

A Profile of the Health of Children and Young People in Wales



A report by the National Public Health Service for
Wales

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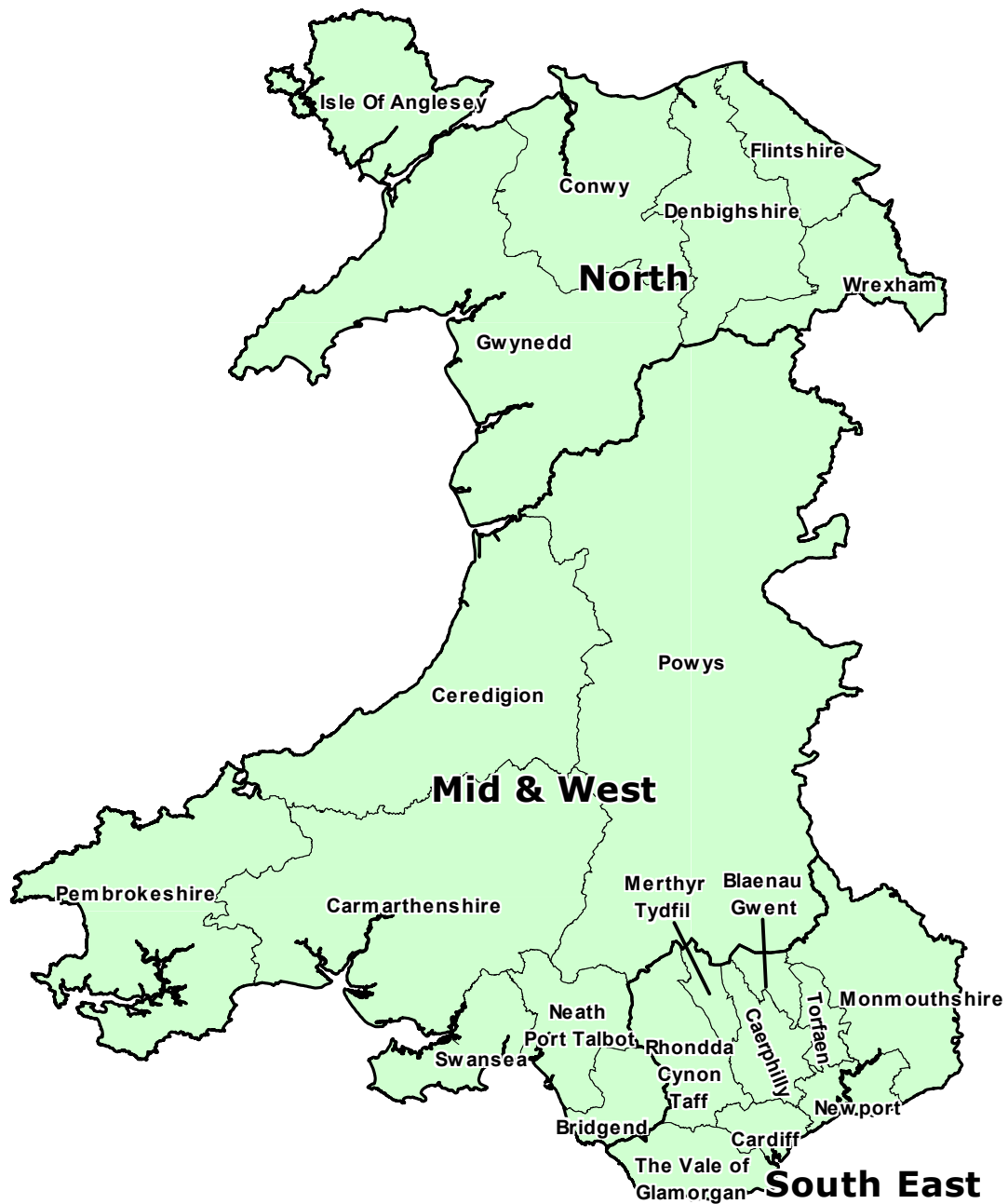
This profile was prepared by the Health Information Analysis Team of the National Public Health Service for Wales. Contributors included Anna Howard, Rhys Gibbon, Nathan Lester, Martin Heaven, Jason Merrifield, David Fone, Stephen Christie, Rhys Pockett and Gareth Davies.

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Figure 1.1 Local Authority and NHS regional boundaries in Wales



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1. Background

This profile describes the health of children and young people up to the age of 24 years. Information is shown for Wales, the 22 local authorities / local health boards and, where appropriate, electoral divisions (formerly known as wards). The profile contains sections on demography, determinants of health, health status and deaths.

Data from a wide range of sources are included reflecting the fact that many of the factors affecting the health of children and young people lie beyond the NHS. Improving the health of children and young people cannot be achieved by the NHS alone and requires partnership working with other agencies. This has been made easier following the reorganisation of the NHS in Wales with health and local government sharing the same boundaries at the local level.

This profile has been produced by the Health Information Analysis Team (HIAT) of the National Public Health Service for Wales and represents a state of the art analysis of children's health in Wales using available routine data. Much of the information contained in this profile is available on the NPHS website (<http://www.wales.nhs.uk/sites/page.cfm?orgid=368&pid=4370>) and further background data is also available on request.

In producing this profile we have aimed to include any relevant information that is of acceptable quality in terms of accuracy and completeness. It will be clear to the reader, however, that there are a number of important information gaps. There may be several reasons for the apparent omission of key information:

- sometimes data may simply not have been collected in the first place;
- data may have been collected for some areas of Wales, but not others;
- data may not have been recorded in the same way and to the same standards;
- or data may have been collected which we are not aware of.

Information gaps are particularly apparent in primary and community care. It is hoped that by highlighting information gaps this profile will help to stimulate improvements in the range and quality of information available.

2. Demography

In order to carry out any investigation of population health the essential starting point is to know the size of the population. This allows the calculation of proportions, rates and ratios which enable comparison of data over time and between areas. It is important to have information about the population age structure across Wales because this will have implications regarding the level of services required.

A key problem faced in the field of public health information is that we are increasingly uncertain about the size of the true population. There are two sources of population data available:

- Census;
- GP registrations.

The most recent Census took place on 29 April 2001. The Office for National Statistics (ONS) has reported very high response rates of 98%.¹ However, there has been increasing controversy regarding under-enumeration in the Census, particularly in densely populated areas with households in multiple occupation. Some local authorities, including Cardiff, are challenging the results. The ONS produce mid-year population estimates at local authority level every year which are based on Census data. The Wales and local authority level analyses contained within this Profile use these estimates to derive denominators. Analyses of Census 2001 data use appropriate Census populations to derive denominators.

GP registration based population data are available for Wales via the NHS Administrative System (NHSAR). This is a database containing the details of all persons resident in Wales who are registered with a GP. Since almost all of the population are registered with a GP it is considered to be a good source of population data. In addition it is the only source of small area (i.e. sub-local authority) data available for the periods in between the decennial Census. Data are available at postcode level allowing aggregation to any geographical units using a Geographical Information System (GIS). It is believed that the NHSAR tends to inflate the true population by between two and five percent. This is due to delays in removing persons from the database who have died or moved away. This problem may be particularly apparent in areas with large transient populations such as students. With the exception of Census data, the electoral division level analyses in this profile use the NHSAR population to derive appropriate denominators.

2.1 Population

Figure 2.1.1 shows children and young people as a percentage of the total population. Cardiff has the largest percentage of young people, due largely to the presence of a number of higher education establishments. There tend to be higher proportions in the 15-19 and 20-24 age groups in other areas with universities, for example Ceredigion (Aberystwyth and Lampeter), and Swansea. In general, local authorities in South East Wales have higher proportions of children and young people than Mid, West or North Wales. Figure 2.1.2 shows the same data broken down into education related age groups. The proportion of young people aged under 18 years of age can be seen to be highest in Newport and lowest in Ceredigion.

Figure 2.1.1

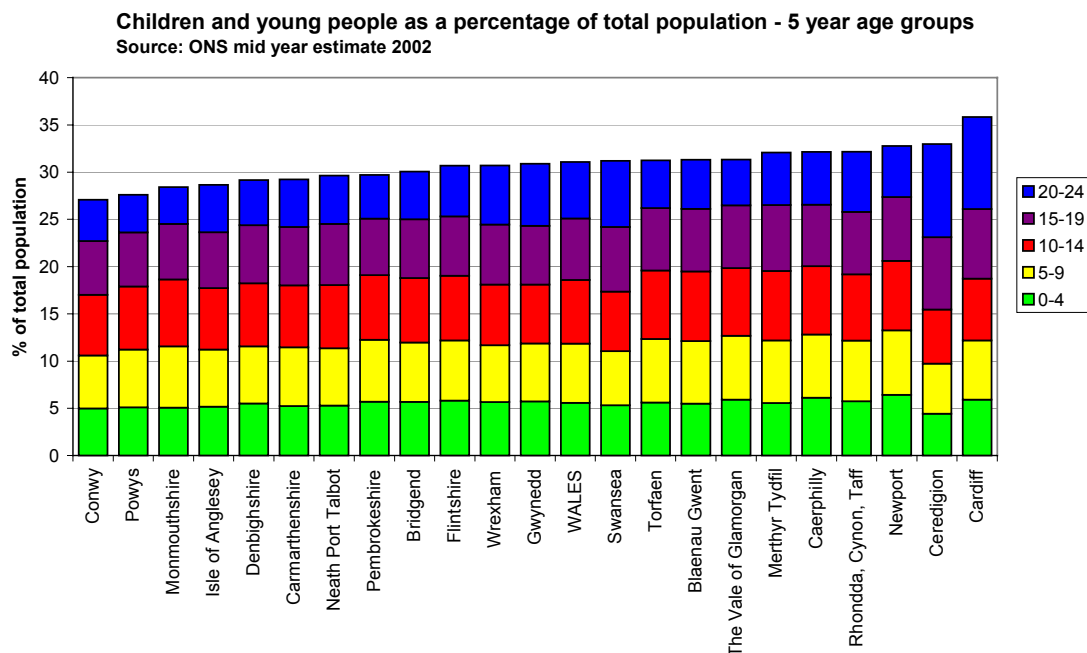
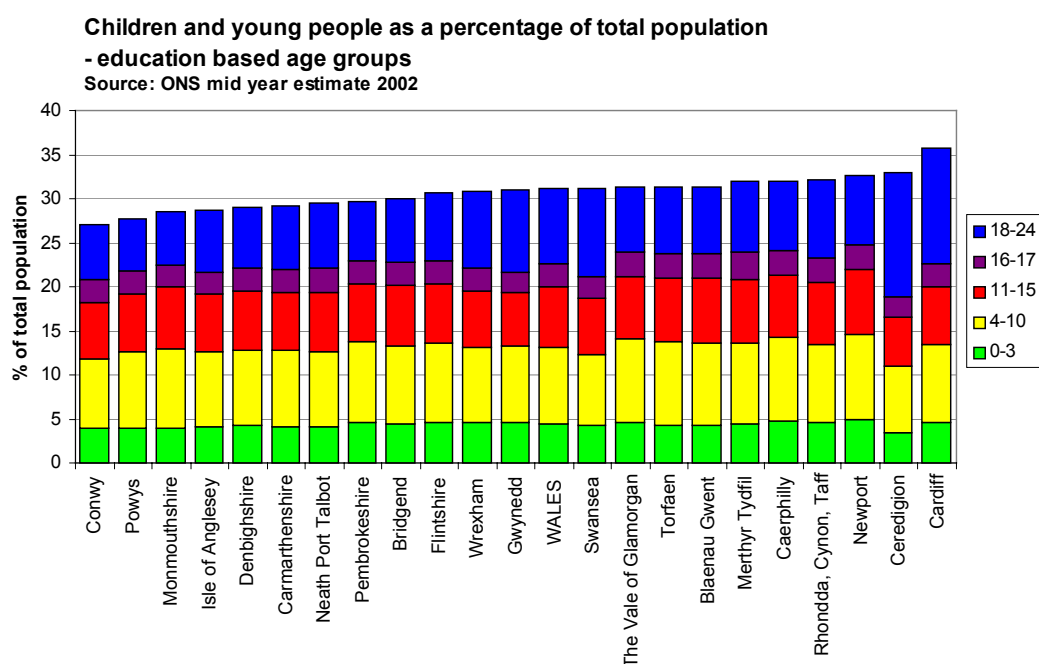


Figure 2.1.2

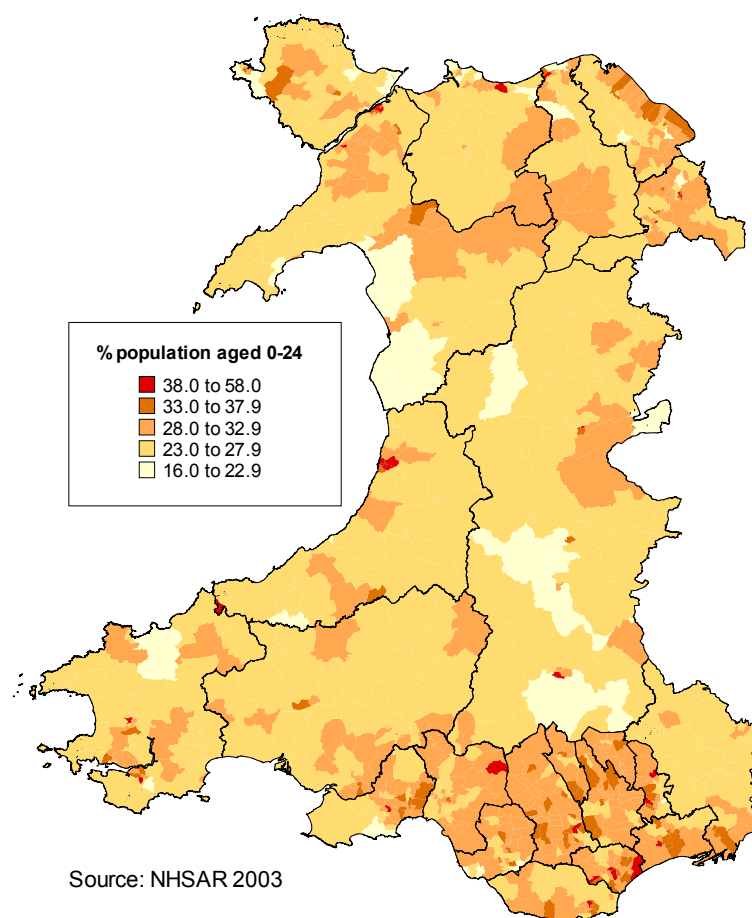


The health needs of children and young people are not the same as those of the adult population. Therefore, age distributions at small area level are an important measure because they have significant implications regarding the type and level of services that should be provided locally in order to meet the needs of the population.

Figure 2.1.3 shows the proportion of the population aged 0-24 years for the 881 electoral divisions (ediv) in Wales using data from the 2003 NHSAR. It is clear that the proportion of 0-24 year olds is lower in the more rural areas of Wales particularly in electoral divisions within Powys, Conwy, and Monmouthshire. Urbanised areas such as the major towns and cities and the South Wales Valleys have higher proportions in this age group. In addition, towns with large higher education institutions such as Aberystwyth and Bangor have high proportions of 0-24 year olds, accounted for by the large proportions of students in the 18-24 age group as shown in figures 2.1.1 and 2.1.2.

Figure 2.1.3:

Percentage of the population aged 0-24 years, Wales electoral divisions, 2003



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2.2 Population change

Figure 2.2.1

Live births as a proportion (%) of 1990 births: Wales
Source: Healthshow Classic 2003.1 (ONS)

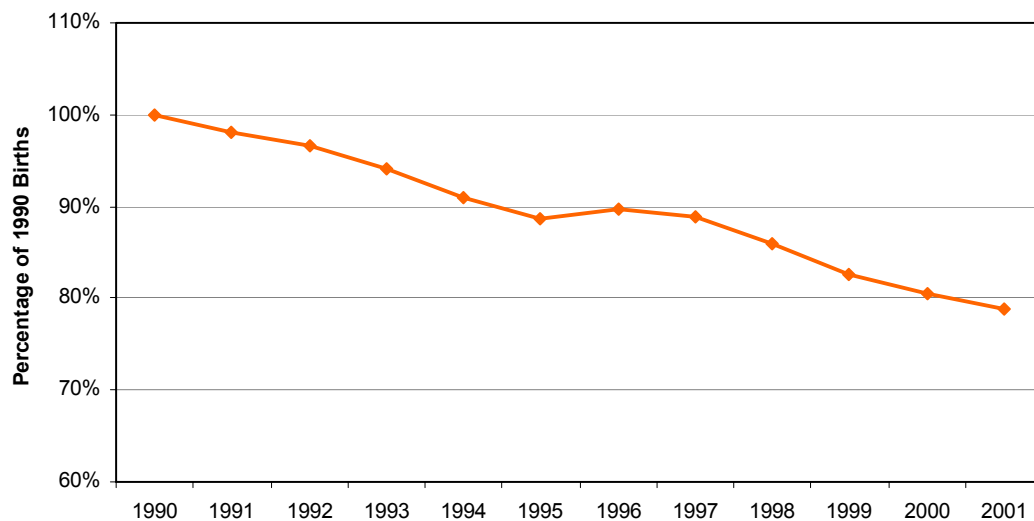


Figure 2.2.1 shows a decrease of approximately 20% in the number of live births in Wales between 1990 and 2001. With the exception of 1996, each year saw a decline. The 'blip' in 1996 may have occurred due, in part, to adverse publicity in the media relating to the contraceptive pill. The fall in the number of births over this period mirrors that which has occurred in the rest of the UK. There may be a number of factors responsible including the following:

- the number of women in the child-bearing age cohort has fallen;
- more women are choosing not to have children;
- those that do have children are having smaller families;
- more women are choosing to delay child-bearing, possibly for financial or career related reasons.

Figure 2.2.2

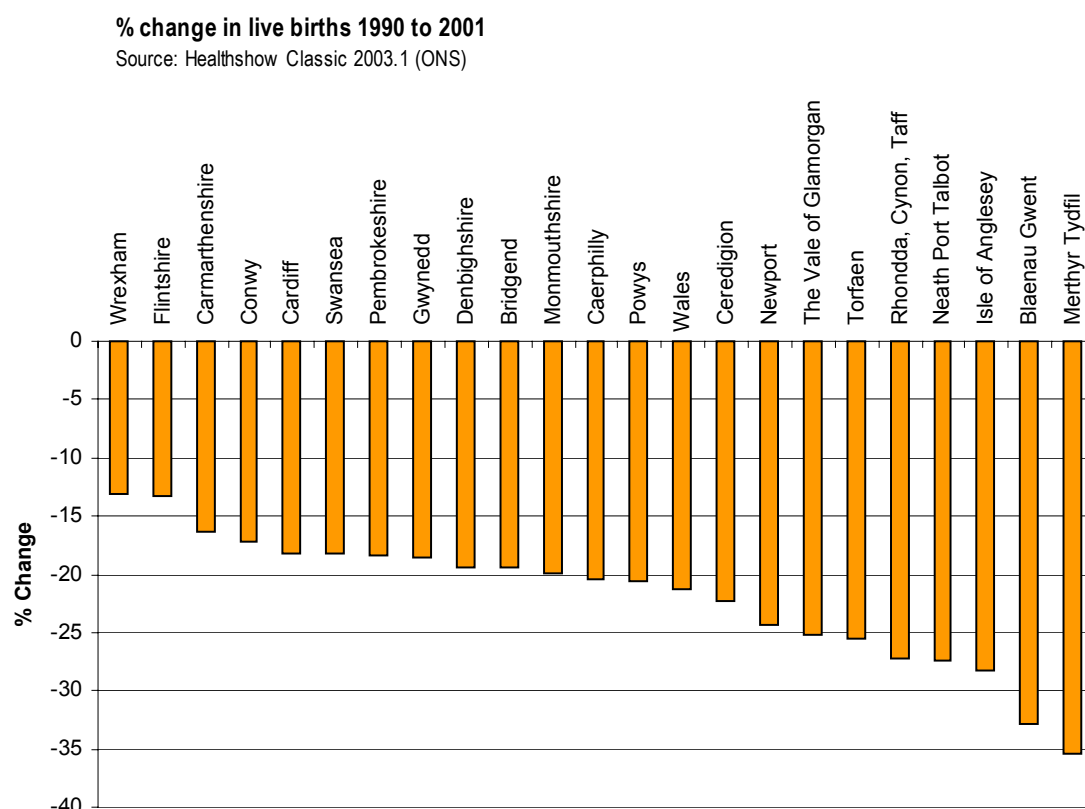


Figure 2.2.2 illustrates the decline in births between 1990 and 2001 by local authority. The number of births decreased in all local authorities. Merthyr Tydfil, and Blaenau Gwent, both of which have experienced overall declines in their population through migration, experienced the largest percentage fall.² The smallest reductions in the proportion of live births occurred in Wrexham, Flintshire and Carmarthenshire, all of which have witnessed increases in their total population.³

Figure 2.2.3

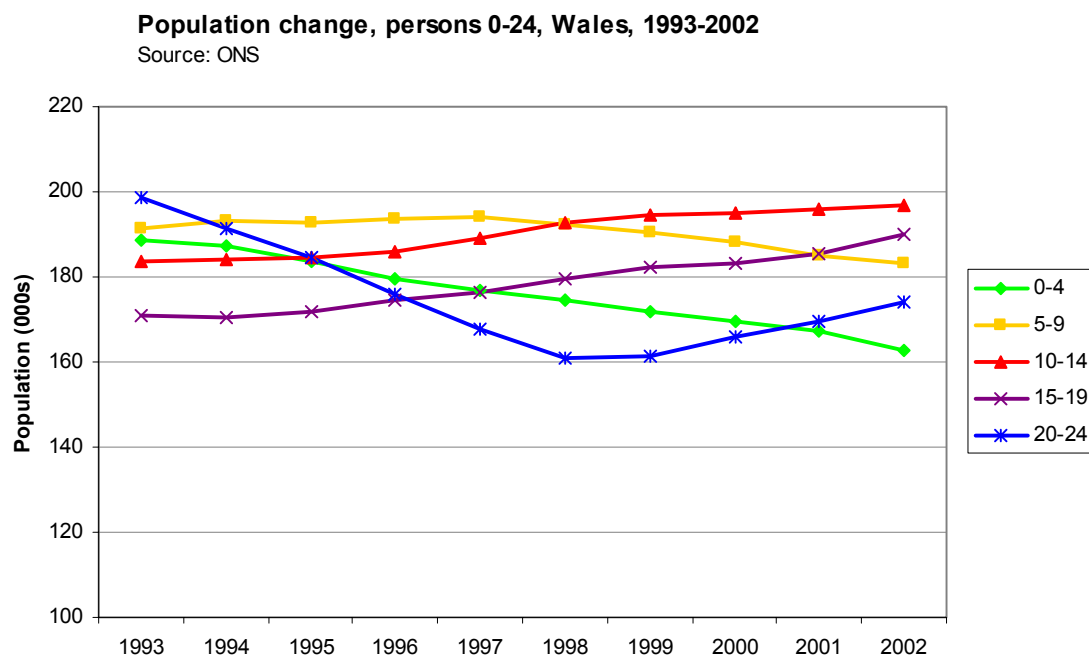


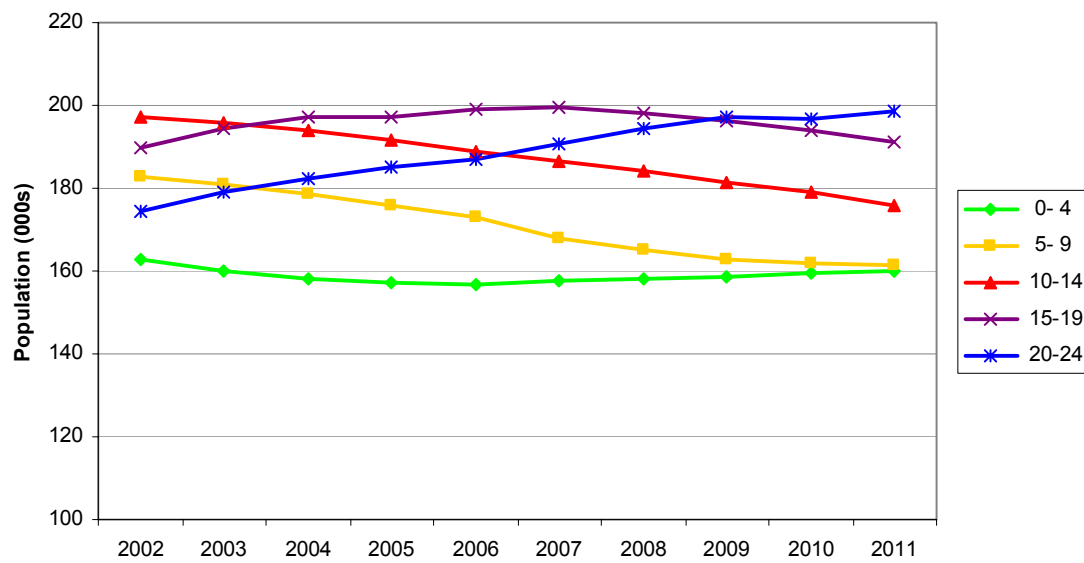
Figure 2.2.3 shows population trends by five-year age groups in thousands between 1993 and 2002 in Wales. The fall in the number of births is reflected by the fall in the number of 0 to 4 and 5 to 9 year olds. At the same time the number of 10 to 14 and 15 to 19 year olds rose. After falling throughout the early and mid 1990s, the number of 20 to 24 year olds has increased, this may be due to the expansion of higher education.

The Government Actuary's Department is responsible for the production of population projections for the United Kingdom and its constituent countries. The most recent projections are the 2002-based set, published in December 2003.⁴ Figure 2.2.4 shows projections in thousands for Wales by five-year age groups for 2002 to 2011.⁴ The graph shows that it is expected that the decline in births shown earlier in this section will not continue, reflected by the stable 0 to 4 population. The decline in births throughout the 1990s is reflected in the projected declines in the 5 to 9 and 10 to 14 age groups. The 15 to 19 year old age group is expected to remain stable, whilst the projection shows a continuation in the increase in the population aged 20 to 24, which began in the late 1990s.

Figure 2.2.4

Population projections, persons 0-24, Wales, 2002-2011

Source: GAD



2.3 Ethnicity

Figure 2.3.1 shows information from the 2001 Census on the percentage of children and young people aged 0-24 years who are non-white. Ethnicity is an important measure because, as well as having specific needs relating to language or culture, persons from minority ethnic backgrounds are more likely to come from low income families, suffer poorer living conditions and gain lower levels of educational qualifications.^{5,6}

Figure 2.3.1 shows that, overall, Wales has a small minority ethnic population, but the true figure may be higher since the alleged under-enumeration in the Census may have been disproportionately high among the minority ethnic population. Cardiff has the highest proportion of persons from minority ethnic backgrounds at almost 14 per cent. Newport, with 8 per cent also has a statistically significantly higher proportion than Wales.

Figure 2.3.1

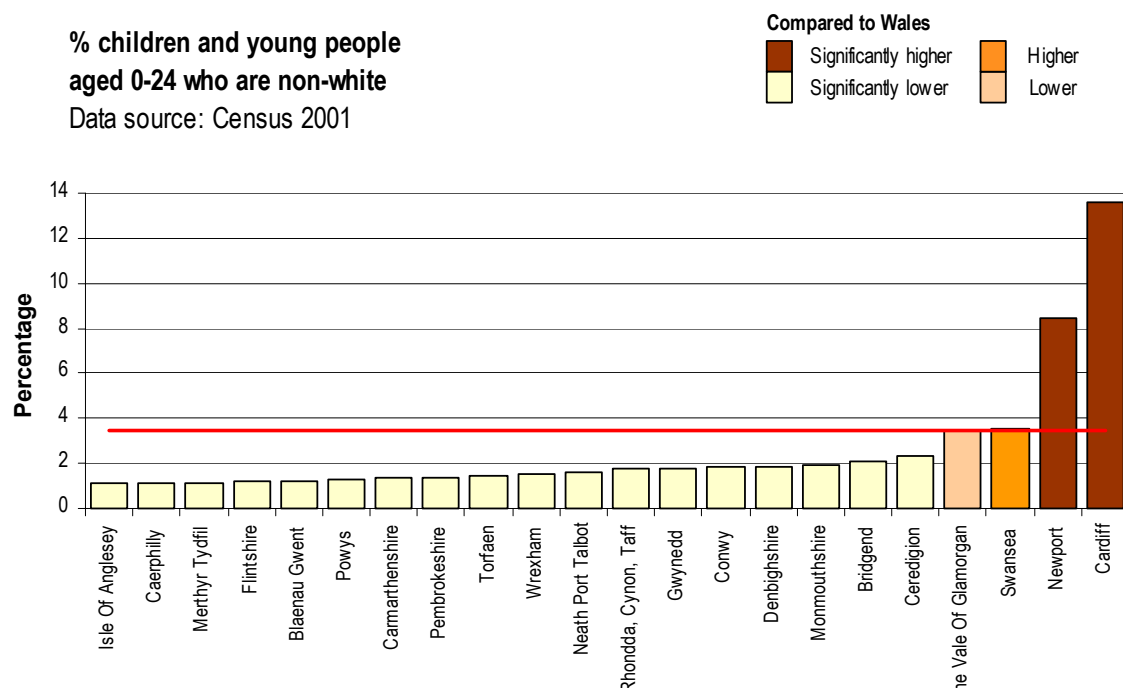
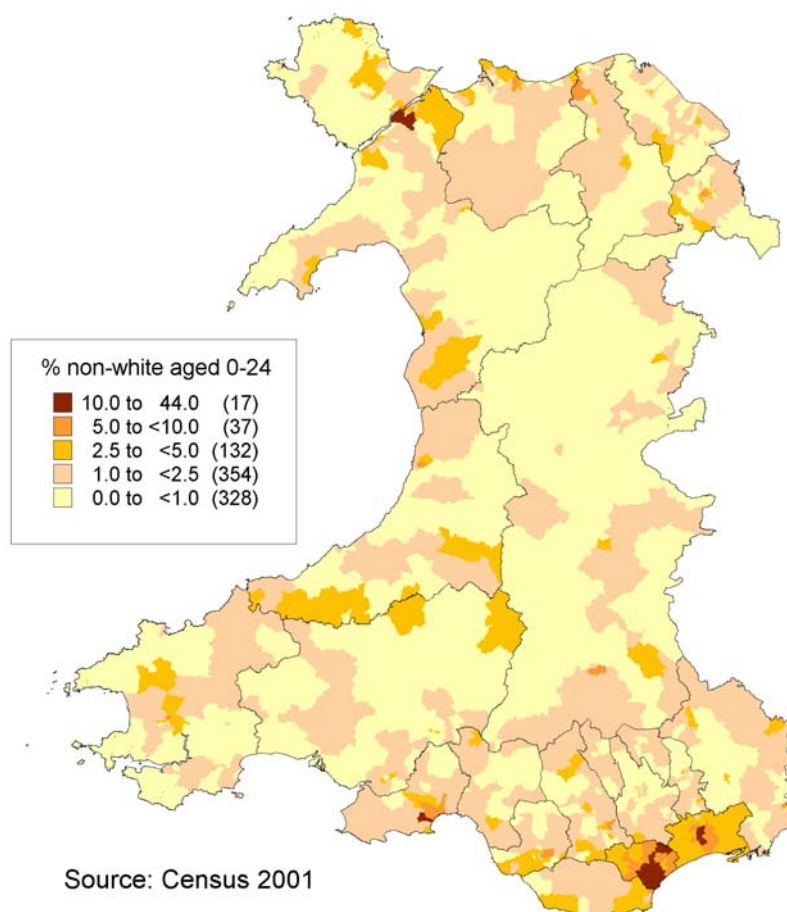


Figure 2.3.2 shows the same information at electoral division level. The highest proportions are found in Cardiff, Central Newport, and parts of Swansea and Bangor. In the case of the latter two areas the higher proportions are likely to be due mainly to the presence of minority ethnic students and their families studying at university. The map shows that in over three quarters of electoral divisions in Wales, children and young people from minority ethnic backgrounds account for less than 2.5 per cent of all 0 to 24 year

olds. It is important to know where persons from minority ethnic backgrounds are living in order that appropriate provision can be made by the NHS and other agencies.

Figure 2.3.2 Percentage children and young people aged 0-24 years who are non-white, by electoral divisions in Wales, 2003



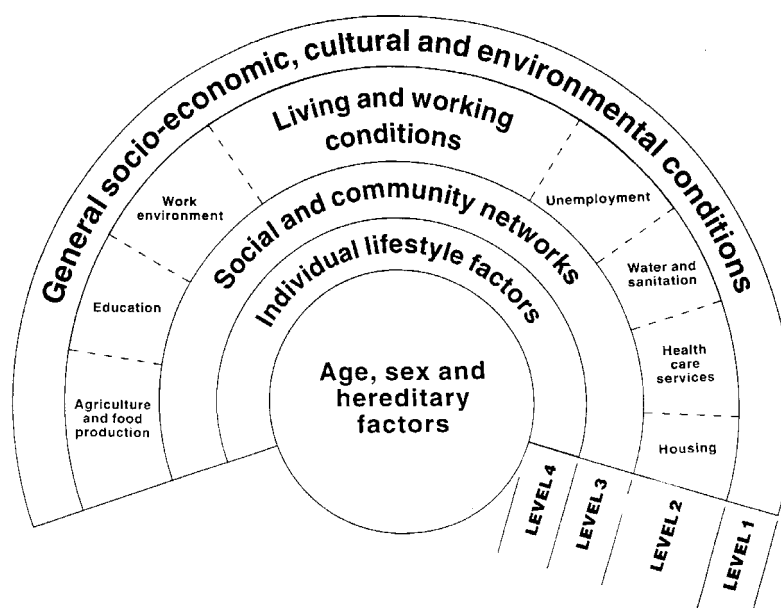
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3. Determinants of health

Many of the factors affecting health lie beyond the National Health Service. The now familiar model developed by Dahlgren and Whitehead, 1991,⁷ shown in figure 3.1, neatly summarises the determinants of health. This section aims to capture available data on the key determinants of health as they apply to children and young people. Information on the following is included:

- Income / socio-economic deprivation;
- Children in families;
- Teenage conceptions and births;
- Lifestyle;
- Education;
- Housing;
- Social Care.

Figure 3.1 Model of the determinants of health



Source: adapted from Dahlgren and Whitehead, 1991⁷

The model demonstrates both the breadth of the challenge faced in terms of improving child health and the need for a multi-agency approach.

3.1 Income and socio-economic deprivation

Income and socio-economic factors are perhaps the most important determinants of health in the United Kingdom. This is because they have a direct bearing on many of the other determinants. The Government has recognised the importance of reducing child poverty in Britain, making the eradication of child poverty an explicit policy objective.⁸ Following recent consultations the Government has set out its preferred method for measuring child poverty. This involves a tiered approach measuring:

- absolute low income – to measure whether the poorest families are seeing their incomes rise in real terms;⁸
- relative low income – to measure whether the poorest families are keeping pace with the growth of incomes in the economy as a whole;⁸
- material deprivation and low income combined – to provide a wider measure of people's living standards.⁸

This is a thorough approach because child poverty may only be said to be falling when all three measures are moving in the right direction.

Figures 3.1.1 and 3.1.2 show the second measure, relative low income in 1998 and 2001. The data appear to indicate that a degree of progress has been made in reducing relative child poverty. The number of children aged 0-15 in households below 60 per cent of national median income has fallen from 29%, the highest in the EU, in 1998 to 24% in 2001. There is, however, a long way to go before the UK achieves the low levels of relative child poverty found in the Scandinavian countries.

Figure 3.1.1 Percentage of children aged 0-15 in households below 60 per cent of national median income – 1998 Source: The Department for Work and Pensions, 2003

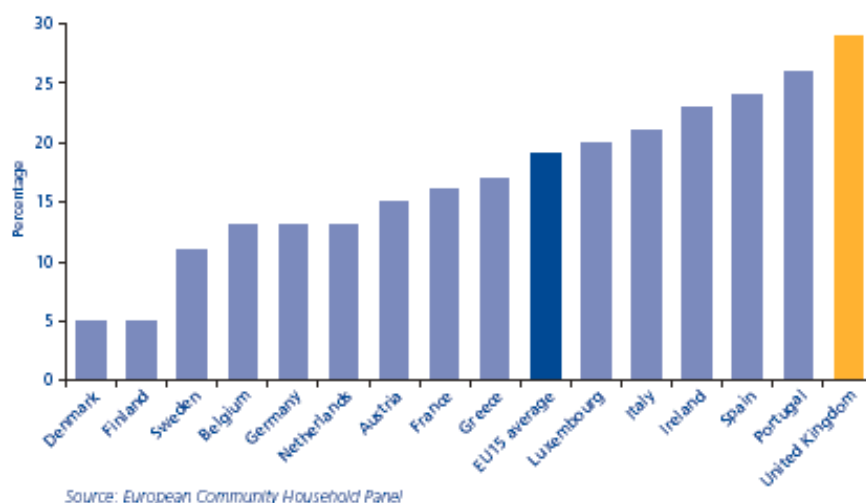
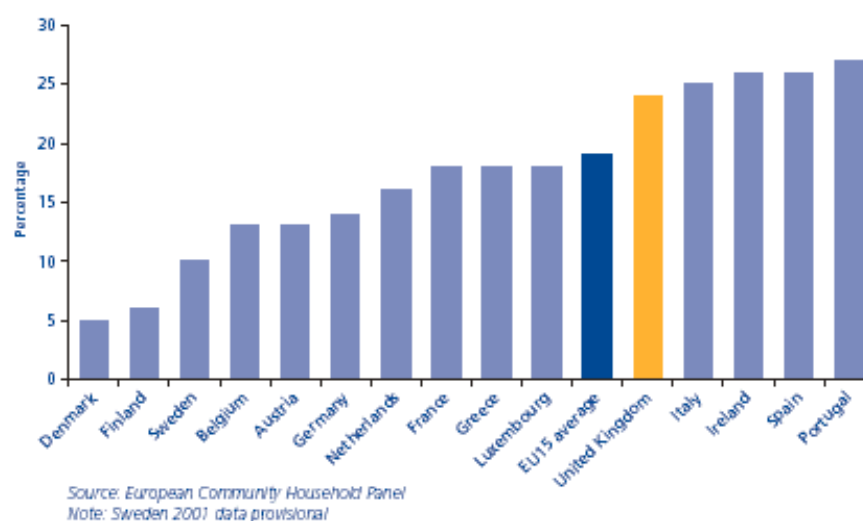


Figure 3.1.2 Percentage of children aged 0-15 in households below 60 per cent of national median income - 2001 Source: The Department for Work and Pensions, 2003



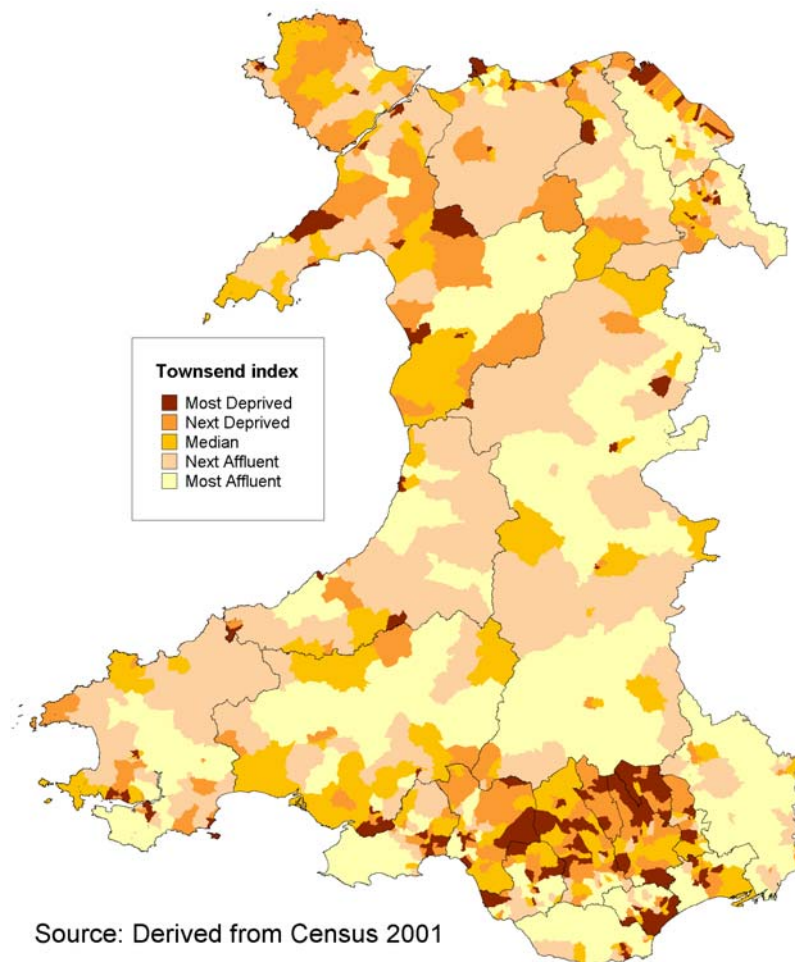
There are numerous sources of data available for measuring material deprivation. One such source is the decennial Census whose outputs include data that may be used to calculate various indices of deprivation. The Townsend index of deprivation is the most widely used index and is one of the most validated measures.⁹ It is based on four indicators:

- % persons unemployed;
- % households with no car;
- % households not owner occupied;
- % households overcrowded.

Figure 3.1.3, shows the Townsend index for 2001 standardised to Wales at electoral division level. Electoral divisions have been ranked according to deprivation score and divided into fifths, so that there were approximately the same number of electoral divisions in each fifth (equal count method).

The most deprived electoral divisions tend to be located in urban areas. The highest concentration of deprived areas is in the south Wales valleys, but pockets of deprivation exist throughout Wales from Cardiff in the south to Rhyl in the north. Indeed, even in relatively affluent areas, such as the Vale of Glamorgan, there are communities suffering from high levels of material deprivation. There has been some criticism of the ability of the Townsend index to reflect fully the extent of deprivation in rural areas.¹⁰ This is because the index includes car ownership as one of its variables. Car ownership may be seen as more of a necessity in rural areas and may not, therefore, be such a sensitive measure of socio-economic deprivation.¹¹

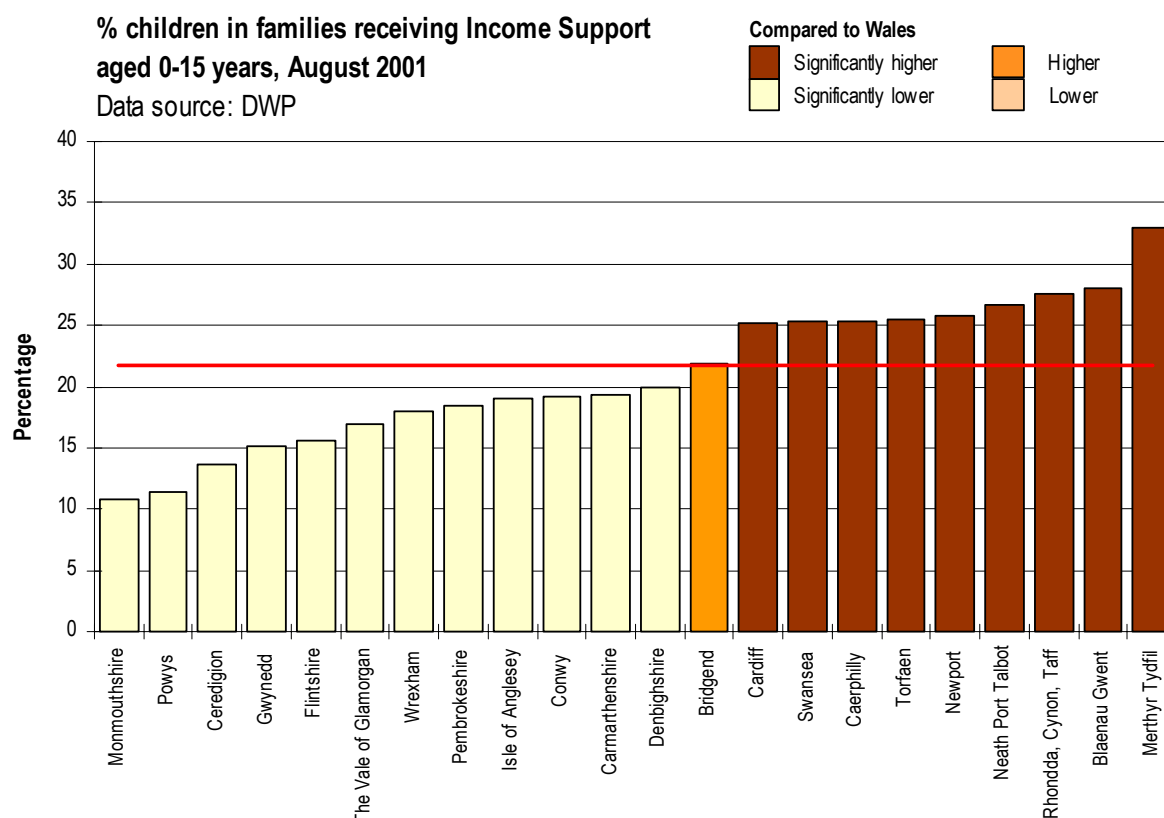
Figure 3.1.3 Townsend index of deprivation for Wales, 2001



Source: Derived from Census 2001

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Figure 3.1.4



A further source of information on child poverty is the uptake of means tested benefits. The Department for Work and Pensions has supplied data on the uptake of benefits to the NPHS. These data have been analysed as part of the SAMDA (Small Area Multi-agency Data Atlas) project - a collaborative study of small area data between the National Public Health Service, Local Government Data Unit-Wales, Wales Centre for Health and the Small Area Health Research Unit, Trinity College, Dublin. Further information about the SAMDA project is available by clicking on the SAMDA link at:

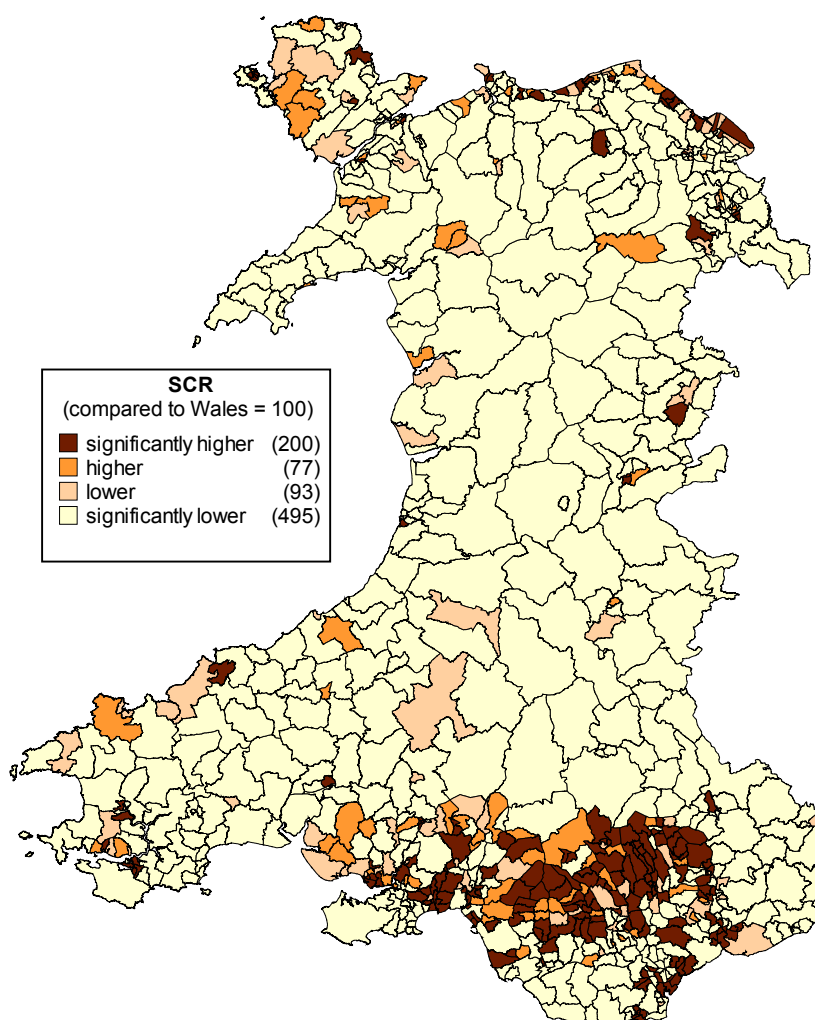
www.lgdu-wales.gov.uk/eng/WorkAreas.asp

Income support provides financial help for certain people who are working for less than 16 hours per week (less than 24 hours in the case of a partner) whose income, from all sources, is below the minimum level set by the Government. Figure 3.1.4 shows that in Merthyr Tydfil a third of children (33%) aged 0-15 years live in households where Income support is claimed. This compares with just over 10% of children in Monmouthshire.

Figure 3.1.5 shows the data presented as a standardised claimant ratio (SCR) at electoral division level. This measure takes into account differences in the age structure of electoral division populations allowing valid comparisons to be made between any electoral division and Wales. The South Wales valleys, parts of Cardiff, Newport and Swansea and the North Wales coast have statistically significantly higher levels of children living in

households where Income support is claimed. Rural areas tend to have statistically significantly lower levels.

Figure 3.1.5 Children aged under 15 years in Income support claimant households, Standardised Claimant Ratio (SCR) August 2001



Source: DWP

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Figure 3.1.6

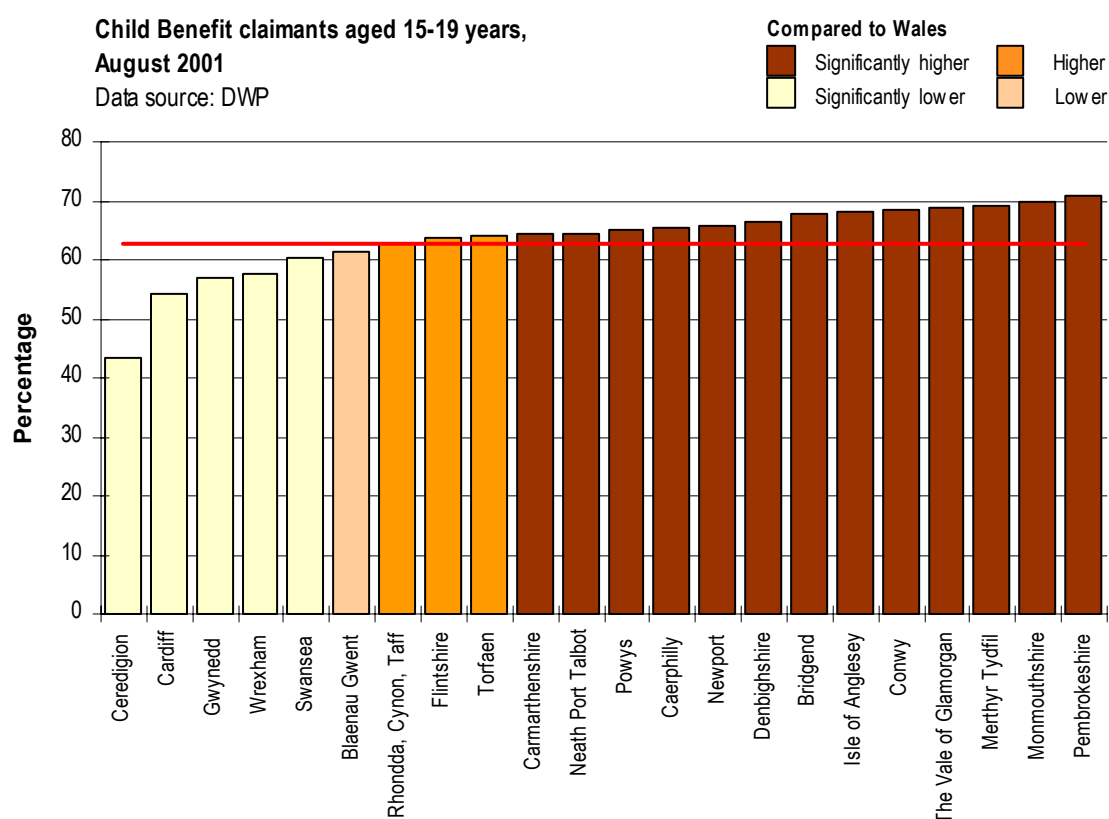
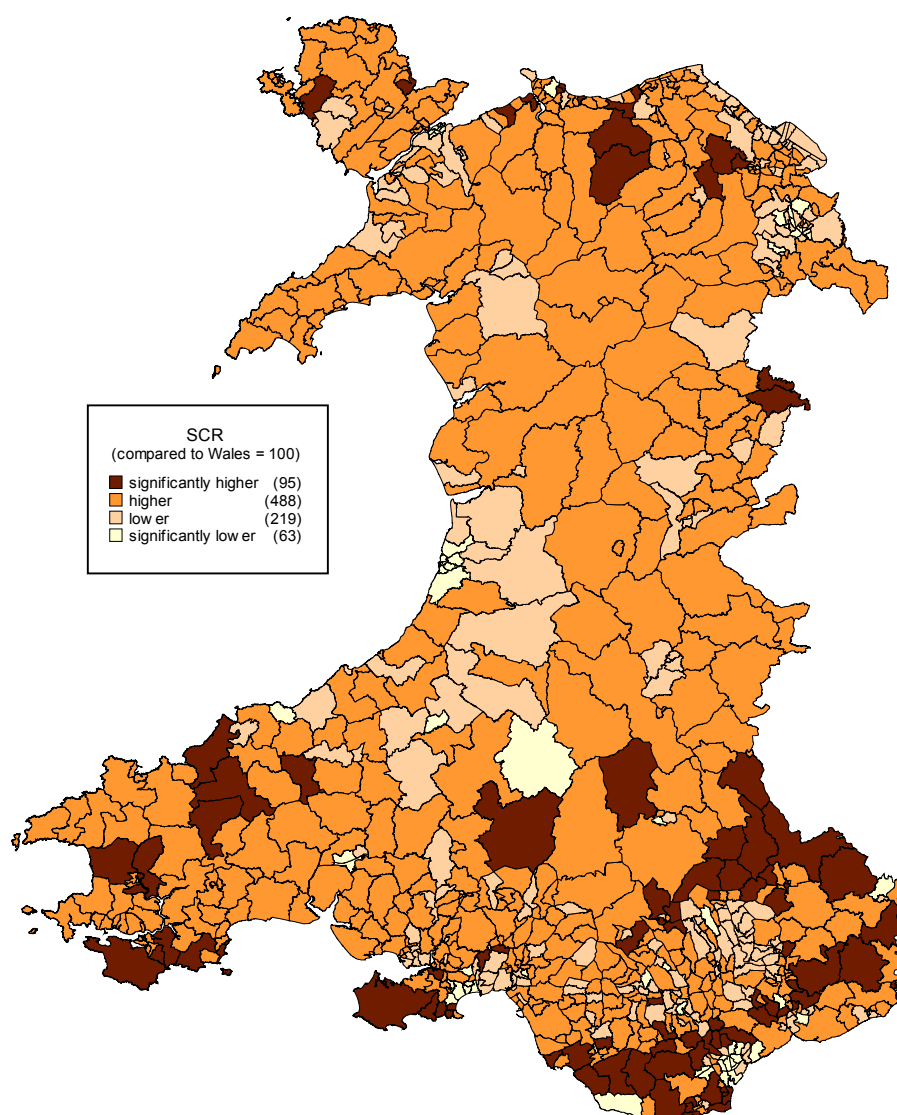


Figure 3.1.6 shows the percentage of children aged 15 to 19 years for whom Child Benefit is being claimed. For children aged 16-19, parents may only claim this benefit if their children remain in full-time education. Therefore this measure is believed to be a good indicator of the number of children continuing to further or higher education. Children who progress to further and more especially higher education are more likely to be able to enter higher paid jobs as adults. It is likely that the lower proportion of Child Benefit claimants in Ceredigion is due to the large number of students in Aberystwyth, as illustrated in Figure 3.1.7 overleaf.

Figure 3.1.7 Child Benefit claimants aged 15-19, standardised claimant ratio, August 2001. Source: DWP



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The map (figure 3.1.7) shows Child Benefit claimant data as a standardised claimant ratio (SCR). The shading on the map indicates whether the level of claims is statistically significantly different to Wales as a whole. The areas with statistically significantly higher SCRs tend to be the more affluent areas such as Monmouthshire, North Cardiff and the Gower. Areas with statistically significantly lower SCRs are found in more deprived areas such as South Cardiff, parts of Swansea, Newport and Wrexham.

3.2 Children in families

The indicators in this section focus on children living in lone parent families. Lone parent households tend to have lower incomes and a greater need and demand for health and social care.

Figure 3.2.1

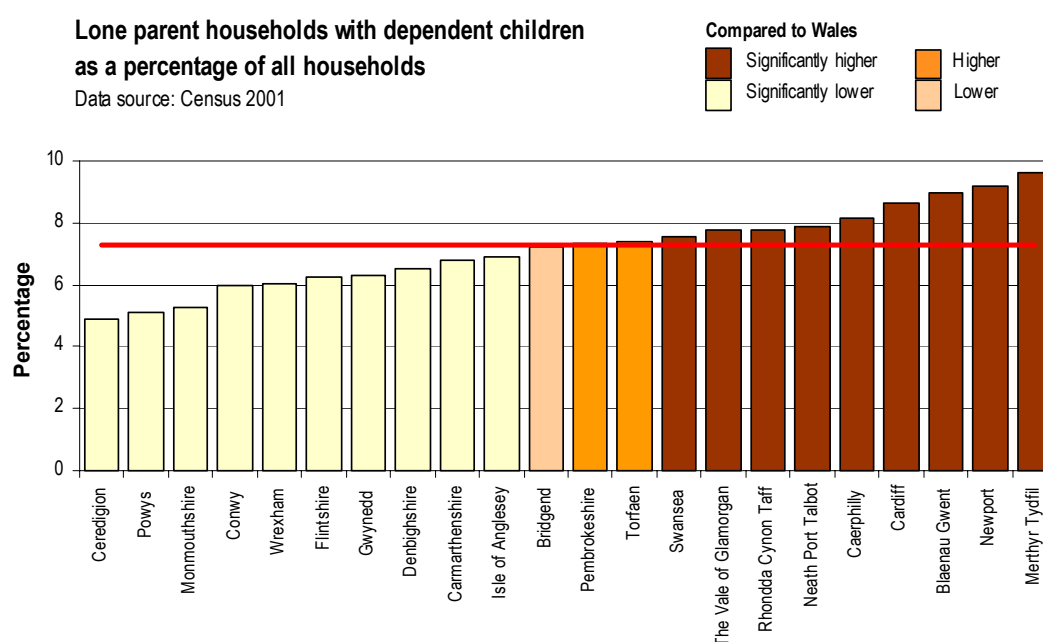


Figure 3.2.1 shows lone parent households with dependent children as a proportion of all households. A dependent child is defined as a person in a household aged 0 to 15 years (whether or not in a family) or a person aged 16 to 18 years who is a full time student in a family with parent(s).¹² Significantly higher percentages of lone parent households can be found in parts of South Wales. Significantly lower percentages can be found in North, Mid and West Wales.

Figure 3.2.2 shows children in lone parent families as a proportion of all dependent children, a similar pattern is evident at local authority level. Approximately 25% of all dependent children in Wales live in lone parent families.

Figure 3.2.2

**Dependent children in lone parent families
as a percentage of all children**

Source: Census 2001

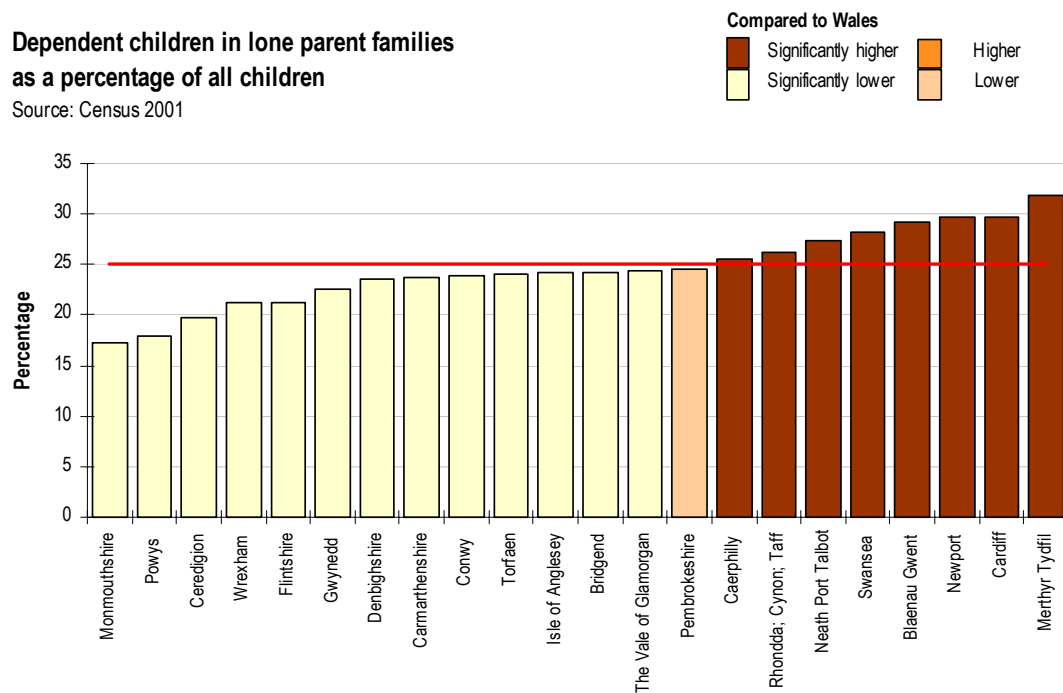
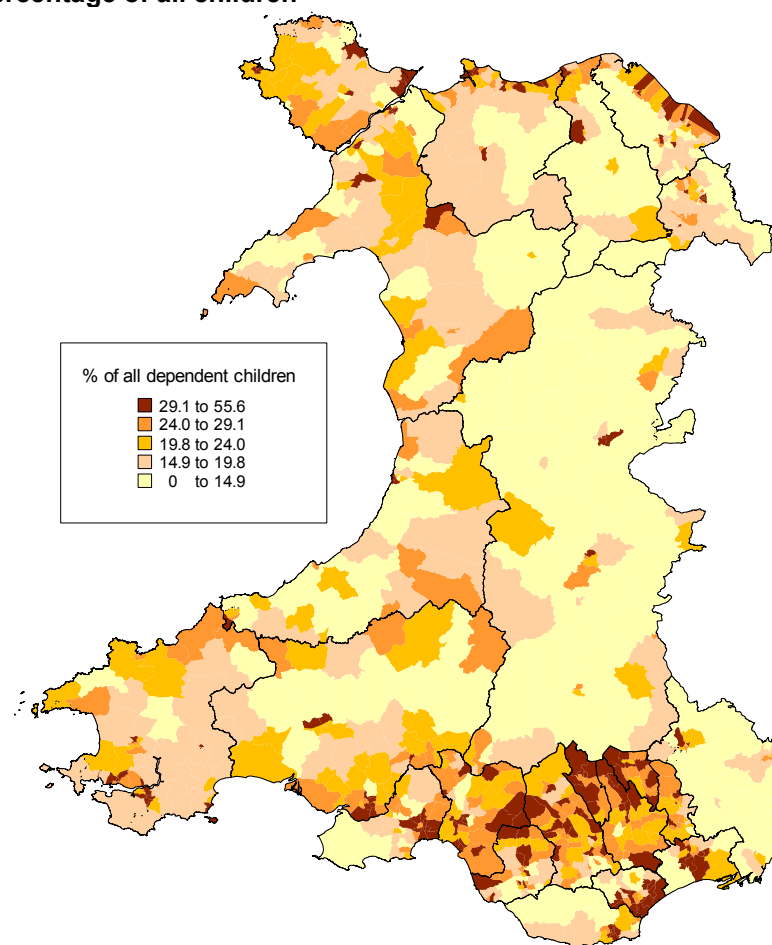


Figure 3.2.3 Percentage of dependent children in lone parent families as a percentage of all children



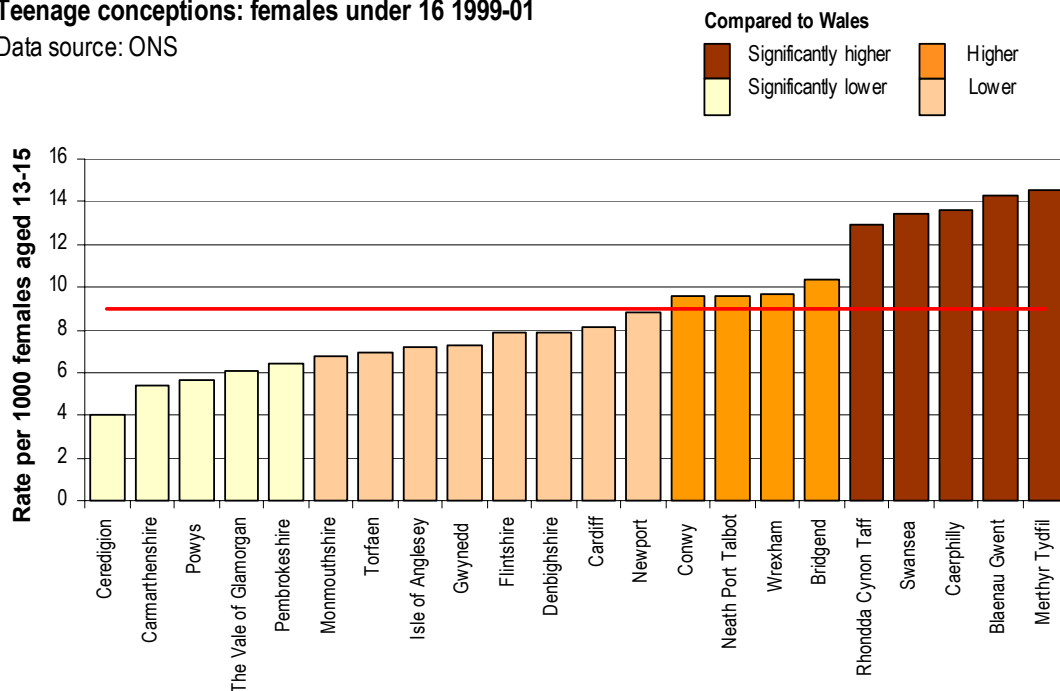
3.3 Teenage conceptions and births

Some teenage pregnancies are planned and others, although unplanned, result in wanted babies. However, it is in this age group that there is the largest proportion of unplanned and unwanted pregnancies.¹³ Generally, teenage mothers and their children suffer poor social, economic and health outcomes. Lack of education and training reduces the long term potential among teenage mothers to improve their socio-economic conditions.¹³ Higher rates tend to be found in areas of greatest deprivation, and the risk of becoming a teenage mother for girls whose families are in social class V is almost ten times higher compared with girls whose families are in social class I.¹³

Figure 3.3.1

Teenage conceptions: females under 16 1999-01

Data source: ONS



Official data on conceptions are collated by the Office for National Statistics, and is defined as maternities (i.e. pregnancies that result in one or more live or still births) and legal abortions under the 1967 Abortion Act. They do not include miscarriages or illegal abortions.¹⁴

Figure 3.3.1 shows teenage conception rates for females under 16 years. This is the number of conceptions expressed as a rate per 1,000 females aged 13 to 15 years. Figure 3.3.2 shows the conception rate in females under 20 years (expressed as a rate per 1,000 females aged 15 to 19 years). Data for 2001 are provisional. Merthyr Tydfil and Blaenau Gwent have significantly higher teenage conception rates than Wales in both age groups. Significantly lower

rates are found in less socio-economically deprived areas such as in Ceredigion, Carmarthenshire and Powys (under 16 year olds) and Ceredigion, Monmouthshire and Powys (under 20 year olds).

Figure 3.3.2

Teenage conceptions: females under 20 1999-01

Data source: ONS

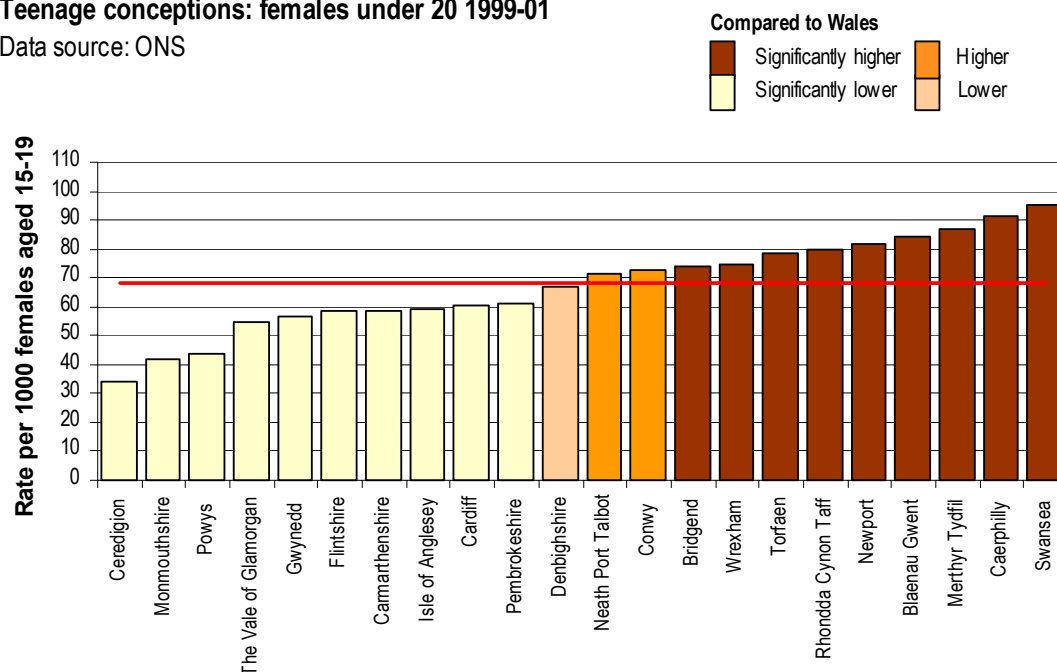


Figure 3.3.3

**Live births amongst 11-15 year olds in Wales,
3year rolling average (Rate per 10,000)**

Data source: Healthshow 2003/1

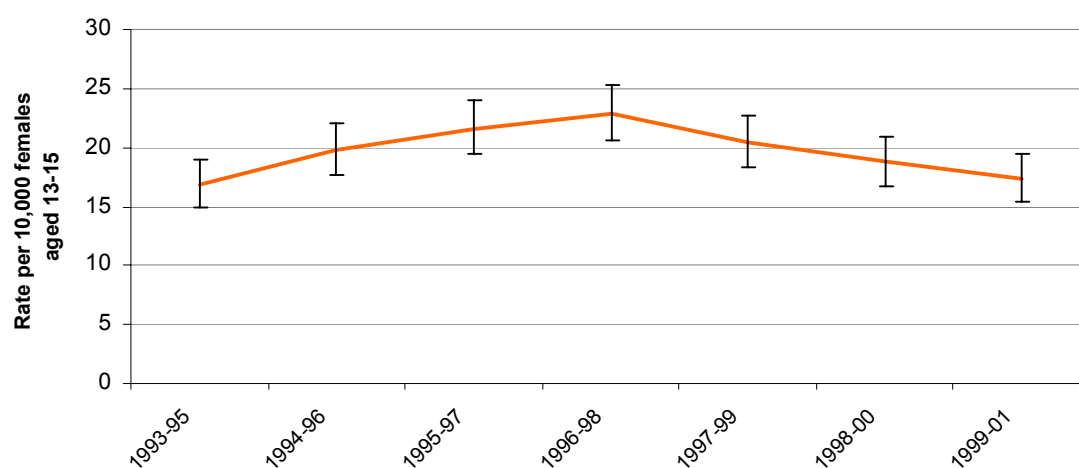
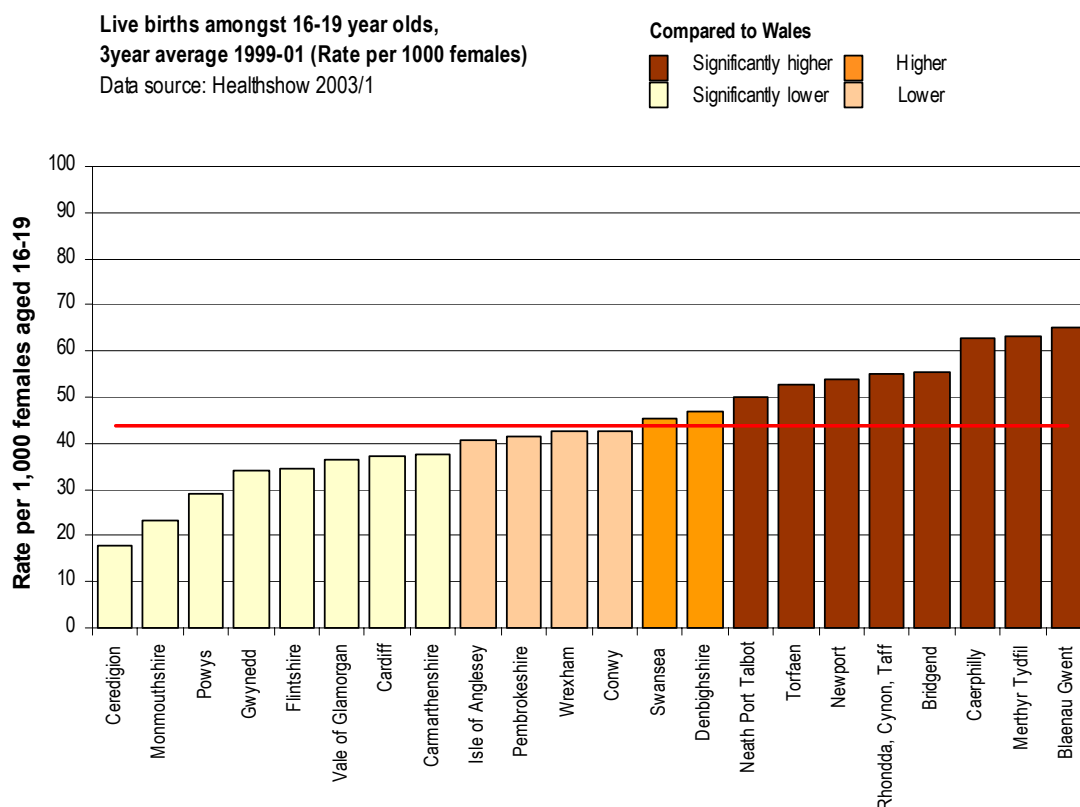


Figure 3.3.3 shows the live birth rate among 11-15 year old girls in Wales as three year rolling average rates between 1993 and 2001. The data show that after rising during the mid to late 1990s, the rate has begun to fall. Figure 3.3.4 shows the distribution of live births by local authority. Unsurprisingly, the pattern exhibited is similar to that for teenage conceptions.

Figure 3.3.4



3.4 Lifestyle

Lifestyle is an important determinant of health. However, there are no routine data available on lifestyle for all children in Wales. National surveys of young people can be used to determine various lifestyle factors relating to children and young people in Wales (Table 3.4.1).

Table 3.4.1. Percentage of children in Wales by lifestyle type: 2000

	11-12		13-14		15-16	
	Male	Female	Male	Female	Male	Female
Smoking weekly	1	2	6	17	20	29
Drinking alcohol weekly	15	9	30	29	58	50
Ever having used one or more drugs (1998)					42	41
Having used one or more drugs in the last month (1998)					23	22
Eating fresh fruit every day	56	60	54	53	44	47
Exercising at least 4 hours per week outside school	34	18	44	20	50	19
Eating chips daily	30	25	23	21	25	14
Eating sweets or chocolate every day	50	48	53	46	51	44
Drinking fat –reduced milk every day	58	52	62	52	57	54
Drinking soft drinks containing sugar every day	60	56	65	54	64	49

Source: Welsh Assembly Government, 2002. Young people in Wales: findings from the Health Behaviour in School-aged children (HBSC) study 1986-2000

Data from the Health Behaviour in School aged Children (HBSC) study are shown in Table 3.4.1.¹⁵ The data were collected through self-completed questionnaires administered under exam conditions to all sampled pupils attending school on the day of the survey. Sampled pupils, who were absent due to sickness or for other reasons were not followed up. The study used a two stage sampling procedure. Initially, secondary schools were randomly selected, stratified by local authority. Schools were then asked to randomly select 30 pupils from each of the participating year groups. The numbers of pupils participating and returning usable data were 4,097 in 1998 and 3,495 in 2000.

Table 3.4.1 illustrates that the proportion of children smoking was higher amongst girls for all age groups. Almost a third of girls aged 15-16 years stated that they smoke on a weekly basis. The proportion of children drinking alcohol and using drugs was found to be slightly higher amongst boys, with over 42% in the 15-16 year age group admitting to having used drugs. As the data are based on self-completed surveys there may be a temptation to exaggerate or understate consumption of illegal drugs, smoking or alcohol. In addition, the results of the survey show that levels of exercise were

greater amongst boys than girls. Less than a fifth of girls in the 15-16 year old age group stated that they exercised for at least four hours a week outside school hours.

A healthy lifestyle in childhood is key to maintaining good health into adulthood. There are very limited sources of data available to monitor such information accurately over time and between areas in Wales. Childhood obesity, which is currently the focus of much attention in the media, is associated with chronic ill-health in adulthood. It is believed that poor nutrition, too much sugary and fatty food, together with a lack of exercise is combining to produce an increase in the obesity rate among children. However, there are no routinely available data for the whole of Wales to monitor the situation. The HBSC study introduced self-reported height and weight into the 2001/02 study. These data are currently being validated.¹⁶ Initial findings from the study indicated that 17% and 6% of boys and 14% and 3% of girls aged 15 years are 'pre-obese' and 'obese' respectively based on international cut-points.¹⁶

The Child Health System is designed to hold information such as height and weight of 5 year old children, routinely recorded as part of the school entry medical. However, the data are of variable quality with limited coverage in Wales and therefore cannot be used. It is important that the range and quality of information available is improved at the earliest possible opportunity.

Professor Rhys Williams of Swansea Clinical school kindly provided some additional data, sourced from the Child Health System and restricted to the Swansea and Neath Port Talbot areas where data quality is better.

With the exception of one year (1994/95), where the rate is based on a sample of less than 50 for both boys and girls, the Child Health system (CHS) provided measurements of weight and height for between 86.8% and 98.5% of 5 year old children, based on a standard BMI range.¹⁷ Some of the data held on the CHS were of limited quality and 14% of records, for whom data could not be corrected, were omitted. The results of the analysis undertaken by Jones et al (2004)¹⁷ showed that the percentage of 5 year olds who were either overweight or obese, as specified by the International Obesity Task Force criteria, increased between 1986 and 2001. In addition it was discovered that the rate of change in overweight or obesity in girls was significantly greater than that in boys.

3.5 Education

Education is one of the key determinants of health.⁷ People who are better educated are more likely to be able to obtain higher paid employment, leading to a better lifestyle.¹⁸

Figure 3.5.1

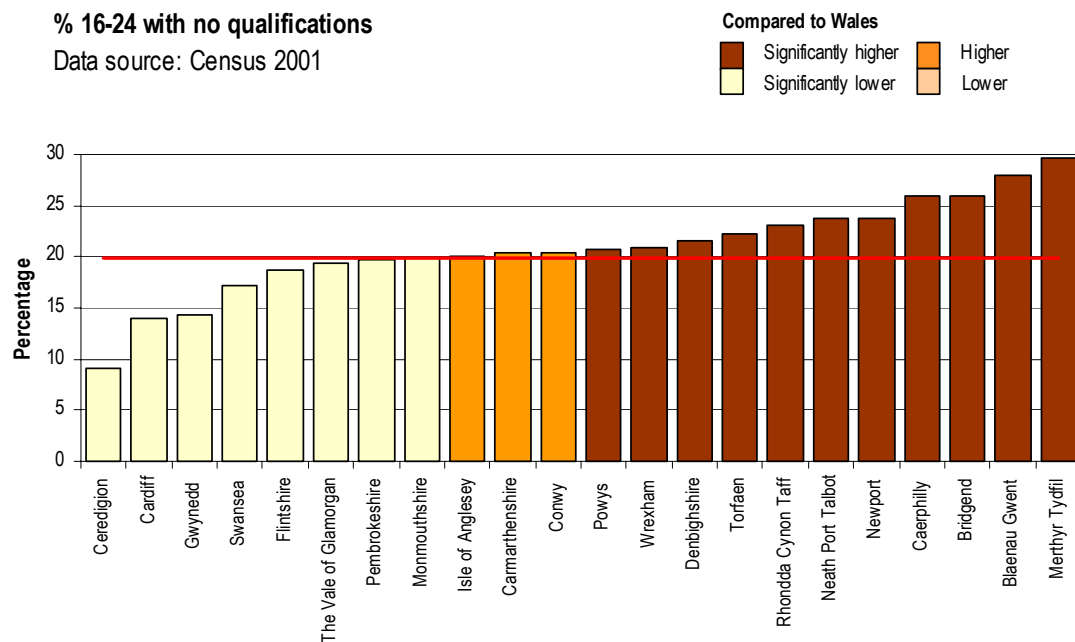


Figure 3.5.1 shows the proportion of young people aged 16-24 with no qualifications as reported in the 2001 Census. This is defined as individuals with no academic, vocational or professional qualifications. There are significantly higher proportions of young people with no qualifications in more socio-economically deprived areas, such as Blaenau Gwent and Merthyr Tydfil. Ceredigion and Cardiff have significantly lower proportions of young people with no qualifications. Results for these areas are influenced by the fact that university students were registered at their term-time addresses in the Census.

Figure 3.5.2

% Males gaining 5 or more GCSEs (Grade A*-C)

Data source: ONS 2002

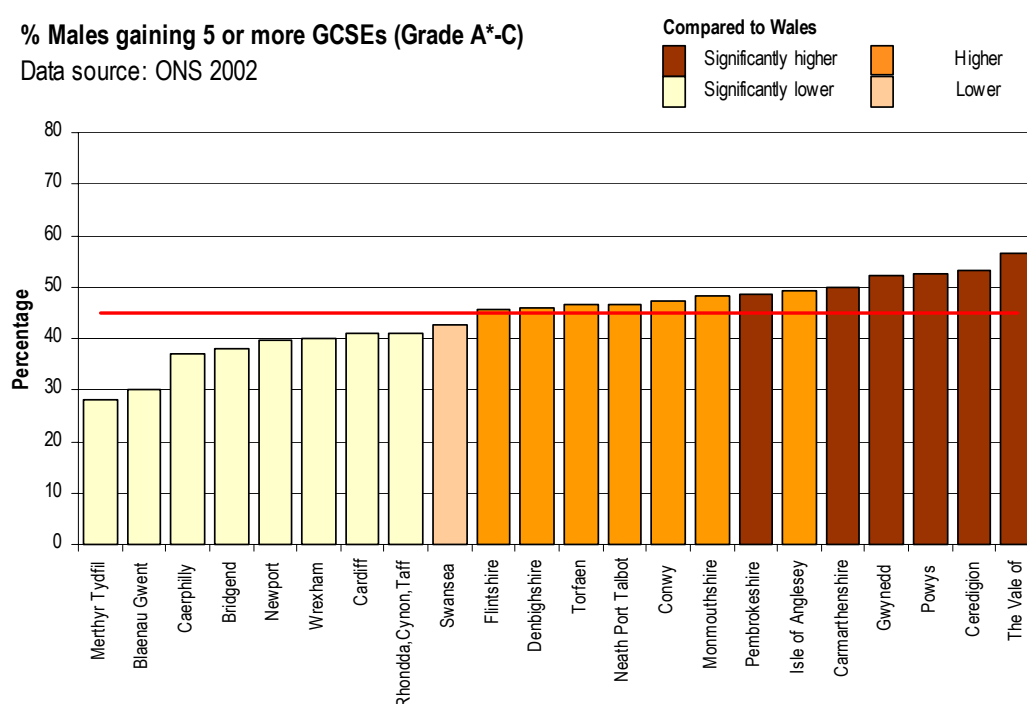
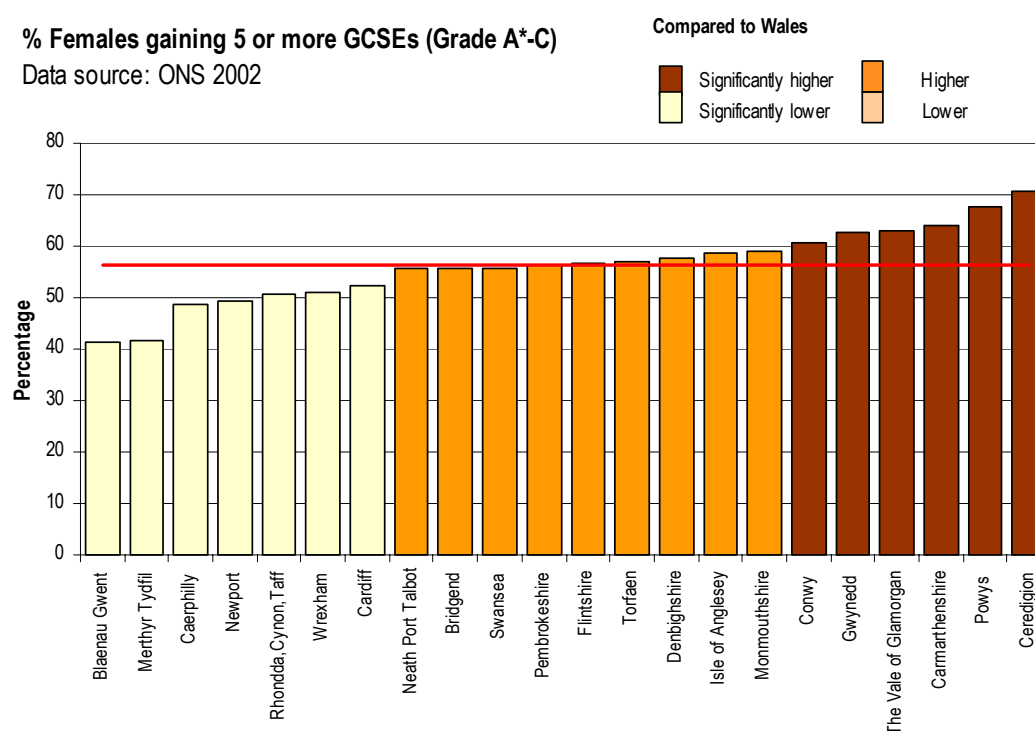


Figure 3.5.3

% Females gaining 5 or more GCSEs (Grade A*-C)

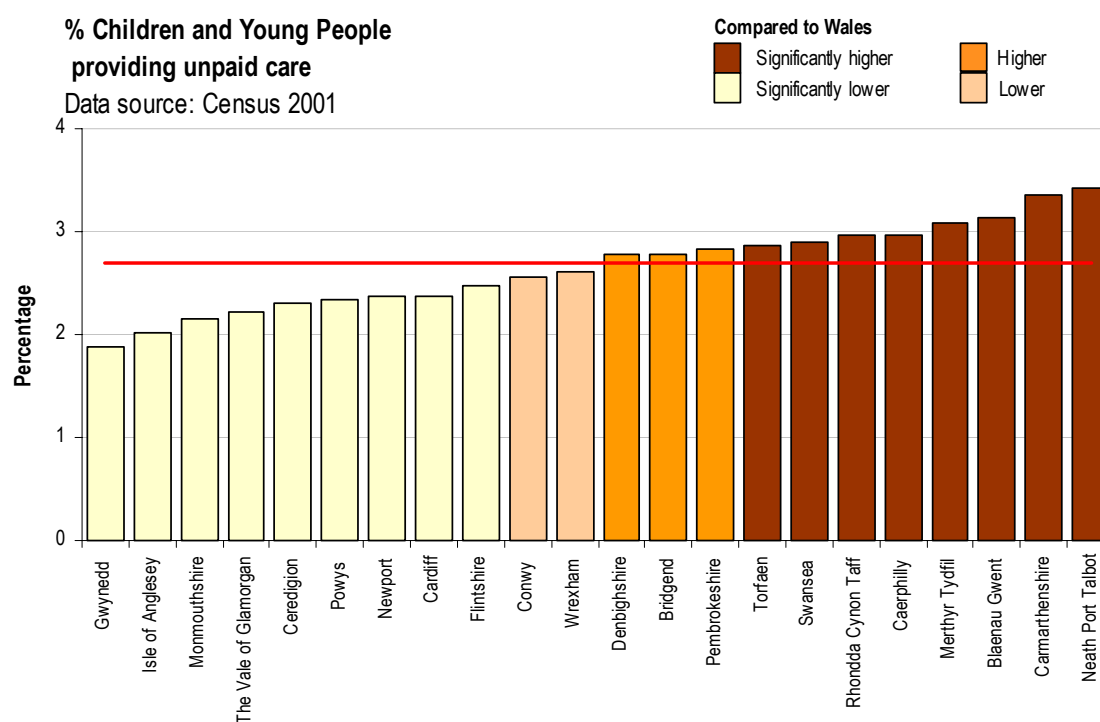
Data source: ONS 2002



Figures 3.5.2 and 3.5.3 show the percentage of males and females gaining 5 or more GCSEs grade A* to C. Overall, girls tend to achieve better results at GCSE level than boys. The relative positions of local authorities for this measure are similar for boys and girls. Ceredigion has the highest percentage of girls achieving at least 5 GCSEs at A*-C grades and the second highest percentage for boys. Other areas with relatively high levels of achievement include the Vale of Glamorgan, Carmarthenshire and Powys. The lowest proportions for males and females are found in Blaenau Gwent, Merthyr Tydfil and Caerphilly.

A factor which may have an adverse effect on a child's education is the need to provide care for a parent or relative. Figure 3.5.4 shows data from the 2001 Census on the proportion of children and young people aged under 25 years providing unpaid care. The more deprived areas of Wales tend to exhibit higher proportions of children providing such care (although it should be recognised that overall proportions are low).

Figure 3.5.4



3.6 Housing

3.6.1 Homelessness

Security of housing tenure is an important determinant of health because enforced mobility and poor living conditions such as overcrowding are likely to impact on children's mental health causing high rates of anxiety, stress, and emotional distress.¹⁹

This profile includes the actions of Welsh local authorities under the homelessness provisions of the 1996 Housing Act, including the decision whether there is an obligation under the Act for the local authority to help the household.²⁰ That is, whether the authority accepts that the household is “eligible, unintentionally homeless and falls within a priority need group”. In this case the household is accepted as “statutory homeless” and the local authority must then ensure that suitable accommodation is available for the household until a settled home becomes available.²⁰ Figure 3.6.1 shows the proportion of all homeless households found to be eligible for assistance, unintentionally homeless and in priority need, with either dependent children or with a household member pregnant, compared to Wales. This can be seen to vary from 16% in Ceredigion to 69% in the Isle of Anglesey.

Figure 3.6.1

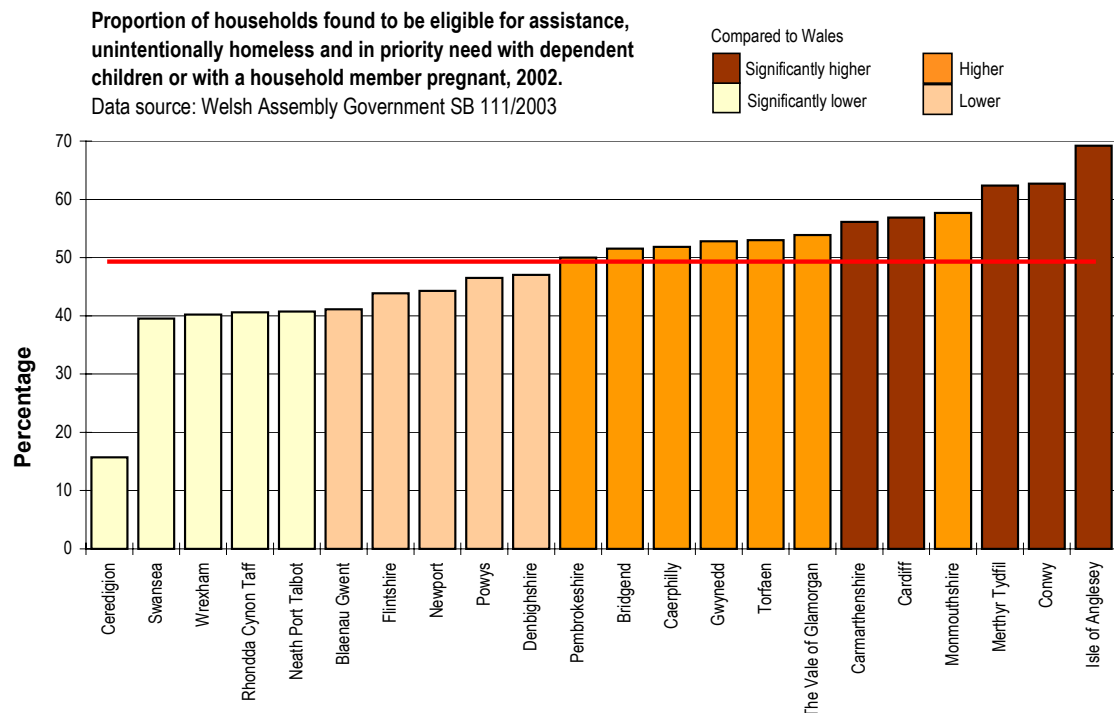


Table 3.6.1 shows the number of households accepted as homeless by local authorities across Wales. In 2002, 6,427 households were accepted as homeless, of these, 2,735 (43%) were households with dependent children. In a further 433 cases (7% of the total) the household included a pregnant woman. The remaining 3,529 acceptances included someone who was vulnerable in some other way. In March 2001, the Welsh Assembly introduced statutory legislation extending the priority needs categories to include residents aged 16 or 17, and applicants aged 18 to 20 who were previously in care. Five hundred and thirty-five young people aged 16 and 17 (8%) were accepted as homeless and 299 young people aged 18-21 (5 %).²¹

Table 3.6.1 Households found to be eligible for assistance, unintentionally homeless and in priority need, by unitary authority, 2002.

Number of Households	Household includes dependent children	Household member pregnant and no other dependent children	Young Person at risk: 18 years or over but under 21	Young Person at risk: 16 or 17 years	Total*
Isle of Anglesey	81	9	2	8	130
Gwynedd	112	10	4	10	231
Conwy	108	13	10	4	193
Denbighshire	48	7	3	11	117
Flintshire	97	14	6	24	253
Wrexham	60	14	5	21	184
Powys	110	17	8	26	273
Ceredigion	20	2	15	13	140
Pembrokeshire	134	15	12	37	298
Carmarthenshire	196	29	23	37	401
Swansea	208	64	26	16	688
Neath Port Talbot	53	4	3	26	140
Bridgend	241	42	22	53	549
The Vale of Glamorgan	97	14	13	10	206
Cardiff	456	70	24	64	925
Rhondda Cynon Taff	191	23	45	87	527
Merthyr Tydfil	52	6	2	2	93
Caerphilly	174	37	19	28	407
Blaenau Gwent	30	0	10	18	73
Torfaen	173	30	21	31	383
Monmouthshire	45	4	7	2	85
Newport	49	9	19	7	131
Wales	2,735	433	299	535	6,427

Source: Welsh Assembly Government Welsh Housing Statistics SB 111/2003 Homelessness Bulletin January - March 2003²¹

*Total includes other eligibility criteria

During the April to June 2003 quarter, 192 female single parents reported becoming homeless because of violence from former partners, 220 households with children were temporarily situated in non self-contained (i.e. hostels, refuges and bed and breakfast) accommodation at the end of the April to June 2003 quarter.²⁰

3.6.2 Housing Quality

The 1998 Welsh House Condition Survey (WHCS) aimed to assess the Welsh housing stock in terms of its state of repair and the prevalence of unfitness.²² Part of the survey involved the physical inspection of around 12,000 dwellings by building surveyors, to establish the physical characteristics of whether the dwellings were fit or unfit. The fitness standard is outlined in section 604 of the Housing Act as amended by schedule 9 of the Local Government and Housing Act 1989, and uses a defined set of criteria to determine whether a dwelling is fit for human habitation or not. This includes the dwelling being structurally stable, free from dampness, and with exclusive use of toilet and cooking facilities.²² Unfit dwellings pose greater risks to household health and safety. In general, higher proportions of lower income households live in unfit dwellings. Results of the Survey shown in table 3.6.2 indicated that approximately 7.4% of families with dependent children were living in unfit dwellings in Wales, corresponding to approximately 28,100 families.

Table 3.6.2: Unfit dwellings by selected household type and unitary authority

	Per cent unfit dwellings Families with dependent children	Per cent unfit dwellings All	Numbers of dwellings Families with dependent children	Numbers of dwellings All
Isle of Anglesey	3.3	4.4	8,000	27,400
Gwynedd	13.9	10.5	14,200	46,300
Conwy	3.8	4.8	14,200	47,300
Denbighshire	6.0	7.2	11,800	37,100
Flintshire	4.0	4.8	16,800	55,100
Wrexham	6.8	7.5	18,700	50,700
Powys	7.6	8.4	16,700	50,200
Ceredigion	9.9	11.1	6,900	26,200
Pembrokeshire	13.4	10.6	12,700	44,400
Carmarthenshire	5.6	7.9	20,700	70,200
Swansea	8.4	7.0	31,200	89,400
Neath Port Talbot	6.1	9.5	18,800	56,900
Bridgend	6.7	9.8	18,700	53,900
The Vale of Glamorgan	5.8		16,500	46,600
Cardiff	9.2	9.1	38,600	118,700
Rhondda Cynon Taff	6.4	11.4	29,700	95,200
Merthyr Tydfil	11.0	12.5	9,000	23,300
Caerphilly	4.7	5.9	25,100	64,900
Blaenau Gwent	7.7	9.0	10,100	29,300
Torfaen	11.4	11.3	12,000	36,500
Monmouthshire	5.9	8.6	11,000	32,300
Newport	8.6	9.4	18,900	55,300
Wales	7.4	8.5	380,100	1,157,300

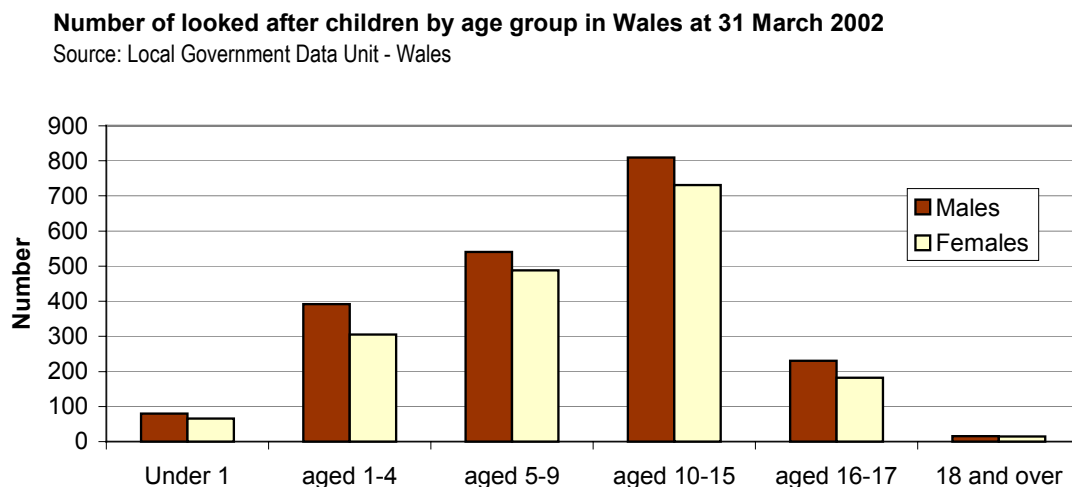
Source: Welsh Assembly Government Welsh House Condition Survey 1998 (Table 1.24)²²

3.7 Social Care

‘Looked After’ is the term used in The Children Act 1989 to describe children who are the subject of a care order (which may only be made by a court), or who are provided with accommodation on a voluntary basis for more than 24 hours.²³

Figure 3.7.1 shows that more children aged 10-15 are looked after than any other age group. More boys are looked after than girls.^{23,24}

Figure 3.7.1



After an initial decrease, the number and rate of children looked after by local authorities in Wales, has shown a steady increase over recent years.²⁵ This is illustrated in table 3.7.1.

It is important to note year on year variations in both the number and rate of looked after children. This profile includes data relating to looked after children as at 31 March 2002. This information is available electronically (including recently released data for 2003) from

<http://www.lgdu-wales.gov.uk/eng/pss.asp?cat=201&year=2003>

Table 3.7.1 Number and rate of looked after children

	Number				Rate per 10,000 children (d)			
	Total boys (a)	Total girls (a)	Boys & girls (a)	Total boys & girls (b)	Total boys (a)	Total girls (a)	Boys & girls (a)	Total boys & girls (b)
1985	2,174	1,578	3,752	..	62	48	55	..
1990	1,782	1,496	3,278	..	53	46	50	..
1995	..	..	..	..	..	..	..	..
1996	..	..	..	..	..	..	..	..
1997 (c)	1,715	1,439	3,290	3,051	50	44	49	46
1998 (d)	1,783	1,617	3,400	2,991	52	49	51	45
1999	1,958	1,699	3,657	3,313	57	52	55	50
2000	2,090	1,759	3,849	3,574	61	54	58	54
2001	2,133	1,798	3,931	3,644	63	56	59	55
2002	2,243	1,897	4,140	3,855	66	59	63	58

Source: Social Services Statistics Wales 2001-02 (SSDA 903), 2003: Local Government Data Unit – Wales²⁵

(a) Including children in agreed series of short term placements.

(b) Total excludes children in short term placements.

(c) Total boys and girls includes 136 children for whom dates of birth were not supplied by local authorities.

(d) Total boys and girls includes 282 children for whom dates of birth were not supplied by local authorities.

Based on the Registrar General's estimate of population at 30 June

Children on Child Protection Registers are not estimates of the number of children who are subject to abuse as not every case is reported, and child abuse referrals may be resolved without the need to enter a child onto the register. For example, the abuse may be unsubstantiated or may be resolved without the need to enter the child on the register, such as when the abuser leaves the household. Some children may be on the register because of the possibility of future abuse. It is important to note that the registers are used by social services departments in the management of child protection work and are not specifically designed to collect statistics, and recording and management practices may differ between social services departments.²⁶

The register contains details of all children in an area who are considered to be suffering from or who are likely to suffer from significant harm and for whom there is an inter-agency protection plan. When the name of child is added to the register, it is recorded under one of the categories of abuse defined by the Welsh Assembly Government.²⁶

Table 3.7.2 shows that 70% of children on the child protection register are aged under 10 years. The largest category of abuse can be seen to be neglect. Figure 3.7.2 shows the number of children on the child protection register expressed as a rate per 1,000 children aged under 18 years. Rates can be seen to be highest in Merthyr Tydfil, Cardiff and Newport and lowest in the Vale of Glamorgan, Wrexham and Flintshire. However, it should be noted that recording and management practices may differ between local authorities.

Figure 3.7.2

Children on the Child Protection Register, rate per 1,000 children aged under 18 years (March 31st 2003).

Data source: LGDU

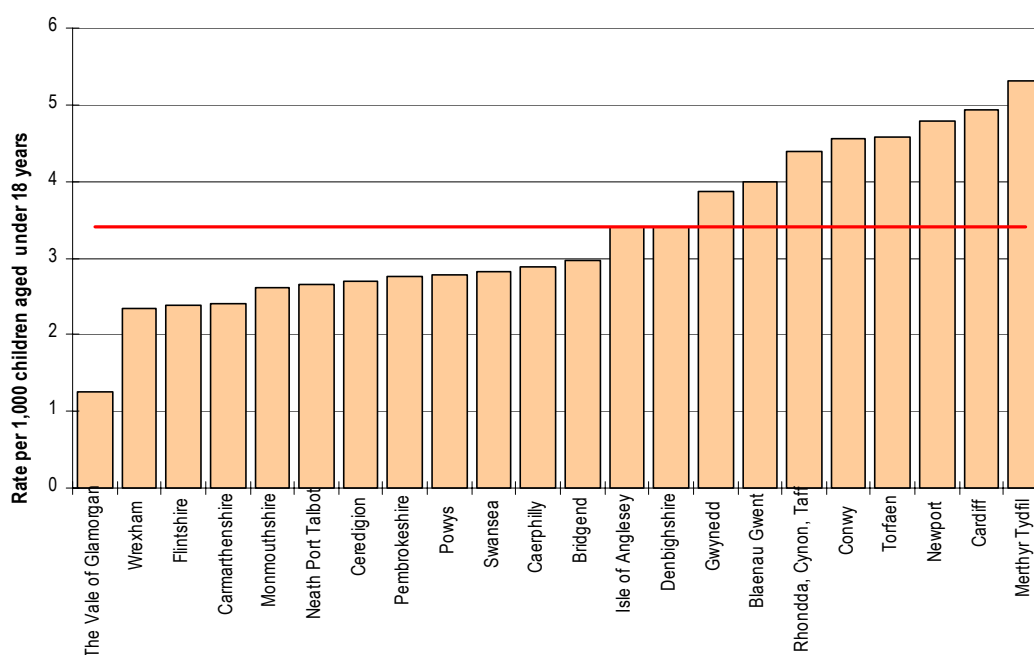


Table 3.7.2 Children on the Child Protection Register, 31 March 2003

Number	<1	1-4	5-9	10-15	16-17	Boys	Girls	Total (b)
Isle of Anglesey	10	9	12	18	1	37	13	50
Gwynedd	5	27	31	32	2	56	41	98
Conwy	6	18	41	34	5	53	51	105
Denbighshire	6	19	18	23	2	29	39	71
Flintshire	5	22	21	28	5	39	42	82
Wrexham	7	18	23	18	1	31	36	67
Powys	5	21	24	22	5	42	35	77
Ceredigion	3	20	10	6	0	18	21	39
Pembrokeshire	5	24	14	29	0	36	36	72
Carmarthenshire	10	33	27	23	0	48	45	93
Swansea	15	52	34	32	1	68	66	134
Neath Port Talbot	8	25	18	27	1	45	34	79
Bridgend	6	30	21	25	5	47	40	87
The Vale of Glamorgan	3	14	11	8	0	22	14	36
Cardiff	49	106	76	98	9	191	147	344
Rhondda, Cynon, Taff	30	82	75	45	4	120	116	236
Merthyr Tydfil	11	26	19	14	1	29	42	71
Caerphilly	9	43	39	27	0	58	60	118
Blaenau Gwent	9	27	18	12	0	34	32	66
Torfaen	9	27	38	23	2	50	49	99
Monmouthshire	5	14	16	15	0	27	23	50
Newport	17	50	44	52	1	91	73	165
Wales	233	707	630	611	45	1,171	1,055	2,239

Source: SSDA 908 2002-03²⁶ (table 2v1) accessible from LGDU site at

http://www.lgdu-wales.gov.uk/Documents/Data_Set/PSS/2002-2003/lgd01000_ssda908_2002_03_table2_v1_bi.xls

(a) See also Local Authority Child Protection Registers: Wales 2001. (SDR 50/2001).

(b) Includes unborn children.

4. Health Status

This section focuses on information on health indicators and outcomes in children and young people. Information from a variety of sources is included in order to capture the widest possible range of valid and reliable data that are able to show how health status varies over time and between areas.

4.1 Low birth weight babies

Low birth weight babies include all births (live and still) weighing less than 2500g. The percentage of low birth weight babies is therefore calculated as all births below 2500g as a proportion of total births. Low birth weight is an important indicator for two reasons. Firstly, it is associated with poor general health, education, nutrition and risk factors such as smoking and alcohol consumption, both pre-conceptually and during pregnancy.^{27,28,29} Secondly, it is associated with an increased risk of chronic diseases such as diabetes and heart disease in adulthood.²⁷

Figure 4.1.1

% Low birth weight trend 1993-2001

Data source: AWPS/CHS; 2001:ONS

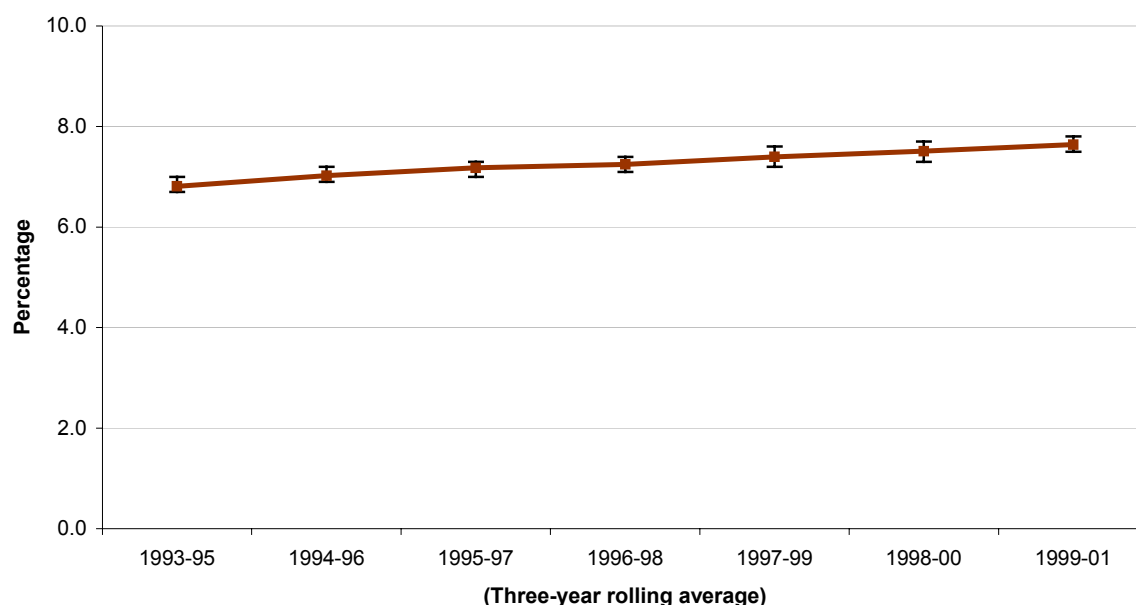


Figure 4.1.1 shows the trend in the proportion of low birth weight babies as 3-year rolling averages with 95% confidence limits. The proportion of low birth weight babies has increased by less than one percentage point from 6.8% in 1993-1995 to 7.6% in 1999-2001. However, it is likely that this increase is statistically significant.

Figure 4.1.2

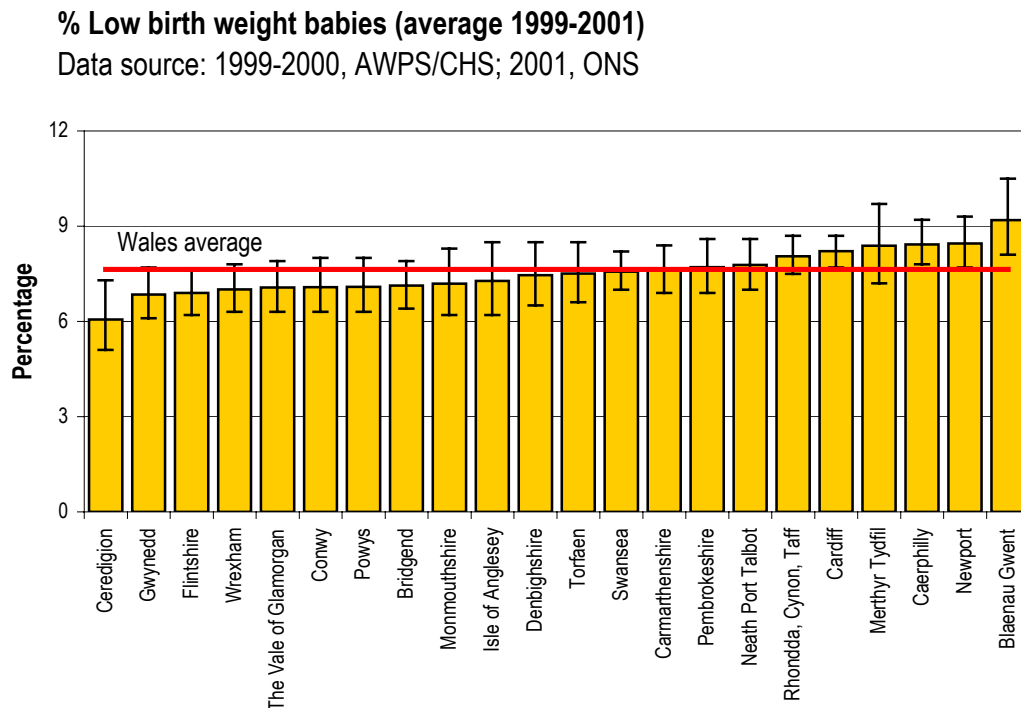
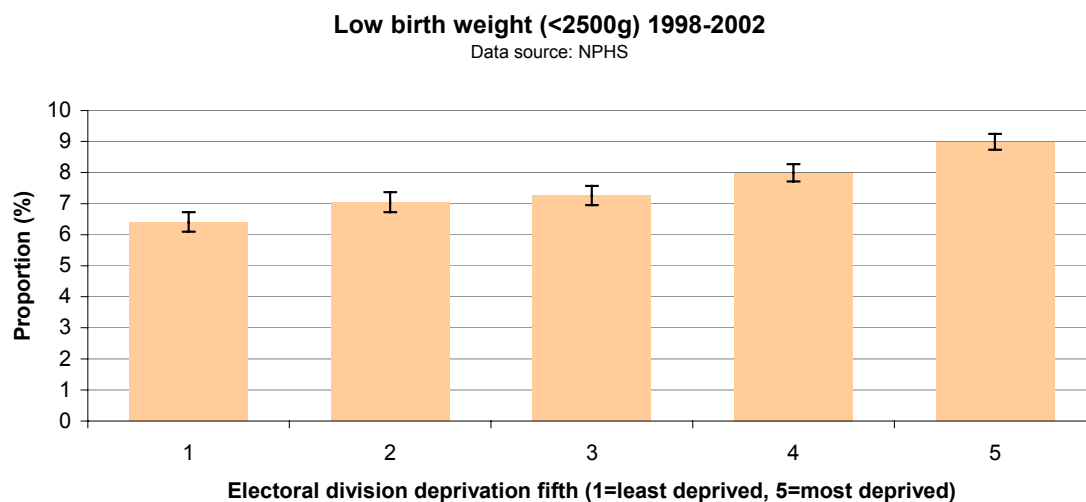


Figure 4.1.2 shows the proportion of low birth weight babies at local authority level between 1999-2001 together with 95% confidence limits. The chart shows that the more deprived areas of Wales tend to have a higher proportion of low birth weight babies. This is confirmed by figure 4.1.3. This displays the proportion of low birth weight babies at electoral division level grouped by fifths of deprivation, as measured by the Townsend index. The chart shows that between 1998 and 2002 the proportion of low birth weight babies in the least deprived fifth was 6.4% whilst in the most deprived fifth it was 9%. The ratio of the rate of low birth weight babies in the most deprived fifth compared to the least deprived fifth was 1.4, or in other words 40% higher.

Figure 4.1.3



Multiple births are more likely to lead to low birth weights, as are still births which are more likely to be premature.³⁰ The rate of multiple births has risen in recent years due to the increased availability of in vitro fertilisation (IVF) services. Uptake of IVF is higher amongst people from less deprived backgrounds.³⁰ If the analysis is restricted to singleton live births, the ratio of low birth weight babies in the most deprived fifth compared to the least deprived fifth is 1.6, or in other words 60% higher.

A full report on the association between socio-economic deprivation and health outcomes will shortly be available on the NPHS website.³¹

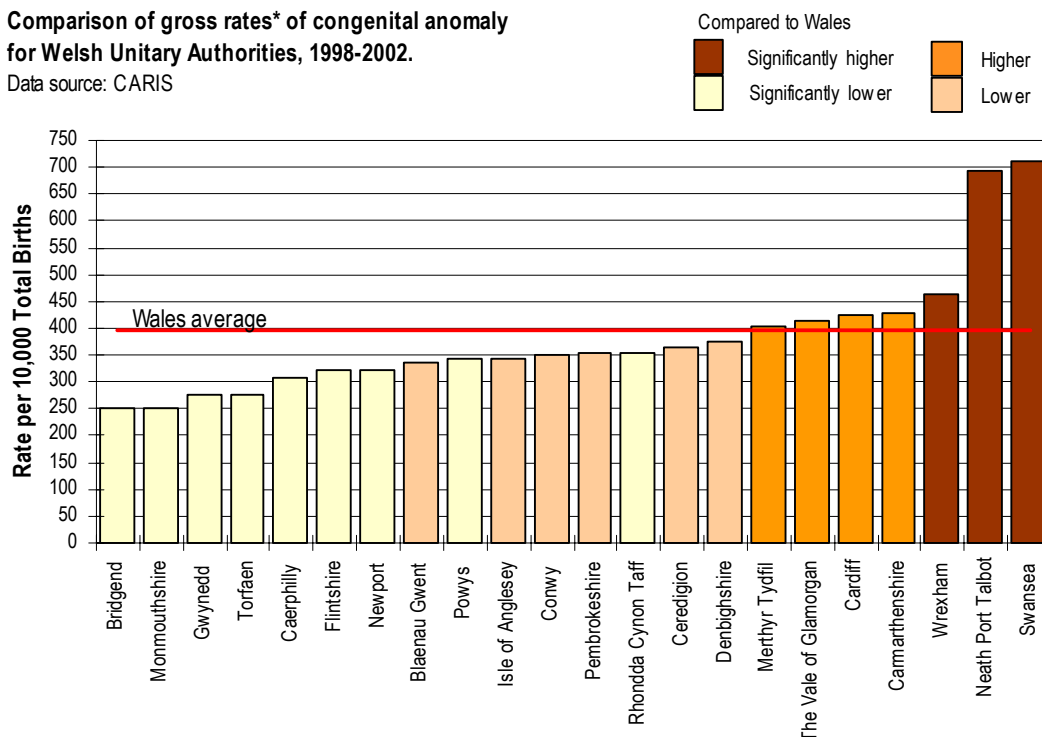
4.2 Congenital anomalies

The Congenital Anomaly Register and Information Service for Wales (CARIS) aims to provide reliable data on congenital anomalies (or birth defects) in Wales using a multiple reporting system that includes data from clinical and laboratory sources. The multiple reporting system helps CARIS to maintain data quality. Reports are included on cases resulting in miscarriage or termination. Clinical reporting is the most important source of information for CARIS especially for those children who die but do not have post mortem examinations and for those who survive and have anomalies requiring immediate specialist help. Gross rates (see figure 4.2.1 for a definition) of congenital anomalies and the main anomaly groups are included within this profile. Further information is available from the CARIS internet site at www.wales.nhs.uk/caris. CARIS are planning to include additional data on their website relating to selected cases, where reporting is believed to be reliable and the anomaly is believed to be of clinical significance.

Figure 4.2.1

Comparison of gross rates* of congenital anomaly for Welsh Unitary Authorities, 1998-2002.

Data source: CARIS



*The total number of cases reported to CARIS per 10,000 live & stillbirths. Cases ending in live or stillbirth, termination of pregnancy or spontaneous fetal loss are included in this figure.

Studies have shown that around 30% of all pregnancies are affected by congenital anomalies, although the vast majority of these spontaneously miscarry in very early pregnancy. CARIS has confirmed cases of congenital anomaly in about 4% of established

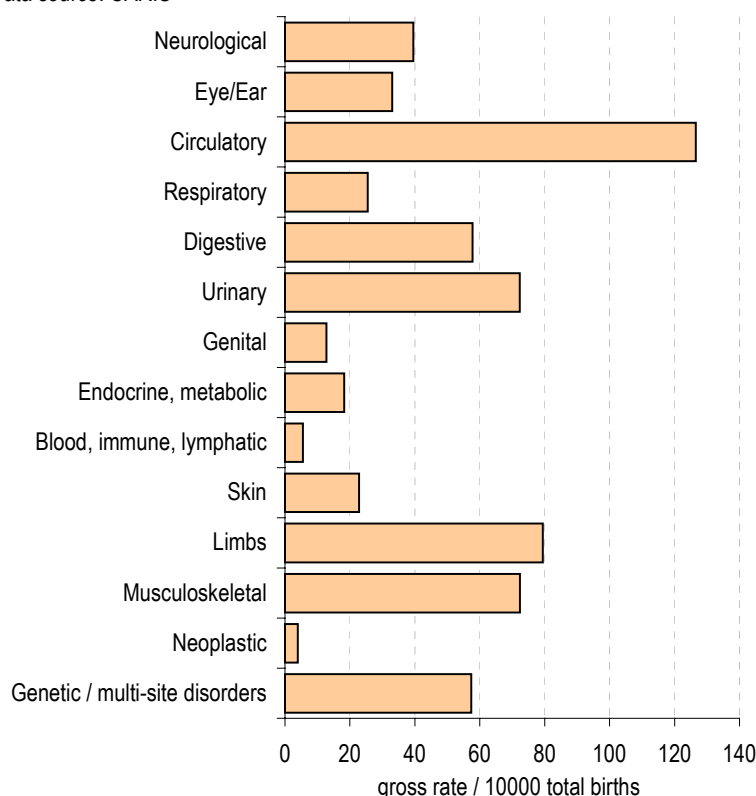
pregnancies. Some of these pregnancies end in later spontaneous loss of the foetus or termination of the pregnancy following antenatal detection of anomalies. Consequently, a smaller proportion (3.3%) of live births is affected. Figure 4.2.1 illustrates differences in the reported rates of anomalies across Wales. Statistically significantly higher rates can be seen in Wrexham, Swansea and Neath Port Talbot compared with the rest of Wales. It is likely that variation in reporting arrangements accounts for these differences, although the data are being kept under close review by CARIS.

A baby or foetus may have several anomalies, the average reported to CARIS being 2.3 anomalies per case. Significantly more boys than girls are born with congenital anomalies. All anomalies reported to CARIS are coded using the Royal College of Paediatrics and Child Health expansion of ICD-10.³² The Office for National Statistics (ONS) groups anomaly codes into broad categories. CARIS has modified the ONS grouping system to aid assessment of anomalies in Wales. Figure 4.2.2 shows that circulatory anomalies are the largest group in Wales, followed by limb anomalies.

Figure 4.2.2

Main anomaly groups for all cases reported to CARIS, 1998-2002

Data source: CARIS

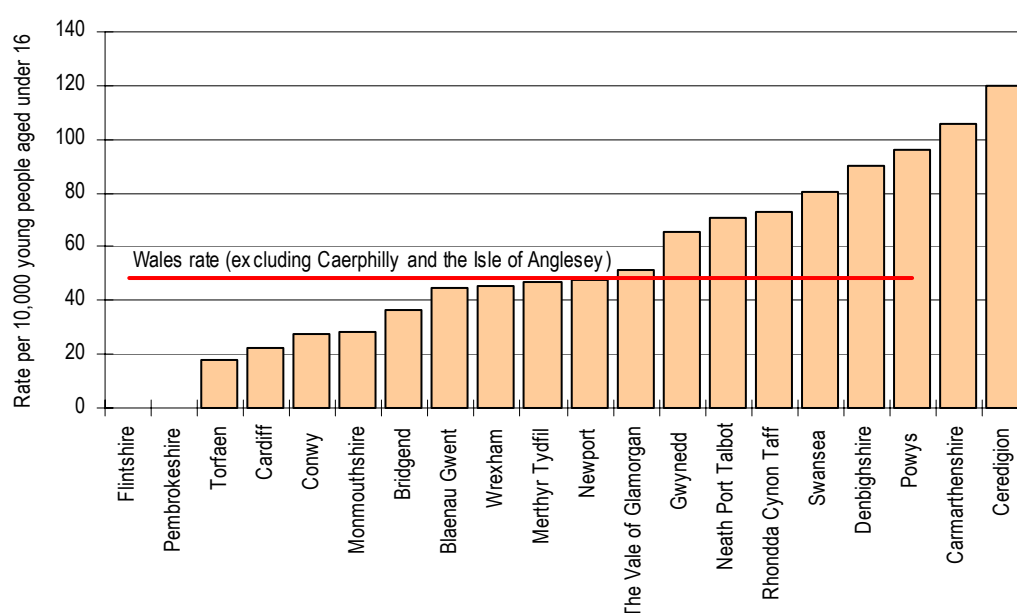


4.3 Disability

In the year ending 31st March 2003, 2,805 young people aged under 16 years of age in Wales were registered as having a learning disability.³³ At local authority level this ranged from no children in Flintshire and Pembrokeshire to 360 in Carmarthenshire. Figure 4.3.1 shows these data expressed as a rate among children aged under 16 years. It is clear that there is considerable variation across Wales, much of which is attributable to differences in reporting arrangements (Caerphilly and the Isle of Anglesey were not able to provide details relating to children with learning disabilities and are therefore not included in these data). It should be noted that registers of people with learning disabilities only include people identified as having a learning disability who are currently known to their local authority for the purpose of planning or providing services, and registration is voluntary.³⁴

Figure 4.3.1

**Young people aged under 16
on the learning disabilities register as at 31st March 2003**
Data source: LGDU - Wales



4.4 Oral Health

Tooth decay is a common preventable illness, which causes pain and discomfort. The major causes of dental decay in children are the consumption of sugary food and drinks and failing to brush teeth regularly with fluoride toothpaste. Children living in deprived areas tend to have fewer natural teeth, more dental disease and, in those populations with dental disease, more severe disease levels.³⁵ In addition, children living in deprived areas are less likely to be registered with a dentist.

Dental data for children in Wales are collected as part of a rolling programme of annual national surveys, gathered from a randomly selected sample of schools throughout Wales. Five year olds are surveyed every two years whilst 12 and 14 year olds are surveyed every four years. Although improvements have been made in the last few decades, the prevalence of dental caries (tooth decay) in children remains high. The prevalence of dental caries experience is measured using the decayed, missing or filled teeth index for deciduous (dmft) or permanent teeth (DMFT). The number of decayed deciduous (dt) or decayed permanent teeth (DT) is a measure of untreated disease.

Figure 4.4.1

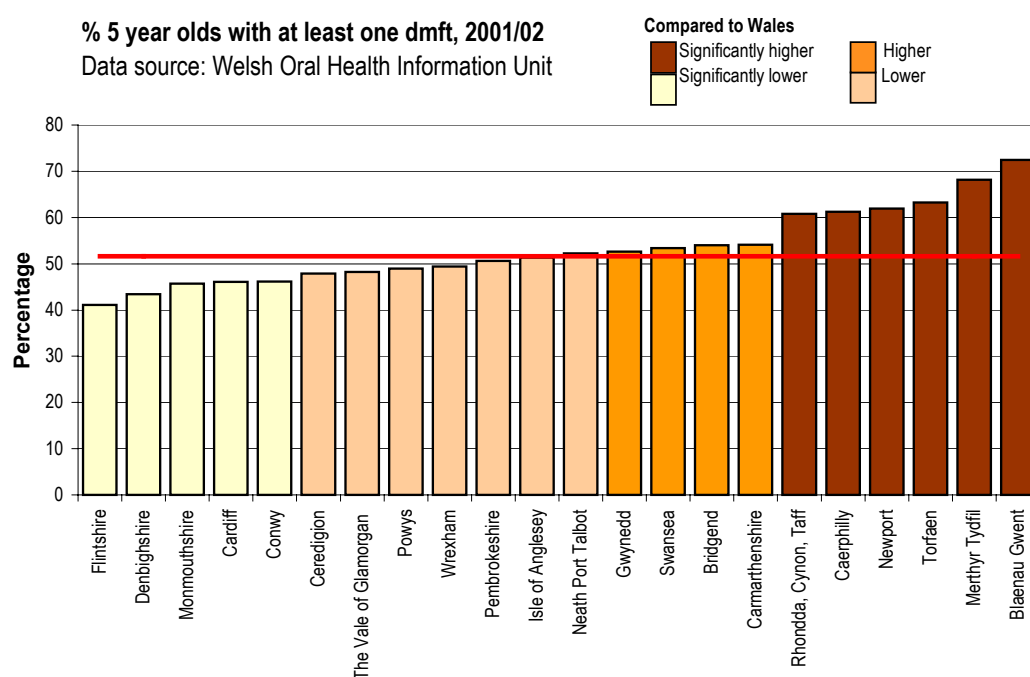


Figure 4.4.1 shows the percentage of 5 year olds with at least one decayed, missing or filled tooth (dmft) in 2001/2002. The chart shows very high percentages of dmft among 5 year olds in the South Wales valleys and Newport. Even in the areas with the lowest prevalence of disease, almost half of children have at least one dmft.

Figure 4.4.2

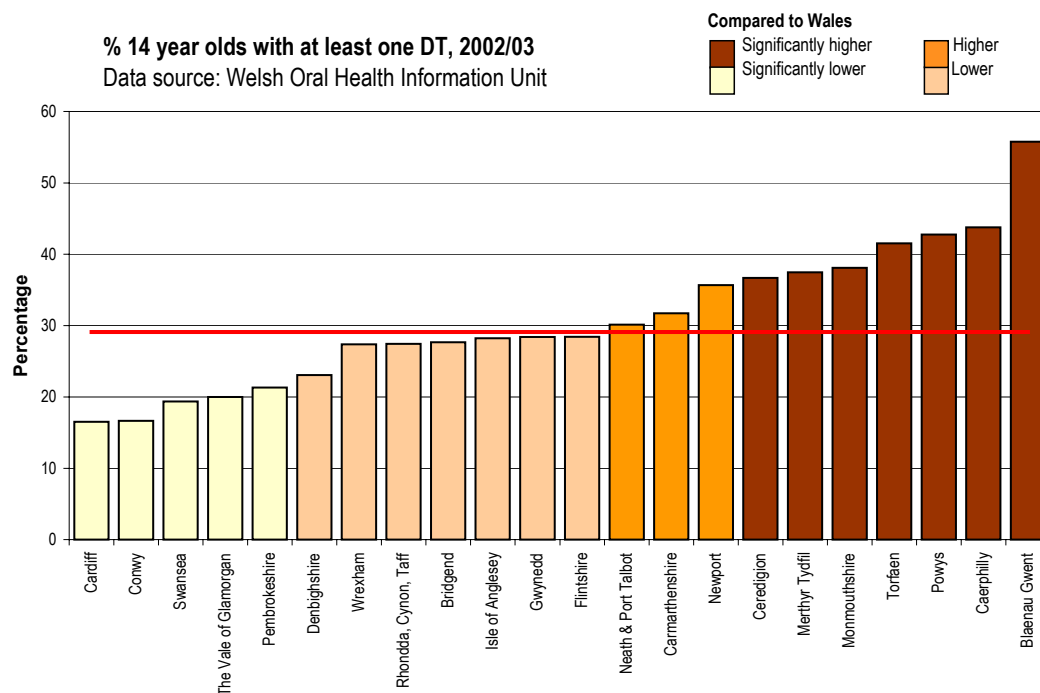


Fig 4.4.2 displays the percentage of 14 year olds with at least one decayed (adult) tooth (DT) which has not been treated. DT is a measure of unmet need for treatment. The chart shows that Blaenau Gwent had the highest percentage of DT in 14 year olds, statistically significantly higher than Wales, and much higher than any other local authority. It should, however, be borne in mind that these data come from a rolling survey of a sample of children. Lower proportions can be found in Cardiff, Conwy, Swansea, the Vale of Glamorgan and Pembrokeshire.

Section 3.4 (table 3.4.1) reported the results from the Health Behaviour in School aged Children (HBSC) study in Wales.¹⁵ As the figures are derived from data that are self-reported, they should be treated with a degree of caution. However, results indicate that just under half of children in Wales eat sweets or chocolate on a daily basis. School based action to promote and deliver healthy eating could reduce tooth decay among older children.

Fluoride exposure and frequency of sugar consumption affect dental decay. Poverty and deprivation also contribute, for instance, a child is less likely to use a toothbrush and fluoride toothpaste in a low-income family. Fluoridating water helps to reduce tooth decay, but, as yet, there are no water fluoridation schemes in Wales.³⁶ By adjusting the fluoride content of water supplies to one part per million, the whole community could benefit.³⁷ Water fluoridation reduces health inequalities because children who benefit most are those with the poorest oral health (WHO, 1994).³⁸

The use of fluoride toothpaste has had a major impact in reducing the levels of dental decay over the past 30 years. Regular tooth

brushing with fluoride toothpaste decreases the chances of tooth decay and gum disease. This is important for younger children as extraction of milk (deciduous) teeth, due to decay, can lead to overcrowding in the permanent teeth and subsequent orthodontic treatment (braces) in later life. An early experience of dental pain can jeopardise future attendance at the dentist.³⁷

Figure 4.4.3

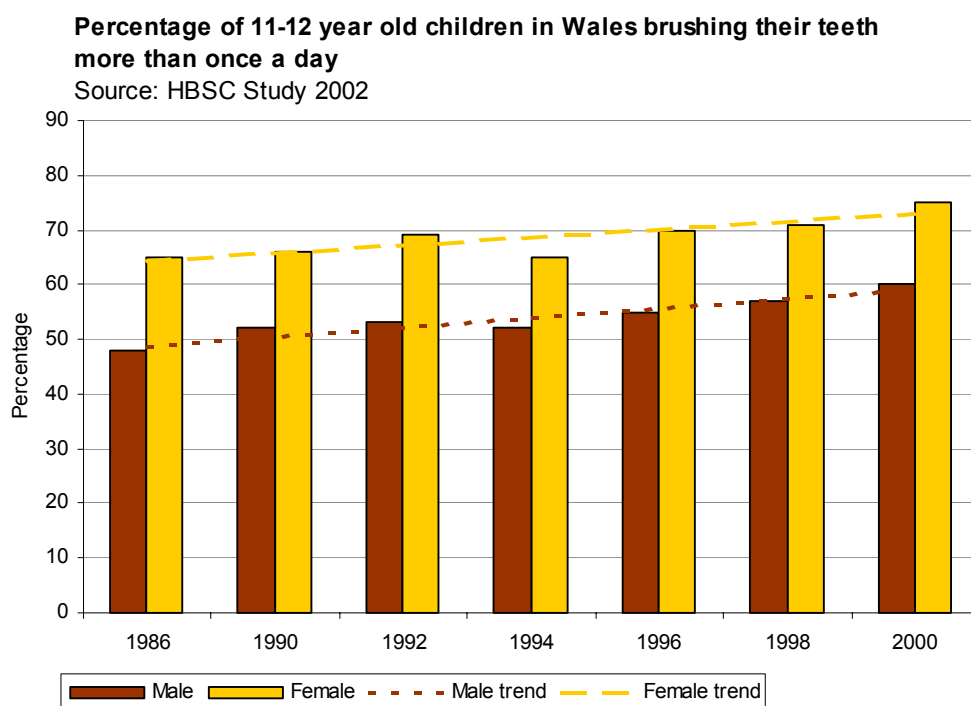


Figure 4.4.4

Percentage of 13-14 year old children in Wales brushing their teeth more than once a day

Source: HBSC Study 2002

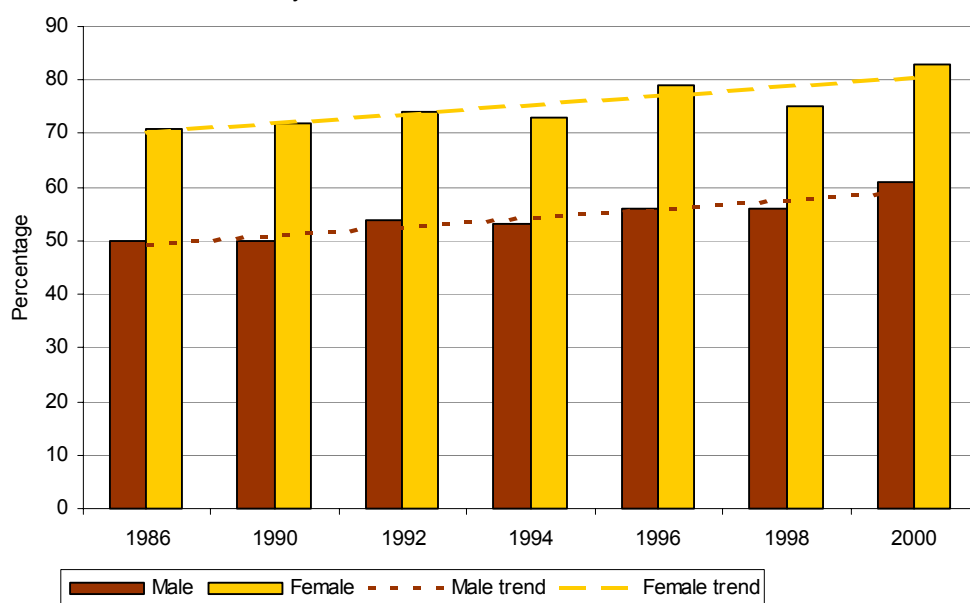
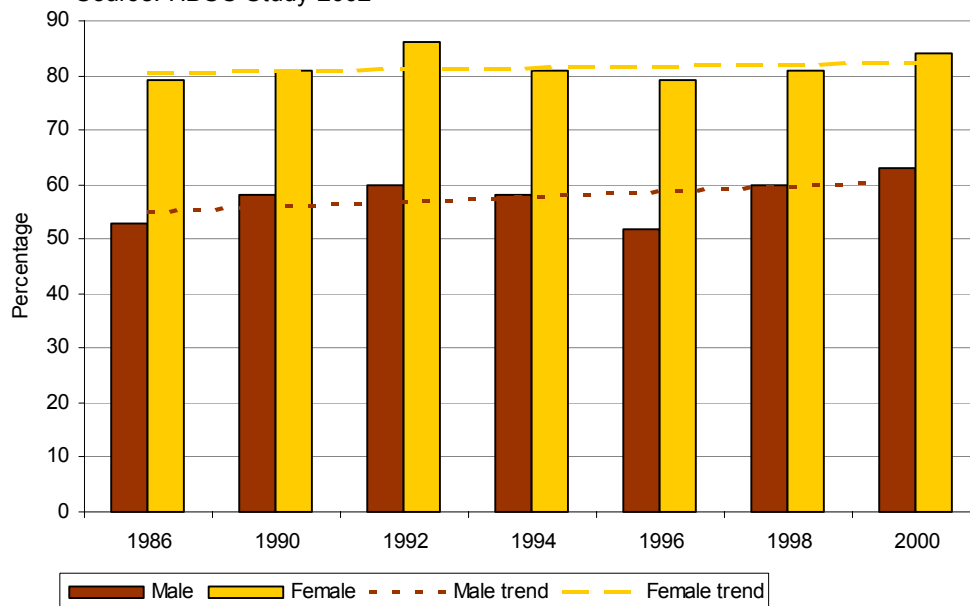


Figure 4.4.5

Percentage of 15-16 year old children in Wales brushing their teeth more than once a day

Source: HBSC Study 2002

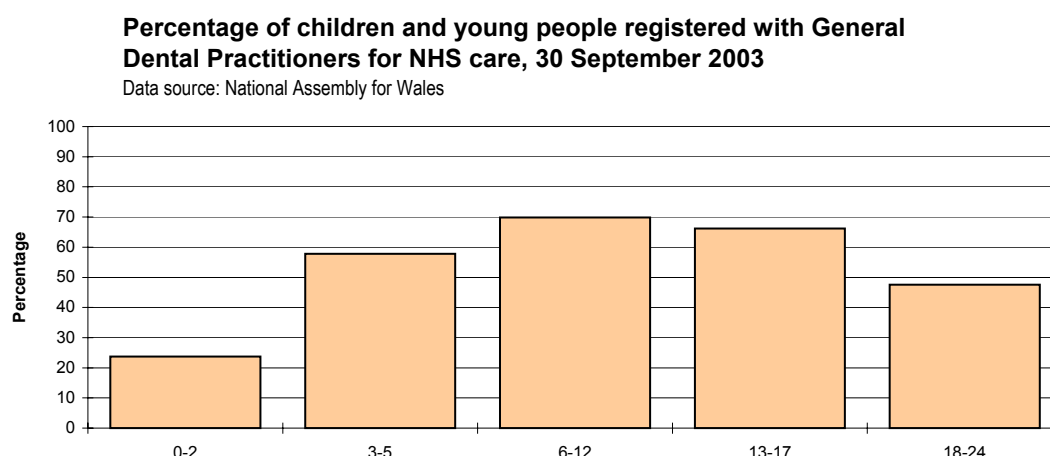


Figures 4.4.3, 4.4.4 and 4.4.5, covering the period 1986 to 2000, show a steady rise in the proportion of teenagers brushing their teeth more than once a day. In all three age groups there are higher proportions of females compared to males brushing their teeth more than once a day. The data indicate that higher proportions of older teenagers brush their teeth more than once a day.

The prevention of tooth decay among adolescent children is important. This is because any damage is permanent since all deciduous teeth will have been lost. Teenagers are more independent and are unlikely to rely on parental supervision for tooth brushing.

The Welsh Assembly Government is committed to ensuring that everyone in Wales, who wishes to, has access to an NHS dentist.³³ Once registered with an NHS dentist, patients need to visit their dentist at least once every 15 months or they will lose their registration status. Some patients experience difficulty finding a NHS dentist. In parts of Wales there are no or few dentists accepting NHS patients. Therefore, people may have to travel some distance to receive NHS treatment or pay for private treatment.

Figure 4.4.6

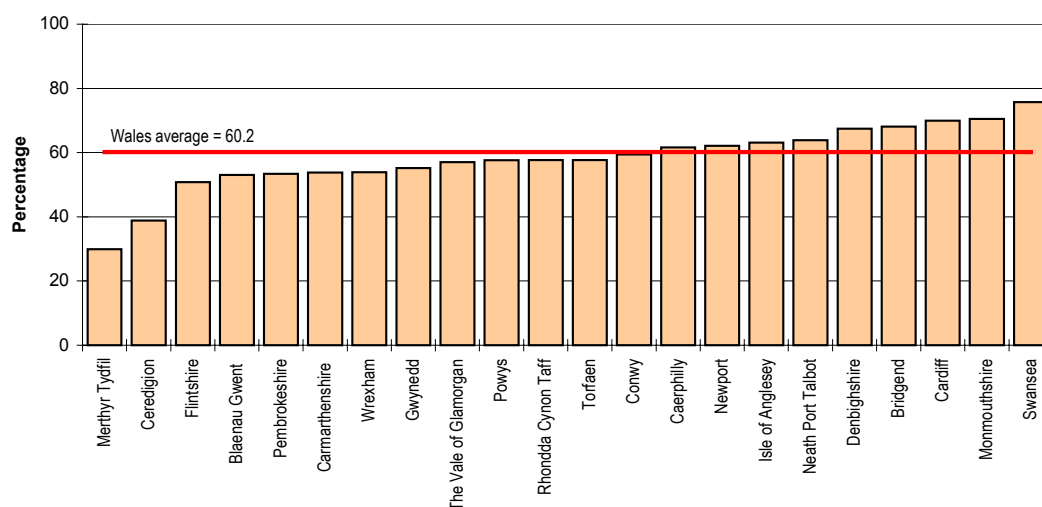


The number of active registrations with an NHS dentist for children aged under 18 years stood at 396.6 thousand at 30 September 2003.³⁹ Figure 4.4.6 reveals that a higher percentage of children aged 6-12 years were registered with a dentist for NHS care than any other age group shown.

Figure 4.4.7

**Percentage of children registered with a General Dental Practitioner for NHS care
by unitary authority* as at 30 September 2003**

Data source: Welsh Assembly Government



* based on the area where the practice is located rather than the area of residence of the patient.

It is important to recognise that the proportion of children registered with an NHS dentist is influenced by both demand and supply-side factors. Figure 4.4.7 shows that higher proportions of children aged under 18 years are registered with an NHS dentist in Cardiff, Monmouthshire and Swansea. In contrast, Merthyr Tydfil has by far the lowest percentage of children registered with a dentist in Wales.³⁹ However, many children in Merthyr Tydfil receive care from the Community Dental Service (CDS). The CDS do not register patients so the number of children receiving care is higher than the registration level.

4.5. General Practice Morbidity Database and Prescribing Data

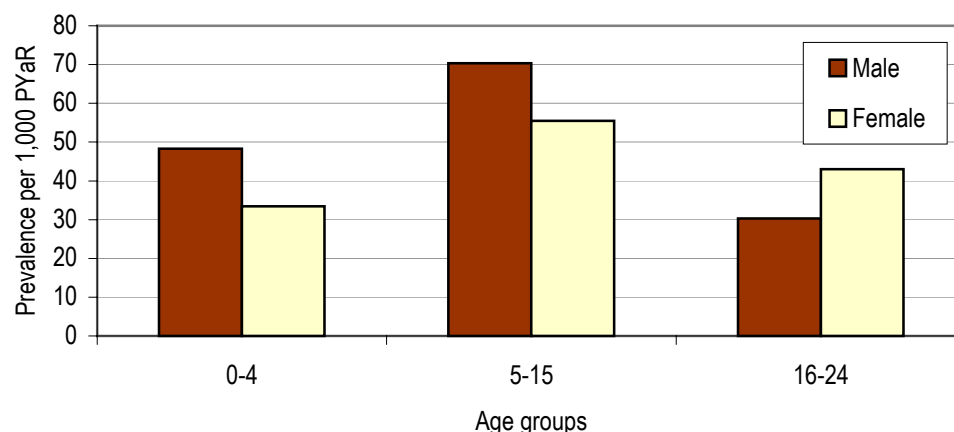
The General Practice Morbidity Database (GPMD) aims to include anonymised data from general practice computer systems for at least 10% of the Welsh population. During 1999 and 2000, the project included a total of 34 and 38 practices respectively (approximately 12% of the Welsh population). Most of the practices are located in the more densely populated areas of Wales, that is South and North East Wales. At unitary authority level, coverage varies, ranging from no coverage in Powys, Bridgend, Monmouthshire and Blaenau Gwent to 36% in Swansea. The age/sex distribution of the GPMD population is similar to that of the Welsh population.⁴⁰ This profile includes prevalence data from the GPMD relating to common childhood illnesses.

GPMD data are reported as rates per person years at risk (PYaR). This is a way of calculating accurate prevalence rates when subjects have been observed for varying degrees of time, as is the case with the GPMD population. It is the sum of the years at risk for each of the subjects. Each subject contributes only as many years of observation to the population at risk as the period over which that subject has been observed. Figure 4.5.1 shows the age and sex prevalence of asthma in young people aged under 24 years per 1,000 PYaR in 2000. Reported prevalence is higher in the 5-15 year age group. The GPMD reports all age prevalence of asthma as 39.7 per 1,000 PYaR.⁴¹

Figure 4.5.1

Asthma age / sex prevalence per 1,000 PYaR, 2000

Data source: GPMD

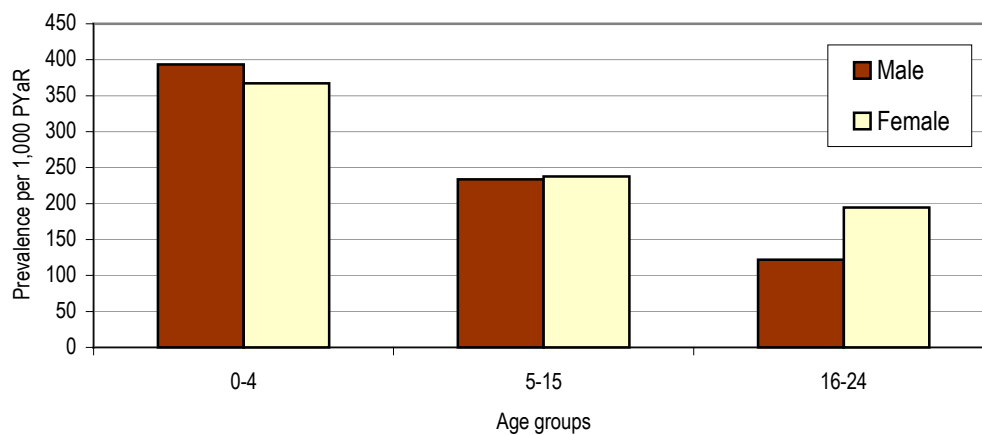


Further information on asthma may be gleaned by identifying those with monitoring and procedural measures provided within primary care (recorded peak flow rate), as well as referrals and use of secondary care and prescribed drugs.

Figure 4.5.2 shows the age and sex prevalence of upper respiratory tract infections in young people aged under 24 years per 1,000 PYaR in 2000. All age prevalence per 1,000 PYaR is reported as 145.5. Figure 4.5.2 indicates higher prevalence amongst younger children.⁴¹

Figure 4.5.2

Upper respiratory tract infection age/sex prevalence per 1,000 PYaR, 2000 Data
source: GPMD



Anaphylaxis is a sudden, severe, potentially fatal, systemic allergic reaction.⁴² Individuals with asthma, eczema, or hay fever are at greater relative risk of experiencing anaphylaxis. Insect stings and certain foods including peanuts are also recognised risks.⁴²

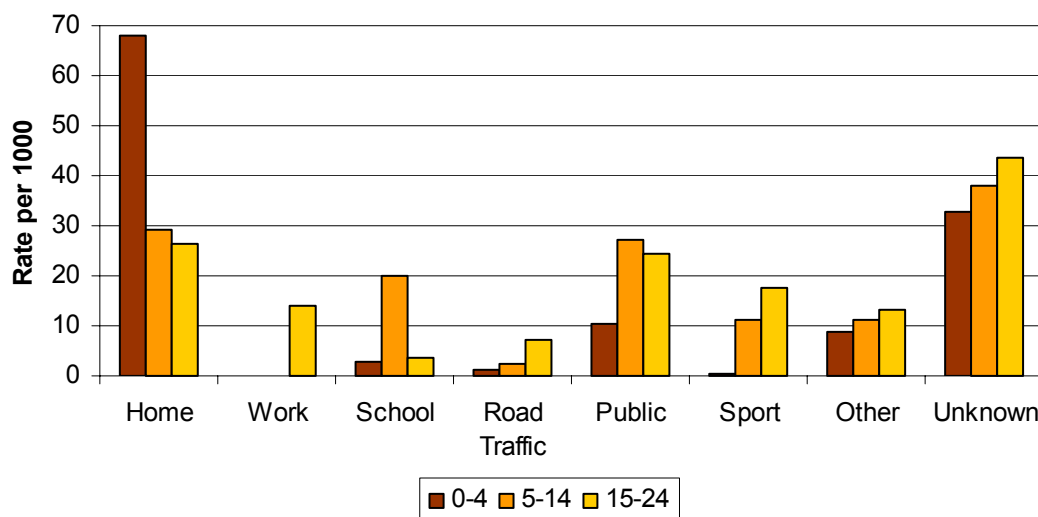
Patients with severe allergy to insect stings or foods are encouraged to carry prefilled adrenaline syringes for *self-administration* (epipens) during periods of risk.⁴³ This has particular implications for children in childcare and school settings since teaching staff may need to administer the syringe. In Wales during the 12 month period to September 2003, 1,381 junior epipens were prescribed at cost of £78,678. Analysis of data at local authority level is not included since it is likely to be extremely sensitive to local prescribing practices.

4.6 Accidents and injuries

Accidents and injuries are a major cause of morbidity and mortality in children and young people and are thus an important public health problem. The data in this section are from the All Wales Injuries Surveillance System (AWISS) and STATS19. AWISS collects data on attendances at accident and emergency departments across Wales. STATS19 is a database held by the Police and is used for recording injuries occurring in road traffic accidents.

Figure 4.6.1

Accidents by location in selected Welsh Local Authorities* Rate/1000
(1999-2001) Source: AWISS



*Excluding: Isle of Anglesey, Gwynedd, Ceredigion, Powys, Carmarthenshire, Merthyr Tydfil and Caerphilly

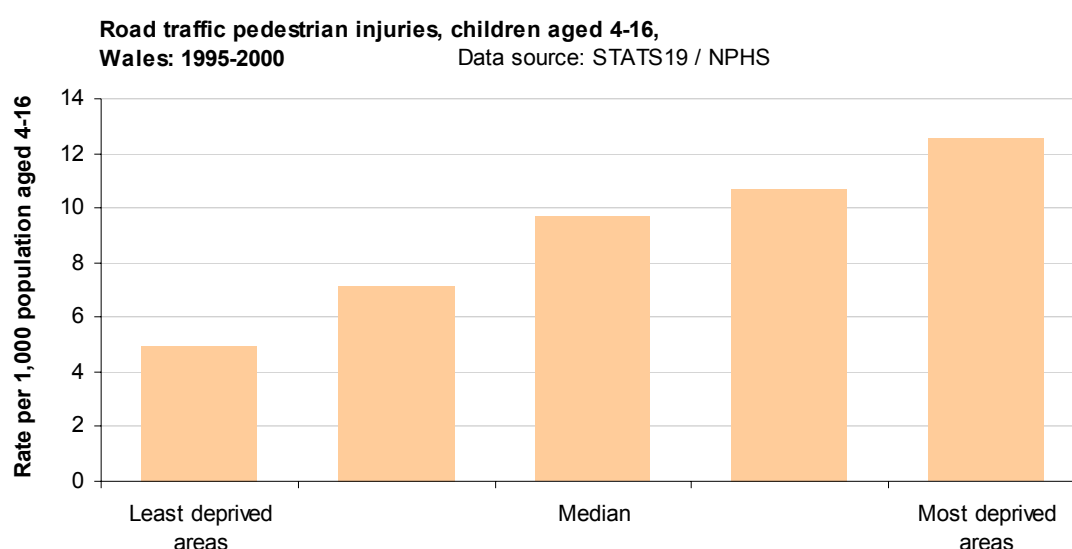
Figure 4.6.1 shows the age specific rate per 1,000 children by age group for accidents, according to where the accident occurred. Data are shown for all local authorities in Wales where data was available, namely: Blaenau Gwent; Bridgend; Cardiff; Conwy; Denbighshire; Flintshire; Monmouthshire; Newport; Neath Port Talbot; Pembrokeshire; Rhondda Cynon Taff; Swansea; Torfaen; the Vale of Glamorgan; and Wrexham.

The figure shows a higher rate of accidents occurring at home for children aged 0-4 years, and comparatively lower rates in the older age groups. Among older age groups, although high rates of home accidents are still reported, the proportion of accident and emergency attendances resulting from accidents occurring in schools, public places and playing sport are higher.

The 'unknown' group includes all those accidents where AWISS was not able to determine the location or where the data were missing. Large proportions of accident and emergency attendances are in the 'unknown' group highlighting problems with data recording in busy Accident and Emergency departments.

The 'other' group includes activities/places such as agriculture and licensed premises for example. As the number of accidents related to agriculture is quite low, it is assumed that accidents on licensed premises account for a large proportion of injuries occurring in 'other' locations.

Figure 4.6.2



All injuries reported to the police, regardless of severity, are included on the STATS 19 database. Figure 4.6.2 shows road traffic accidents (based on the place of injury occurrence) by fifths of deprivation, as measured by the Townsend index of deprivation (1991).⁴⁴ It is known that these data may underestimate the number of road traffic pedestrian injuries, as people who are involved in less serious accidents may not involve the police. More road traffic accidents are treated in accident and emergency departments than are recorded by the police.

The chart shows that there is a strong relationship between deprivation and pedestrian injuries, with higher rates in the most deprived fifth.³¹

Figure 4.6.3

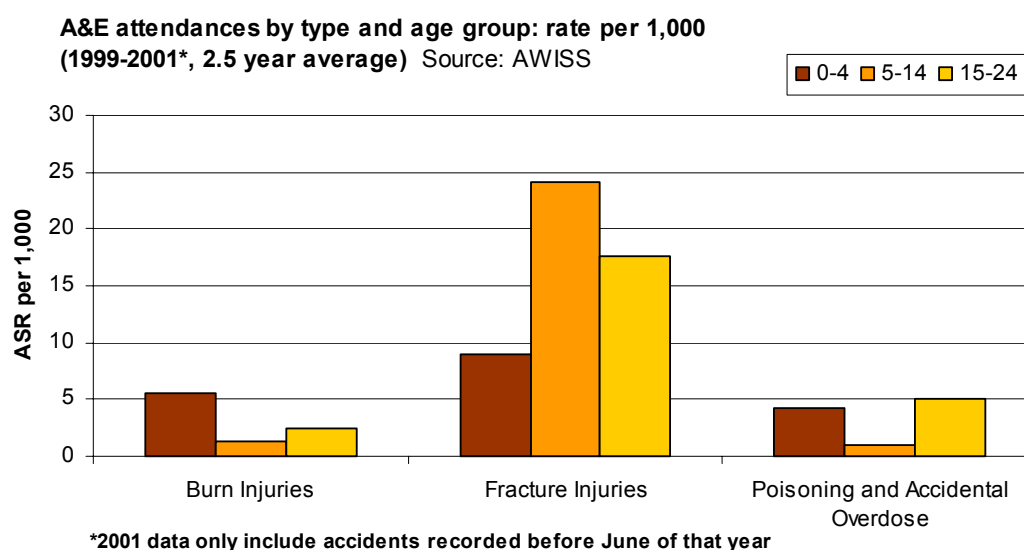


Figure 4.6.3 shows two and a half year average age specific rates per 1,000 for burns, fractures and poisoning and accidental overdoses at Accident and Emergency units. The chart illustrates that the rate of burns is highest in the 0-4 age group, most of which occur at home. Fracture injuries show a relationship with mobility. Children aged between 5 and 14 have higher fracture rates as a result of greater risk exposure related to, for example, sport. As individuals enter the 15-24 age group the fracture rate falls, and this may reflect the fact that they tend to be less active than the 5-14 age group. Rates for poisoning and accidental overdose fluctuate across the age groups. The 0-4 age group shows a higher rate than the 5-14 age group, primarily because children of ages 0-4 are unaware of the dangers posed by household chemicals and medicines. The 15-24 year old age group has higher rates which are linked to drug and alcohol misuse and also self-harm.

4.7 Hospital admissions

Children are major users of secondary health care. During the three year period 1999/2001 there were 339 thousand admissions to hospital by children or young people aged under 24 years in Wales (elective and emergency, inpatient and daycase). Figure 4.7.1 shows that the highest admission rates occur in the under 1 age group. This is partly attributable to obstetric admissions. Admission rates are highest in males except in the 15-19 and 20-24 age groups.

Figure 4.7.1

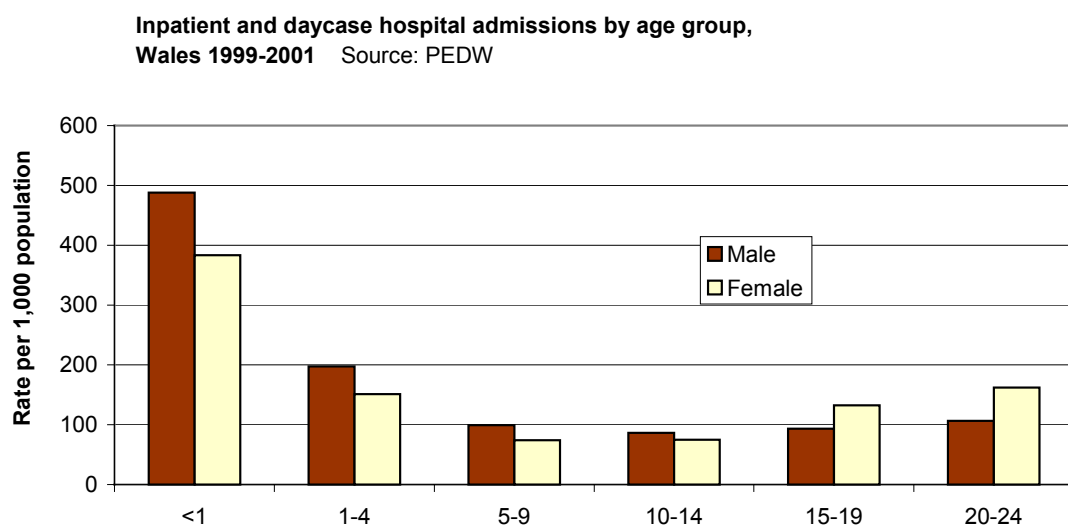


Figure 4.7.2 shows elective and emergency inpatient and daycase hospital admissions in young people aged under 24 years of age. Merthyr Tydfil has the highest admissions in both males and females. The lowest admission rates amongst males can be found in Flintshire and Powys whilst the lowest admission rates in females are to be found in Ceredigion.

Figure 4.7.2

**Inpatient and daycase admissions in persons aged under 24 years of age
1999-2001** Source: PEDW

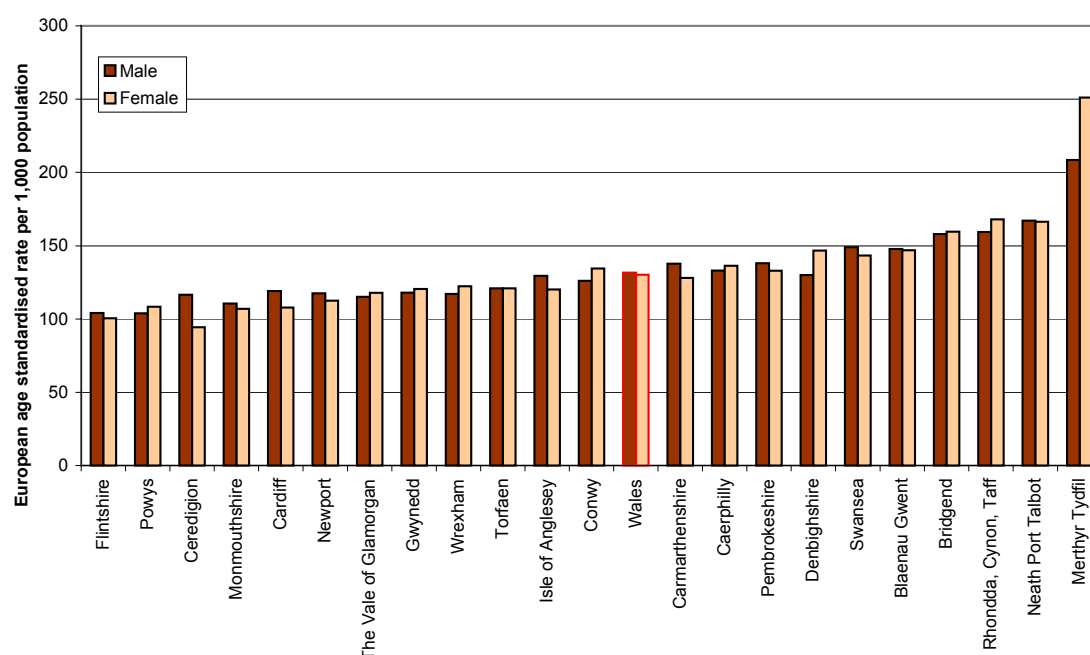


Table 4.7.1 shows the number of admissions by age group, of those admissions with a diagnostic code (just under 1% were uncoded). Respiratory diseases were one of the most important reasons for admission, followed by injury and poisoning.

**Table 4.7.1 Hospital admissions NHS inpatient and daycase admissions by cause
Wales 1999/2001**

	<i>thousands</i>					
	<1	01-04	05-09	10-14	15-19	20-24
Certain infectious and parasitic diseases	6.2	9.4	3.2	1.8	1.4	1.1
Diseases of the ear and mastoid process	0.3	3.1	3.7	1.6	0.8	0.5
Diseases of the respiratory system	10.6	18.7	8.6	5.2	5.2	3.8
Diseases of the digestive system	3.6	6.0	5.3	5.9	5.6	6.8
Diseases of the genitourinary system	1.1	3.0	2.6	2.1	4.1	6.3
Pregnancy childbirth and the puerperium	0.0	0.0	0.0	0.2	8.5	11.9
Certain conditions originating in the perinatal period	4.0	0.1	0.1	0.0	0.0	0.0
Congenital malformations deformations and chromosomal abnormalities	2.3	2.7	1.7	1.5	0.7	0.3
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	7.6	10.4	6.0	7.5	8.2	8.3
Injury, poisoning and certain other consequences of external causes	1.5	8.4	7.7	9.6	12.8	11.8
Other	4.8	10.3	10.1	11.7	14.6	15.9
Total	42.0	72.2	48.9	47.2	62.1	66.7

Source: PEDW

Figure 4.7.3

Injury and poisoning emergency admissions Wales: 1999-2001

Data source: PEDW

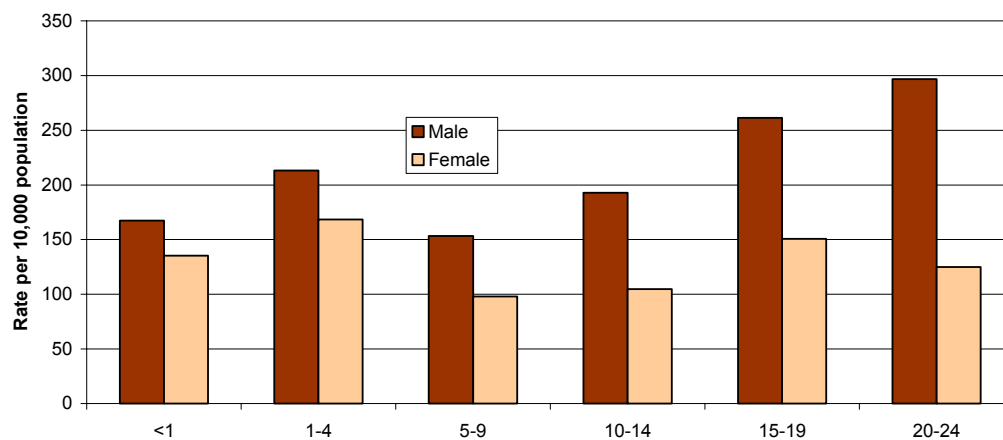


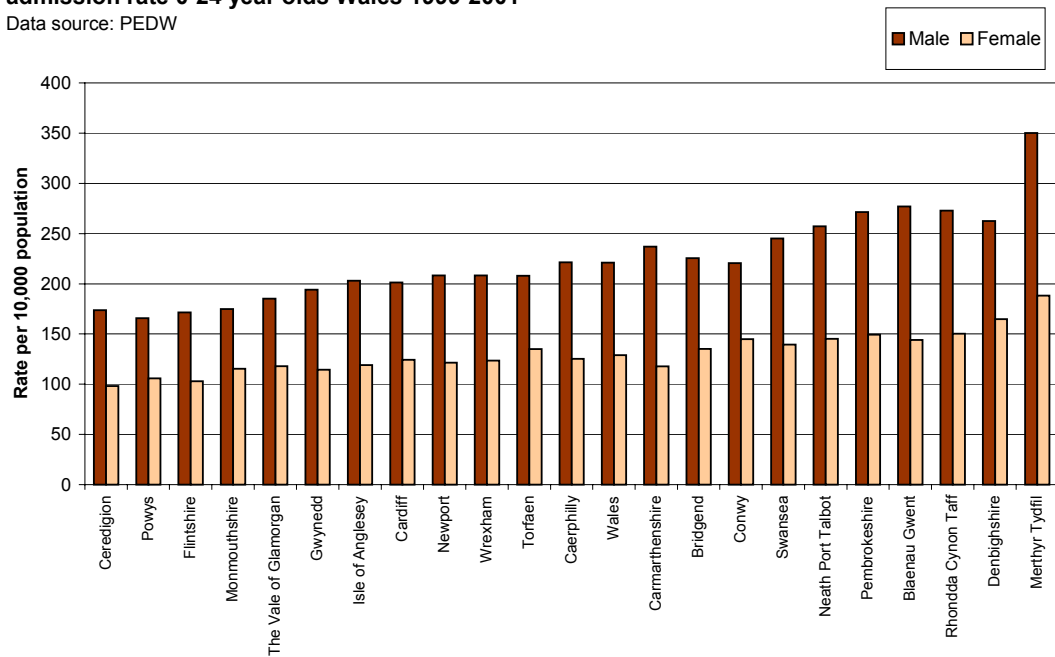
Figure 4.7.3 shows that emergency admissions for injuries and poisonings for both males and females are lowest in the 5-9 age group. Amongst females admissions are highest in the 1-4 years age group. Admissions are higher in every age group amongst males with the highest admissions amongst the 20-24 year old age group.

Figure 4.7.4 shows that emergency admissions for injuries and poisonings are higher amongst males compared to females for all areas. In general terms, emergency admissions from injuries and poisonings can be seen to be higher in the South Wales Valleys such as Merthyr Tydfil and lowest in Ceredigion and Powys.

Figure 4.7.4

**Injury and poisoning emergency admissions European age standardised
admission rate 0-24 year olds Wales 1999-2001**

Data source: PEDW



4.8 Childhood Cancer

Childhood cancer is relatively rare.⁴⁵ The Welsh Cancer Intelligence and Surveillance Unit (WCISU) collects data on the incidence of cancer in Welsh residents. Further information is available from their website at www.wales.nhs.uk/wcisu. Figure 4.8.1 shows data on cancer incidence in children and young people aged under 24 years. Among young people (aged under 20 years) peak incidence occurs in the first five years of life.⁴⁶

Figure 4.8.1

European age standardised incidence rates for cancers in children and young people aged under 24 years, 1992-2001: Wales
Data Source: WCISU

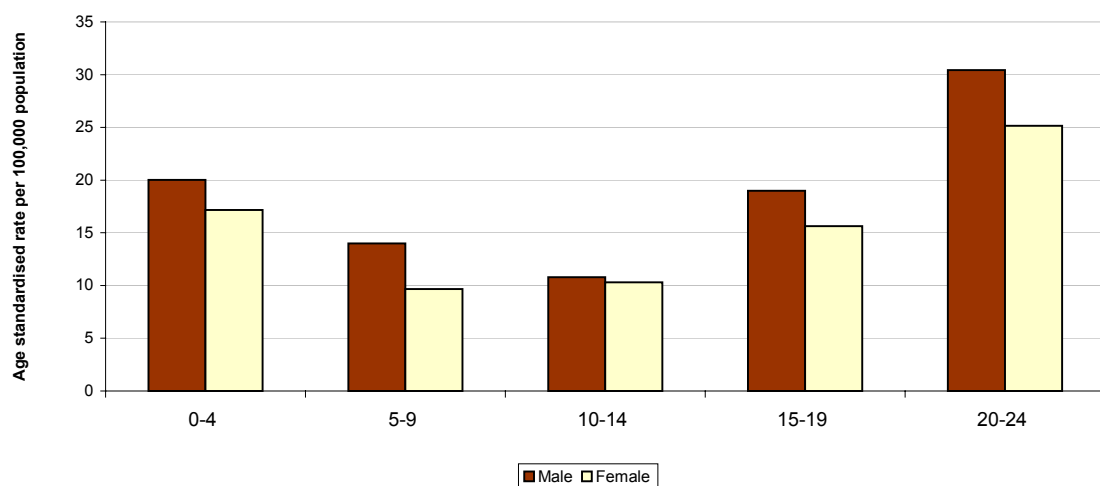
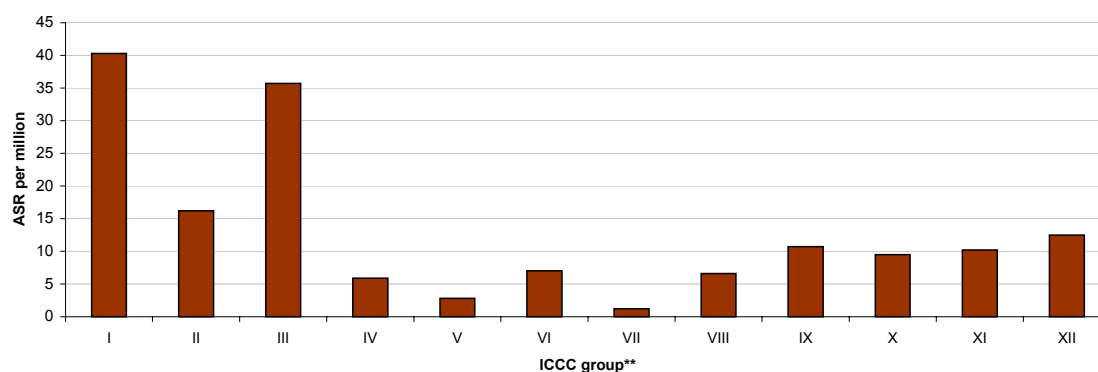


Figure 4.8.1 shows that for all age groups, cancers among children and young people are slightly more common in males than in females.^{46, 47, 48} It is important to note that the profile of disease differs according to the age of children, with the pattern of occurrence in young people aged 20-24 years, more closely resembling the pattern seen in adults.⁴⁵

Figure 4.8.2

World* age standardised incidence rates for all cancers in children (aged under 18 years) by ICCC group 1992-2001: Wales.**
Data Source: WCISU



* Standardised to world population for comparability with UK and European data.⁴⁹

**ICCC is an update of the Birch-Marsden classification, which takes into account the second edition of the International Classification of Diseases for Oncology (ICD-02) and the 10th revision of the International Classification of Diseases (ICD-10). See below for the key to ICCC groups.

Key to ICC groups:

- I Leukaemia
- II Lymphoma and reticuloendothelial neoplasms
- III CNS and miscellaneous intracranial and intraspinal neoplasms
- IV Sympathetic nervous system tumours
- V Retinoblastoma
- VI Renal tumours
- VII Hepatic tumours
- VIII Malignant bone tumours
- IX Soft tissue sarcomas
- X Germ-cell, trophoblastic and other gonadal neoplasms
- XI Carcinomas and other malignant epithelial neoplasms
- XII Other and unspecified malignant neoplasms

Figure 4.8.2 shows age standardised incidence rates for cancers in children aged under 18 years. The most common group of diagnoses is leukaemia (24.7%), with an age standardised rate of 40.3 per million. The next most common is brain and spinal neoplasms (22.4%), followed by lymphomas (10.8%). The least common group of diagnoses in this age group is hepatic tumours (0.6%).

The five-year survival rate for childhood cancer (0-14 years) is reported as 75% in England and Wales, comparing favourably with European survival figures.⁴⁵ Survival data are not routinely available at the England & Wales national level for the 15-24 age groups. However, data published for this age group by the Northern Region Young Persons' Malignant Disease Registry, report a five-year survival rate for all cancers for 15-24 year olds of 73% (95% CI 70-78%),^{45,48} for the time period 1988-1995.

4.9 Communicable Disease

Communicable diseases are a major cause of ill health in children, causing considerable distress for children and their families. The data shown in figure 4.9.1 are based on data from the ONS and held by the Centre for Disease Surveillance and Control, part of the NPHS. The data include cases of meningitis and meningococcal septicaemia based on laboratory reports and official disease notifications. However, cases which were reported, but not subsequently confirmed are excluded. There may be inconsistencies in the way data are reported across Wales. For this reason it is not appropriate to show local authority comparisons.

Figure 4.9.1

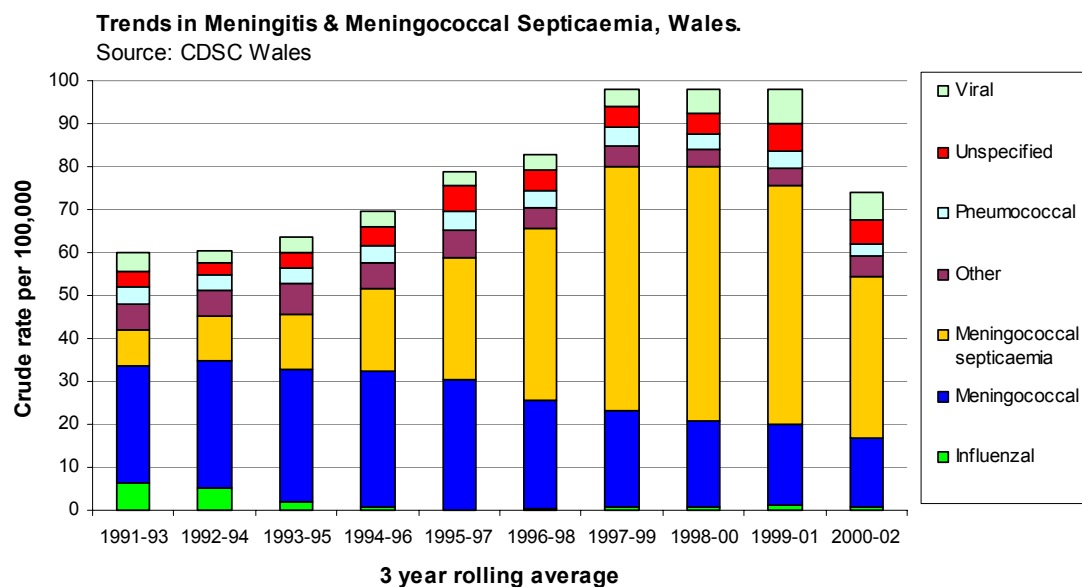


Figure 4.9.1 shows crude three year rolling average rates for meningitis, subdivided according to type, and meningococcal septicaemia in persons aged 0-24 years. The overall rate for all of these infections combined peaked in the late 1990s, since when it has fallen. The rate of meningitis appears to have remained relatively stable over this period. The exception is meningococcal meningitis (shown in blue) which has fallen steadily over time. The rate of meningococcal septicaemia increased dramatically in the late 1990s and has now fallen back.

Figure 4.9.2

Meningococcal septicaemia and meningococcal meningitis rate per 100,000 in 0-24 year olds, Wales

Source: CDSC Wales

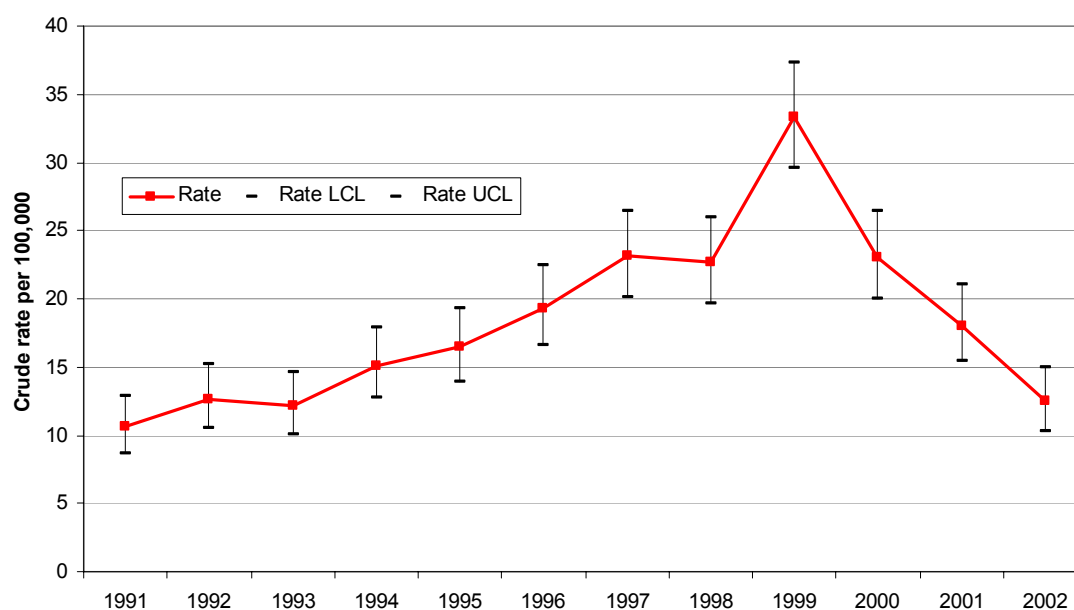


Figure 4.9.2 shows the trend in meningococcal septicaemia and meningococcal meningitis combined between 1991 and 2002 in persons aged 0-24 years. The crude rate together with 95% confidence limits is shown. These diseases tend to be cyclical in terms of incidence and this is confirmed by the data which show a steady rise, peaking in 1999, after which the rate declines and falls back to a level similar to that of the early 1990s. The decline in the rate began at the time of the introduction of the meningitis C vaccine.

Figure 4.9.3

Meningitis and meningococcal septicaemia, Wales 1993-2002

Source: CDSC Wales

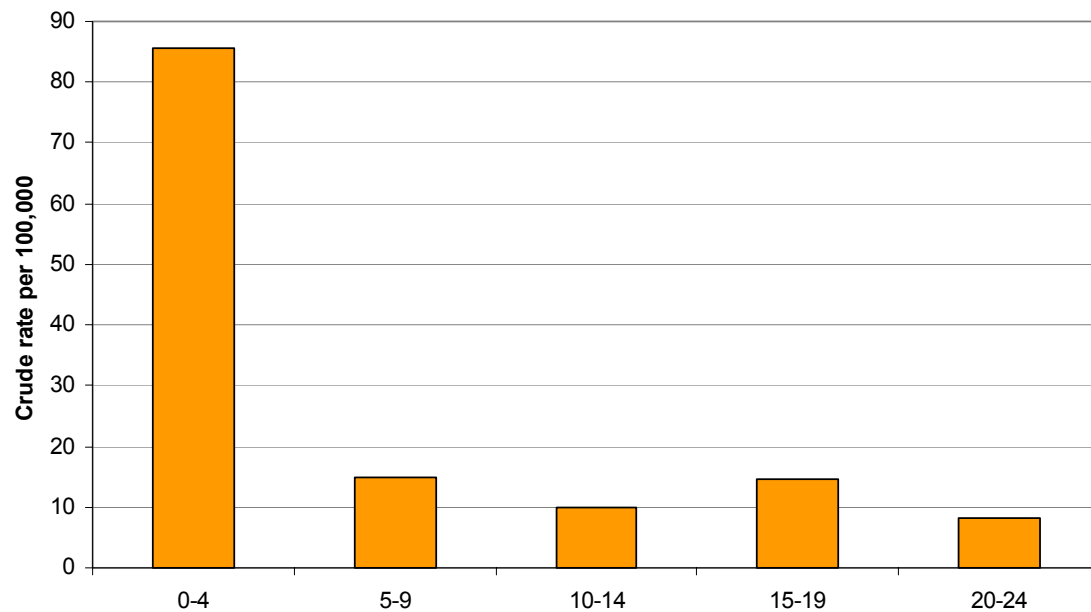
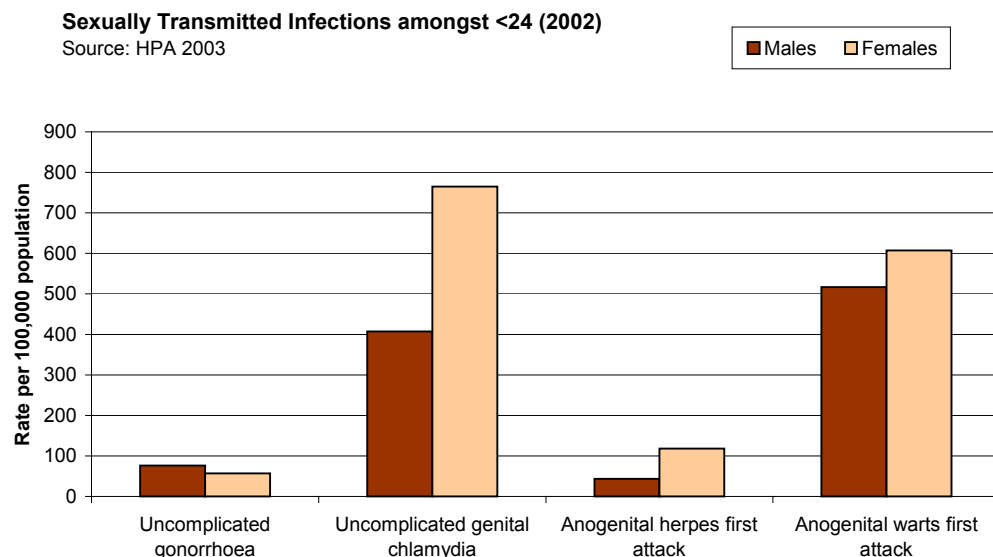


Figure 4.9.3 shows age specific rates of all meningitis and meningococcal septicaemia in Wales for the period 1993-2002. The graph shows clearly that the incidence of these infections is far higher in 0-4 year olds than in the other age groups.

4.10 Sexually Transmitted Infections

Sexually transmitted infections (STIs) are a major public health problem among 16-24 year olds. Young people are more susceptible to STIs because they generally have higher numbers of sexual partners, greater numbers of concurrent partnerships and change partners more often than older adults.⁵⁰

Figure 4.10.1



Young people, in the United Kingdom, bear a disproportionate burden of acute sexually transmitted infections (STIs). In 2002, young people accounted for the majority of chlamydia, gonorrhea, syphilis and genital warts cases.⁵⁰ Re-infection is also an issue among young people, with the risk decreasing with age.

Figure 4.10.1 shows the STI rate per 100,000 people aged under 24 years. The highest rates are for uncomplicated genital chlamydia and anogenital warts. Rates among the under 24 year olds are generally higher among women, with the exception of uncomplicated gonorrhoea.

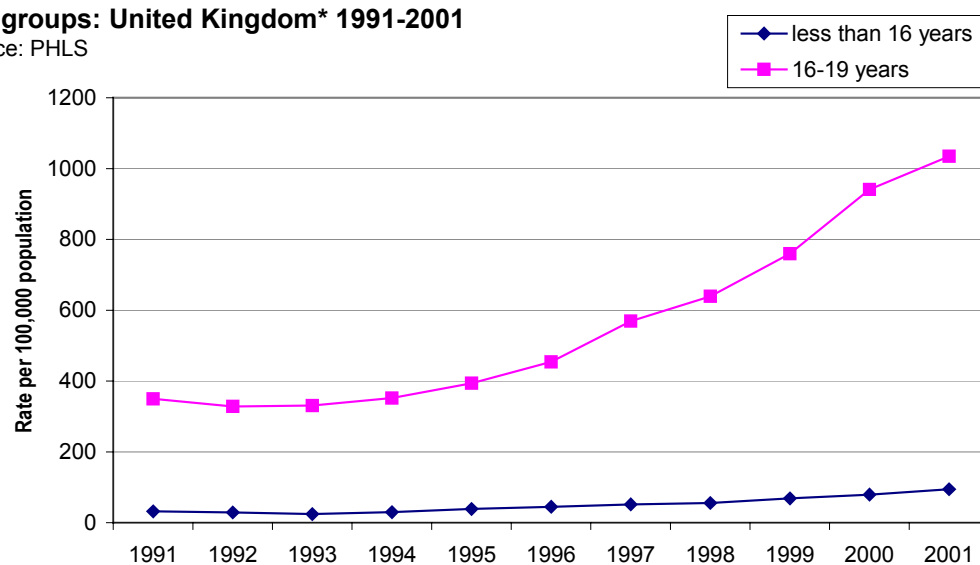
Wales as a whole has lower levels of infection than other UK regions. However, this variation may reflect the provision of diagnostic services as much as disease prevalence.

Figure 4.10.2 shows uncomplicated genital chlamydia infection rates among females diagnosed in genitourinary medicine (GUM) clinics. A steady increase is evident since 1995 among 16-19 year old women. The true prevalence is likely to be underestimated due to asymptomatic infection.⁵⁰ Almost three quarters of women with uncomplicated genital chlamydia infections during 2002 in England Wales and Northern Ireland were aged under 25 years.⁵⁰

Fig 4.10.2

Rates of diagnoses of uncomplicated genital chlamydia infection in females made in genitourinary medicine (GUM) clinics for selected age groups: United Kingdom* 1991-2001

Source: PHLS



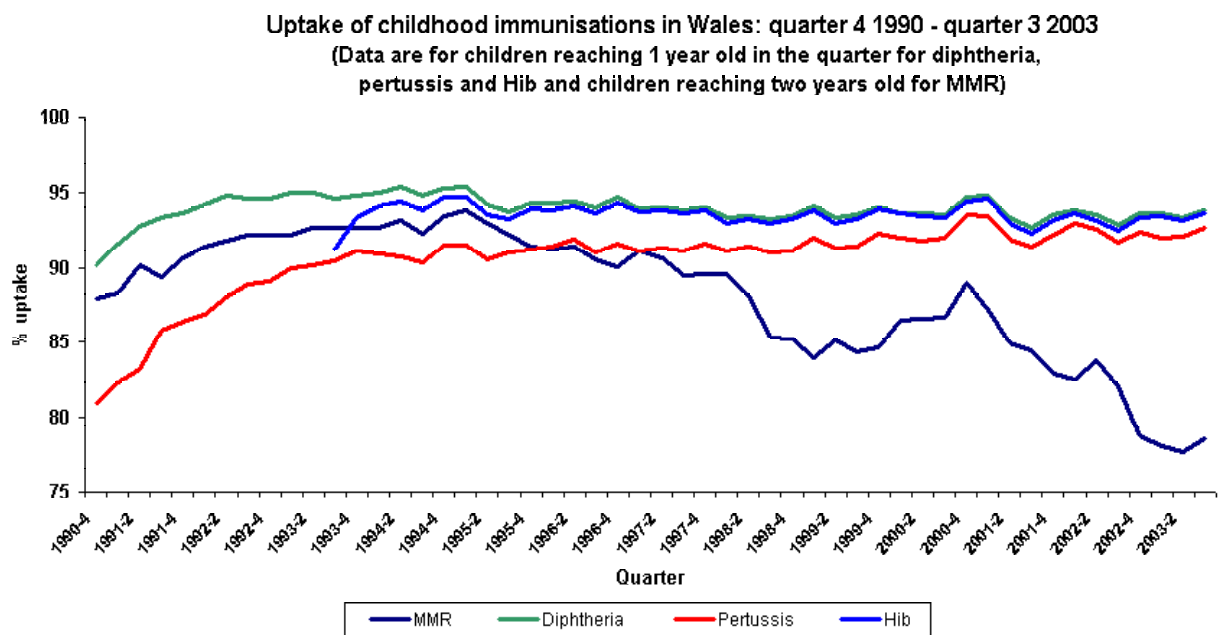
* Data for Scotland was not available for 2000 and 2001 and is therefore excluded⁵¹

4.11 Immunisations

There may be number of factors affecting immunisation uptake, these include socio-economic factors, lay beliefs about immunisation, the media, religious and moral beliefs and advice received from health professionals.⁵²

Uptake of immunisations shows very similar, if not identical patterns, because they are administered at the same time. Uptake rates in Blaenau Gwent and Torfaen tend to be higher than other Welsh local authorities, whilst lower uptakes can be found in Wrexham and Flintshire. These variations in uptake may or may not be the direct result of the factors mentioned above.

Figure 4.11.1



Source: CDSC Wales

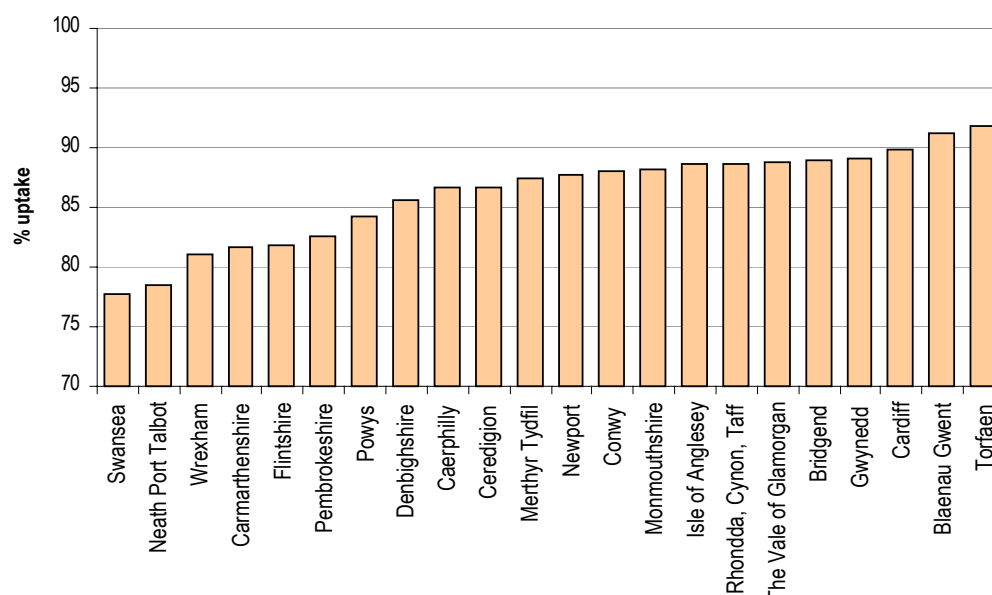
Figure 4.11.1 shows that the uptake of immunisation has been consistent over the last decade, with the exception of MMR which has experienced an approximate decrease of 10% over the same period.

Data in Figures 4.11.2 to 4.11.7 is taken from Healthshow, it should be noted that these are estimated data, allocating children to Local Health Boards on the basis of their postcode of residence. As postcode is not available for all children the all-Wales rate may differ slightly from COVER (immunisation coverage) data which is an analysis of all children resident in Wales.

Figure 4.11.2

Immunisation uptake as at 1st April 2001 (%): MMR

Source: Healthshow Classic 2003.1 (Child Health System)



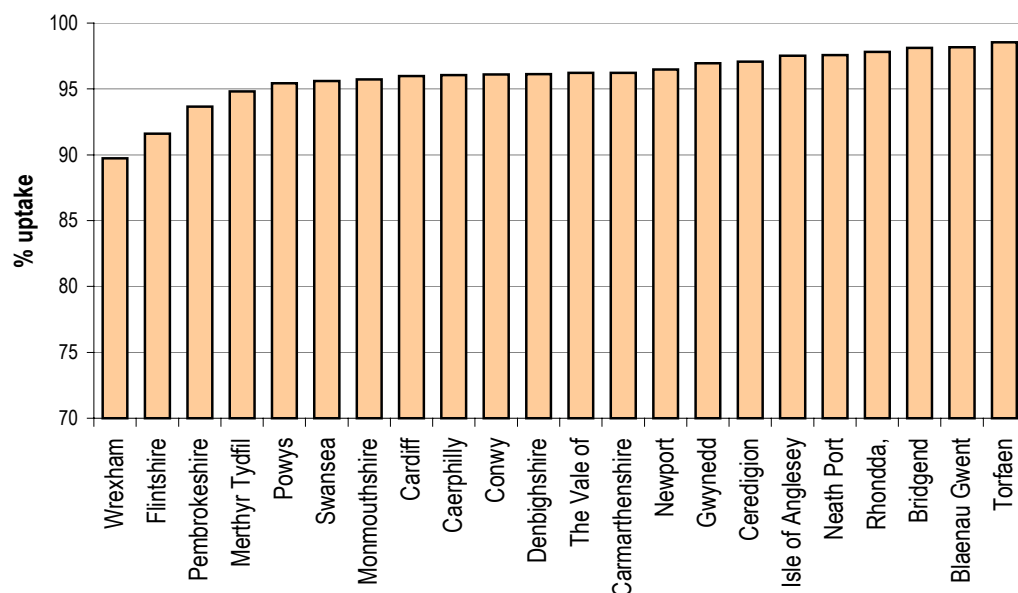
The combined live measles, mumps and rubella vaccine was introduced into the immunisation schedule for infants aged 13-15 months in the UK in 1988. The booster dose, given at 4½ years, was introduced in October 1996. The full combined vaccine provides protection from all three infections in 98-99% of vaccinated children.

The term 'herd immunity' is used to describe a level of vaccinations high enough to protect those who have not been vaccinated. As long as sufficient numbers of children are immunised against a specific disease the protection can extend to everyone.⁵³ An MMR immunisation uptake of 95% is required in the UK to achieve herd immunity. Figure 4.11.2 shows that none of the local authority areas in Wales achieved the required uptake. If this situation persists it is likely that disease outbreaks will occur.

Figure 4.11.3

Immunisation uptake as at 1st April 2001 (%): Pertussis

Source: Healthshow Classic 2003.1 (Child Health System)

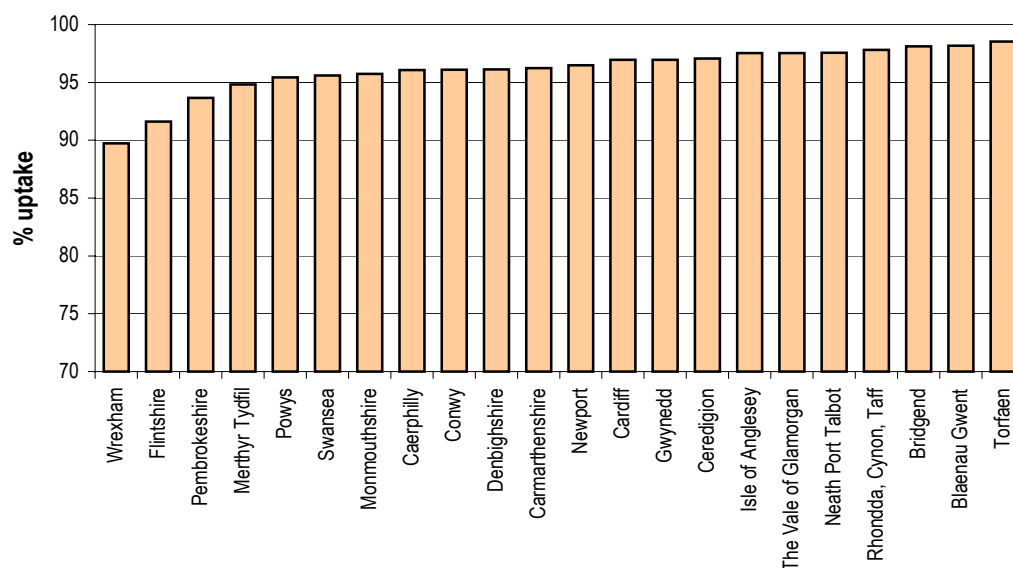


Pertussis (Whooping Cough) is a highly infectious disease. It ranges from a mild disease to one which could result in death. Symptoms can range from a cold to coughing and choking spells, leading to difficulty eating, drinking and breathing. Immunisation against this is included as part of the primary immunisation course at 2, 3 and 4 months old.

Figure 4.11.4

Immunisation uptake as at 1st April 2001 (%): Poliomyelitis

Source: Healthshow Classic 2003.1 (Child Health System)



Poliomyelitis (polio) is an acute viral infection of the nervous system. Polio is spread by the faecal-oral route. Most cases present with a sore throat or diarrhoea, but some may have no symptoms. Before vaccinations were available, polio was a common disease, but with immunisation programmes there were fewer than 2,000 cases around the world in 1999.

Figure 4.11.5

Immunisation uptake as at 1st April 2001 (%): Hib

Source: Healthshow Classic 2003.1 (Child Health System)

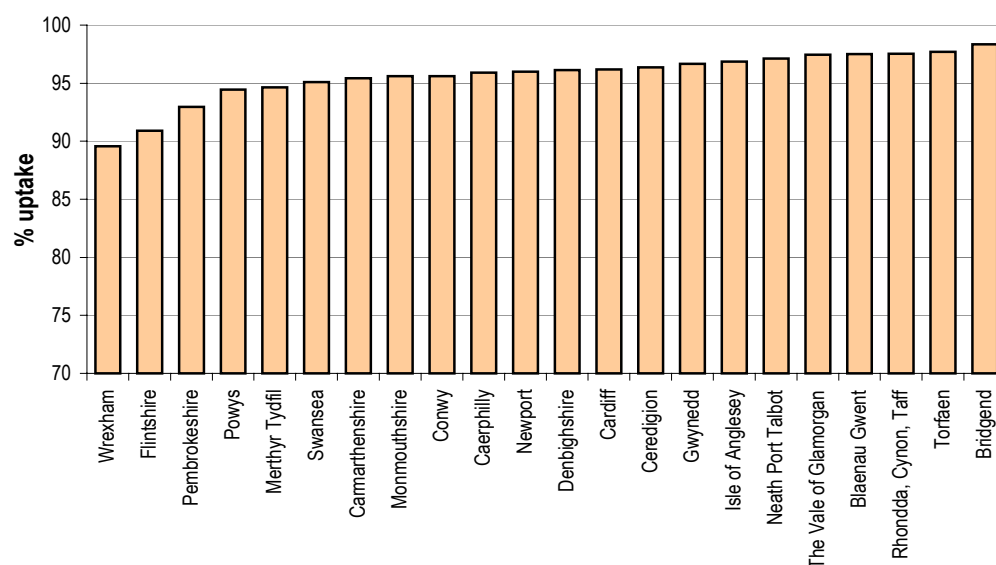
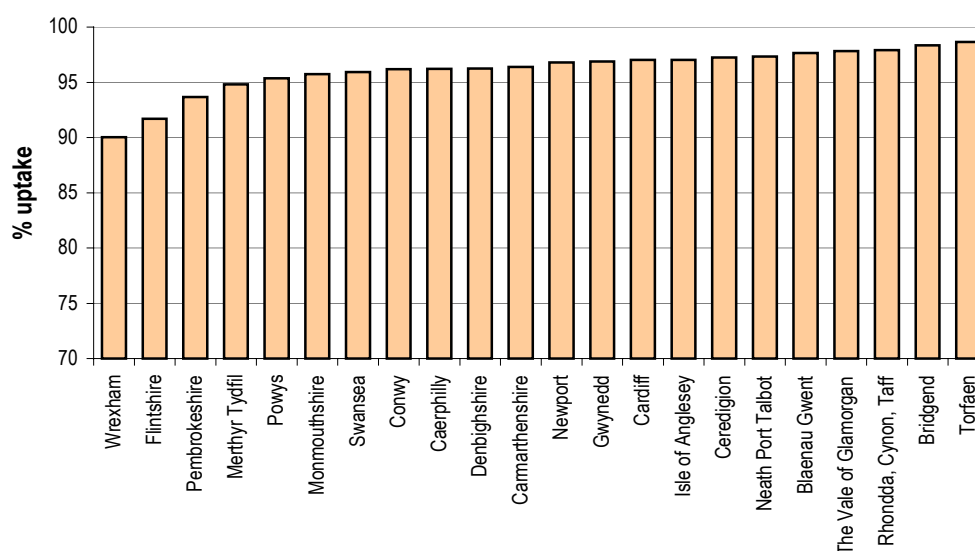


Figure 4.11.6

Immunisation uptake as at 1st April 2001 (%): Tetanus

Source: Healthshow Classic 2003.1 (Child Health System)



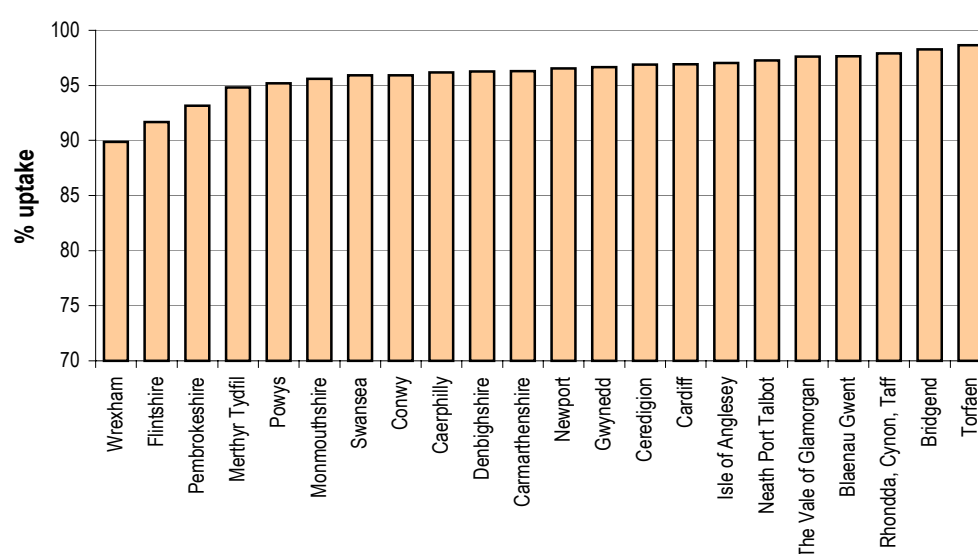
Haemophilus Influenzae Type B (HIB) is a bacteria responsible for a range of infections, primarily in young children (4 and under) including meningitis and epiglottitis. The vaccination is given with the other primary immunisation at 2, 3 and 4 months of age. In 2003 all children aged between 6 months and 4 years were offered an additional dose of the Hib vaccine.

Tetanus, commonly known as lockjaw, it is caused by the bacteria, *Clostridium Tetani*, which can be found in soil or manure, being picked up through a scratch or wound of some type. The bacteria release toxins, which act locally at the site of the injury and central nervous system. Immunisation is given as part of the primary immunisation course to children aged 2, 3 and 4 months.

Figure 4.11.7

Immunisation uptake as at 1st April 2001 (%): Diphtheria

Source: Healthshow Classic 2003.1 (Child Health System)



Diphtheria is an infection of the upper respiratory tract, and sometimes the skin. The symptoms are a low-grade fever, nausea, vomiting headache and a fast heart rate. These symptoms usually begin within 1 to 5 days of catching the disease. Immunisation is given as part of the child's primary immunisation course whilst aged 2, 3 and 4 months.

5. Deaths

5.1 Background

In Wales, between 400 and 500 deaths occur each year in people aged under 24 years. Figure 5.1.1 shows that many of these deaths occur in children aged 0-4 years. Most occur during the first year of life. The lowest number of deaths occur in children and young people aged 5-9 and 10-14 years. Deaths increase slightly in young people aged 15-19 and 20-24 years.

Figure 5.1.1

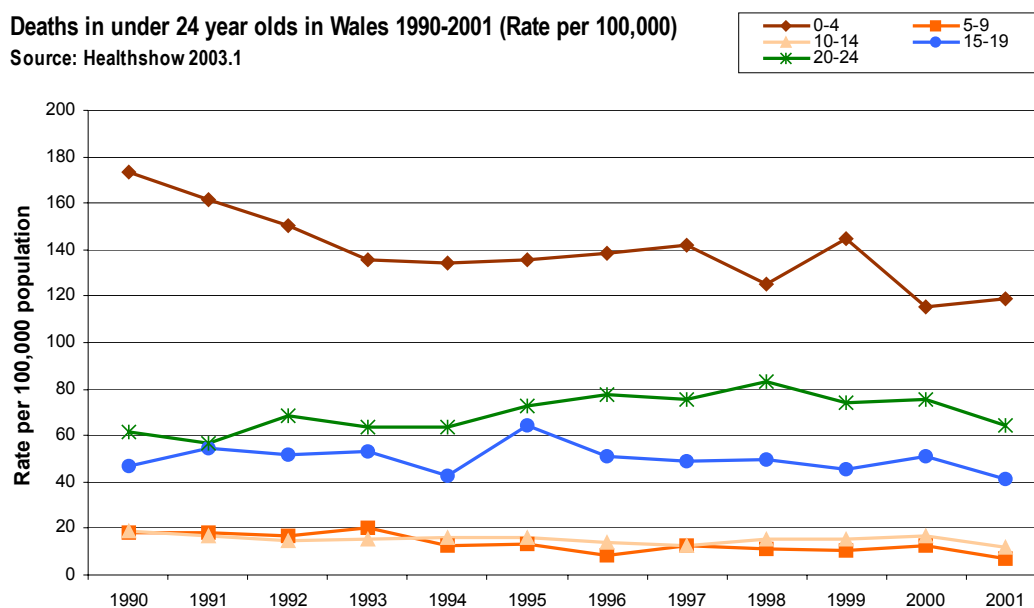
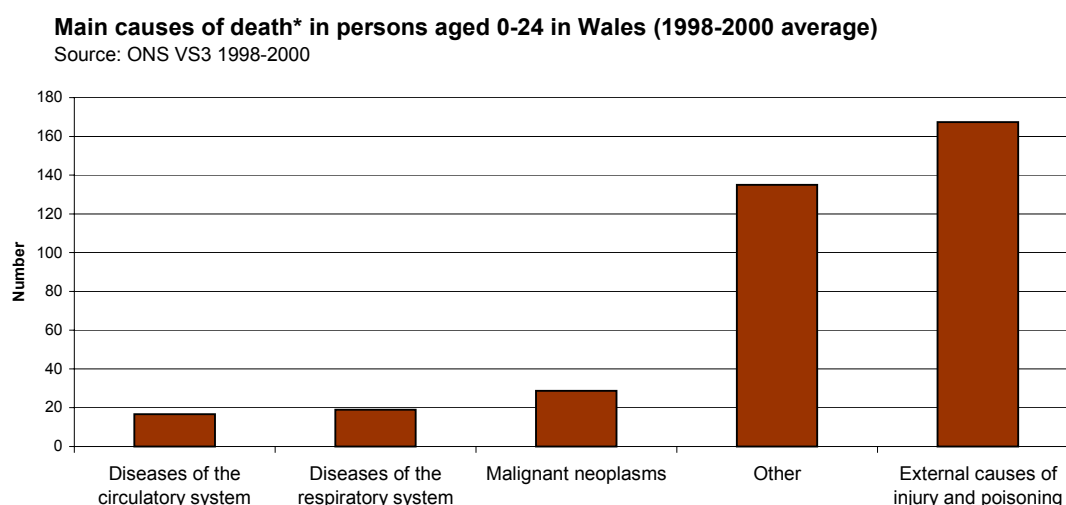


Figure 5.1.2



* Main Causes of death exclude individuals under 28 days

Figure 5.1.2 displays the main causes of death among under 24 year olds in Wales between 1998 and 2000. It shows that accidents (external causes of injury and poisoning) are the single largest cause of deaths in this age group.

Circulatory and respiratory deaths among young people aged under 24 years are most common in children aged under 1 year. As children get older and enter their adolescent years they tend to be most vulnerable, risking exposure to external causes of injury and poisoning due, in part, to increased risk taking in these age groups, especially among males.

Sections 5.2 to 5.5 show data on still births, perinatal, neonatal and infant deaths. Data are presented as three year rolling average rates which, to some extent, overcome problems associated with random fluctuation due to small numbers of events. Any differences in rates for the 1999-2001 should be considered in the light of the trend data for the whole period (available on request).

5.2 Still births

The still birth rate is the number of still births expressed as a rate per 1,000 total births (live and still) occurring after 24 weeks of pregnancy. The overall still birth rate for Wales has fallen from 5.7 per thousand in 1993-1995 to 4.8 per thousand in 1999-2001 (figure 5.2.1).

Figure 5.2.1

Stillbirths: Three-year rolling average rate, Wales 1993-2001

Source: Healthshow 2003.1 (AWPS/ONS)

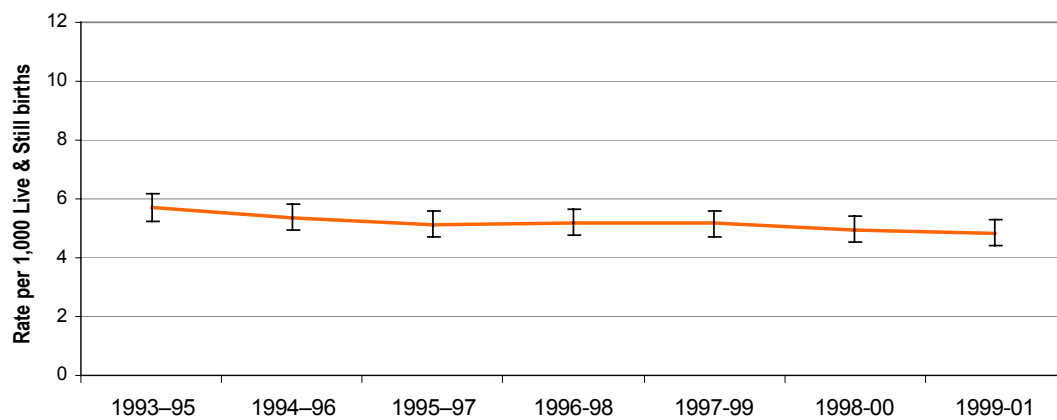
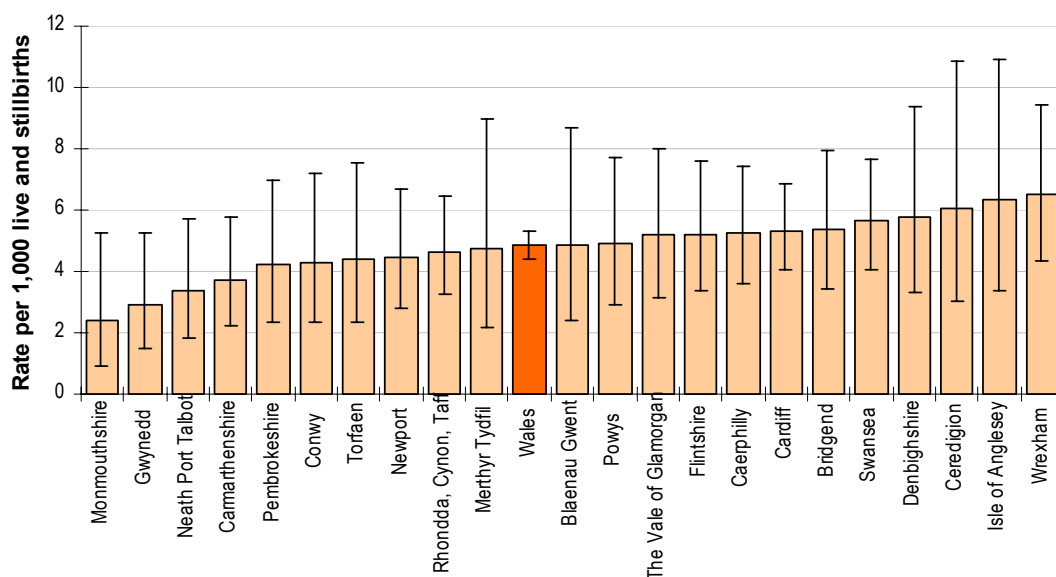


Figure 5.2.2

Stillbirth rates with 95% confidence intervals 1999-2001

Data source: AWPS / ONS



There appears to be considerable variation in rates between unitary authorities (figure 5.2.2). However, since the rates are based on small numbers, much of the variation may be random rather than a true difference. This is reflected by the fact that the 95% confidence intervals are wide. The intervals all overlap with one another, confirming that there is no statistically significant difference in the still birth rate between any unitary authority in Wales.

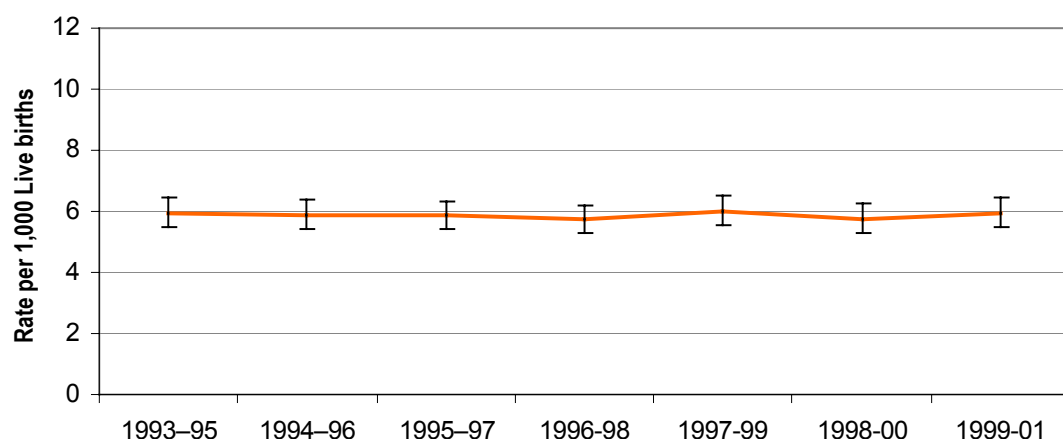
5.3 Infant mortality

The infant mortality rate is the number of deaths in children aged under one year per 1,000 live births in the same year. It is considered to be an important indicator of the level of health in a community. Figure 5.3.1 shows that infant mortality rates in Wales have fluctuated around 6.0 per thousand between 1993-1995 and 1999-2001.

Figure 5.3.1

Infant mortality: Three-year rolling average rate, Wales 1993-2001

Source: Healthshow 2003.1 (AWPS/ONS)

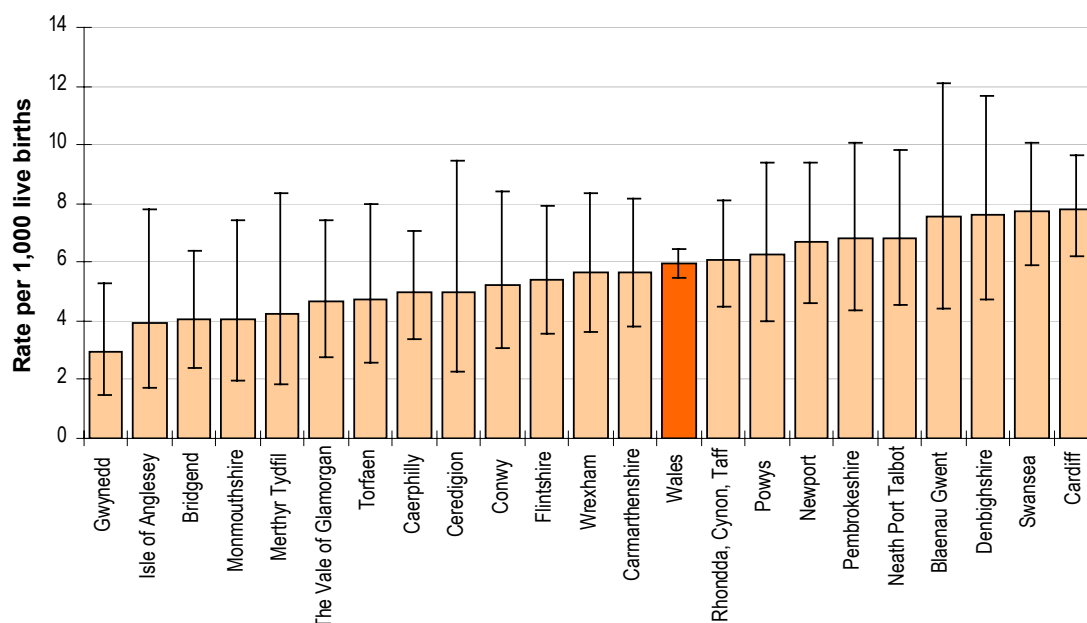


In Wales there were on average 186 infant deaths each year between 1999 and 2001. Figure 5.3.2 shows that there is two-fold variation between unitary authorities with the infant mortality rate ranging from 2.9 in Gwynedd to 7.8 per 1,000 in Cardiff.

Figure 5.3.2

Infant mortality rates with 95% confidence intervals 1999-2001

Data source: AWPS / ONS



However, these rates are based on small numbers, hence, confidence intervals are wide. To illustrate the year on year variation that exists, Swansea, which has one of the highest rates for 1999-2001, had 153 infant deaths between 1993 and 2001, ranging annually from seven in 1996 to 22 in 1997.

There are no statistically significant differences between unitary authorities except for Gwynedd where the rate appears to be statistically significantly lower than Wales for this three-year period.

5.4 Perinatal mortality

The perinatal mortality rate is the number of deaths in children born after 28 weeks of pregnancy aged up to one week after birth per 1,000 live and still births in the same year. The all Wales rate of perinatal deaths has fallen between 1993 and 2001, from 8.6 per thousand in 1993-1995 to 7.7 per thousand in 1999-2001. Rates vary between unitary authorities and within unitary authorities over time due to small numbers.

Figure 5.4.1

Perinatal Mortality: Three-year rolling average rate Wales 1993-2001

Source: Healthshow 2003.1 (AWPS/ONS)

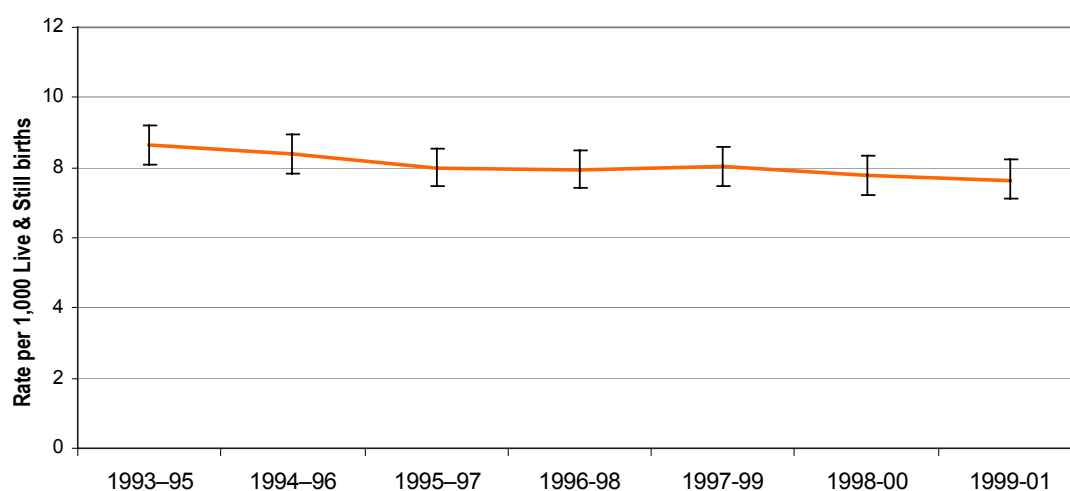
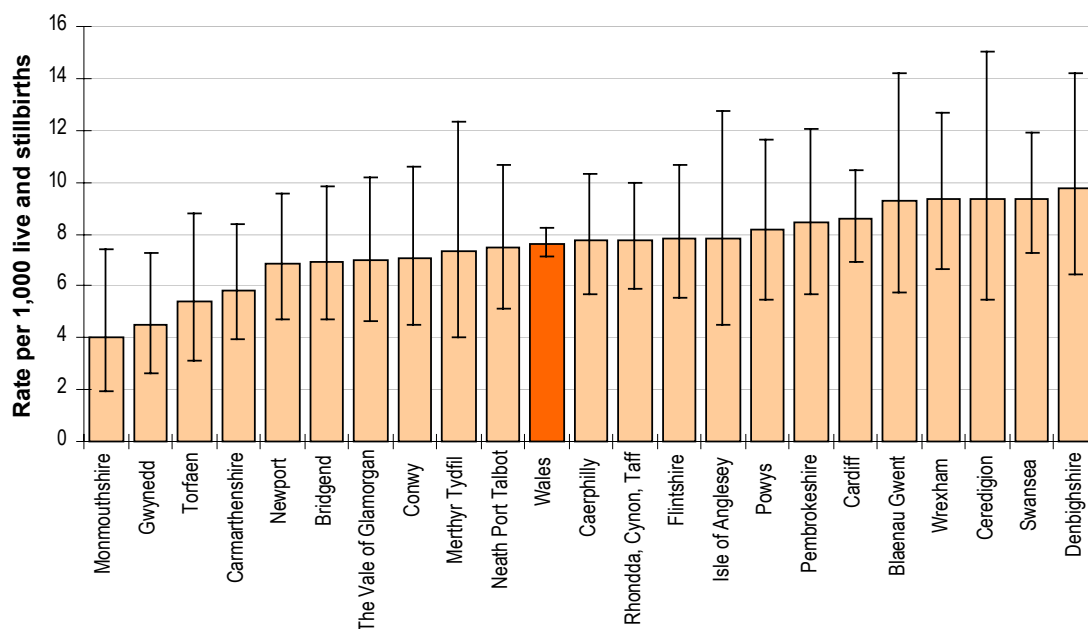


Figure 5.4.2 shows perinatal mortality rates with 95% confidence intervals for unitary authorities for 1999-2001.

Figure 5.4.2

Perinatal mortality rates with 95% confidence intervals 1999-2001

Data source: AWPS / ONS



Although there is variation between perinatal mortality rates in unitary authorities in Wales, there are no statistically significant differences.

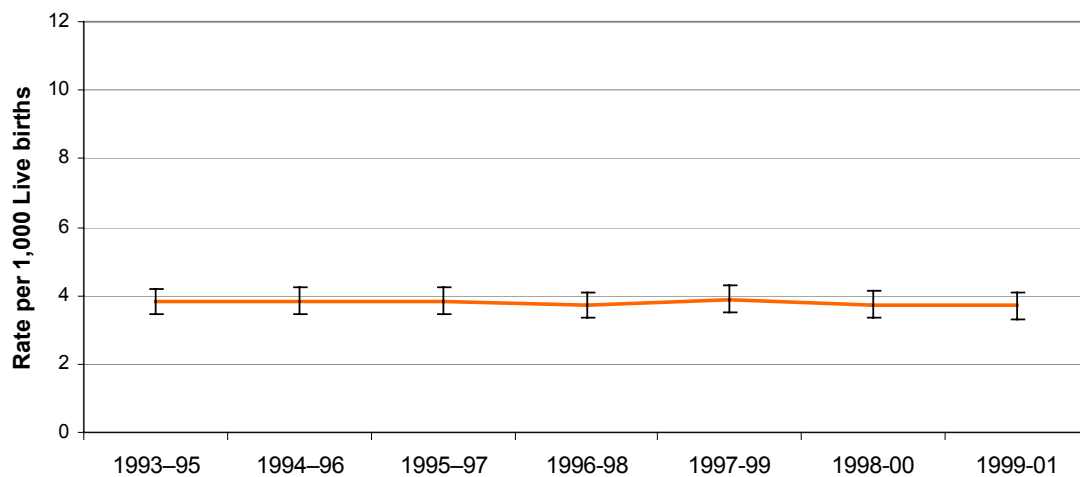
5.5 Neonatal mortality

The neonatal mortality rate is expressed as the number of deaths in infants aged under 28 days per 1,000 live births in the same year. Between 1993-1995 and 1999-2001, neonatal deaths have shown little variation at an all Wales level with an average neonatal mortality rate of 3.7 per thousand live births (Figure 5.5.1).

Figure 5.5.1

Neonatal mortality: Three-year rolling average rate Wales 1993-2001

Source: Healthshow 2003.1 (AWPS/ONS)

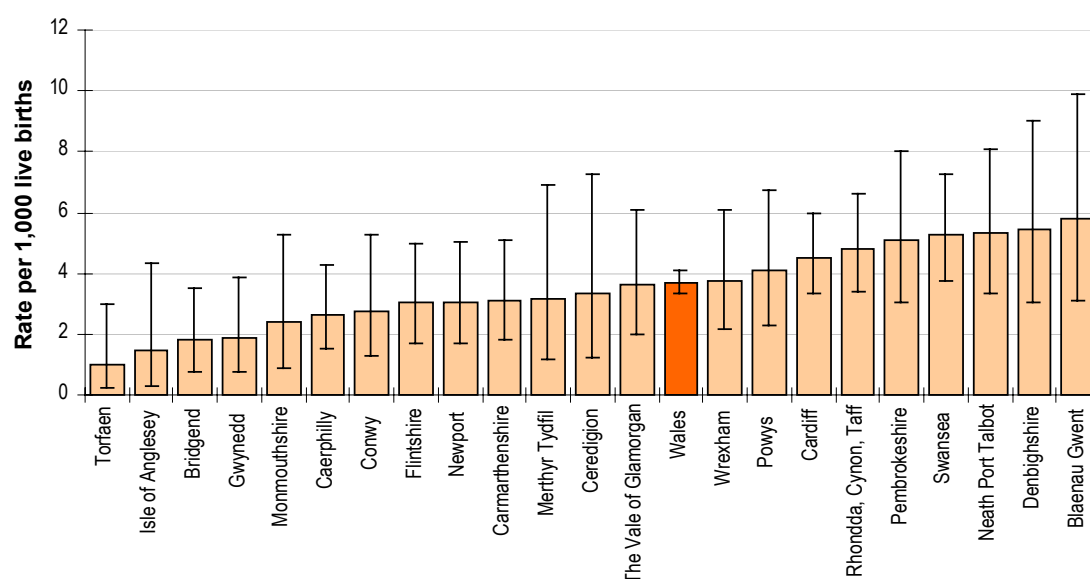


It should be noted that rates both between unitary authorities and within unitary authorities over time vary due to small numbers. Figure 5.5.2 shows unitary authority neonatal mortality rates for 1999-2001 with 95% confidence intervals.

Figure 5.5.2

Neonatal mortality rates with 95% confidence intervals 1999-2001

Data source: AWPS / ONS



Although there is variation between the neonatal mortality rates in unitary authorities, there are no statistically significant differences except for Torfaen, where the rate was statistically significantly lower than Wales for this three year period. Rates are however, based on small numbers of events and should therefore be treated with caution.

6. Conclusions

This profile includes data from a wide range of sources, reflecting that many of the factors affecting the health of children and young people lie beyond the NHS.

The aim of this profile has been to provide a comprehensive account of the health of children and young people in Wales, showing how the health of children in Wales has varied over time, within and between areas. It is important to note that this profile does not necessarily seek to explain the patterns identified but provides information with a view to informing interventions to improve the health of children and young people in Wales.

The NPHS plans to produce further work with the aim of supporting the Children's NSF in Wales.

In producing this Profile we have aimed to include any relevant information that is of acceptable quality both in terms of accuracy and completeness. However, there are a number of important information gaps, this is particularly the case in community and primary health care services. It is anticipated that the development of the National Community Child Health Database (NCCHD), improvements in the All Wales Injury Surveillance System, and a new system for analysing data from the General Practice Morbidity Database will help to fill these information gaps across the whole of Wales in the future.

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