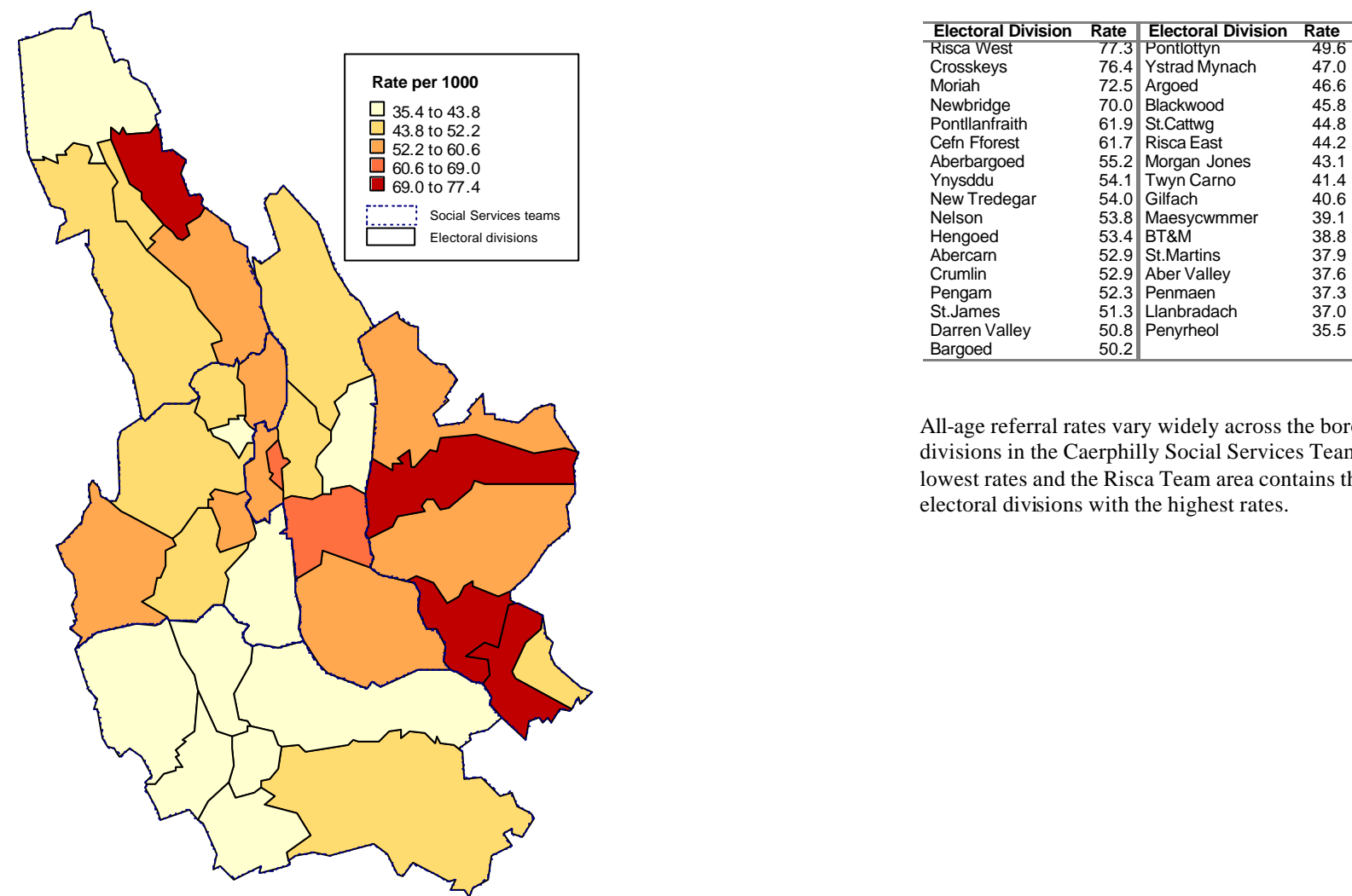
Figure 3.8.2 shows that referral rates in the 15-64 age group are lower than for children (figure 3.8.1.) or the elderly (figure 3.8.3.). However, there are still wide variations with Cefn Fforest in the centre of the borough having a referral rate over three times higher than St Martins in the South.

Figure 3.8.3 Social Services referrals: persons aged 65+ per 1000 population, April– December 1999



Referral rates for the over 65s are far higher than the other age groups shown in figures 3.8.1. and 3.8.2. Crosskeys and Risca West in the South East of the borough have the highest referral rates. The electoral divisions in the Caerphilly Social Services Team have the lowest referral rates.

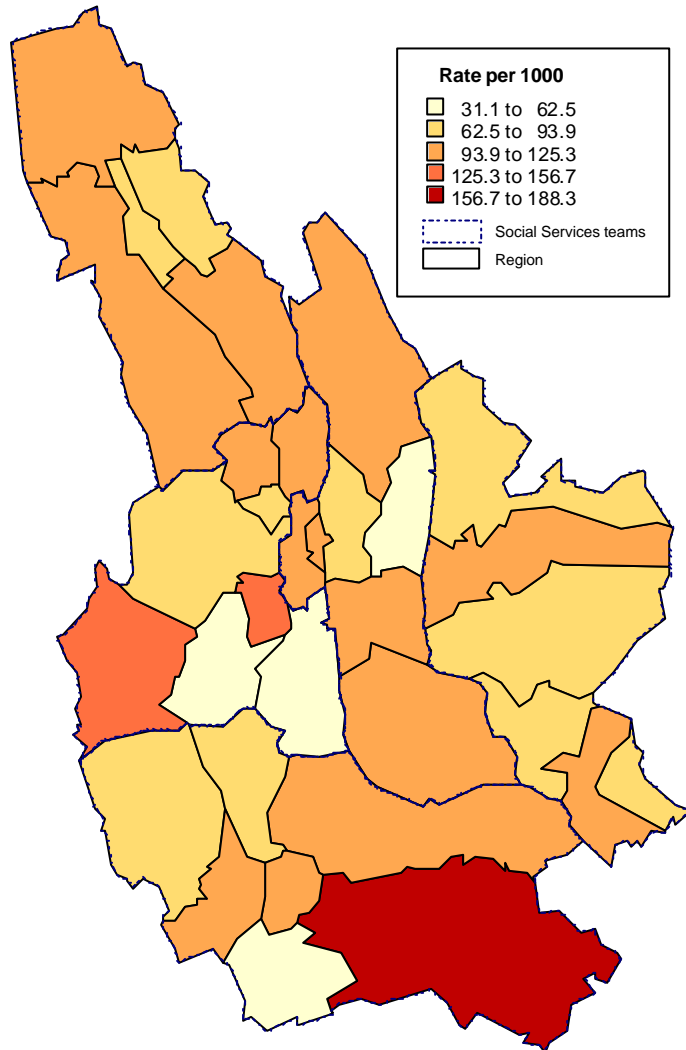
Figure 3.8.4 Social Services referrals: persons all ages per 1000 population, April– December 1999



All-age referral rates vary widely across the borough. The electoral divisions in the Caerphilly Social Services Team area have the lowest rates and the Risca Team area contains three of the five electoral divisions with the highest rates.

Source: CCBC SSID

**Figure 3.8.5 Social Services assessments: persons aged 0-14 per 1000 population, April – December 1999**

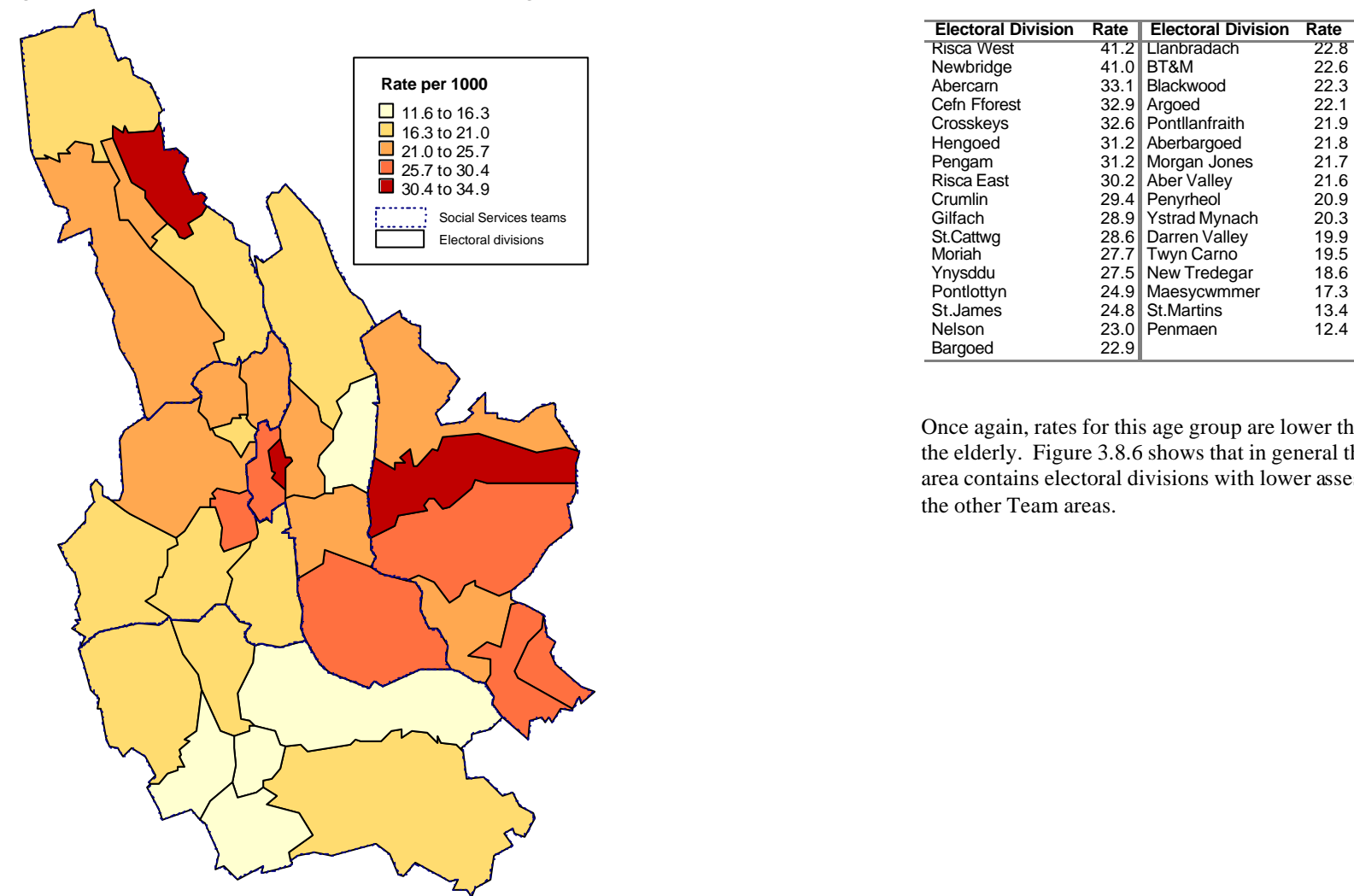


Electoral Division	Rate	Electoral Division	Rate
St.James	188.3	BT&M	94.6
Hengoed	146.1	Risca East	93.4
Nelson	128.5	Abercarn	92.0
Aberbargoed	124.1	St.Cattwg	88.9
Pontllanfraith	123.0	Pontlloftyn	88.5
Bargoed	121.3	Moriah	88.0
Twyn Carno	120.0	Crumlin	80.8
New Tredegar	115.7	Aber Valley	77.4
Morgan Jones	111.9	Llanbradach	77.1
Argoed	110.7	Crosskeys	71.2
Pengam	110.4	Gilfach	65.1
Cefn Fforest	104.8	Blackwood	64.3
Risca West	104.0	St.Martins	55.6
Newbridge	101.3	Ystrad Mynach	54.9
Penyrheol	96.2	Maesycwmmer	53.4
Darren Valley	95.2	Penmaen	31.1
Ynysddu	95.0		

An assessment is the process of defining the strengths and needs of an individual, agreeing desired outcomes and deciding whether the person qualifies for assistance. It will involve the individual and their family, carers or advocates and representatives of one or more agencies. It may be undertaken by one or more people from a range of disciplines or agencies but will be recorded by the social services department. It does not include reviews of already established need, but does include reassessment prompted by change of circumstances. There were 11,105 assessments carried out by Caerphilly county borough council Social Services Directorate between April and December 1999.

As with referrals, the assessment rate for this age group is highest in the St James electoral division. Rates vary greatly across the borough with the highest rate over six times that of the lowest.

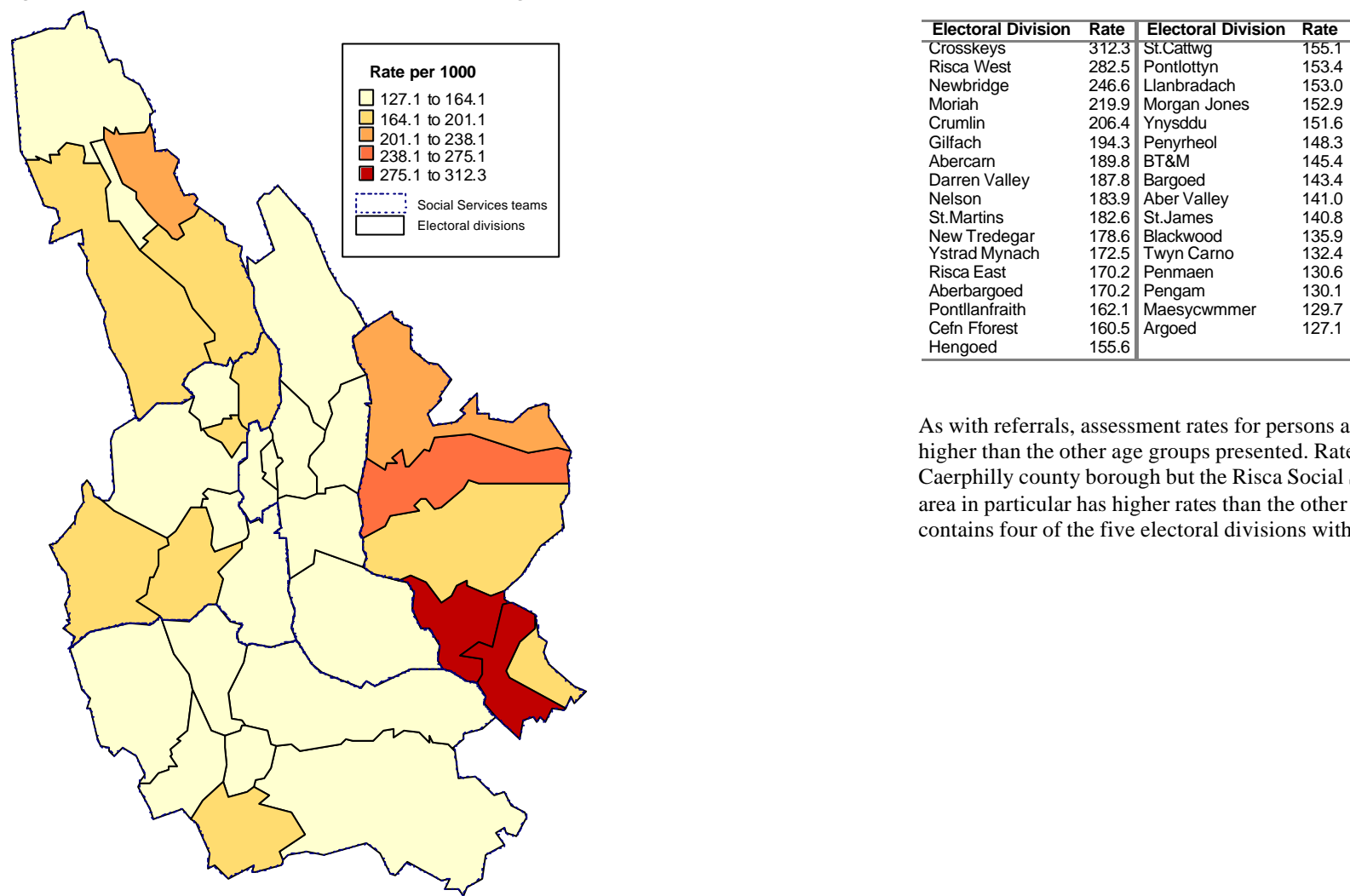
Figure 3.8.6 Social Services assessments: persons aged 15-64 per 1000 population, April– December 1999



Once again, rates for this age group are lower than for children or the elderly. Figure 3.8.6 shows that in general the Caerphilly Team area contains electoral divisions with lower assessment rates than the other Team areas.

Source: CCBC SSID

Figure 3.8.7 Social Services assessments: persons aged 65+ per 1000 population, April– December 1999



As with referrals, assessment rates for persons aged 65+ are far higher than the other age groups presented. Rates vary throughout Caerphilly county borough but the Risca Social Services Team area in particular has higher rates than the other Team areas and contains four of the five electoral divisions with the highest rates.

Source: CCBC SSID

Figure 3.8.8 Social Services assessments: persons all ages per 1000 population, April– December 1999

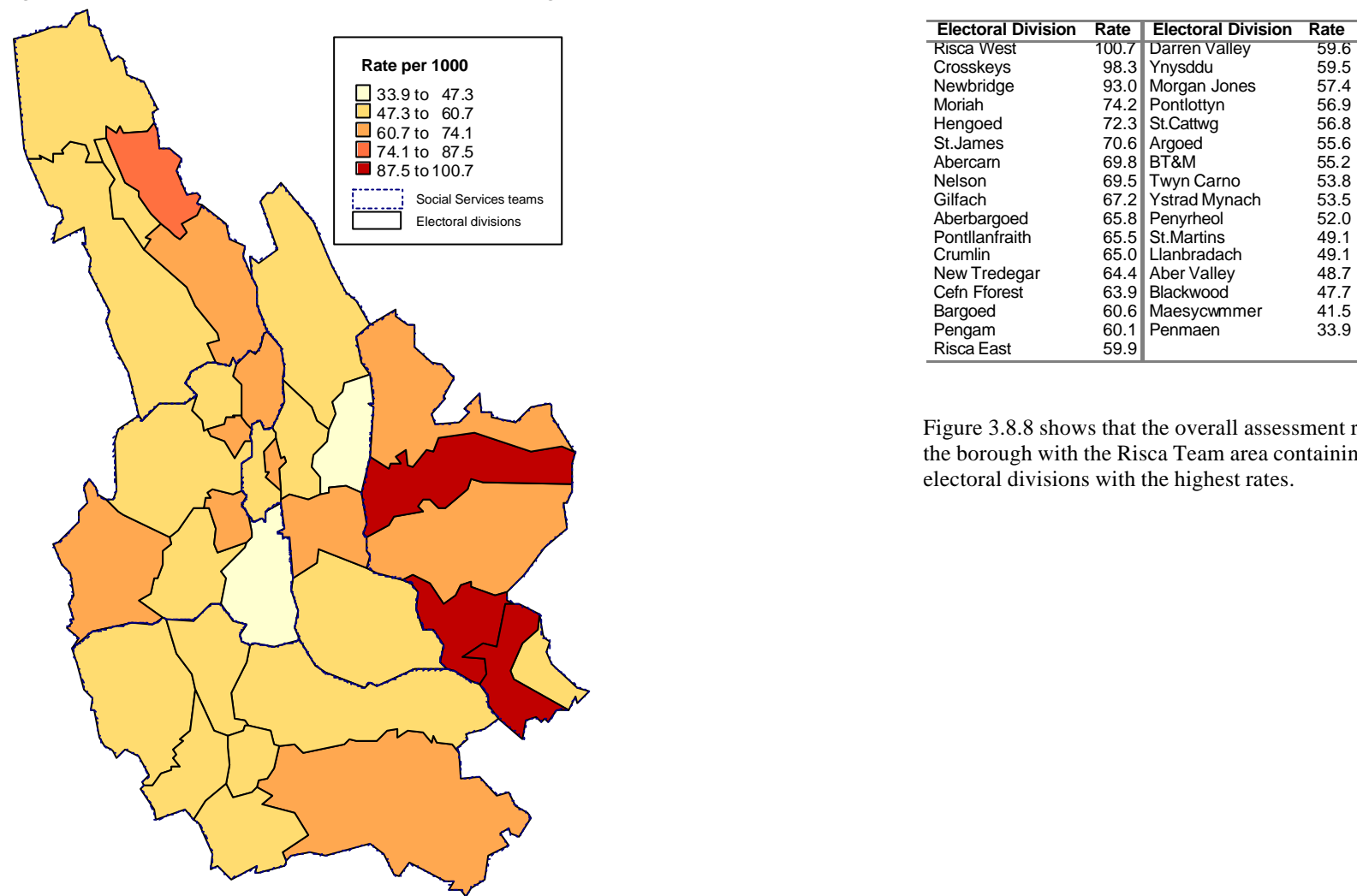
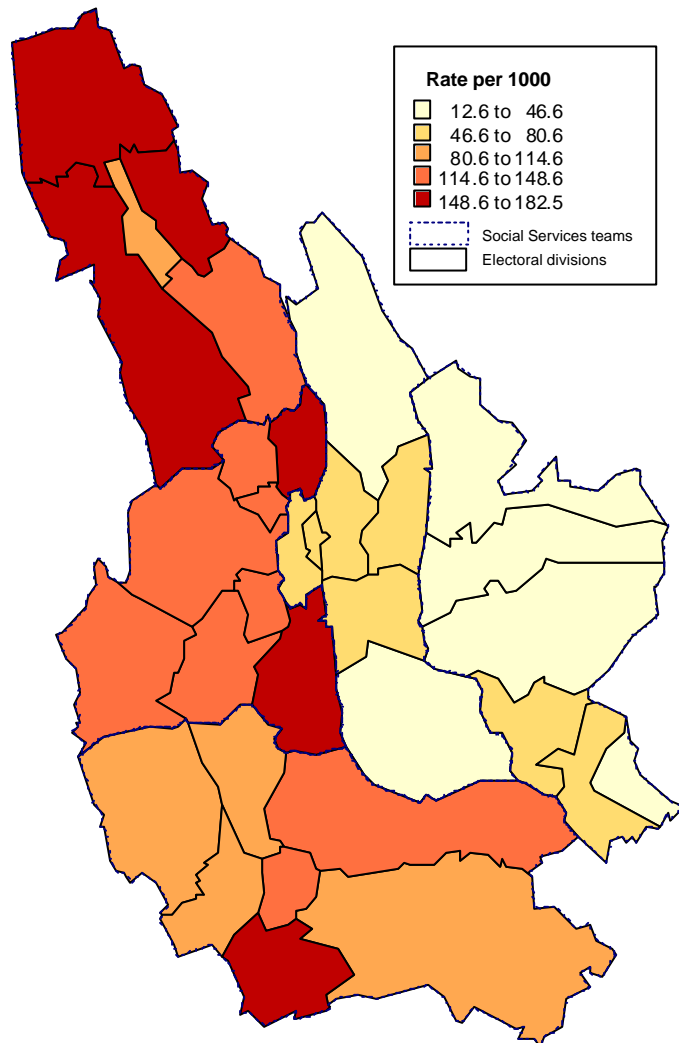


Figure 3.8.8 shows that the overall assessment rate varies across the borough with the Risca Team area containing the three electoral divisions with the highest rates.

**Figure 3.8.9 Persons aged 65+ receiving Social Services Home Care per 1000 population, April– December 1999**

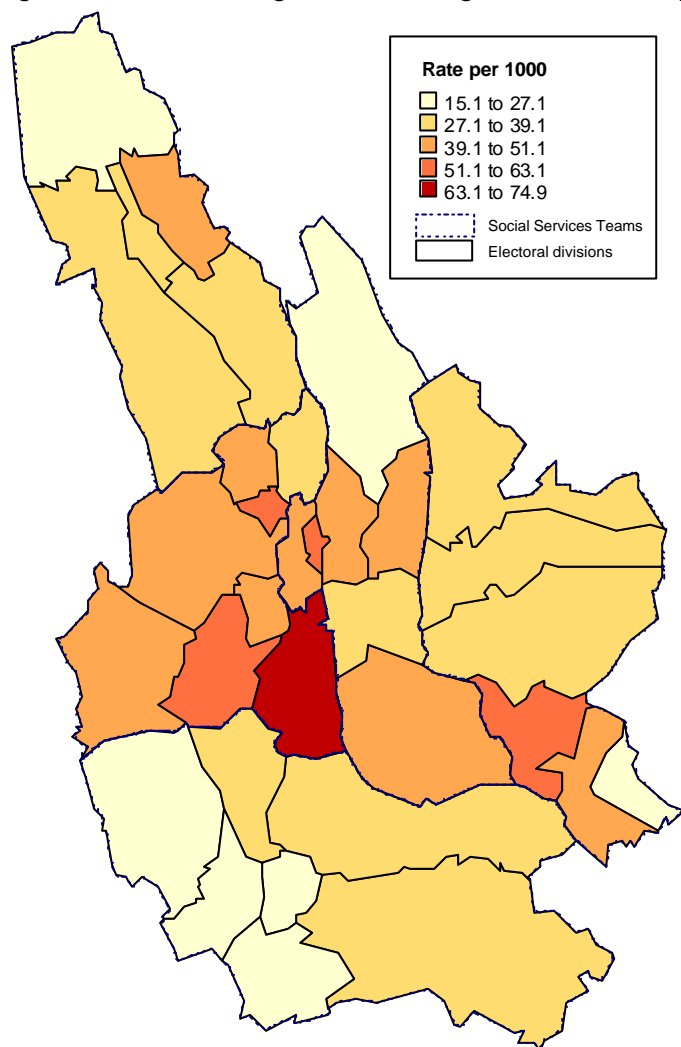


Electoral Division	Rate	Electoral Division	Rate
Darran Valley	182.5	Penyrheol	108.7
Moriah	174.3	St. James	106.7
St. Martins	163.7	Aber Valley	95.6
Aberbargoed	158.8	Pengam	78.1
Twyn Carno	158.8	Cefn Fforest	76.3
Maesycwmmwr	149.9	Crosskeys	61.6
New Tredegar	144.5	Risca West	56.1
Bargoed	142.4	Penmaen	55.6
BT&M	137.6	Pontllanfraith	55.0
Morgan Jones	137.4	Blackwood	49.7
Gilfach	132.7	Abercarn	43.3
Nelson	130.6	Ynysddu	41.5
Ystrad Mynach	125.2	Argoed	41.4
Hengoed	122.5	Crumlin	38.0
St.Cattwg	119.3	Newbridge	29.2
Pontlloftyn	113.5	Risca East	12.6
Llanbradach	112.9		

Home care includes traditional home help services and services designed to assist people to function as independently as possible in their own home. There appears to be considerable variation of service between the lowest rates in the Social Service Team areas of Risca and Blackwood and the highest rates in Rhymney and Bargoed. It is difficult to offer any explanation for the variations without validation of the data, and more understanding about how the service is provided on a Team by Team basis. One interesting point to consider is why there appears to be a difference between the areas which were previously parts of the old County Council areas of Gwent and Mid Glamorgan.

Of the 2899 people receiving home care in Caerphilly, 73% were over 65 years old and 72% were female.

**Figure 3.8.10 Persons aged 65+ receiving Meals on Wheels per 1000 population, April– December 1999**

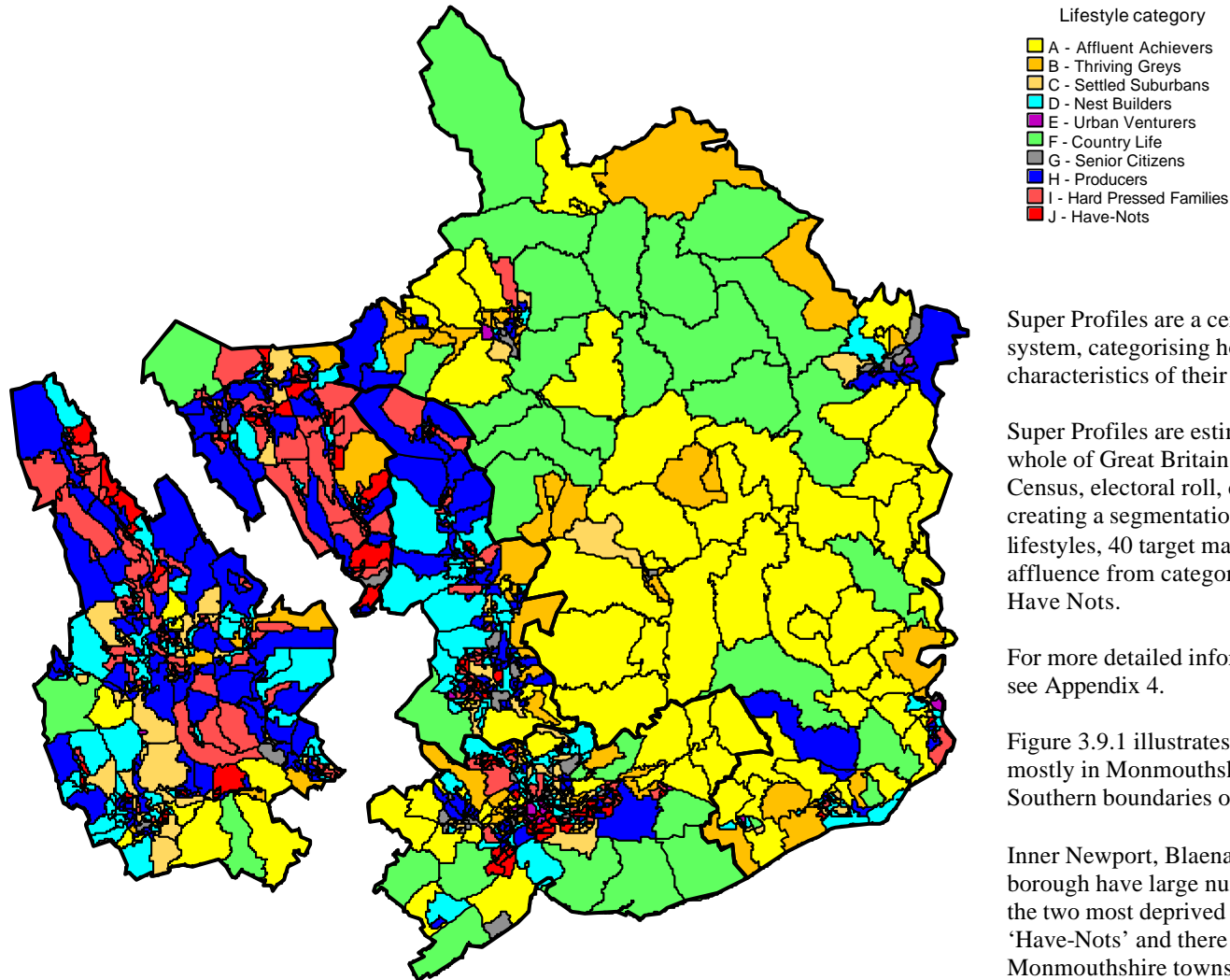


Electoral Division	Rate	Electoral Division	Rate
Maesycwmmwr	74.9	New Tredegar	35.3
Gilfach	56.9	Darran Valley	34.4
Cefn Fforest	56.8	Aberbargoed	34.0
Crosskeys	55.9	Llanbradach	32.8
Ystrad Mynach	54.2	Crumlin	32.0
Penmaen	49.5	BT&M	31.9
Hengoed	48.0	Abercarn	31.8
Bargoed	46.5	Pontlloftyn	30.7
St.Cattwg	45.6	St. James	28.4
Ynysddu	45.1	Aber Valley	26.8
Nelson	43.5	Morgan Jones	25.8
Risca West	43.0	St. Martins	25.0
Moriah	42.1	Argoed	24.9
Pengam	40.9	Twyn Carno	23.5
Blackwood	39.8	Penyrheol	15.5
Pontllanfraith	39.0	Risca East	15.1
Newbridge	38.7		

Meals on Wheels are hot or frozen meals served at home following an assessment by social services.

Figure 3.8.10 illustrates that the meals on wheels service appears to be fairly evenly distributed throughout the borough, however the electoral divisions in the Caerphilly Team have lower rates than the in the other Teams .

**Figure 3.9.1 Super Profile lifestyle category**



Super Profiles are a census-based geodemographic segmentation system, categorising households according to the neighbourhood characteristics of their location.

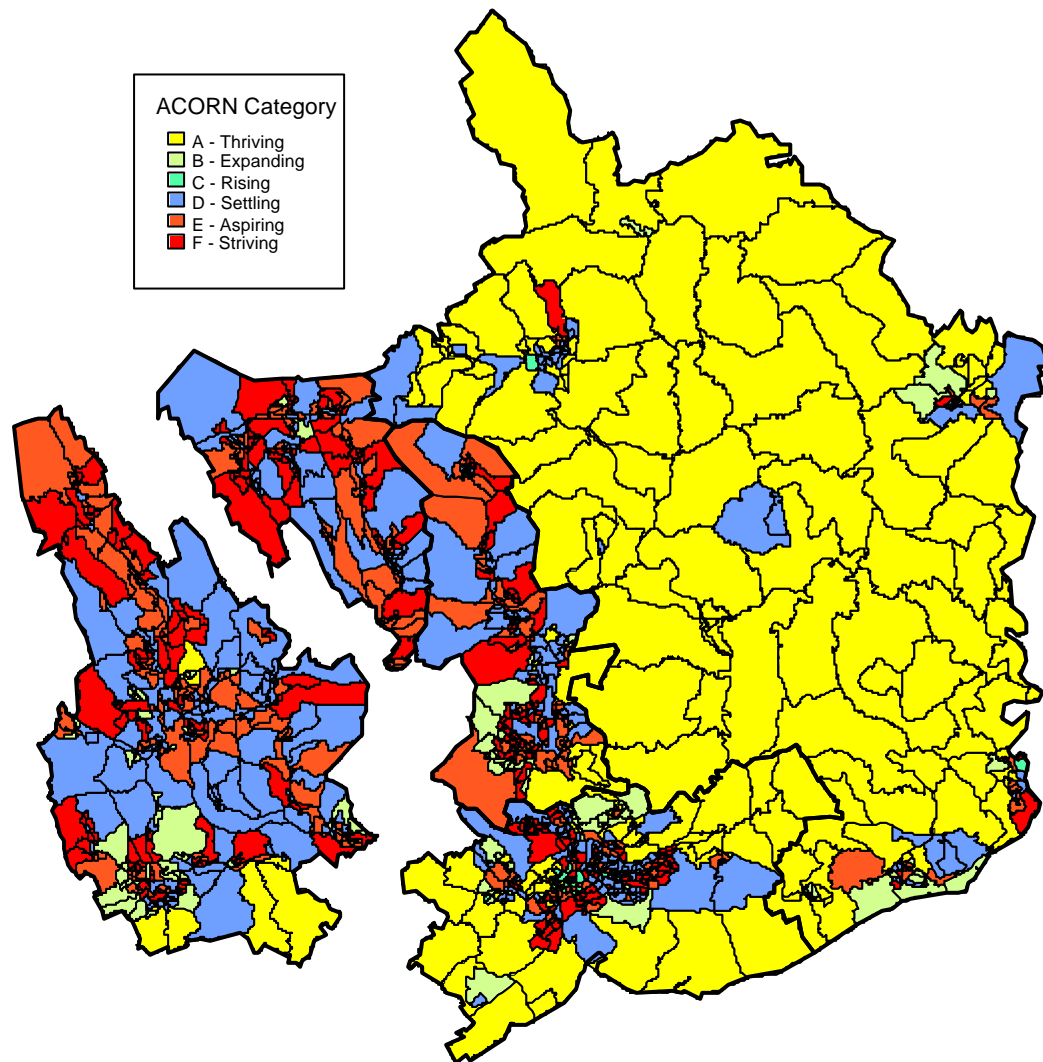
Super Profiles are estimated from a wide range of data covering the whole of Great Britain and Northern Ireland, including 1991 Census, electoral roll, credit information and mail order data - creating a segmentation system that groups the UK into 10 lifestyles, 40 target markets and 160 clusters, ranked in order of affluence from category A - Affluent Achievers to category J - Have Nots.

For more detailed information on Super Profiles categories, please see Appendix 4.

Figure 3.9.1 illustrates that categories A, B, C and F are found mostly in Monmouthshire, as well as outer Newport and the Southern boundaries of Torfaen and Caerphilly county borough.

Inner Newport, Blaenau Gwent, Torfaen and Caerphilly county borough have large numbers of enumeration districts falling into the two most deprived categories of 'Hard-Pressed Families' and 'Have-Nots' and there are also a few of these areas in the Monmouthshire towns.

**Figure 3.9.2 ACORN category**



Source: CACI

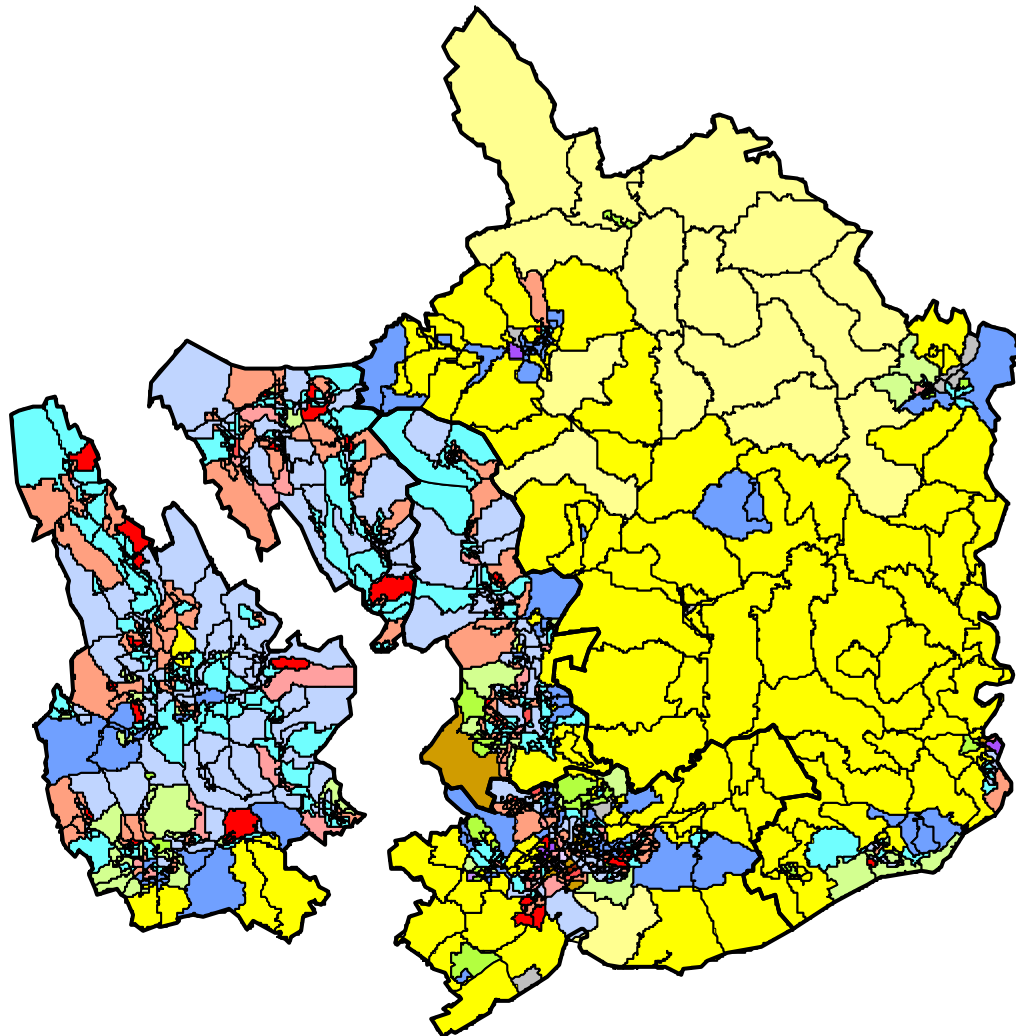
ACORN is CACI's geodemographic targeting classification which creates a tool for understanding different types of people across different areas in the UK. There are six ACORN categories ranging from 'Thriving', representing the most affluent groups, through to 'Striving', who are the least prosperous.

For more detailed information on how ACORN data are derived please see Appendix 4.

Figure 3.9.2 shows that Monmouthshire contains the greatest number of 'Thriving' enumeration districts. Such areas are characterised by high income families, middle aged persons and pensioners.

In Caerphilly county borough, Torfaen and Blaenau Gwent, the picture is quite different with the 'Settling' (comfortable middle agers and skilled workers); 'Aspiring' (new home owners, white collar workers) and 'Striving' (older less prosperous areas, council housing areas) categories predominating. In Newport the pattern is more mixed.

Figure 3.9.3 ACORN group



#### ACORN Group

- 1 - Wealthy Achievers, Suburban Areas
- 2 - Affluent Greys, Rural Communities
- 3 - Prosperous Pensioners, Retirement Areas
- 4 - Affluent Executives, Family Areas
- 5 - Well-Off Workers, Family Areas
- 6 - Affluent Urbanites, Town & City Areas
- 7 - Prosperous Professionals, Metropolitan Areas
- 8 - Better-Off Executives, Inner City Areas
- 9 - Comfortable Middle Ageds, Mature Home Owning Areas
- 10 - Skilled Workers, Home Owning Areas
- 11 - New Home Owners, Mature Communities
- 12 - White Collar Workers, Better-Off Multi-Ethnic Areas
- 13 - Older People, Less Prosperous Areas
- 14 - Council Estate Residents, Better-Off Homes
- 15 - Council Estate Residents, High Unemployment
- 16 - Council Estate Residents - Greatest Hardship
- 17 - People in Multi-Ethnic, Low-Income Areas

Each of the categories displayed in figure 3.9.2 contain subgroups, of which there are 17. This gives a highly detailed breakdown of the neighbourhood characteristics of each enumeration district.

Groups 1 to 3 predominate in rural Monmouthshire, around the periphery of Newport, and the Southern borders of Torfaen and Caerphilly county borough.

Inner Newport, Caerphilly county borough, Blaenau Gwent, Torfaen and, to a lesser extent, the Monmouthshire towns contain larger numbers of groups 13 to 17 representing the more socio-economically deprived communities in Gwent.

## Chapter 4 Results

This chapter presents the results of the analyses that explore the ecological statistical relationships between the variables within the different domains. The electoral division analyses are shown in section 4.1. We present the descriptive statistics for the variables used in the analysis, the relationships between the Townsend index of deprivation and domain variables and the relationships between variables both within and between domains for the three themes of children in families, adults of working age, and the elderly. Section 4.2 presents the results of the geodemographic and marketing data analysis at enumeration district level.

### 4.1 Electoral division analysis

In this section we present the Spearman rank correlation coefficients for the ecological relationships between the Townsend index of deprivation and the chosen variables within the different domains. With a sample size of 33 electoral divisions, correlation coefficients greater or equal to  $\pm 0.34$  are statistically significant at the conventional 5% level and coefficients greater or equal to  $\pm 0.45$  at the 1% level.

#### 4.1.1 Income

Table 4.1 shows the descriptive statistics and correlation with the Townsend index for the variables within the Income domain.

**Table 4.1** *Income domain: descriptive statistics and correlation with Townsend index*

Sub-domain	Variable	Mean	SD	Median	Min	Max	IQR	Rank correlation coefficient
Gross household income	5K	12.7	3.5	11.9	7.6	20.5	9.8 to 14.4	0.89
	10K	31.4	6.2	30.6	21.7	43.4	26.4 to 36.0	0.83
Means tested income benefits	FC	13.2	2.9	12.6	7.3	20.3	11.8 to 15.1	0.44
	FC_15	14.3	3.6	13.7	6.2	23.9	12.5 to 15.7	0.56
	IS	11.6	3.2	10.5	6.0	19.9	9.3 to 14.4	0.88
	IS_60	17.3	3.6	17.3	9.8	24.9	14.6 to 20.4	0.69
	IS_15	26.2	9.1	25.5	9.8	43.0	18.0 to 33.5	0.87
	JSA	4.5	1.9	4.1	1.5	8.9	3.1 to 5.7	0.88
	JSA_15	25.2	9.0	25.4	9.8	41.5	17.5 to 32.2	0.72
	Meals	21.8	8.3	20.7	7.5	36.9	14.3 to 27.4	0.85

All the variables within the income domain are significantly associated with deprivation. The Townsend index accounts for 79% of the variation between electoral divisions in the proportion of households with gross income of less than £5,000 pa. Deprivation is also strongly associated with family credit, income support and free school meals claims. In particular, it appears that children living in low income families live in the areas of highest social and material deprivation, as proxied by the Townsend index.

Table 4.2 presents the correlation matrix for the relationships between the Income domain variables. Low household income is strongly associated with Income Support families, free school meals and Family Credit families. No significant association is found for Income

Support households with all Family Credit households. This suggests that these benefits may be claimed by different types of households, the proportions of which vary between electoral divisions. However a significant association between children in Family Credit and Income Support households suggests the poorest families are claiming both benefits. As expected, free school meals are strongly associated with Income Support children, since eligibility is partly defined by receipt of family Income Support. Free school meals and household income are less strongly associated with Family Credit households, since these households where at least one parent is working may be relatively better off.

**Table 4.2** *Rank correlation matrix: Income domain*

Variable	5K	10K	FC	FC_15	IS	IS_60	IS_15	JSA	JSA_15	Meals
5K	1	0.97	0.53	0.58	0.18	0.66	0.79	0.72	0.62	0.72
10K	0.97	1	0.50	0.52	0.23	0.61	0.74	0.69	0.57	0.67
FC	0.53	0.50	1	0.79	0.26	0.49	0.39	0.37	0.23	0.36
FC_15	0.58	0.52	0.79	1	0.14	0.43	0.54	0.44	0.38	0.40
IS	0.84	0.79	0.42	0.51	1	0.83	0.96	0.86	0.79	0.89
IS_60	0.66	0.61	0.49	0.43	0.10	1	0.71	0.60	0.55	0.65
IS_15	0.79	0.74	0.39	0.54	0.21	0.71	1	0.89	0.83	0.90
JSA	0.72	0.69	0.37	0.44	0.86	0.60	0.89	1	0.73	0.90
JSA_15	0.62	0.57	0.23	0.38	0.79	0.55	0.83	0.73	1	0.74
Meals	0.72	0.67	0.36	0.40	0.19	0.65	0.90	0.90	0.74	1

#### 4.1.2 Unemployment

Table 4.3 shows the descriptive statistics and correlation with the Townsend index for the variables within the Unemployment domain. Male unemployment is strongly associated with deprivation, female unemployment less so.

**Table 4.3** *Unemployment domain: descriptive statistics and correlation with Townsend index*

Sub-domain	Variable	Mean	SD	Median	Min	Max	IQR	Rank correlation coefficient
Unemployed	Male	7.8	3.1	7.0	3.8	15.1	5.3 to 9.7	0.85
	Female	2.9	1.0	2.8	1.3	5.9	2.2 to 2.8	0.46
	Total	5.7	2.1	5.2	2.9	10.1	4.0 to 7.4	0.82

Table 4.4 shows that male and female unemployment are strongly related, but less strongly than perhaps expected.

**Table 4.4** *Rank correlation matrix: Unemployment domain*

Variable	Un_m	Un_f	Un_t
Male	1	0.65	0.98
Female	0.65	1	0.74
Total	0.98	0.74	1

### 4.1.3 Health

Table 4.5 shows the descriptive statistics and correlation with the Townsend index for the variables within the Disability sub-domain of the Health domain. The Townsend index is strongly associated with all measures of disability, except for Attendance Allowance.

**Table 4.5** *Disability sub-domain: descriptive statistics and correlation with Townsend index*

Sub-domain	Variable	Mean	SD	Median	Min	Max	IQR	Rank correlation coefficient
1991 Census	SLLTI			114.7	84.1	162.7	105.8 to 137.7	0.76
	Sick	8.3	2.4	7.7	4.4	14.4	6.9 to 10.3	0.66
Disability benefits	DLA	9.7	2.7	9.2	5.2	16.0	7.6 to 11.6	0.65
	AA	21.2	3.0	21.6	13.1	27.4	19.2 to 23.1	0.29
	IB	10.9	2.9	9.9	6.2	16.1	8.6 to 13.3	0.58
	SDA	1.5	0.5	1.4	0.7	2.5	1.1 to 1.9	0.63

The pattern of correlations in table 4.6 show close relationships between the disability variables, with significant, but weaker, associations for attendance allowance.

**Table 4.6** *Rank correlation matrix: Disability sub-domain*

Variable	SLLTI	Sick	DLA	AA	IB	SDA
SLLTI	1	0.92	0.85	0.45	0.78	0.72
Sick	0.92	1	0.88	0.40	0.90	0.67
DLA	0.85	0.88	1	0.39	0.86	0.83
AA	0.45	0.40	0.39	1	0.48	0.31
IB	0.78	0.90	0.86	0.48	1	0.59
SDA	0.72	0.67	0.83	0.31	0.59	1

Table 4.7 shows the descriptive statistics and correlation with the Townsend index for the cancer incidence smoothed standardised incidence ratios (SSIR) and smoothed standardised mortality ratio (SSMR) variables within the Health domain. As expected from the well known epidemiology of these cancers, deprivation is strongly associated with lung cancer incidence and inversely associated with breast cancer incidence. As many cancers do not show a socioeconomic gradient, overall there is no association between deprivation and all cancer incidence.

We found that deprivation was strongly associated in the Caerphilly borough dataset with all-cause mortality, all cancers, coronary heart disease and respiratory disease, but not cerebrovascular disease, accidents & adverse effects, lung and breast cancer. Although significant associations might be expected from the known epidemiology of these causes of death, a variety of reasons for these findings will be explored in Chapter 5, the discussion section.

**Table 4.7** *Smoothed standardised incidence and mortality ratios: descriptive statistics and correlation with Townsend index*

Sub-domain	Variable	Number of cancer registrations 1994-98	SSIR Median	Min	Max	IQR	Rank correlation coefficient
Cancer incidence	All cancers	12,970	99.9	91.7	107.9	95.2 to 103.7	-0.01
(Smoothed SIRs)	Lung	1,996	103.3	90.7	114.2	99.7 to 105.9	0.35
	Breast	1,746	94.6	77.3	114.8	89.5 to 102.2	-0.39
	Colo-rectal	1,760	98.7	88.3	103.9	95.3 to 100.7	-0.10
	Prostate	1,045	84.0	73.4	127.5	80.4 to 94.4	-0.3
Sub-domain	Variable	Number of deaths 1994-98	SSMR Median	Min	Max	IQR	Rank correlation coefficient
Mortality	All cause - persons	13,376	107.6	83.4	128.7	96.8 to 117.4	0.58
(Smoothed SMRs)	All cause – male	7,934	105.3	80.7	127.9	96.0 to 113.4	0.55
	All cause - female	5,442	105.9	87.5	137.4	95.7 to 116.1	0.53
	CHD	3,313	109.5	74.3	143.8	94.8 to 120.1	0.57
	Respiratory	1,462	107.3	63.3	149.5	95.2 to 123.7	0.60
	CVD	856	102.9	84.5	139.7	99.3 to 106.9	0.19
	Accidents & adverse effects	318	94.6	74.5	132.6	85.3 to 109.8	0.17
	All cancer	4,324	100.4	90.6	111.2	96.2 to 104.1	0.39
	Lung cancer	1,054	100.3	85.4	122.5	96.5 to 105.1	-0.12
	Breast cancer	388	95.4	84.5	130.2	91.0 to 99.2	-0.25

Table 4.8 shows the descriptive statistics and correlation with the Townsend index for the variables within the Health domain. Deprivation is strongly associated with non-attendance for breast screening, teenage conception (13-15 year olds) and the Overall Health Index.

**Table 4.8** *Other health sub-domain: descriptive statistics and correlation with Townsend index*

Sub-domain	Variable	Mean	SD	Median	Min	Max	IQR	Rank correlation coefficient
Cancer screening	% breast not screened	24.3	4.5	23.9	16.4	32.2	20.8 to 28.3	0.66
	% cervix FNR	33.3	7.3	34.8	21.3	52.7	26.3 to 37.1	0.12
LBW	% LBW <2500g	7.3	1.6	7.7	4.2	10.6	6.2 to 8.4	0.33
Teenage conceptions	Teenage conceptions under 16 per 1000	16.0	7.0	14.9	7.6	39.0	11.2 to 20.4	0.53
	Teenage conceptions under 18 per 1000	64.7	19.5	63.4	22.8	111.1	49.8 to 79.7	0.28
Overall Health	Modified Townsend Overall Health Index	0.0	2.4	-0.1	-4.6	5.7	-1.5 to 1.6	0.71

#### 4.1.4 Education

Table 4.9 shows the descriptive statistics and the relationship between the Townsend index and variables within the Education domain. Deprivation is strongly associated with poor achievement and a higher proportion of children with special educational needs.

**Table 4.9** *Education domain: descriptive statistics and correlation with Townsend index*

Sub-domain	Variable	Mean	SD	Median	Min	Max	IQR	Rank correlation coefficient
Achievement	% Key Stage 1	70.5	13.1	73.4	31.6	96.6	61.4 to 78.4	-0.51
	% Key Stage 2	54.1	13.4	52.5	12.0	78.0	46.5 to 63.5	-0.56
	% GCSE	42.9	11.4	44.4	12.9	61.9	34.6 to 51.3	-0.43
Special Educational Needs	% SEN	11.8	3.4	10.7	5.4	18.9	9.0 to 14.6	0.79

Table 4.10 shows that in general, electoral divisions with low educational achievement in one measure tend to have low achievement on the other measures. All achievement data relate to 1998, so the data do not refer to a cohort of children being followed through from age 7 to 16, but to three different individual year groups.

**Table 4.10** *Rank correlation matrix: Education domain*

Variable	KS1	KS2	GCSE	SEN
KS1	1	0.49	0.53	-0.51
KS2	0.49	1	0.23	-0.43
GCSE	0.53	0.23	1	-0.27
SEN	-0.51	-0.43	-0.27	1

#### 4.1.5 Housing

Table 4.11 shows the relationship between the Townsend index and variables within the Housing domain. Deprivation is strongly associated with the proportion of houses in council tax bands A & B, and strongly negatively associated with the proportion of houses in council tax bands G & H.

**Table 4.11** *Housing domain: descriptive statistics and correlation with Townsend index*

Sub-domain	Variable	Mean	SD	Median	Min	Max	IQR	Rank correlation coefficient
Council Tax Bands	% AB	69.6	20.5	71.6	5.0	94.7	56.0 to 88.8	0.72
	% GH	0.7	1.4	0.3	0.0	7.4	0.0 to 0.6	-0.58

As expected, table 4.12 shows a significant inverse relationship between the proportion of households at opposite ends of the council tax valuation bands.

**Table 4.12 Rank correlation matrix: Housing domain**

Variable	AB	GH
AB	1	-0.66
GH	-0.66	1

#### 4.1.6 Crime & Disorder

Table 4.13 shows the descriptive statistics and the relationship between the Townsend index and variables within the Crime & Disorder domain. Deprivation is not associated with burglaries, violent crime and all-crime. The data relate to where the crime was committed, so that the results suggest a non-significant trend for burglaries and violent crimes to occur in more deprived areas, but overall crime shows no relationship with deprivation.

**Table 4.13 Crime & Disorder domain: descriptive statistics and correlation with Townsend index**

Sub-domain	Variable	Mean	SD	Median	Min	Max	IQR	Rank correlation coefficient
Crime & Disorder	Burglaries per 1000 dwellings	15.4	9.3	13.0	3.8	50.1	9.1 to 18.2	0.31
	Violent crimes per 1000 population	25.5	11.1	23.9	10.3	55.2	17.2 to 30.4	0.21
	Total crimes per 1000 population	106.6	44.4	97.7	36.0	237.0	75.2 to 125.7	-0.02

Table 4.14 suggests that burglaries and violent crimes are significantly associated and high rates of both tend to occur in the same electoral divisions.

**Table 4.14 Rank Correlation matrix: Crime & Disorder domain**

	Burglaries	Violent crimes	Total crimes
Burglaries	1	0.55	0.68
Violent crimes	0.55	1	0.82
Total crimes	0.68	0.82	1

#### 4.1.7 Social Services

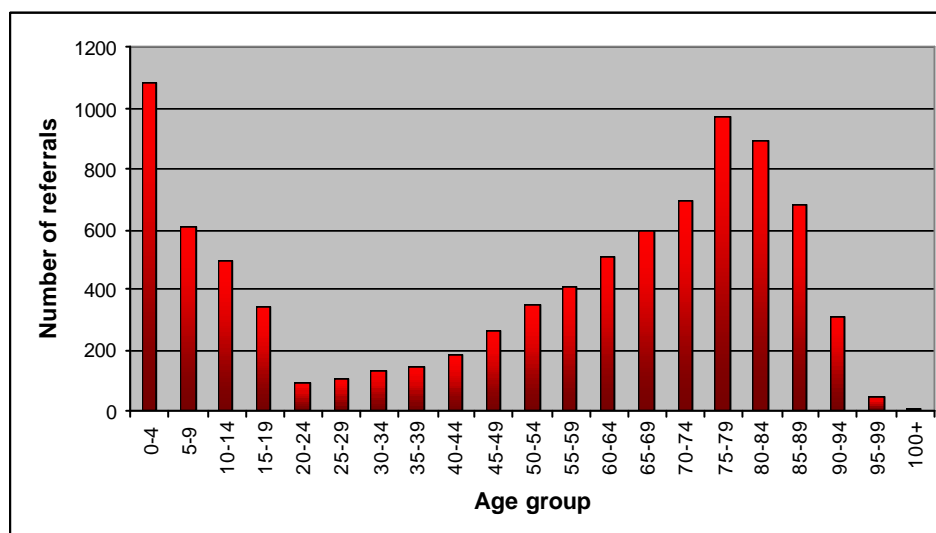
Table 4.15 shows the descriptive statistics and the relationship between the Townsend index and variables within the Social Services domain. Deprivation is strongly associated with referrals and assessments in children but not for the other social services variables in this analysis.

**Table 4.15 Social Services domain: descriptive statistics and correlation with Townsend index**

Sub-domain	Variable (rates per 1000)	Mean	SD	Median	Min	Max	IQR	Rank correlation coefficient
Social services	Home care 65+	17.4	8.3	15.5	2.0	34.6	10.3 to 24.4	0.32
	Meals on wheels 65+	7.2	2.8	7.1	2.3	14.2	5.3 to 8.3	-0.28
	Referrals children 0-14	60.0	19.2	59.1	19.4	119.1	46.5 to 72.4	0.52
	Referrals adults 15-64	22.3	5.7	22.2	11.7	34.9	18.3 to 25.8	0.18
	Referrals elderly 65+	155.1	34.2	147.2	104.0	247.9	128.4 to 170.9	-0.13
	Assessments children 0-14	96.1	30.2	95.0	31.1	188.3	77.3 to 113.8	0.51
	Assessments adults 15-64	25.2	6.7	22.9	12.4	41.2	21.3 to 29.8	0.00
	Assessments elderly 65+	171.1	42.8	155.6	127.1	312.3	142.2 to 185.9	-0.10

Figure 4.1 shows the age group breakdown of the 8,946 referrals to Caerphilly county borough council Social Services Directorate between 1/4/99 and 31/12/99.

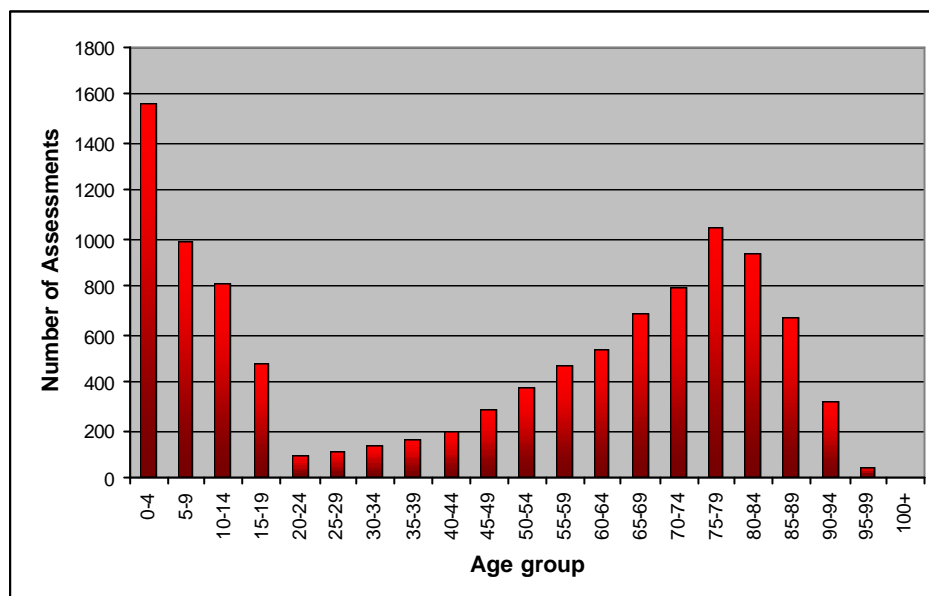
**Figure 4.1 Referrals to social services by age group, April to December 1999**



Source: CCBC Social Services Database (SSID)

Figure 4.2 shows the age group breakdown of the 11,105 assessments carried out by the Social Services Directorate between 1/4/99 and 31/12/99. Assessments are undertaken mainly in children and people over retirement age.

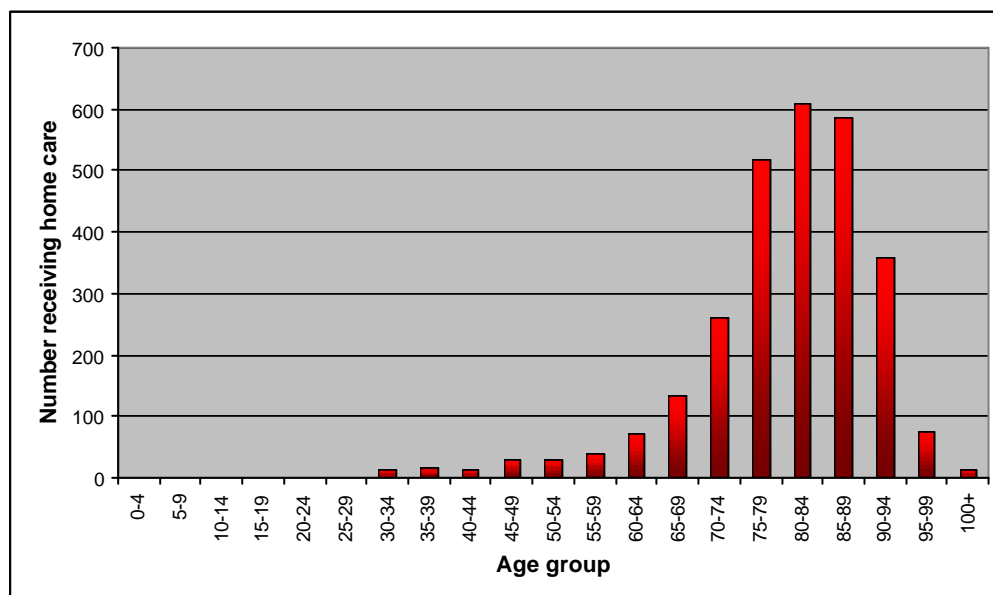
**Figure 4.2 Social services assessments by age group, April to December 1999**



Source: CCBC Social Services Database (SSID)

Figure 4.3 shows the age group breakdown of the 2777 residents receiving Home Care by the Social Services Directorate between 1/4/99 and 31/12/99.

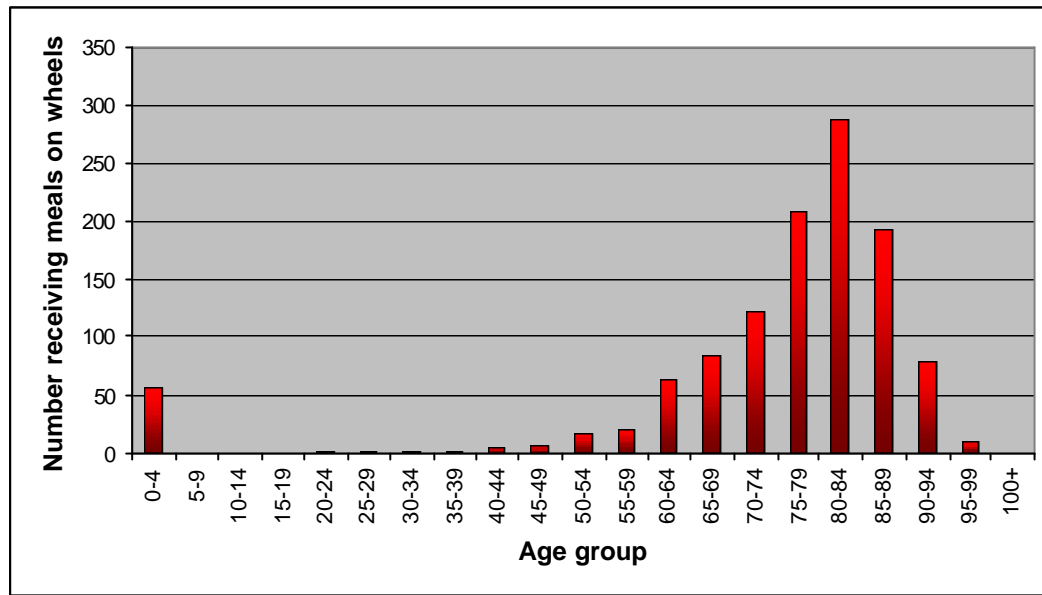
**Figure 4.3 Persons receiving home care by age group, April to December 1999**



Source: CCBC Social Services Database (SSID)

Figure 4.4 shows the age group breakdown of the 1156 residents receiving meals on wheels from the Social Services Directorate between 1/4/99 and 31/12/99.

**Figure 4.4 Persons receiving meals on wheels by age group, April to December 1999**



Source: CCBC Social Services Database (SSID)

Table 4.16 suggests no ecological relationship between home care and meals on wheels, and a closer relationship between meals on wheels and assessments. As expected there are high correlations between referrals and assessments within the same age groups, but not between children and the elderly for either referrals or assessments.

**Table 4.16 Rank Correlation matrix: Social Services domain**

	HC	MOW	Ref_14	Ref_1564	Ref_65	Ass_14	Ass_1564	Ass_65
HC	1	0.07	0.12	-0.45	-0.22	0.07	-0.51	0.01
MOW	0.07	1	-0.14	0.26	0.40	-0.22	0.22	0.17
Ref_14	0.12	-0.14	1	0.26	0.05	0.93	0.18	-0.40
Ref_1564	-0.45	0.26	0.26	1	0.54	0.20	0.80	0.37
Ref_65	-0.22	0.40	0.05	0.54	1	-0.03	0.30	0.49
Ass_14	0.07	-0.22	0.93	0.20	-0.03	1	0.16	-0.07
Ass_1564	-0.51	0.22	0.18	0.80	0.30	0.16	1	0.45
Ass_65	0.01	0.17	-0.40	0.37	0.49	-0.07	0.45	1

## Looked After Children

Data on looked after children are not available at electoral division level, but shown in table 4.17 by Social Service Team and age group to give an indication of the numbers of children involved.

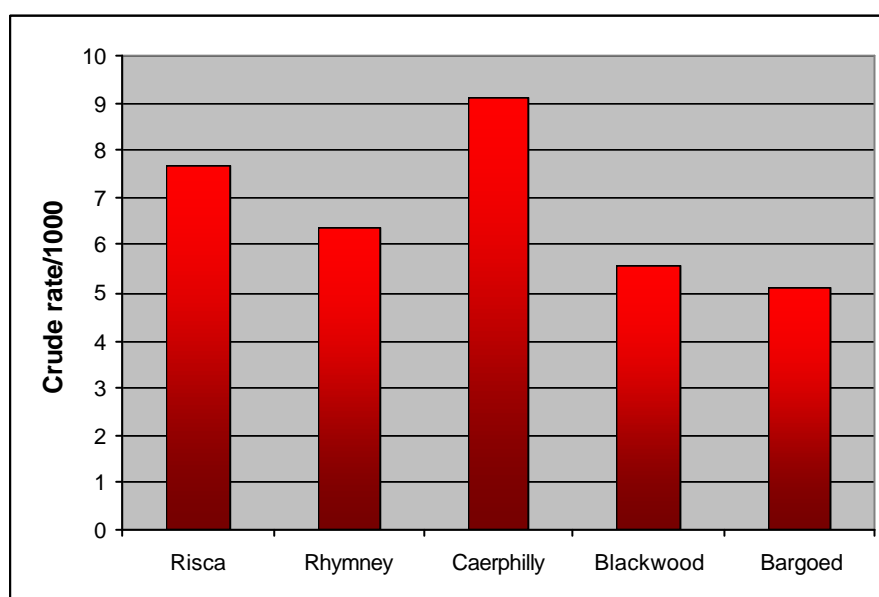
**Table 4.17 Looked after Children by Team and age group**

Social Service Team	0 to 4	5 to 9	10 to 14	15 to 19	21	TOTAL	Population under 19	Crude rate per 1000
Risca	14	24	8	17	0	63	8197	7.69
Rhymney	10	9	8	2	0	29	4565	6.35
Caerphilly	38	45	37	33	0	153	16769	9.12
Blackwood	15	10	13	11	0	49	8856	5.53
Bargoed	7	8	12	10	0	37	7290	5.08
Outside area	4	6	17	11	0	38	-	-
No Code	3	4	8	4	1	20	-	-
TOTAL	84	96	78	73	0	389	45696	7.68

Source: CCBC Social Services Database (SSID)

Figure 4.5 shows the crude rate of looked after children aged 0 to 19 per 1000 population for the five Teams. Overall the rate for Caerphilly county borough council residents with a code is 7.24 per 1000 children.

**Figure 4.5 Looked after children by Social Service Team**



Source: CCBC Social Services Database (SSID)

#### **4.1.8 Children in families**

Table 4.18 shows the correlation matrix for the variables chosen from all the domains that relate to the circumstances of children and families. The picture is of a host of interrelated circumstances of multiple deprivation, measured by low income, benefit claimant single parent families living in areas with the cheapest housing and the worst overall health that are associated with the lowest educational achievement and the highest proportion of children with special educational needs and referrals to social services.

#### **4.1.9 Adults of working age**

Table 4.19 shows the correlation matrix for the variables chosen from all the domains that relate to the circumstances of adults of working age. Again a picture of multiple deprivation emerges, with high male unemployment associated with low household income, cheapest housing, high levels of permanent sickness and limiting long term illness and disability benefit claims, and poor overall health.

#### **4.1.10 The elderly**

Table 4.20 shows the correlation matrix for the variables chosen from all the domains that relate to the circumstances of the elderly. Of note are the associations of attendance allowance claims with low household income, income support, limiting long term illness and burglaries. Referrals to social services are significantly associated with a high proportion of elderly alone and meals on wheels provision.

**Table 4.18**      *Rank correlation matrix: children in families*

Variable	LP	Un_t	5K	FC_15	IS_15	JSA_15	Meals	KS1	KS2	GCSE	SEN	AB	Burg	Violent	Ref_14	TC16	OHI
LP	1	0.66	0.72	0.43	0.78	0.63	0.73	-0.42	-0.38	-0.38	0.64	0.51	0.06	-0.06	0.53	0.51	0.49
Un_t	0.66	1	0.64	0.37	0.82	0.67	0.82	-0.40	-0.56	-0.36	0.67	0.52	0.39	0.25	0.36	0.58	0.64
5K	0.72	0.64	1	0.58	0.79	0.62	0.72	-0.36	-0.42	-0.39	0.78	0.74	0.25	0.15	0.48	0.40	0.70
FC_15	0.43	0.37	0.58	1	0.54	0.38	0.40	-0.42	-0.44	-0.41	0.50	0.46	0.04	0.01	0.30	0.01	0.44
IS_15	0.78	0.82	0.79	0.54	1	0.83	0.90	-0.38	-0.45	-0.34	0.82	0.62	0.47	0.24	0.57	0.57	0.74
JSA_15	0.63	0.67	0.62	0.38	0.83	1	0.74	-0.25	-0.36	-0.20	0.69	0.50	0.33	0.28	0.50	0.45	0.60
Meals	0.73	0.82	0.72	0.40	0.90	0.74	1	-0.51	-0.51	-0.35	0.87	0.53	0.40	0.11	0.61	0.73	0.65
KS1	-0.42	-0.40	-0.36	-0.42	-0.38	-0.25	-0.51	1	0.49	0.53	-0.51	-0.48	0.09	0.21	-0.37	-0.34	-0.22
KS2	-0.38	-0.56	-0.42	-0.44	-0.45	-0.36	-0.51	0.49	1	0.23	-0.43	-0.34	-0.31	-0.06	-0.31	-0.16	-0.24
GCSE	-0.38	-0.36	-0.39	-0.41	-0.34	-0.20	-0.35	0.53	0.23	1	-0.27	-0.49	0.04	-0.01	-0.39	-0.30	-0.24
SEN	0.64	0.67	0.78	0.50	0.82	0.69	0.87	-0.51	-0.43	-0.27	1	0.48	0.33	0.13	0.63	0.67	0.62
AB	0.51	0.52	0.74	0.46	0.62	0.50	0.53	-0.48	-0.34	-0.49	0.48	1	0.16	0.06	0.21	0.35	0.56
Burg	0.06	0.39	0.25	0.04	0.47	0.33	0.40	0.09	-0.31	0.04	0.33	0.16	1	0.55	0.20	0.19	0.34
Violent	-0.06	0.25	0.15	0.01	0.24	0.28	0.11	0.21	-0.06	-0.01	0.13	0.06	0.55	1	0.04	0.00	0.20
Ref_14	0.53	0.36	0.48	0.30	0.57	0.50	0.61	-0.37	-0.31	-0.39	0.63	0.21	0.20	0.04	1	0.31	0.31
TC16	0.51	0.58	0.40	0.01	0.57	0.45	0.73	-0.34	-0.16	-0.30	0.67	0.35	0.19	0.00	0.31	1	0.48
OHI	0.49	0.64	0.70	0.44	0.74	0.60	0.65	-0.22	-0.24	-0.24	0.62	0.56	0.34	0.20	0.31	0.48	1

With n=33, coefficients  $\geq \pm 0.34$  are significant at the 5% level and  $\geq \pm 0.45$  at the 1% level

**Table 4.19**      **Rank correlation matrix: adults of working age**

Variable	SLLTI	Sick	Un_m	Un_f	5K	JSA	DLA	FC	IB	IS	SDA	AB	Burg	Violent	Ref_1564	OHI
SLLTI	1	0.92	0.71	0.39	0.70	0.72	0.85	0.15	0.78	0.79	0.72	0.52	0.48	0.32	0.05	0.79
Sick	0.92	1	0.59	0.27	0.67	0.62	0.88	0.08	0.90	0.66	0.67	0.50	0.44	0.32	0.12	0.78
Un_m	0.71	0.59	1	0.65	0.67	0.96	0.70	0.25	0.47	0.83	0.68	0.51	0.43	0.30	-0.21	0.64
Un_f	0.39	0.27	0.65	1	0.25	0.61	0.37	0.00	0.19	0.41	0.32	0.33	0.19	0.22	-0.29	0.28
5K	0.70	0.67	0.67	0.25	1	0.72	0.64	0.53	0.66	0.84	0.62	0.74			0.33	0.70
JSA	0.72	0.62	0.96	0.61	0.72	1	0.67	0.37	0.53	0.86	0.59	0.59	0.39	0.23	-0.12	0.64
DLA	0.85	0.88	0.70	0.37	0.64	0.67	1	0.03	0.86	0.70	0.83	0.49	0.48	0.22	0.09	0.79
FC	0.15	0.08	0.25	0.00	0.53	0.37	0.03	1	0.16	0.42	0.08	0.40	0.10	-0.05	0.26	0.29
IB	0.78	0.90	0.47	0.19	0.66	0.53	0.86	0.16	1	0.60	0.59	0.59	0.36	0.20	0.25	0.72
IS	0.79	0.66	0.83	0.41	0.84	0.86	0.70	0.42	0.60	1	0.75	0.65	0.44	0.25	0.15	0.75
SDA	0.72	0.67	0.68	0.32	0.62	0.59	0.83	0.08	0.59	0.75	1	0.42	0.50	0.12	0.04	0.73
AB	0.52	0.50	0.51	0.33	0.74	0.59	0.49	0.40	0.59	0.65	0.42	1	0.16	0.06	0.35	0.56
Burg	0.48	0.44	0.43	0.19	0.25	0.39	0.48	0.10	0.36	0.44	0.50	0.16	1	0.55	-0.05	0.34
Violent	0.32	0.32	0.30	0.22	0.15	0.23	0.22	-0.05	0.20	0.25	0.12	0.06	0.55	1	0.06	0.20
Ref_1564	0.05	0.12	-0.21	-0.29	0.33	-0.12	0.09	0.26	0.25	0.15	0.04	0.35	-0.05	0.06	1	0.15
OHI	0.79	0.78	0.64	0.28	0.70	0.64	0.79	0.29	0.72	0.75	0.73	0.56	0.34	0.20	0.15	1

With n=33, coefficients  $\geq 0.34$  are significant at the 5% level and  $\geq 0.45$  at the 1% level

**Table 4.20**      *Rank correlation matrix: the elderly*

Variable	5K	Alone	AA	IS_60	SLLTI	HC	MOW	AB	Burg	Violent	Ref_65	OHI
5K	1	0.19	0.44	0.66	0.70	0.15	-0.07	0.74	0.25	0.15	0.05	0.70
Alone	0.19	1	0.24	0.04	-0.05	0.48	0.42	0.25	0.14	0.08	0.38	0.06
AA	0.44	0.24	1	0.42	0.45	0.17	0.15	0.33	0.43	0.10	0.23	0.37
IS_60	0.66	0.04	0.42	1	0.59	0.07	-0.22	0.47	0.34	0.30	-0.11	0.57
SLLTI	0.70	-0.05	0.45	0.59	1	0.28	-0.07	0.52	0.48	0.32	-0.09	0.79
HC	0.15	0.48	0.17	0.07	0.28	1	0.21	0.06	0.46	0.16	-0.22	0.38
MOW	-0.07	0.42	0.15	-0.22	-0.07	0.21	1	-0.03	0.12	-0.01	0.40	0.12
AB	0.74	0.25	0.33	0.47	0.52	0.06	-0.03	1	0.16	0.06	0.15	0.56
Burg	0.25	0.14	0.43	0.34	0.48	0.46	0.12	0.16	1	0.55	0.01	0.34
Violent	0.15	0.08	0.10	0.30	0.32	0.16	-0.01	0.06	0.55	1	0.02	0.20
Ref_65	0.05	0.38	0.23	-0.11	-0.09	-0.22	0.40	0.15	0.01	0.02	1	-0.07
OHI	0.70	0.06	0.37	0.57	0.79	0.38	0.12	0.56	0.34	0.20	-0.07	1

With n=33, coefficients  $\geq \pm 0.34$  are significant at the 5% level and  $\geq \pm 0.45$  at the 1% level

## 4.2 Geodemographic and marketing classifications

Caerphilly county borough contains 327 of the 1148 enumeration districts with geographical boundary files in Gwent. Tables 4.21 and 4.22 show the numbers (%) of enumeration districts in Caerphilly borough compared to Gwent within each Super Profile and ACORN category. As expected most enumeration districts fall within the more “deprived” categories, but still with 36 (3.1%) of enumeration districts classified as “Country Life”. Caerphilly borough has a greater proportion of “hard-pressed families” and “have-nots” enumeration districts than the other four boroughs in Gwent (29.9% compared to 23.8%) and a higher proportion of “striving” ACORN enumeration districts (26.9% compared to 24.6%).

**Table 4.21 Super Profiles**

	Caerphilly borough		Gwent	
	Frequency	Percent	Frequency	Percent
Affluent achievers	8	2.4	85	7.4
Thriving greys	8	2.4	75	6.5
Settled suburbans	33	10.1	89	7.8
Nest builders	69	21.1	196	17.1
Urban venturers	1	0.3	23	2.0
Country life	2	0.6	36	3.1
Senior citizens	4	1.2	49	4.3
Producers	102	31.2	281	24.5
Hard-pressed families	74	22.6	188	16.4
Have-nots	24	7.3	105	9.1
Unclassified	2	0.6	21	1.8
Total	327	100	1148	100

**Table 4.22 ACORN**

	Caerphilly borough		Gwent	
	Frequency	Percent	Frequency	Percent
Thriving	7	2.1	157	13.7
Expanding	36	11.0	94	8.2
Rising	0	0	16	1.4
Settling	104	31.8	320	27.9
Aspiring	90	27.5	250	21.8
Striving	88	26.9	290	25.3
Unclassified	2	0.6	21	1.8
Totals	327	100	1148	100

**Table 4.23 Descriptive statistics of enumeration district variables: Caerphilly borough**

	Mean	SD	Median	Min	Max	IQR
Townsend index	0.5	3.2	0.3	-6.4	9.1	-1.8 to 2.4
% households <£5k pa	12.8	7.6	11.6	0.6	44.1	6.9 to 17.1
% households <£10k pa	31.2	13.0	30.3	3.6	73.7	21.7 to 39.6
SLLTI	117.8	31.9	116.5	41.3	234.5	96.4 to 140.1
% Perm Sick	8.1	3.3	7.8	1.0	21.6	5.7 to 10.5
% Lone parents	4.2	4.1	2.9	0.0	23.7	1.7 to 5.1
% Elderly alone	6.6	4.4	6.2	0.0	28.1	3.3 to 8.7

Table 4.23 shows the descriptive statistics for the enumeration district variables used in the analysis of Super Profiles and ACORN. Tables 4.24 and 4.25 show the median scores for the enumeration district variables for each of the Super Profiles and ACORN categories. No enumeration districts were classified in the Super Profiles “urban venturers” category, nor the ACORN “rising” category. In general, the pattern of scores confirms the face validity of the classification descriptions. The Country Life category in Super Profiles consistently shows “better” scores than expected by its order in the classification and requires further investigation. The explanatory power of the classifications in predicting mortality outcomes will also be worth assessing once smoothed mortality data are available at enumeration district level.

**Table 4.24 Super Profiles and median variable scores**

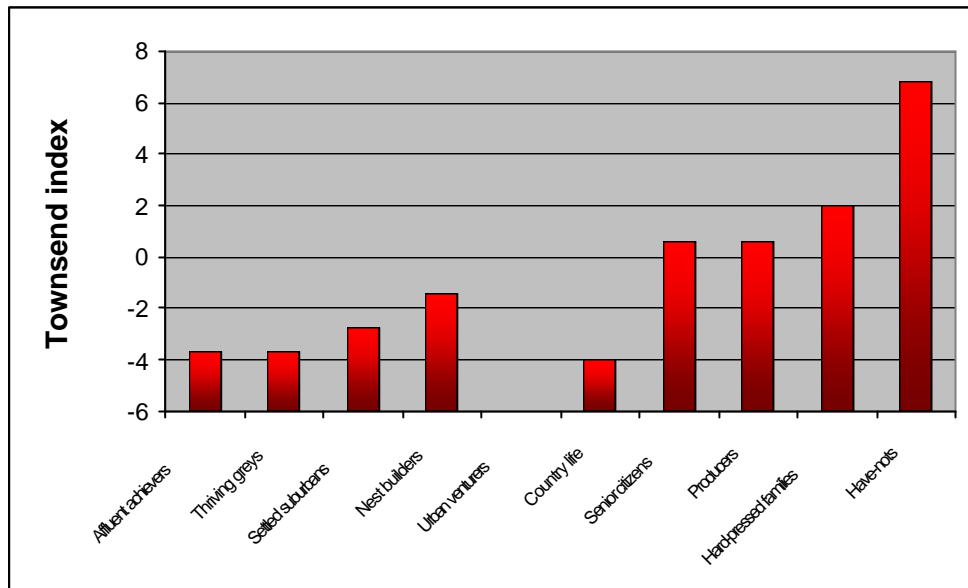
Super Profile category	Town	5K	10K	SLLTI	Sick	Lone parent	Elderly alone
Affluent achievers	-3.7	5.0	15.6	78.5	4.3	1.2	5.3
Thriving greys	-3.7	7.3	20.5	78.6	6.3	1.9	6.8
Settled suburbans	-2.7	5.6	18.7	93.4	5.3	2.2	3.1
Nest builders	-1.4	8.3	24.6	106.9	6.4	2.8	3.8
Urban venturers	-	-	-	-	-	-	-
Country life	-4.0	6.3	17.9	71.8	7.4	0.5	3.2
Senior citizens	0.6	10.8	29.8	105.1	5.4	1.1	16.1
Producers	0.6	12.1	31.7	119.2	8.8	2.5	8.0
Hard pressed families	2.0	15.8	38.7	134.7	9.8	4.5	6.7
Have-nots	6.8	26.3	51.9	162.9	10.2	14.2	4.6
Unclassified	-	2.4	11.5	-	-	-	-
Total	0.3	11.6	30.3	-	7.8	2.9	6.2

**Table 4.25 ACORN and median variable scores**

ACORN category	Town	5K	10K	SLLTI	Sick	Lone parent	Elderly alone
Thriving	-4.4	3.0	9.7	66.5	2.9	1.1	4.8
Expanding	-3.7	4.1	15.3	77.5	3.5	2.6	1.7
Rising	-	-	-	-	-	-	-
Settling	-1.1	9.1	26.2	106.3	6.6	2.4	6.4
Aspiring	1.1	13.3	33.5	126.5	9.6	2.6	8.1
Striving	4.1	18.5	42.7	142.5	9.4	7.4	5.5
Unclassified	-	2.4	11.5	-	-	-	-
Total	0.3	11.6	30.3	-	7.8	2.9	6.2

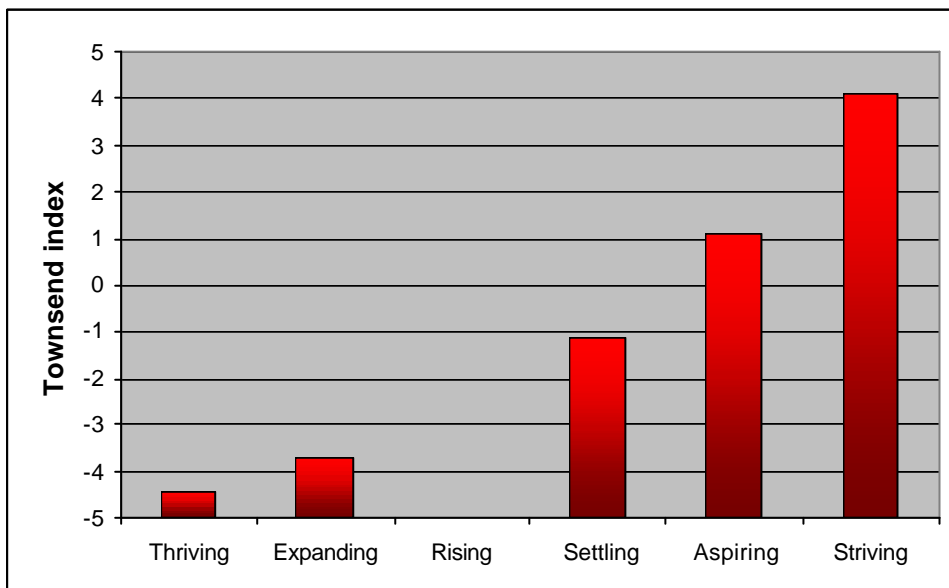
Figure 4.6 plots the median Townsend index shown in table 4.24 and shows the gradient in Townsend index with each successive Super Profile category, excepting the “country life” category. This positive gradient suggests that the Super Profile classification has epidemiological meaning in classifying enumeration districts.

**Fig 4.6 Plot of median scores for Townsend index: Super Profiles**



Similarly, figure 4.7 plots the median Townsend index shown in table 4.25 and shows the gradient in Townsend score with each successive ACORN category. This positive gradient suggests that the ACORN classification also has epidemiological meaning in classifying enumeration districts.

**Figure 4.7 Plot of median scores for Townsend index: ACORN**



## Chapter 5 Discussion

Although a wide range of data have been held in a variety of databases within local authority departments for some time, these data have been held generally for operational management of the services to which they relate. Other data, such as income and disability benefits data are held centrally by the DSS and made available to local authorities. The strategic policy of the NHS in Wales to reduce inequalities in health through health and local authorities working in partnership with other agencies has now highlighted the potential value of the data held in local authorities. To date little use has been made of these data in a wider epidemiological assessment of health and social needs at geographical area level. However, as local health alliances and local health groups are charged with undertaking comprehensive health and social needs assessment as the basis for strategic planning to reduce inequalities in health, using these new multi-agency sources of data has become of great importance.

The establishment of a Local Health Alliance partnership in Caerphilly comprising the senior executives from the local authority, health authority, local health group, police force and voluntary sector, provides a powerful route for ensuring that the information presented in this study will reach key decision making processes in the locality.

### Main results

This Stage 2 report of the Caerphilly Health & Social Needs Study has identified a broad range of multi-agency data at electoral division area level across the domains of Income, Unemployment, Health, Education, Housing, Crime & Disorder and Social Services. In this report the thematic maps of these data supplement the data previously presented in the Stage 1 report and build a comprehensive picture of the wider determinants of health and health and social outcomes within the borough.

This study has shown both in thematic maps and in rank correlation analyses, the patterns of multiple deprivation at electoral division level within the borough. In general, electoral divisions that show the highest levels of Townsend index deprivation have the highest levels of income deprivation and unemployment, low value housing, lowest educational achievement, highest levels of disability and poorest health outcomes, with higher levels of social service assessments and some types of crime. These relationships are strongest for children in deprived electoral divisions and paint an overwhelming picture of multiple deprivation and inequality in life chances for children in these poorest electoral divisions.

As we have presented multiple correlations there is a risk of obtaining a spuriously statistically significant result 1 in 20 times at the 5% level of significance. Conversely, with only 33 electoral divisions, inadequate power may have produced spuriously non-significant results. As a result individual correlations may appear counter-intuitive, such as a negative correlation between lung cancer mortality and cervical screening uptake with Townsend index. The correlations between these variables at all Gwent level are strongly positive and statistically significant as expected from knowledge of their epidemiology. However, the general pattern of correlations at Caerphilly borough level is too consistent for these probable spurious results to alter the overall findings of the study.

### Geodemographic and marketing classifications

Super profiles and ACORN are potentially useful epidemiological variables at enumeration district level. A medline search of the literature from 1966 up to and including September 2000 using the search term text word "Super Profile" found eight papers<sup>1-8</sup>. Two early studies used Super Profiles in an analysis of child health inequalities<sup>1,2</sup>. These older studies are no longer useful as they used an old Super Profiles classification which has now been superseded. Apart from a recent small series of dental papers<sup>3-5</sup>, one paper used Super Profiles to adjust for socio-economic status in examining ethnic origin as a risk factor for paediatric lymphoma<sup>6</sup>. No assessment of the appropriateness of using Super Profiles in this way was made.

Two more recent papers investigating socio-economic variations in coronary revascularisation found an overall increase in the under 65 regional coronary revascularisation rate across the Super Profiles lifestyle groups, but with a gradient less steep than expected compared to the gradient for coronary heart disease SMR<sup>7</sup>. The follow up paper used Super Profiles as a socio-economic classification to assess trends in equity of service provision following investment in cardiac services<sup>8</sup>. The message from both papers was that the authors considered Super Profiles as a useful tool for monitoring access to health care.

The text word search term “ACORN” found several papers but all using the now redundant housing type ACORN classification. No studies have assessed the use of the new ACORN as an epidemiological classification.

Our results show an ordered classification in both Super Profiles and ACORN in association with a range of variables, particularly gross household income and the Townsend index. “Country life” Super Profile category has a lower (i.e. less deprived) Townsend index and higher household income than expected, supporting the literature that there is something different about deprivation in rural areas<sup>9</sup>. Unfortunately smoothed enumeration district SMRs were not available within the timescale of this report, but will be shortly and the explanatory power of Super Profiles and ACORN in predicting mortality outcomes will be analysed.

Of the two classifications, ACORN appears to have the greater utility as it only has six categories compared to ten Super Profiles categories. Their use in enumeration district level epidemiological research and small area health needs assessment work across Wales should be explored as they offer a means of comparative small area enumeration district analysis for health planning and disentangling the heterogeneity that exists within electoral divisions. This is clearly an area where further methodological research is required.

### **Methodological issues**

The sharing of data within Caerphilly county borough council and with partner organisations is a relatively recent development. Traditionally data have been routinely collected for administration purposes and have not been widely used to inform strategy. This study has highlighted the internal difficulties with the requirement to share data. Different databases, administrative systems, time periods, data quality and different spatial levels have compounded the difficulties. These issues are commonplace in local government and initiatives such as the Local Land & Property Gazetteer, which is currently under construction, will enable data sharing to be an easier process in the future. Advances in technology will also have a major part to play in enabling future data sharing. Undertaking such activity clearly has great strategic benefit. To be done successfully however it is essential for the process to have executive level support (as in Caerphilly county borough council) and for all directorates to recognise the importance of such work by allocating appropriate priority to the tasks involved.

Data shared by Caerphilly county borough council were validated as far as possible and we have presented and analysed them as received, after expressing as a percentage or rate. Although the DSS claimant counts are likely to be accurate enough to use, the allocation of Key Stage 1 and 2 data by school catchment area to electoral division is likely to have suffered from a degree of misclassification bias. Similarly the crime & disorder data also was likely to have been biased, particularly as Police Beat Codes may overlap several electoral divisions. The need for valid, reliable and completely postcoded data sets to make meaningful analysis possible has therefore been shown by this study, and this requires commitment and resources to improve the quality of local authority and Police data sets.

This study has explored the potential to share and analyse aggregate data from Caerphilly Social Services Information Database (SSID). The experience of this exercise indicates it is possible to exchange and analyse Social Services data from the SSID database in aggregate format in a secure fashion. A restriction on the selection of data items was deliberate. This helped control the amount of time spent on data processing. There is a wide selection of data items held on SSID, which could prove useful to local health groups and local authorities when it comes to making decisions on joint

planning and commissioning of services. The joint Gwent Information Exchange Protocol between all local parties will provide a policy agreement for sharing data in a secure environment.

The completeness and accuracy of the social services data items used appears to be good. For example, the postcode field used to identify area of residence for each record was 98% accurate, a consistent feature of all files. All the files contained a small amount of records (less than 1%) where the postcode was found to be located outside Caerphilly borough. Small discrepancies also existed for the age and sex fields. The field named “category” uses a structured classification to identify the type of client group, such as children with a learning disability and adult elderly mentally infirm. Although, the field “category” was 100% complete, we were unable to use the classification for children, as there appears to be little or no use of the sub-categories such as children with sensory disability. The reasons for coding data against some of the other categories were not clear. For adults, there were three categories physical disability, sensory disability and one combined category for both. It is essential to adhere to a consistent coding convention, if the data are to become useful information.

Converting data to electoral division counts and then calculating rates required precise definitions, including an understanding of the eligibility for claimants, so that appropriate denominators can be chosen to calculate electoral division rates. Some data did not have an appropriate denominator. Much of the crime & disorder data could not be calculated as rates. Although the Police use “performance indicators” such as number of vehicle thefts per 1000 population, these rates where the denominator is clearly not the “at risk” population have not been presented in this report, except for total crimes per 1000 population which is shown for illustration. Of the various indicators available, only burglaries per 1000 dwellings and violent crime per 1000 population are used in this report. However violent crimes are recorded at the scene of the crime, but the perpetrator and the victim may reside in other areas. So as an indication of occurrence of violent crime it is useful, but less useful in comparing electoral division rates.

In many instances the denominators are population counts. The choice of population base was either the 1991 census or the population resident in Caerphilly borough registered with a GP on 1 April 2000. Since most of the claims data were from 1998 a numerator/denominator mis-match may have been a source of bias, but likely to be small since the age-sex characteristics of the borough have changed little between electoral divisions.

### **Gaps in the data**

Other data were available but not used due to small numbers of events. This included all data on Disability Working Allowance and the multiple age-group breakdowns of the other DSS benefit data. Data received on housing voids, hard-to-let and right to buy council properties were considered too incomplete to use. The study confirmed our assumed knowledge on gaps in the data. For example there are no valid and reliable small area estimates of lifestyle determinants of health, such as smoking, alcohol consumption, diet, exercise and obesity. Neither are there any systematically collected valid, reliable or complete electoral division prevalence rates of self-reported common diseases such as coronary heart disease, common cancers, respiratory diseases and injuries. Due to the on-going Gwent Health Authority Acute Services Review, hospital activity data have not been analysed in this study.

### **Small area statistics**

As well as all the problems of data validity arising from misclassification and incomplete recording, comparisons by small geographical areas such as electoral divisions may cause difficulty in interpreting the data presented due to random variation in small numbers of events in areas with small populations. Traditional analyses, such as the SMR in which the number of deaths in each area are assumed to be mutually independent and follow a Poisson distribution, inadequately captures the real random variation and spatial information, so that small numbers of deaths in areas with small populations may result in extreme values of the SMR. An effective solution to this problem is to use Bayesian Disease Mapping techniques<sup>10</sup>, in which a compromise between the traditional SMR and the average relative risk for the whole area is sought to provide a more reliable estimate of relative risk.

Bayesian approaches include prior information on the variability of disease rates in the area under study in addition to the observed counts of events.

Global Bayesian smoothing estimates will be similar to that of the unsmoothed SMR when 'local' risk rates are based upon reliable numbers. For less reliable estimates based on small numbers the estimate is 'shrunk' to electoral divisions the overall average risk for the region (empirical Bayes). In this study we used local Bayesian spatial smoothing which 'shrinks' the estimates to a 'local neighbourhood' as close neighbours are more likely to have similar underlying risk. We were fortunate to be able to use smoothed cancer incidence data and mortality data prepared by SAHRU as part of the Info2000 IWWM project in this Study, and so avoid unreliable estimates at electoral division level. This is clearly an area where this statistical expertise could be of benefit to small area health needs assessment throughout Wales.

We have shown the explanatory power of a wide range of multiagency data in predicting health outcomes such as mortality and the modified Townsend Overall Health Index. However all these ecological analyses are subject to the usual methodological difficulties of ecological bias i.e. ascribing area based attributes to individuals. For example, at electoral division level, attendance allowance was associated with burglaries. However we do not know that persons in receipt of attendance allowance were the people being burgled, just that electoral divisions with a higher proportion of attendance allowance claimants had a higher proportion of burglaries per household. The same bias is possible for all the analyses. Is it that children with individual low educational achievement are the same children that live in single parent families on income support? Is there more disability in deprived electoral divisions or are people with disabilities more likely to claim in deprived electoral divisions than less deprived electoral divisions which have higher incomes?

### **Plans for Stage 3 of the Caerphilly Health & Social Needs Study**

In order to answer these questions multilevel statistical modelling is required to separate out individual and ecological effects. We propose in Stage 3 to investigate these relationships based on adequately large samples in small areas. We have not identified any published papers that explore the relationships between social and environmental determinants of health that model the wide range of local authority data available, and shared between Caerphilly county borough council and Gwent Health Authority in this Stage 2 study. We propose therefore to assess the value of the multiagency data for multilevel analyses on a range of factors ecologically associated with health outcomes. Multi-agency data at electoral division level on income, unemployment, housing and education will be assessed for their predictive power in a range of lifestyle behaviours, such as smoking, excess alcohol consumption and physical activity, and health outcomes. Further analyses will assess a range of electoral division level environmental variables such as housing tenure.

The core parameters in the models will be individual level data on age, gender, socio-economic group/social class and area-based electoral division deprivation scores (e.g. Townsend, Carstairs and Breadline Britain). Comparison will be made between the explanatory powers of these models with models with area-based multi-agency parameter data. Further models specifying parameters on individual Locus of Control and the SF36 mental health (MH) and mental health component summary score (MCS) will be specified to gain a greater understanding of what individual and area based characteristics, both social and built environment, are associated with poor health outcomes and inequalities in health.

Therefore the findings of this Stage 2 Study allow us to specify objectives for the Stage 3 Study:

**1. To obtain non-routine social, environmental, lifestyle and health status data at electoral division level**

- ❖ To estimate electoral division prevalence rates of lifestyle determinants of health– smoking, alcohol consumption, diet and exercise, obesity;
- ❖ To estimate electoral division prevalence rates of self-reported common diseases: coronary heart disease, common cancers, respiratory diseases, injuries; and health status using SF-36 version II;
- ❖ To estimate electoral division socio-economic status;
- ❖ To estimate electoral division prevalence rates of environmental determinants of health e.g. housing conditions;
- ❖ To estimate all-Wales electoral division level information for the Health of Wales Information Service (HOWIS) using Poisson modelling;
- ❖ To build on the preparatory work in sharing multi-agency data collated in Stages 1 & 2 of the study, and;

**2. To use individual level survey data with multi-agency area based data to build multilevel models to gain a greater understanding of the relationships between social deprivation and health inequalities**

- ❖ To investigate the relationships between individual and area based determinants of health, anxiety/depression and locus of control in predicting lifestyle behaviour and health outcomes;
- ❖ To assess the value of multi-agency data on income, employment, housing and education deprivation in multilevel models to predict lifestyle behaviour and health outcomes.

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## Chapter 6      Conclusions

This Stage 2 Study has achieved the following:

- ❖ Further collaboration between Gwent Health Authority and Caerphilly county borough council to build on the success of the Stage 1 report and establishing a method for sharing of a wider range of multi-agency data;
- ❖ A comprehensive *Microsoft Access* database and full set of metadata to National Geospatial Data Framework (NGDF) standards describing information for health and social needs assessment for the Caerphilly Health Alliance, Local Action Plan, the Gwent Health Improvement Programme and Caerphilly Community Planning;
- ❖ Highlighting of the poor health and socio-economic status of Caerphilly county borough with further evidence of the relationships between deprivation and a wide range of health and social determinants and health and social outcomes, and the need to identify appropriate interventions;
- ❖ Provision of information to support the development of an Investment for Health approach and the Local Authority's commitment to adopting the World Health Organisations' Verona Benchmark challenge to tackle the socio-economic and environmental determinants of health;
- ❖ Further justification of the need to adopt Health Impact Assessment methodology as a routine tool in local decision making;
- ❖ Demonstrating the value of Local Health Alliance (multi-agency) partnerships in facilitating a network for sharing health and environmental information and raising understanding of how health gain can be achieved;
- ❖ An understanding of the difficulties and timescales involved in obtaining data from local authority department information systems and processing the data to present meaningful information at electoral division level;
- ❖ Raised awareness in Caerphilly county borough council of the need for continuous improvement of the validity, reliability and overall quality of data if it is to be processed into useful information;
- ❖ Giving added value to a wide range of Caerphilly county borough council data through sharing and analysis with Gwent Health Authority data;
- ❖ Identification of the research questions and further work required in Stage 3 of the Caerphilly Health & Social Needs Study.

## Chapter 7 Recommendations

We recommend:

- ❖ That the Stage 2 report be used as the source of multi-agency health & social needs assessment data for the Caerphilly health alliance action plan, the Gwent Health Improvement Programme and Caerphilly Community Planning;
- ❖ That this Stage 2 work should be extended to the other county boroughs in Gwent and, in collaboration with the Local Government Data Unit and the proposed Wales Centre for Health, funding be sought to extend to all county boroughs in Wales, with the following objectives:
  - To define a core dataset of multi-agency data to support a broad range of partnership working;
  - To define standards for sharing and disclosure of data;
  - To define standards for data processing and analysis, including Bayesian modelling;
  - To write All-Wales metadata for this core dataset;
  - To collate the agreed dataset in partnership with all interested parties, data providers and end-users;
  - To agree with users a set of core indicators/ analyses that will be of value to local health and well-being strategies;
  - To consult with users on the most useful and appropriate way of presenting/ disseminating the information for the different audiences. This could include the production of an *Atlas of social, economic, environmental and health inequalities in Wales* at small area level;
  - To support end users in the interpretation of these datasets;
  - To investigate the use of interactive internet GIS for presentation and wider dissemination of the data;
  - To extend the potential benefits of this proposal from Wales to the European Union.
- ❖ That while the work of extracting and analysing new multi-agency data, as they become available, means that Stage 2 will be an ongoing and evolving process, we should progress to the Stage 3 survey using the multi-agency area data in multilevel modelling as described. This modelling will aim to achieve a greater understanding of the relationships between individual and area based determinants of health and social outcomes.

# Appendices

Appendix 1	Metadata
Appendix 2	Special Educational Needs
Appendix 3	Census data definitions
Appendix 4	Super Profiles & ACORN

## Appendix 1 Metadata

## **Metadata Record**

**Originator:** Gwent Police Authority

**Date of Last Update:** 29/03/00

**Record Number:** 1

**Title:** Crime Statistics

**Alternative Title:** Crime Statistics

**Abstract:** Crime data supplied by Gwent Police

### **Subset**

<b>Title</b>	Burglaries per 1000 dwellings	<b>Abstract</b>	Number of burglaries per 1,000 dwellings.		
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/04/98	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Transformation process</b>	Not Applicable	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	31/03/99
				<b>Frequency of Update</b>	Annually
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	Magnetic (floppy or DAT)	Numeric	Professional	Excel	

### **Subset**

<b>Title</b>	Violent crime per 1000 population	<b>Abstract</b>	Number of violent crimes per 1,000 population		
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/04/98	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Transformation process</b>	Not Applicable	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	31/03/99
				<b>Frequency of Update</b>	Annually
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	Magnetic (floppy or DAT)	Map	Professional	MapInfo	

### **Subset**

<b>Title</b>	Total crimes per 1000 population	<b>Abstract</b>	Number of all crimes committed per 1000 population.		
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/04/98	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Transformation process</b>	Not Applicable	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	31/03/98
				<b>Frequency of Update</b>	Annually
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	Magnetic (floppy or DAT)	Map	Professional	MapInfo	
	Magnetic (floppy or DAT)	Numeric	Professional	Excel	

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### **Keywords**

crime  
Burglaries  
Violence

**Metadata Record**

Originator: CCBC

Date of Last Update: 04/04/00

Record Number: 2

Title: Council Tax Bands

Alternative Title:

Abstract: Council Tax Bands of all households in Caerphilly County Borough Council

**Subset**

<b>Title</b>	% households in Council Tax bands A&B	<b>Abstract</b>	Number of households in Council Tax bands A&B as a percentage of total households				
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/02/99	<b>Status of End Date of Capture:</b>	Known	<b>End date of Data Capture</b>	01/02/99
<b>Start level of Spatial Detail</b>	Household	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Frequency of Update</b>	Annually

**MediaFormat**

<b>Supply Media</b>	<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>
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Magnetic (floppy or DAT)	Numeric	Professional	Excel

**Subset**

<b>Title</b>	% households in Council Tax bands G&H	<b>Abstract</b>	Number of households in Council Tax bands G&H as a percentage of all households				
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/02/99	<b>Status of End Date of Capture:</b>	Known	<b>End date of Data Capture</b>	01/02/99
<b>Start level of Spatial Detail</b>	Household	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Frequency of Update</b>	Annually

**MediaFormat**

<b>Supply Media</b>	<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>
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Magnetic (floppy or DAT)	Numeric	Professional	Excel

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colej@caerphilly.gov.uk**Keywords**Council Tax  
Valuation

## Metadata Record

Originator: DSS

Date of Last Update: 04/04/00

Record Number: 3

Title: Income Benefits

Alternative Title:

Abstract: Department of Social Security Income benefits

### Subset

Title	Family credit households	Abstract	% households with dependent children claiming family credit		
Status of Start Date of Capture	Known	Start Date of Capture	01/05/98	Status of End Date of Capture:	Known
End date of Data Capture	01/05/98	Start level of Spatial Detail	NUTS 5 (Ward)	Transformation process	Not Applicable
End Level of Spatial Detail	NUTS 5 (Ward)	Frequency of Update	Annually		
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	Magnetic (floppy or DAT)	Numeric	Professional	Excel	

### Subset

Title	Children aged 0-15 in Family Credit households	Abstract	% children aged 0-15 living in households claiming Family Credit		
Status of Start Date of Capture	Known	Start Date of Capture	01/05/98	Status of End Date of Capture:	Known
End date of Data Capture	01/05/98	Start level of Spatial Detail	NUTS 5 (Ward)	Transformation process	Aggregation
End Level of Spatial Detail	NUTS 5 (Ward)	Frequency of Update	Annually		
MediaFormat	Supply Media	Presentation Type	Access Constraint	Data Format	
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	Magnetic (floppy or DAT)	Numeric	Professional	Excel	

### Subset

Title	Children aged 0-15 in Family Credit households	Abstract	% children aged 0-15 living in households where Family Credit is being claimed		
Status of Start Date of Capture	Known	Start Date of Capture	01/05/98	Status of End Date of Capture:	Known
End date of Data Capture	01/05/98	Start level of Spatial Detail	NUTS 5 (Ward)	Transformation process	Not Applicable
End Level of Spatial Detail	NUTS 5 (Ward)	Frequency of Update	Annually		
MediaFormat	Supply Media	Presentation Type	Access Constraint	Data Format	
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	Magnetic (floppy or DAT)	Numeric	Professional	Excel	

## Subset

<b>Title</b> Income Support 16+		<b>Abstract</b> % persons aged 16+ claiming Income Support			
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/05/98	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Transformation process</b>	Not Applicable	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
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				<b>Frequency of Update</b>	Annually
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Magnetic (floppy or DAT)		Numeric		Professional	
				<b>Data Format</b>	
				MapInfo	
				Excel	

## Subset

<b>Title</b> Children 0-15 in Income Support households		<b>Abstract</b> % children aged 0-15 living in households where Income Support is being claimed			
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/05/98	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Transformation process</b>	Not Applicable	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	01/05/98
				<b>Frequency of Update</b>	Annually
<b><u>MediaFormat</u></b>					
<b>Supply Media</b>		<b>Presentation Type</b>		<b>Access Constraint</b>	
Magnetic (floppy or DAT)		Numeric		Professional	
				<b>Data Format</b>	
				Excel	

## Subset

<b>Title</b> Persons claiming Job Seekers Allowance		<b>Abstract</b> % economically active persons income based claiming Job Seekers Allowance	
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/05/98
<b>Status of End Date of Capture:</b>	Known	<b>End date of Data Capture</b>	01/05/98
<b>Start level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Transformation process</b>	Not Applicable
<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Frequency of Update</b>	Annually
<b><u>MediaFormat</u></b>			
<b>Supply Media</b>		<b>Presentation Type</b>	<b>Access Constraint</b>
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Magnetic (floppy or DAT)		Numeric	Professional
			<b>Data Format</b>
			MapInfo
			Excel

## Subset

<b>Title</b> Children 0-15 in Job Seekers Allowance households		<b>Abstract</b> % children aged 0-15 living in households where income based Job Seekers Allowance is being claimed					
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/05/98	<b>Status of End Date of Capture:</b>	Known	<b>End date of Data Capture</b>	01/05/98
<b>Start level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Transformation process</b>	Not Applicable	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Frequency of Update</b>	Annually
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						Excel	

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## Keywords

DSS  
ward  
rate

## **Metadata Record**

Originator: ONS

Date of Last Update: 04/04/00

Record Number: 4

Title: Unemployment data

Alternative Title:

Abstract: CCBC unemployment data requested from NOMIS

### **Subset**

<b>Title</b>	% males unemployed	<b>Abstract</b>	% economically males unemployed		
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/04/98	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Transformation process</b>	Not Applicable	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
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	Magnetic (floppy or DAT)	Map	Professional	MapInfo	
	Magnetic (floppy or DAT)	Numeric	Professional	Excel	

### **Subset**

<b>Title</b>	% females unemployed	<b>Abstract</b>	% economically active females unemployed		
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<b>Start level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Transformation process</b>	Not Applicable	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	01/04/98
				<b>Frequency of Update</b>	Annually
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	Magnetic (floppy or DAT)	Numeric	Professional	Excel	

### **Subset**

<b>Title</b>	% unemployed	<b>Abstract</b>	% economically active persons unemployed		
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/04/98	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Transformation process</b>	Not Applicable	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	01/04/98
				<b>Frequency of Update</b>	Annually
<b><u>MediaFormat</u></b>	<b>Supply Media</b>	<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>	
	Magnetic (floppy or DAT)	Map	Professional	MapInfo	
	Magnetic (floppy or DAT)	Numeric	Professional	Excel	

### **Suppliers**

**Supplier**  
Caerphilly CBC

**Contact name**  
Jane Cole

**Tel number**  
01443 864409

**E-mail address**  
colej@caerphilly.gov.uk

### **Keywords**

Unemployment  
ward  
rate

**Metadata Record**

Originator: DSS

Date of Last Update: 04/04/00

Record Number: 5

Title: Disability

Alternative Title:

Abstract: DSS disability benefits

**Subset**

Title Disability Living Allowance

Abstract % persons aged &lt;65 claiming Disability Living Allowance

Status of Start Date of Capture Known

Start Date of Capture 01/05/98

Status of End Date of Capture: Known

End date of Data Capture 01/05/98

Start level of Spatial Detail NUTS 5 (Ward)

Transformation process

Not Applicable

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update Annually

**MediaFormat**

Supply Media

Presentation Type

Access Constraint

Data Format

Magnetic (floppy or DAT)

Map

Professional

MapInfo

Magnetic (floppy or DAT)

Numeric

Other

Excel

**Subset**

Title Attendance Allowance

Abstract % persons aged 65+ claiming Attendance Allowance

Status of Start Date of Capture Known

Start Date of Capture 01/05/98

Status of End Date of Capture: Known

End date of Data Capture 01/05/98

Start level of Spatial Detail NUTS 5 (Ward)

Transformation process

Not Applicable

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update Annually

**MediaFormat**

Supply Media

Presentation Type

Access Constraint

Data Format

Magnetic (floppy or DAT)

Map

Professional

MapInfo

Magnetic (floppy or DAT)

Numeric

Professional

Excel

**Subset**

Title Long Term Incapacity Benefit

Abstract % persons aged 16-64 claiming Long Term Incapacity benefit

Status of Start Date of Capture Known

Start Date of Capture 01/05/98

Status of End Date of Capture: Known

End date of Data Capture 01/05/98

Start level of Spatial Detail NUTS 5 (Ward)

Transformation process

Not Applicable

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update Annually

**MediaFormat**

Supply Media

Presentation Type

Access Constraint

Data Format

Magnetic (floppy or DAT)

Map

Professional

MapInfo

Magnetic (floppy or DAT)

Numeric

Professional

Excel

**Subset**

Title Long Term Severe Disablement Allowance

Abstract % persons aged 16-64 claiming long term Severe Disablement Allowance

Status of Start Date of Capture Known

Start Date of Capture 01/05/98

Status of End Date of Capture: Known

End date of Data Capture 01/05/98

Start level of Spatial Detail NUTS 5 (Ward)

Transformation process

Not Applicable

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update Annually

**MediaFormat**

Supply Media

Presentation Type

Access Constraint

Data Format

Magnetic (floppy or DAT)

Map

Professional

MapInfo

Magnetic (floppy or DAT)

Numeric

Professional

Excel

**Suppliers**Supplier  
Caerphilly CBCContact name  
Jane ColeTel number  
01443 864409E-mail address  
colej@caerphilly.gov.uk**Keywords**Disability benefits  
ward  
status

## **Metadata Record**

Originator: WCISU

Date of Last Update: 04/04/00

Record Number: 6

Title: Cancer Incidence

Alternative Title:

Abstract: Cancer incidence data from the Welsh Cancer Intelligence & Surveillance Unit

### **Subset**

Title All Cancer

Abstract Smoothed standardised incidence ratio for all cancer in persons aged <75

Status of Start Date of Capture	Known	Start Date of Capture	01/01/94	Status of End Date of Capture:	Known	End date of Data Capture	31/12/98
Start level of Spatial Detail	NUTS 5 (Ward)	Transformation process	Statistical	End Level of Spatial Detail	NUTS 5 (Ward)	Frequency of Update	Annually

### **MediaFormat**

Supply Media

Magnetic (floppy or DAT)

Magnetic (floppy or DAT)

Presentation Type

Map

Numeric

Access Constraint

Professional

Other

Data Format

MapInfo

Excel

### **Subset**

Title Lung Cancer

Abstract Smoothed standardised incidence ratio for lung cancer in persons aged <75

Status of Start Date of Capture	Known	Start Date of Capture	01/01/94	Status of End Date of Capture:	Known	End date of Data Capture	31/12/98
Start level of Spatial Detail	NUTS 5 (Ward)	Transformation process	Statistical	End Level of Spatial Detail	NUTS 5 (Ward)	Frequency of Update	Annually

### **MediaFormat**

Supply Media

Magnetic (floppy or DAT)

Magnetic (floppy or DAT)

Presentation Type

Numeric

Map

Access Constraint

Professional

Professional

Data Format

Excel

MapInfo

### **Subset**

Title Breast Cancer

Abstract Smoothed standardised incidence ratio for breast cancer in females aged <75

Status of Start Date of Capture	Known	Start Date of Capture	01/01/94	Status of End Date of Capture:	Known	End date of Data Capture	31/12/98
Start level of Spatial Detail	NUTS 5 (Ward)	Transformation process	Statistical	End Level of Spatial Detail	NUTS 5 (Ward)	Frequency of Update	Annually

### **MediaFormat**

Supply Media

Magnetic (floppy or DAT)

Magnetic (floppy or DAT)

Presentation Type

Map

Numeric

Access Constraint

Professional

Professional

Data Format

MapInfo

Excel

### **Subset**

Title Colorectal Cancer

Abstract Smoothed standardised incidence ratio for colorectal cancer in persons aged <75

Status of Start Date of Capture	Known	Start Date of Capture	01/01/94	Status of End Date of Capture:	Known	End date of Data Capture	31/12/98
Start level of Spatial Detail	NUTS 5 (Ward)	Transformation process	Statistical	End Level of Spatial Detail	NUTS 5 (Ward)	Frequency of Update	Annually

### **MediaFormat**

Supply Media

Magnetic (floppy or DAT)

Magnetic (floppy or DAT)

Presentation Type

Map

Numeric

Access Constraint

Professional

Professional

Data Format

MapInfo

Excel

## **Subset**

<b>Title</b>	Prostate Cancer	<b>Abstract</b>	Smoothed standardised incidence ratio for prostate cancer in males aged <75				
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/01/94	<b>Status of End Date of Capture:</b>	Known	<b>End date of Data Capture</b>	31/12/98
<b>Start level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Transformation process</b>	Statistical	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Frequency of Update</b>	Annually
<b><u>MediaFormat</u></b>	<b>Supply Media</b>	<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>			
	Magnetic (floppy or DAT)	Map	Professional	MapInfo			
	Magnetic (floppy or DAT)	Numeric	Professional	Excel			

## **Suppliers**

<b>Supplier</b>	<b>Contact name</b>	<b>Tel number</b>	<b>E-mail address</b>	<b><u>Keywords</u></b>
Gwent Health Authority	Nathan Lester	01495 765049	nathan.lester@gwent-ha.wales.nhs.uk	Cancer incidence

**Metadata Record**

Originator: HSW; Breast Test Wales

Date of Last Update: 04/04/00

Record Number: 7

Title: Cancer Screening

Alternative Title:

Abstract: Breast screening data from Breast Test Wales and Cervical screening attendance data from Health Solutions Wales

**Subset**

Title Breast screening

Abstract % females aged 50-64 who were invited to attend a breast screening appointment but did not attend.

Status of Start Date of Capture Not Applicable

Start Date of Capture

Status of End Date of Capture: Not

End date of Data Capture

Start level of Spatial Detail NUTS 5 (Ward)

Transformation process

Not Applicable

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update

Annually

**MediaFormat**

Supply Media

Presentation Type

Access Constraint

Data Format

Magnetic (floppy or DAT)

Map

Professional

MapInfo

Magnetic (floppy or DAT)

Numeric

Professional

Excel

**Subset**

Title Cervical screening

Abstract % females aged 20-64 who were invited to attend a cervical screening appointment in 1998 but had not attended by January 2000

Status of Start Date of Capture Known

Start Date of Capture

01/01/98

Status of End Date of Capture: Known

End date of Data Capture

01/01/00

Start level of Spatial Detail NUTS 5 (Ward)

Transformation process

Not Applicable

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update

Annually

**MediaFormat**

Supply Media

Presentation Type

Access Constraint

Data Format

Magnetic (floppy or DAT)

Map

Professional

MapInfo

Magnetic (floppy or DAT)

Numeric

Professional

Excel

**Suppliers**

Supplier

Contact name

Tel number

E-mail address

As per originator

**Keywords**

Screening

Ward

Status

## **Metadata Record**

Originator: ONS

Date of Last Update: 04/04/00

Record Number: 8

Title: Mortality

Alternative Title:

Abstract: Smoothed Standardised Mortality Ratios (SSMRs) for various causes

### **Subset**

Title All cause - persons

Abstract All cause SSMR persons aged <75

Status of Start Date of Capture Known

Start Date of Capture 01/01/94

Status of End Date of Capture: Known

End date of Data Capture 31/12/98

Start level of Spatial Detail Individual

Transformation process Aggregation

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update Annually

### **MediaFormat**

Supply Media

Presentation Type

Access Constraint

Data Format

Magnetic (floppy or DAT)

Map

Professional

MapInfo

Magnetic (floppy or DAT)

Numeric

Other

Excel

### **Subset**

Title All cause - male

Abstract All cause SSMR males aged <75

Status of Start Date of Capture Known

Start Date of Capture 01/01/94

Status of End Date of Capture: Known

End date of Data Capture 31/12/98

Start level of Spatial Detail Individual

Transformation process Aggregation

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update Annually

### **MediaFormat**

Supply Media

Presentation Type

Access Constraint

Data Format

Magnetic (floppy or DAT)

Map

Professional

MapInfo

Magnetic (floppy or DAT)

Numeric

Professional

Excel

### **Subset**

Title All cause - female

Abstract All cause SSMR females aged <75

Status of Start Date of Capture Known

Start Date of Capture 01/01/94

Status of End Date of Capture: Known

End date of Data Capture 31/12/98

Start level of Spatial Detail Individual

Transformation process Aggregation

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update Annually

### **MediaFormat**

Supply Media

Presentation Type

Access Constraint

Data Format

Magnetic (floppy or DAT)

Map

Professional

MapInfo

Magnetic (floppy or DAT)

Numeric

Professional

Excel

### **Subset**

<b>Title</b> Coronary Heart Disease		<b>Abstract</b> SSMR for coronary heart disease, persons aged <75			
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/01/94	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	Individual	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	31/12/98
				<b>Frequency of Update</b>	Annually
<b><u>MediaFormat</u></b>					
<b>Supply Media</b>		<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>	
Magnetic (floppy or DAT)		Map	Professional	MapInfo	
Magnetic (floppy or DAT)		Numeric	Professional	Excel	

### **Subset**

<b>Title</b> Cerebrovascular Disease		<b>Abstract</b> SSMR for cerebrovascular disease (stroke), persons aged <75			
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/01/94	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	Individual	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	31/12/98
				<b>Frequency of Update</b>	Annually
<b><u>MediaFormat</u></b>					
<b>Supply Media</b>		<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>	
Magnetic (floppy or DAT)		Map	Professional	MapInfo	
Magnetic (floppy or DAT)		Numeric	Professional	Excel	

### **Subset**

<b>Title</b> Respiratory Disease		<b>Abstract</b> SSMR for respiratory disease, persons aged <75			
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/01/94	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	Individual	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	31/12/98
				<b>Frequency of Update</b>	Annually
<b><u>MediaFormat</u></b>					
<b>Supply Media</b>		<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>	
Magnetic (floppy or DAT)		Map	Professional	MapInfo	
Magnetic (floppy or DAT)		Numeric	Professional	Excel	

### **Subset**

<b>Title</b> Injuries		<b>Abstract</b> SSMR for injuries, poisoning and certain other external causes, persons aged <75			
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/01/94	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	Individual	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	31/12/98
				<b>Frequency of Update</b>	Annually
<b><u>MediaFormat</u></b>					
<b>Supply Media</b>		<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>	
Magnetic (floppy or DAT)		Map	Professional	MapInfo	
Magnetic (floppy or DAT)		Numeric	Professional	Excel	

### **Subset**

**Title** All Cancer

**Abstract** SSMR for all cancer, persons aged <75

**Status of Start Date of Capture** Known

**Start Date of Capture** 01/01/94

**Status of End Date of Capture:** Known

**End date of Data Capture** 31/12/98

**Start level of Spatial Detail** Individual

**Transformation process** Aggregation

**End Level of Spatial Detail** NUTS 5 (Ward)

**Frequency of Update** Annually

### **MediaFormat**

#### **Supply Media**

Magnetic (floppy or DAT)

Magnetic (floppy or DAT)

#### **Presentation Type**

Map

Numeric

#### **Access Constraint**

Professional

Professional

#### **Data Format**

MapInfo

Excel

### **Subset**

**Title** Lung Cancer

**Abstract** SSMR for lung cancer, persons aged <75

**Status of Start Date of Capture** Known

**Start Date of Capture** 01/01/94

**Status of End Date of Capture:** Known

**End date of Data Capture** 31/12/98

**Start level of Spatial Detail** Individual

**Transformation process** Aggregation

**End Level of Spatial Detail** NUTS 5 (Ward)

**Frequency of Update** Annually

### **MediaFormat**

#### **Supply Media**

Magnetic (floppy or DAT)

Magnetic (floppy or DAT)

#### **Presentation Type**

Map

Numeric

#### **Access Constraint**

Professional

Professional

#### **Data Format**

MapInfo

Excel

### **Subset**

**Title** Breast Cancer

**Abstract** SSMR for breast cancer, females aged <75

**Status of Start Date of Capture** Known

**Start Date of Capture** 01/01/94

**Status of End Date of Capture:** Known

**End date of Data Capture** 31/12/98

**Start level of Spatial Detail** Individual

**Transformation process** Aggregation

**End Level of Spatial Detail** NUTS 5 (Ward)

**Frequency of Update** Annually

### **MediaFormat**

#### **Supply Media**

Magnetic (floppy or DAT)

Magnetic (floppy or DAT)

#### **Presentation Type**

Map

Numeric

#### **Access Constraint**

Professional

Professional

#### **Data Format**

MapInfo

Excel

### **Suppliers**

**Supplier**

Gwent HA

**Contact name**

Nathan Lester

**Tel number**

01495 765049

**E-mail address**

nathan.lester@gwent-ha.wales.nhs.uk

### **Keywords**

Mortality

ward

SMR

## **Metadata Record**

Originator: AWPS

Date of Last Update: 04/04/00

Record Number: 9

Title: LBW

Alternative Title:

Abstract: Low birth weight data

## **Subset**

Title Low birth weight

Abstract % babies born (live and still) after 24 weeks gestation weighing <2500 grams

Status of Start Date of Capture Known

Start Date of Capture 01/01/94

Status of End Date of Capture: Known

End date of Data Capture 31/12/98

Start level of Spatial Detail NUTS 5 (Ward)

Transformation process Not Applicable

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update Annually

## **MediaFormat**

Supply Media

Magnetic (floppy or DAT)

Magnetic (floppy or DAT)

Presentation Type

Map

Numeric

Access Constraint

Professional

Other

Data Format

MapInfo

Excel

## **Suppliers**

Supplier

Gwent HA

Contact name

Dr David Fone

Tel number

01495 765117

E-mail address

david.fone@gwent-ha.wales.nhs.uk

## **Keywords**

Low birth weight

ward

status

**Metadata Record**

Originator: ONS

Date of Last Update: 04/04/00

Record Number: 10

**Title:** Teenage conceptions**Alternative Title:****Abstract:** Teenage conceptions data supplied by the Office for National Statistics**Subset****Title** Teenage conceptions 13-15**Abstract** Teenage conceptions in girls aged 13-15 expressed as a rate per 1000 girls aged 13-15**Status of Start Date of Capture** Known**Start Date of Capture** 01/01/92**Status of End Date of Capture:** Known**End date of Data Capture** 31/12/97**Start level of Spatial Detail** NUTS 5 (Ward)**Transformation process** Not Applicable**End Level of Spatial Detail** NUTS 5 (Ward)**Frequency of Update** Annually**MediaFormat****Supply Media**

Magnetic (floppy or DAT)

Magnetic (floppy or DAT)

**Presentation Type**

Map

Numeric

**Access Constraint**

Professional

Other

**Data Format**

MapInfo

Excel

**Suppliers****Supplier**

Gwent HA

**Contact name**

Nathan Lester

**Tel number**

01495 765049

**E-mail address**

nathan.lester@gwent-ha.wales.nhs.uk

**Keywords**

Teenage

ward

status

**Metadata Record**

Originator: GHA

Date of Last Update: 04/04/00

Record Number: 11

Title: Overall Health Index

Alternative Title:

Abstract: Overall Health Index modified method

**Subset**

Title Modified Townsend Overall Health Index

Abstract Overall Health Index modifying Townsend's method to include smoothed standardised mortality ratio for persons &lt;75, standardised LLTI ratio, % lowbirth weigh babies and % persons permanently sick

Status of Start Date of Capture Not Applicable

Start Date of Capture

Status of End Date of Capture: Not

End date of Data Capture

Start level of Spatial Detail Individual

Transformation process

Aggregation

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update Annually

**MediaFormat**

Supply Media

Presentation Type

Access Constraint

Data Format

Magnetic (floppy or DAT)

Map

Professional

MapInfo

Magnetic (floppy or DAT)

Numeric

Other

Excel

**Suppliers**

Supplier

Contact name

Tel number

E-mail address

**Keywords**

Gwent HA

Nathan Lester

01495 765049

nathan.lester@gwent-ha.wales.nhs.uk

Overall Health Index

ward

status

## **Metadata Record**

**Originator:** CCBC

**Date of Last Update:** 04/04/00

**Record Number:** 12

**Title:** Education

**Alternative Title:**

**Abstract:** Data from CCBC Education Department

### **Subset**

**Title** Key Stage I

**Abstract** % children achieving Key Stage I at level 2 plus

**Status of Start Date of Capture** Known

**Start Date of Capture** 01/09/98 **Status of End Date of Capture:** Known

**End date of Data Capture** 31/08/99

**Start level of Spatial Detail** NUTS 5 (Ward)

**Transformation process** Not Applicable **End Level of Spatial Detail** NUTS 5 (Ward)

**Frequency of Update** Annually

### **MediaFormat**

**Supply Media**

Magnetic (floppy or DAT)

**Presentation Type**

Map

**Access Constraint**

Professional

**Data Format**

MapInfo

Magnetic (floppy or DAT)

Numeric

Other

Excel

### **Subset**

**Title** Key Stage II

**Abstract** % children achieving Key Stage II core subject indicators

**Status of Start Date of Capture** Known

**Start Date of Capture** 01/09/98 **Status of End Date of Capture:** Known

**End date of Data Capture** 31/08/99

**Start level of Spatial Detail** NUTS 5 (Ward)

**Transformation process** Not Applicable **End Level of Spatial Detail** NUTS 5 (Ward)

**Frequency of Update** Annually

### **MediaFormat**

**Supply Media**

Magnetic (floppy or DAT)

**Presentation Type**

Map

**Access Constraint**

Professional

**Data Format**

MapInfo

Magnetic (floppy or DAT)

Numeric

Professional

Excel

### **Subset**

**Title** Key Stage IV

**Abstract** % children achieving 5+ GCSEs at grades A to C

**Status of Start Date of Capture** Known

**Start Date of Capture** 01/09/98 **Status of End Date of Capture:** Known

**End date of Data Capture** 31/08/99

**Start level of Spatial Detail** NUTS 5 (Ward)

**Transformation process** Not Applicable **End Level of Spatial Detail** NUTS 5 (Ward)

**Frequency of Update** Annually

### **MediaFormat**

**Supply Media**

Magnetic (floppy or DAT)

**Presentation Type**

Map

**Access Constraint**

Professional

**Data Format**

MapInfo

Magnetic (floppy or DAT)

Numeric

Professional

Excel

**Subset**

<b>Title</b>	Special Educational Needs	<b>Abstract</b>	% children aged 4-16 with special educational needs stages 3 to 5				
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>		<b>Status of End Date of Capture:</b>	Known	<b>End date of Data Capture</b>	
<b>Start level of Spatial Detail</b>	Post Code	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Frequency of Update</b>	Annually
<b><u>MediaFormat</u></b>	<b>Supply Media</b>	<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>			
	Magnetic (floppy or DAT)	Map	Professional	MapInfo			
	Magnetic (floppy or DAT)	Numeric	Professional	Excel			

**Subset**

<b>Title</b>	Free School Meals	<b>Abstract</b>	% children aged 4-16 receiving free school meals				
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/09/98	<b>Status of End Date of Capture:</b>	Known	<b>End date of Data Capture</b>	31/08/99
<b>Start level of Spatial Detail</b>	Post Code	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Frequency of Update</b>	Annually
<b><u>MediaFormat</u></b>	<b>Supply Media</b>	<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>			
	Magnetic (floppy or DAT)	Map	Professional	MapInfo			
	Magnetic (floppy or DAT)	Numeric	Professional	Excel			

**Suppliers**

<b>Supplier</b>	<b>Contact name</b>	<b>Tel number</b>	<b>E-mail address</b>	<b><u>Keywords</u></b>
Caerphilly CBC	Julian Williams	01443 864817	willij@caerphilly.gov.uk	Education ward Achievement

## **Metadata Record**

Originator: CCBC

Date of Last Update: 04/04/00

Record Number: 13

Title: Social Services

Alternative Title:

Abstract: Social Services Data from CCBC SSID

### **Subset**

Title Home Care

Abstract % persons aged 65+ receiving home care

Status of Start Date of Capture Known

Start Date of Capture

01/04/99

Status of End Date of Capture: Known

End date of Data Capture 01/12/99

Start level of Spatial Detail PostCode

Transformation process

Aggregation

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update Daily

### **MediaFormat**

Supply Media

Magnetic (floppy or DAT)

Magnetic (floppy or DAT)

Presentation Type

Map

Numeric

Access Constraint

Professional

Professional

Data Format

MapInfo

Excel

### **Subset**

Title Meals on Wheels

Abstract % persons aged 65+ receiving meals on wheels

Status of Start Date of Capture Known

Start Date of Capture

01/04/99

Status of End Date of Capture: Known

End date of Data Capture 01/12/99

Start level of Spatial Detail Post Code

Transformation process

Aggregation

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update Daily

### **MediaFormat**

Supply Media

Magnetic (floppy or DAT)

Magnetic (floppy or DAT)

Presentation Type

Map

Numeric

Access Constraint

Professional

Professional

Data Format

MapInfo

Excel

### **Subset**

Title Assessments - all ages

Abstract Number of assessments, all ages, expressed as rate per 1000 persons all ages

Status of Start Date of Capture Known

Start Date of Capture

01/04/99

Status of End Date of Capture: Known

End date of Data Capture 01/12/99

Start level of Spatial Detail Post Code

Transformation process

Aggregation

End Level of Spatial Detail NUTS 5 (Ward)

Frequency of Update Daily

### **MediaFormat**

Supply Media

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Magnetic (floppy or DAT)

Presentation Type

Map

Numeric

Access Constraint

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Professional

Data Format

MapInfo

Excel

### **Subset**

<b>Title</b> Assessments 0-14		<b>Abstract</b> Number of assessments, 0-14 year olds, expressed as rate per 1000 persons aged 0-14			
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/04/99	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	Post Code	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	01/12/99
				<b>Frequency of Update</b>	Daily
<b><u>MediaFormat</u></b>					
<b>Supply Media</b>		<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>	
Magnetic (floppy or DAT)		Map	Professional	MapInfo	
Magnetic (floppy or DAT)		Numeric	Professional	Excel	

### **Subset**

<b>Title</b> Assessments 15-64		<b>Abstract</b> Number of assessments, 15-64 year olds, expressed as rate per 1000 persons aged 15-64			
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/04/99	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	Post Code	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	01/12/99
				<b>Frequency of Update</b>	Daily
<b><u>MediaFormat</u></b>					
<b>Supply Media</b>		<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>	
Magnetic (floppy or DAT)		Map	Professional	MapInfo	
Magnetic (floppy or DAT)		Numeric	Professional	Excel	

### **Subset**

<b>Title</b> Assessments - 65+		<b>Abstract</b> Number of assessments, persons aged 65+, expressed as rate per 1000 persons aged 65+			
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/04/99	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	Post Code	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	01/12/99
				<b>Frequency of Update</b>	Daily
<b><u>MediaFormat</u></b>					
<b>Supply Media</b>		<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>	
Magnetic (floppy or DAT)		Map	Professional	MapInfo	
Magnetic (floppy or DAT)		Numeric	Professional	Excel	

### **Subset**

<b>Title</b> Referrals - all ages		<b>Abstract</b> Number of referrals, all ages, expressed as rate per 1000 persons aged 0-14			
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/04/99	<b>Status of End Date of Capture:</b>	Known
<b>Start level of Spatial Detail</b>	Post Code	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)
				<b>End date of Data Capture</b>	01/12/99
				<b>Frequency of Update</b>	Daily
<b><u>MediaFormat</u></b>					
<b>Supply Media</b>		<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>	
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Magnetic (floppy or DAT)		Numeric	Professional	Excel	

### **Subset**

<b>Title</b>	Referrals - 0-14	<b>Abstract</b>	Number of referrals, 0-14 year olds, expressed as rate per 1000 persons aged 0-14				
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/04/99	<b>Status of End Date of Capture:</b>	Known	<b>End date of Data Capture</b>	01/12/99
<b>Start level of Spatial Detail</b>	Post Code	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Frequency of Update</b>	Daily
<b><u>MediaFormat</u></b>	<b>Supply Media</b>	<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>			
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	Magnetic (floppy or DAT)	Numeric	Professional	Excel			

### **Subset**

<b>Title</b>	Referrals - 15-64	<b>Abstract</b>	Number of referrals, 15-64 year olds, expressed as rate per 1000 persons aged 15-64				
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/04/99	<b>Status of End Date of Capture:</b>	Known	<b>End date of Data Capture</b>	01/12/99
<b>Start level of Spatial Detail</b>	Post Code	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Frequency of Update</b>	Daily
<b><u>MediaFormat</u></b>	<b>Supply Media</b>	<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>			
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	Magnetic (floppy or DAT)	Numeric	Professional	Excel			

### **Subset**

<b>Title</b>	Referrals - 65+	<b>Abstract</b>	Number of referrals, persons aged 65+, expressed as rate per 1000 persons aged 65+				
<b>Status of Start Date of Capture</b>	Known	<b>Start Date of Capture</b>	01/04/99	<b>Status of End Date of Capture:</b>	Known	<b>End date of Data Capture</b>	01/12/99
<b>Start level of Spatial Detail</b>	Post Code	<b>Transformation process</b>	Aggregation	<b>End Level of Spatial Detail</b>	NUTS 5 (Ward)	<b>Frequency of Update</b>	Daily
<b><u>MediaFormat</u></b>	<b>Supply Media</b>	<b>Presentation Type</b>	<b>Access Constraint</b>	<b>Data Format</b>			
	Magnetic (floppy or DAT)	Map	Professional	MapInfo			
	Magnetic (floppy or DAT)	Numeric	Professional	Excel			

### **Suppliers**

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### **Keywords**

Social services  
ward  
children

## **Metadata Record**

**Originator:** ONS

**Date of Last Update:** 04/04/00

**Record Number:** 14

**Title:** Census data

**Alternative Title:**

**Abstract:** Data from the 1991 Census of population available at enumeration district and electoral division level

### **Subset**

**Title** Townsend index - Ediv level

**Abstract** Townsend index of deprivation calculated from the following census variables: unemployment; households with no car; households non-owner occupied; overcrowded households. Also available at

**Status of Start Date of Capture** Known

**Start Date of Capture**

01/04/91

**Status of End Date of Capture:** Known

**End date of Data Capture**

01/04/91

**Start level of Spatial Detail** NUTS 5 (Ward)

**Transformation process**

Statistical

**End Level of Spatial Detail** NUTS 5 (Ward)

**Frequency of Update**

Decennially

### **MediaFormat**

**Supply Media**

Magnetic (floppy or DAT)

Magnetic (floppy or DAT)

**Presentation Type**

Map

Numeric

**Access Constraint**

Professional

Other

**Data Format**

MapInfo

Excel

### **Subset**

**Title** Standardised LLTI ratio - Ediv

**Abstract** Standardised Limiting Long Term Illness Ratio - all ages

**Status of Start Date of Capture** Known

**Start Date of Capture**

01/04/91

**Status of End Date of Capture:** Known

**End date of Data Capture**

01/04/91

**Start level of Spatial Detail** NUTS 5 (Ward)

**Transformation process**

Statistical

**End Level of Spatial Detail** NUTS 5 (Ward)

**Frequency of Update**

Decennially

### **MediaFormat**

**Supply Media**

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Magnetic (floppy or DAT)

**Presentation Type**

Map

Numeric

**Access Constraint**

Professional

Professional

**Data Format**

MapInfo

Excel

### **Subset**

**Title** Permanent Sickness

**Abstract** % persons who reported that they were permanently sick

**Status of Start Date of Capture** Known

**Start Date of Capture**

01/04/91

**Status of End Date of Capture:** Known

**End date of Data Capture**

01/04/91

**Start level of Spatial Detail** NUTS 5 (Ward)

**Transformation process**

Not Applicable

**End Level of Spatial Detail** NUTS 5 (Ward)

**Frequency of Update**

Decennially

### **MediaFormat**

**Supply Media**

Magnetic (floppy or DAT)

Magnetic (floppy or DAT)

**Presentation Type**

Map

Numeric

**Access Constraint**

Professional

Professional

**Data Format**

MapInfo

Excel

### **Suppliers**

**Supplier**

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### **Keywords**

Census

ward

enumeration district

**Metadata Record**    **Originator:****Title:**    Commercial data sets**Date of Last Update:****Record Number:** 15**Alternative Title:****Abstract:** Commercial geodemographic data sets: Paycheck, ACORN supplied by CACI; Super Profiles, supplied by Claritas**Subset****Title**    Less than £5000 p.a.**Abstract**    Paycheck: % households with gross annual household income of <£5000. Available at electoral division and enumeration district level.**Status of Start Date of Capture**    Known**Start Date of Capture**    01/01/98**Status of End Date of Capture:**    Known**End date of Data Capture**    01/01/98**Start level of Spatial Detail**    Enumeration**Transformation process**    Not Applicable**End Level of Spatial Detail**    Enumeration**Frequency of Update**    Not Known**MediaFormat****Supply Media**

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Magnetic (floppy or DAT)

**Presentation Type**

Map

Numeric

**Access Constraint**

Professional

Professional

**Data Format**

MapInfo

Excel

**Subset****Title**    Less than £10,000 p.a.**Abstract**    Paycheck: % households with gross annual income of <£10,000. Data available at electoral division and enumeration district level.**Status of Start Date of Capture**    Known**Start Date of Capture**    01/01/98**Status of End Date of Capture:**    Known**End date of Data Capture**    01/01/98**Start level of Spatial Detail**    Enumeration**Transformation process**    Not Applicable**End Level of Spatial Detail**    Enumeration**Frequency of Update**    Not Known**MediaFormat****Supply Media**

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Magnetic (floppy or DAT)

**Presentation Type**

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Numeric

**Access Constraint**

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Professional

**Data Format**

MapInfo

Excel

**Subset****Title**    Super Profile lifestyle category**Abstract**    Super Profile geodemographic dataset lifestyle category A to J**Status of Start Date of Capture**    Known**Start Date of Capture**    01/01/98**Status of End Date of Capture:**    Known**End date of Data Capture**    01/01/98**Start level of Spatial Detail**    Enumeration**Transformation process**    Not Applicable**End Level of Spatial Detail**    Enumeration**Frequency of Update**    Not Known**MediaFormat****Supply Media**

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Magnetic (floppy or DAT)

**Presentation Type**

Map

Numeric

**Access Constraint**

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**Data Format**

MapInfo

Excel

### **Subset**

**Title** ACORN category

**Abstract** ACORN geodemographic data set category A to F

**Status of Start Date of Capture** Known

**Start Date of Capture** 01/01/98 **Status of End Date of Capture:** Known

**End date of Data Capture** 01/01/98

**Start level of Spatial Detail** Enumeration

**Transformation process** Not Applicable **End Level of Spatial Detail** Enumeration

**Frequency of Update** Not Known

### **MediaFormat**

#### **Supply Media**

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Magnetic (floppy or DAT)

#### **Presentation Type**

Map

Numeric

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#### **Data Format**

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Excel

### **Subset**

**Title** ACORN group

**Abstract** ACORN geodemographic data set group 1 to 17

**Status of Start Date of Capture** Known

**Start Date of Capture** 01/01/98 **Status of End Date of Capture:** Known

**End date of Data Capture** 01/01/98

**Start level of Spatial Detail** Enumeration

**Transformation process** Not Applicable **End Level of Spatial Detail** Enumeration

**Frequency of Update** Not Known

### **MediaFormat**

#### **Supply Media**

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Magnetic (floppy or DAT)

#### **Presentation Type**

Map

Numeric

#### **Access Constraint**

Professional

Professional

#### **Data Format**

MapInfo

Excel

### **Suppliers**

#### **Supplier**

As per originator

#### **Contact name**

NA

#### **Tel number**

NA

#### **E-mail address**

NA

### **Keywords**

Paycheck

ACORN

Super Profiles

## Appendix 2 Special Educational Needs

The code of practice on the identification and assessment of special educational needs recommends the general adoption of a staged model (see online <http://dfes.gov.uk/sen/lea>).

The first three stages are based in school, which will, as necessary, call upon the help of external specialist. At stages 4 & 5 the Local Education Authority shares responsibility with the schools.

- |          |  |
|----------|--|
| Stage 1: | class or subject teachers identify or register a child's special educational needs and, consulting the school's SEN co-ordinator, take initial action;                               |
| Stage 2: | the school's SEN co-ordinator takes lead responsibility for gathering information and for co-ordinating the child's special educational provision working with the child's teachers; |
| Stage 3: | specialists from outside the school support teachers and the SEN co-ordinator;   |
| Stage 4  | the LEA consider the need for a statutory assessment and, if appropriate, make a multidisciplinary assessment;   |
| Stage 5  | the LEA consider the need for a statement of special educational needs and if appropriate, make a statement and arrange, monitor and review provision.                               |

There is scope for differences of definition of the stages in such a model and for variation in the number of stages adopted by schools and the LEAs. The code does not prescribe definitions and does not insist that there must always be five stages. But the code does advise that the adoption of a model which recognises the various levels of need, the different responsibilities to assess and meet those needs, and the associated variations in provision, will best reflect and promote common recognition of the continuum of special educational needs.

## Appendix 3 Census Data

The 1991 Census of Population Small Area Statistics (SAS) data were downloaded from C91 for Windows package. Census data are held in tables and cells. Definitions of the census variables included in this report are shown below.

### Unemployment

% of economically active residents aged 16-64 (males) / 16-59 (females) who are unemployed, excluding students.

#### Denominator

Males: 8\_12 males 16+ economically active  
- 8\_21 males 65+ economically active  
- 8\_22 males students economically active

Females: 8\_166 females 16+ economically active  
- 8\_174 females 60-64 economically active  
- 8\_175 females 65+ economically active  
- 8\_176 females students economically active

#### Numerator

Males: 8\_78 males 16+ unemployed  
- 8\_87 males 65+ unemployed  
- 8\_88 males students unemployed

Females: 8\_232 females 16+ unemployed  
- 8\_240 females 60-64 unemployed  
- 8\_241 females 65+ unemployed  
- 8\_242 females students unemployed

$$\% \text{ unemployed} = 100 \times \frac{8_78 - 8_87 - 8_88 + (8_232 - 8_240 - 8_241 - 8_242)}{(8_12 - 8_21 - 8_22) + (8_166 - 8_174 - 8_175 - 8_176)}$$

### Car Ownership

% households with no car

21\_2 Total households

21\_3 Total households with no car

$$\% \text{ households with no car} = 100 \times \frac{21_3}{21_2}$$

### Non-owner occupied households

% households not owner occupied

20\_1 Total permanent households

20\_4 Total households privately rented – furnished

20\_5 Total households privately rented – unfurnished

20\_6 Total households rented with job/business

20\_7 Total households rented from a Housing Association

20\_8 Total households rented from a Local Authority or New Town

$$\% \text{ households not owner occupied} = 100 \times \frac{(20_4 + 20_5 + 20_6 + 20_7 + 20_8)}{20_1}$$

### Overcrowded households

% households overcrowded

23\_1 Total households

23\_3 Households with >1 to 1.5 persons per room (ppr)

23\_4 Households with >1.5 ppr

$$\% \text{ households overcrowded} = 100 \times \frac{(23_3 + 23_4)}{23_1}$$

### Lone parent households

% households with lone parents

23\_1 Total households

40\_1 Total lone parent households

$$\% \text{ lone parent households} = 100 \times \frac{40_1}{23_1}$$

### Limiting long-term illness

% persons in households with limiting long-term illness (LLTI)

34\_1 Total persons in households aged 16+

12\_1 Total persons in households with LLTI

$$\% \text{ persons in households with LLTI} = 100 \times \frac{12_1}{34_1}$$

### Permanent sickness

% persons living in households with permanent sickness.

1\_2 Total persons in households

34\_67 Total persons permanently sick

$$\% \text{ persons in households with permanent sickness} = 100 \times \frac{34_67}{1_2}$$

### Elderly living alone

% persons aged 75+ living alone

23\_1 Total households

47\_29 Total lone males in households aged 75 to 84

47\_43 Total lone males in households aged 85+

47\_71 Total lone females in households aged 75 to 84

47\_85 Total lone females in households aged 85+

$$\% \text{ households with elderly living alone} = 100 \times \frac{47_29 + 47_43 + 47_71 + 47_85}{23_1}$$

### Calculation of Townsend Index

The Townsend index is derived from four census variables: % of economically active residents aged 16-59/64 who are unemployed (V1), the % of private households with no car (V2), % of private households not owner occupied (V3), and % of private households with more than one person per room (V4).

The unemployment and overcrowding variable distributions are normalised by the following transformations:

$$N1 = \text{Ln}(V1+1) \text{ and } N4 = \text{Ln}(V4+1)$$

Ln = natural log

The variables are standardised by subtracting the mean and dividing by the standard deviation (SD):

$$S1 = (N1 - \text{mean of } N1) / \text{SD of } N1$$

$$S2 = (V2 - \text{mean of } V2) / \text{SD of } V2$$

$$S3 = (V3 - \text{mean of } V3) / \text{SD of } V3$$

$$S4 = (N4 - \text{mean of } N4) / \text{SD of } N4$$

$$\text{The Townsend index} = S1 + S2 + S3 + S4$$

## **Appendix 4 Super Profiles & ACORN**

### **Super Profiles classification**

Super Profiles, produced by Claritas, is a census-based geodemographic segmentation system, categorising households according to the neighbourhood characteristics of their location.

Super Profiles are estimated from a wide range of data covering the whole of Great Britain and Northern Ireland, including census, electoral roll, credit information and mail order data- creating a segmentation system that groups the country into 10 lifestyles, 40 target markets and 160 clusters, ranked in order of affluence. For the purposes of this report only lifestyle data have been used.

### **Lifestyle Groups & Target Markets**

#### **A Affluent Achievers – *high income families***

- A1 - Very high income earners in exclusive areas
- A2 - Mature families with large detached properties in 'stockbroker belts'
- A6 - Mature families in select suburban properties

#### **B Thriving Greys – *older than Affluent Achievers, possibly in early retirement***

- B5 - Highly qualified professionals in mixed housing
- B7 - Affluent ageing couples, many in purchased properties
- B12 - Older professionals in retirement areas
- B17 - Comfortably well-off older owner couples
- B18 - Affluent ageing couples in rural areas

#### **C Settled Suburbans – *well established families in semi-detached homes***

- C11 - White collar families in owner occupied suburban semis
- C14 - Mature white collar couples established in suburban semis
- C16 - White collar couples in mixed suburban housing

#### **D Nest Builders – *thirty-somethings who have started a family***

- D2 - Mortgaged commuting professionals, with children, in detached properties
- D8 - Double income young families in select properties
- D9 - Military families
- D13 - Young families in small semis & terraces
- D15 - Young white collar families in semis
- D27 - Young blue & white collar families in semis & terraces
- D28 - Young families in terraces – many council

#### **E Urban Venturers – *cosmopolitan multi-racial young adults living in major cities***

- E3 - High income young professionals, many renting (mainly Greater London)
- E10 - Young professionals in multi-racial areas (mainly Greater London)
- E20 - Young white collar couples buying properties
- E21 - Young families buying terraces in multi-racial areas
- E29 - Young families renting basic accommodation in multi-racial areas
- E30 - Young white collar singles, sharing city centre accommodation

#### **F Country Life – *live, work and play in the countryside***

- F19 - Prosperous farming communities
- F25 - Smallholders & rural workers (mainly in Scotland)

**G Senior Citizens – *elderly group, living in small, possibly sheltered accommodation***

- G22 - Retired white collar workers in owner occupied flats
- G23 - Older residents and young transient singles, many in seaside resorts
- G26 - Old & young buying terraces and flats
- G32 - Retired blue collar workers in council flats

**H Producers – *more affluent blue collar workers living in terraces or semis***

- H24 - Older white collar owner occupiers in semis
- H33 - Older workers established in semis and terraces
- H36 - Older retired blue collar workers in small council properties

**I Hard-Pressed Families – *usually live in council estates in reasonably good condition***

- I34 - Blue collar families in council properties
- I35 - Young blue collar families in council terraces
- I37 - Manufacturing workers in terraced housing

**J Have -Nots – *typically single parent families in cramped, overcrowded flats***

- J31 - Council tenants in multi-racial areas – high unemployment
- J38 - Blue collar families in council properties – high unemployment
- J39 - Young families, many single parents – high unemployment
- J40 - Young singles and pensioners in council flats – high unemployment

**ACORN classification**

ACORN is CACI's standard geodemographic targeting classification which creates a tool for understanding different types of people across different areas in the UK.

The ACORN classification is built entirely around census data. All the significant factors such as age, sex, marital status, occupation, economic position, education, home ownership and car ownership are covered to give a comprehensive picture of socio-economic status.

The ACORN segmentation system groups the country into 6 categories, 17 groups and 54 types. For the purposes of this report only category and group data has been used.

**Categories & Groups**

**Category A - Thriving**

- Group 1 - Wealthy Achievers, Suburban Areas
- Group 2 - Affluent Greys, Rural Communities
- Group 3 - Prosperous Pensioners, Retirement Areas

**Category B - Expanding**

- Group 4 - Affluent Executives, Family Areas
- Group 5 - Well-Off Workers, Family Areas

**Category C - Rising**

- Group 6 - Affluent Urbanities, Town & City Areas
- Group 7 - Prosperous Professionals, Metropolitan Areas
- Group 8 - Better-Off Executives, Inner City Areas

**Category D - Settling**

- Group 9 - Comfortable Middle Ageds, Mature Home Owning Areas
- Group 10 - Skilled Workers, Home Owning Areas

**Category E - Aspiring**

- Group 11 - New Home Owners, Mature Communities
- Group 12 - White Collar Workers, Better-Off Multi-Ethnic Areas

**Category F - Striving**

- Group 13 - Older People, Less Prosperous Areas
- Group 14 - Council Estate Residents, Better-Off Homes
- Group 15 - Council Estate Residents, High Unemployment
- Group 16 - Council Estate Residents, Greatest Hardship
- Group 17 - People in Multi-Ethnic, Low-Income Areas