



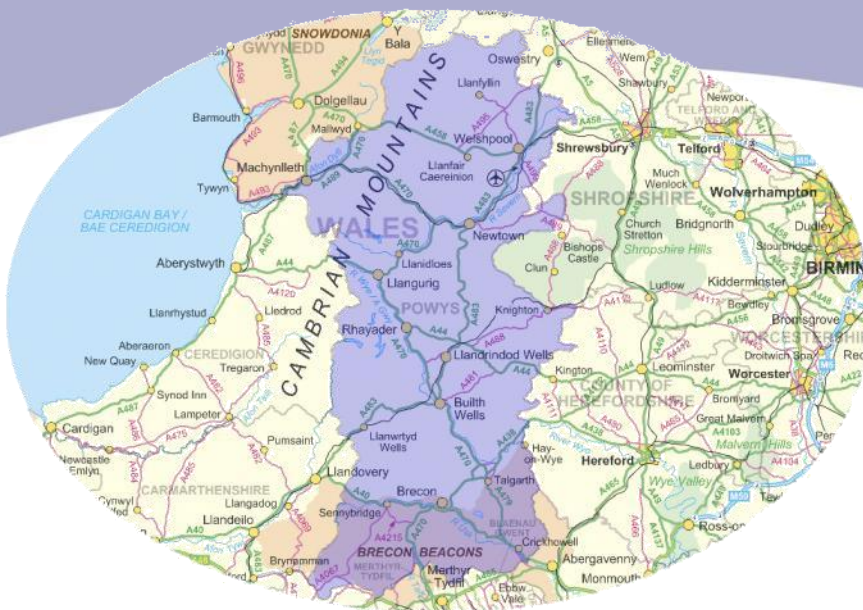
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Public Health  
Wales Observatory

# Director of Public Health Annual Report: Chart Book



**Powys Teaching  
Health Board**



**Published July 2011**

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# 1 Introduction

This Powys Teaching Health Board chart book has been produced by the Public Health Wales Observatory as an appendix to the Director of Public Health Annual Report.

It updates and adds to the chart book produced by the Director of Public Health for Abertawe Bro Morgannwg University Health Board (UHB) for his Interim Annual Report. A decision was made by the Wales Directors of Public Health to use these indicators to inform their annual reports.

The Abertawe Bro Morgannwg UHB chart book indicators originated from a number of sources:

- Public Health Wales Observatory
- Vaccine Preventable Disease Programme (Public Health Wales)
- Public Health Wales Screening Services
- Welsh Cancer Intelligence and Surveillance Unit (Public Health Wales)

This updated chart book draws together information from the above resources and adds new information sourced from:

The Public Health Wales Observatory:

- Director of Public Health Annual Report: supporting indicators, 2011
- [Demography Profile, 2009](#)
- [Lifestyle Profile, 2010](#)
- Inequalities in mortality in Powys Teaching Health Board: interim release to support Directors of Public Health annual reports

From other sources:

- Welsh Health Survey, Welsh Assembly Government (repackaged by the Public Health Wales Observatory)
- Public Health Wales, Vaccine Preventable Disease Programme
- Screening Division (Public Health Wales)
- Welsh Cancer Surveillance and Intelligence Unit (Public Health Wales)

The indicators have been presented under the following chapter headings: demography; determinants of health; use of services and health status. A summary of key points is included at the beginning of each chapter.

Maps included in this document show data by fifths of equal range within the health board area.

Included in Appendix A are web links for the original source reports and further information to support the used in this chart book.

A glossary of some of the terms used in this chart book is included in Appendix B.

Appendix C comprises of a series of local authority area maps showing the MSOA boundaries for the health board area.

## 2 Demography

### 2.1 Demography: key points

#### Population structure

The population of Powys Teaching Health Board is estimated to have been 132 thousand in 2009.

The age structure of the population is very different to Wales. With the exception of the 10-14 year olds there are lower proportions in all the age groups from 0-4 to 35-39 years. Conversely the proportions of persons aged 45 years and over are higher than those for Wales, particularly those in the 55 to 69 age group. At middle super output area level (MSOA), proportions of persons aged under 18 are significantly higher in the areas to the west of Newtown i.e. Maesyrhandir, Trehafren and Milford than in any other MSOA in the health board area. The areas with the lowest proportions are in the Talgarth, Bronllys, Hay-on-Wye, Rhyader and Erwood.

Among the older age groups the proportion aged 75 and over (10.6%) is higher than Wales (8.6%). At the MSOA level, the highest proportions are found in the Llandrindod Wells area. The lowest proportions are located in the areas to the west of Newtown i.e. Maesyrhandir, Trehafren and Milford. The pattern is very similar in those aged 85 and over.

#### Population projections

The latest projections indicate that if current trends continue, the number of persons aged 65 and over resident in Powys Teaching Health Board will increase by over 80 per cent between 2008 and 2033. The proportion aged 75 and over is projected to increase from around 10 per cent at local authority level to around 20 per cent over this period. The percentage aged 85 and over is projected increase from around three per cent to around eight per cent by 2033.

The increase in the number of older people is likely to be associated with a rise in chronic conditions whose prevalence is strongly age-related such as circulatory and respiratory diseases and cancers. Meeting the needs of these individuals will be a key challenge for the health board. In the current economic climate, the relative (and absolute) increase in economically dependent and, in some cases, care-dependent populations will pose particular challenges to communities.

#### Birth rate

The General Fertility Rate (GFR) for Powys Teaching Health Board is the same as the rate for Wales. At the MSOA level, there is some variation. Rates are particularly low in the areas of Beguidly; Knighton; Llangunllo; Presteigne; and Radnor, while rates are highest in the areas to the west of Newtown i.e. Maesyrhandir; Trehafren and Milford.

**All-cause mortality**

The European age-standardised all-cause mortality rate takes into account the age structure of the population, allowing valid comparisons to be made between areas. The rate for Powys Teaching Health Board is lower than Wales. At the MSOA level, variation is considerable with rates ranging from 413 to 797 per 100,000 population. The lowest rates are found in Guilsfield; Llandrinio and Llandysilio. The highest rates are found in Welshpool. Among persons aged under 75 years the pattern is similar. The health board exhibits a decreasing trend in mortality in persons under 75 years from 2000 to 2009 and with rates below the all Wales line.

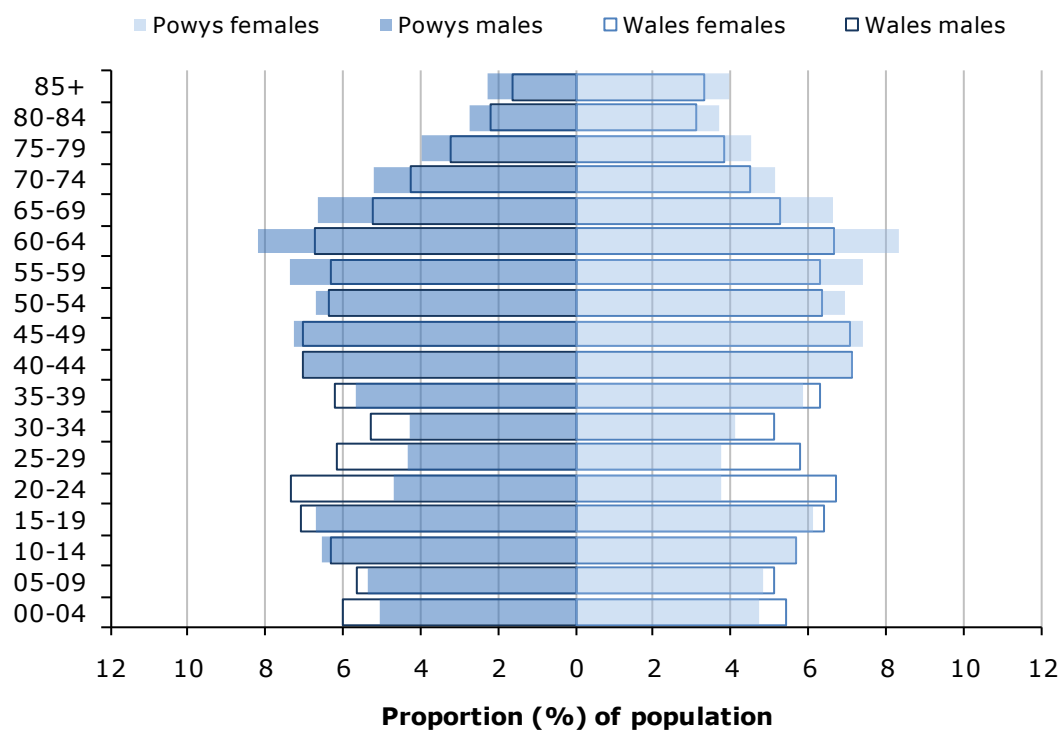
## 2.2 Population

### 2.2.1 Population by age and sex

#### Wales and Powys Teaching Health Board

##### Proportion of population by age and sex Powys Teaching Health Board: 2009

Produced by the Public Health Wales Observatory  
using data from 2009 mid year population estimates, Office for National Statistics



## 2.2.2 Population aged under 18

### Middle super output areas

#### Proportion population aged under 18 years, 2009

MSOA, Percentage; source: ONS

27.0 to 29.2	(1)
24.8 to 27.0	(0)
22.6 to 24.8	(0)
20.4 to 22.6	(6)
18.2 to 20.4	(12)

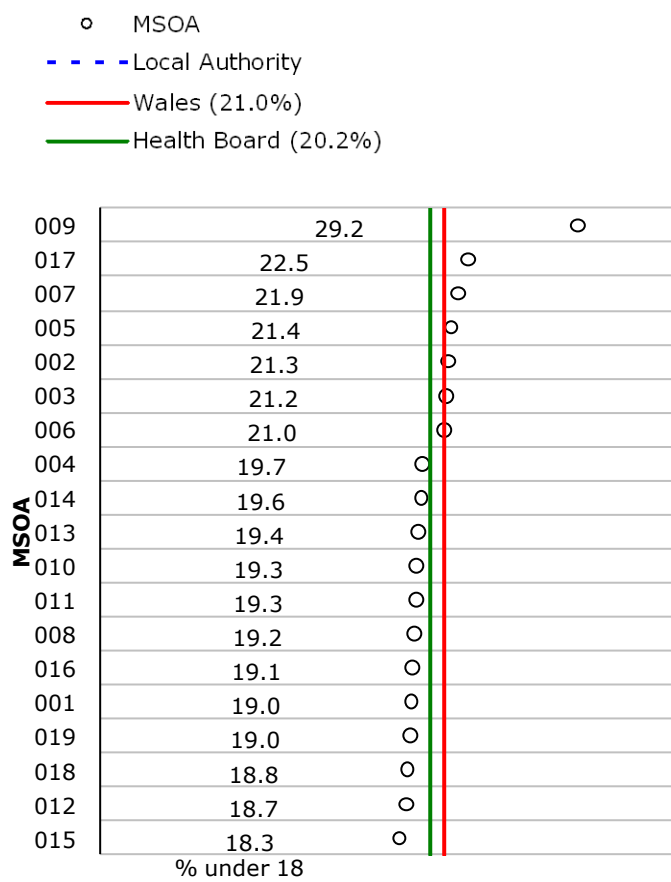
MSOA boundary



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Produced by the Public Health Wales Observatory

**Percentage of population aged under 18 in Powys Teaching Health Board area, 2009**

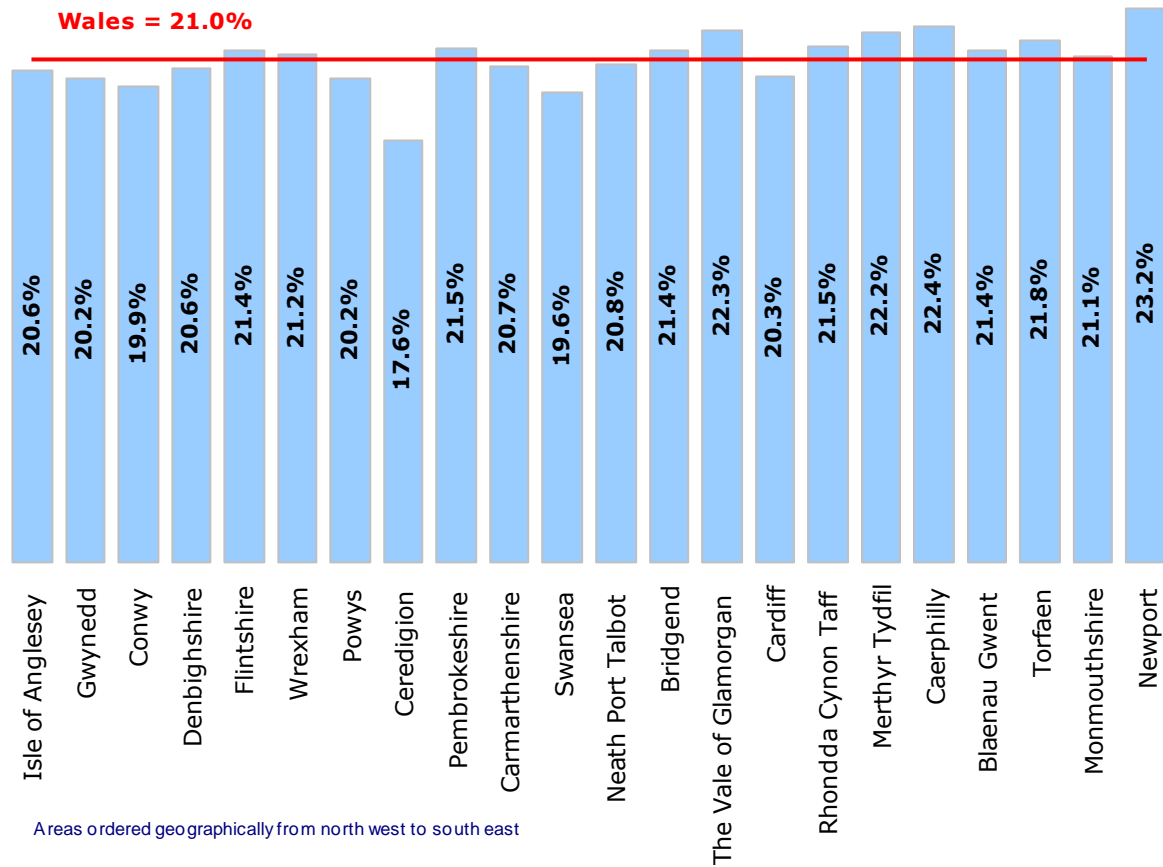
Produced by Public Health Wales Observatory, using data from ONS (MYE)



## Local authorities

### Percentage of population aged under 18 by local authority, 2009

Produced by Public Health Wales Observatory, using data from ONS (MYE)

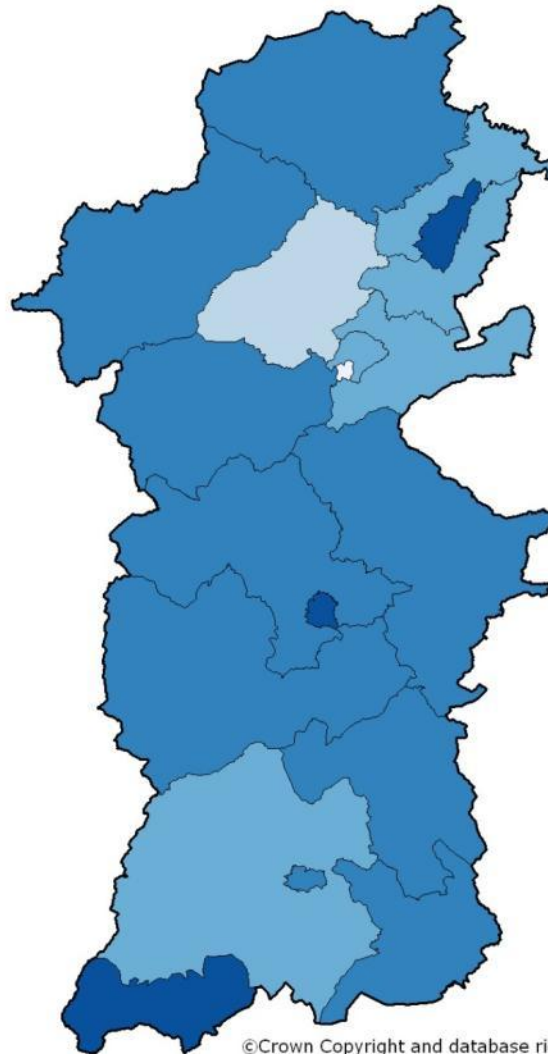
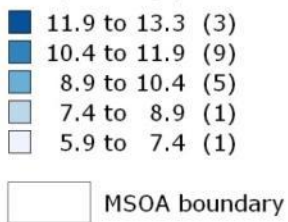


## 2.2.3 Population aged 75 and over

### Middle super output areas

#### Proportion population aged 75 years and over, 2009

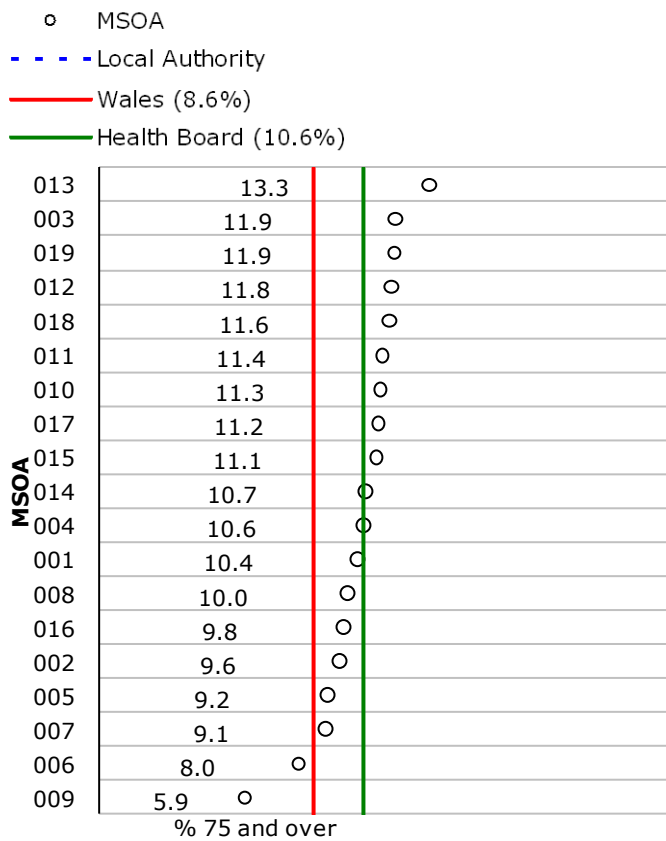
MSOA, Percentage; source: ONS



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Produced by the Public Health Wales Observatory

**Percentage of population aged 75 and over in Powys Teaching Health Board area, 2009**

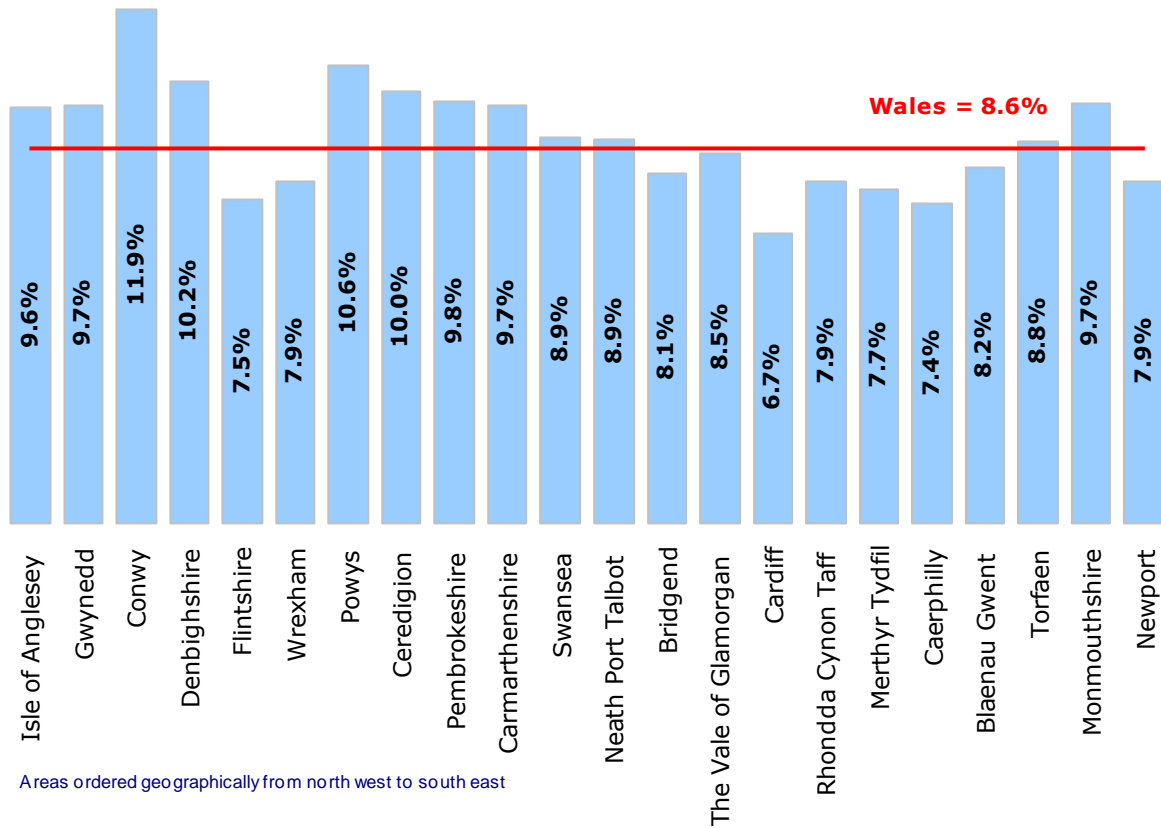
Produced by Public Health Wales Observatory, using data from ONS (MYE)



## Local authorities

### Percentage of population aged 75 and over by local authority, 2009

Produced by Public Health Wales Observatory, using data from ONS ( MYE)



## 2.2.4 Population aged 85 and over

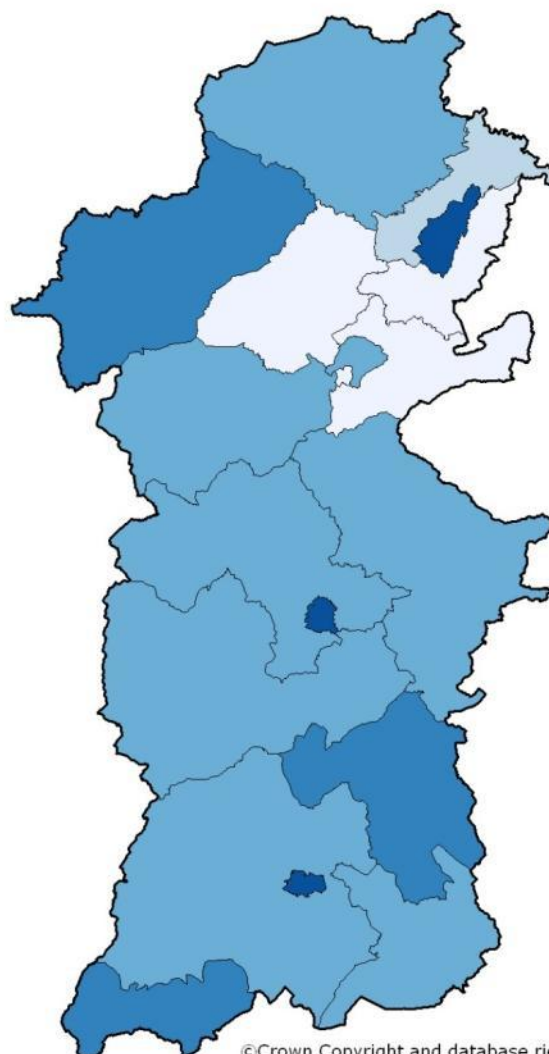
### Middle super output areas

#### Proportion population aged 85 years and over, 2009

MSOA, Percentage; source: ONS

- 3.8 to 4.3 (3)
- 3.3 to 3.8 (3)
- 2.8 to 3.3 (8)
- 2.3 to 2.8 (1)
- 1.8 to 2.3 (4)

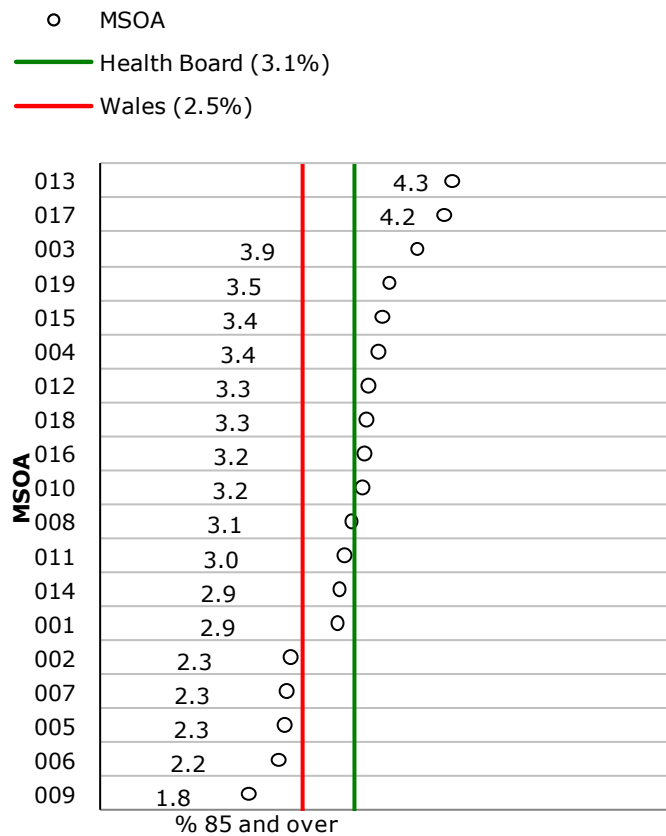
□ MSOA boundary



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Produced by the Public Health Wales Observatory

**Percentage of population aged 85 and over in Powys Teaching Health Board area, 2009**

Produced by Public Health Wales Observatory, using data from ONS (MYE)



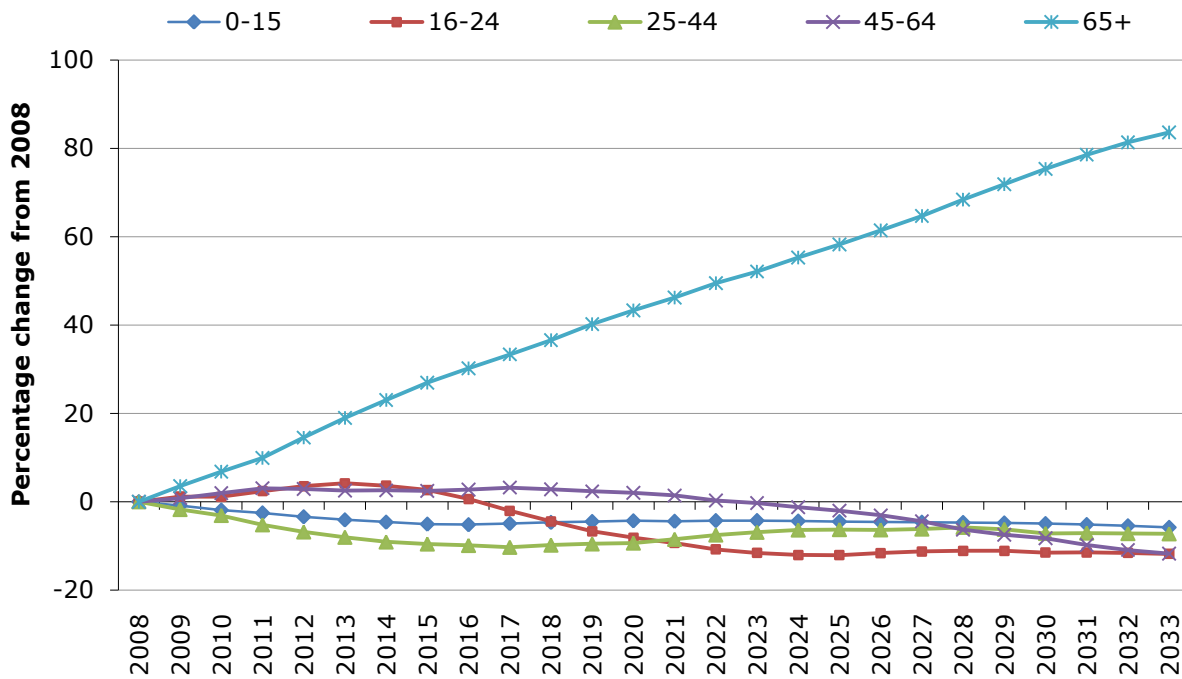
## 2.3 Population projections

### 2.3.1 Population projections by age group

#### Powys Teaching Health Board

##### 2008-based population projections for Powys Teaching Health Board, persons: 2008 to 2033

Produced by the Public Health Wales Observatory, using data from the Welsh Assembly Government

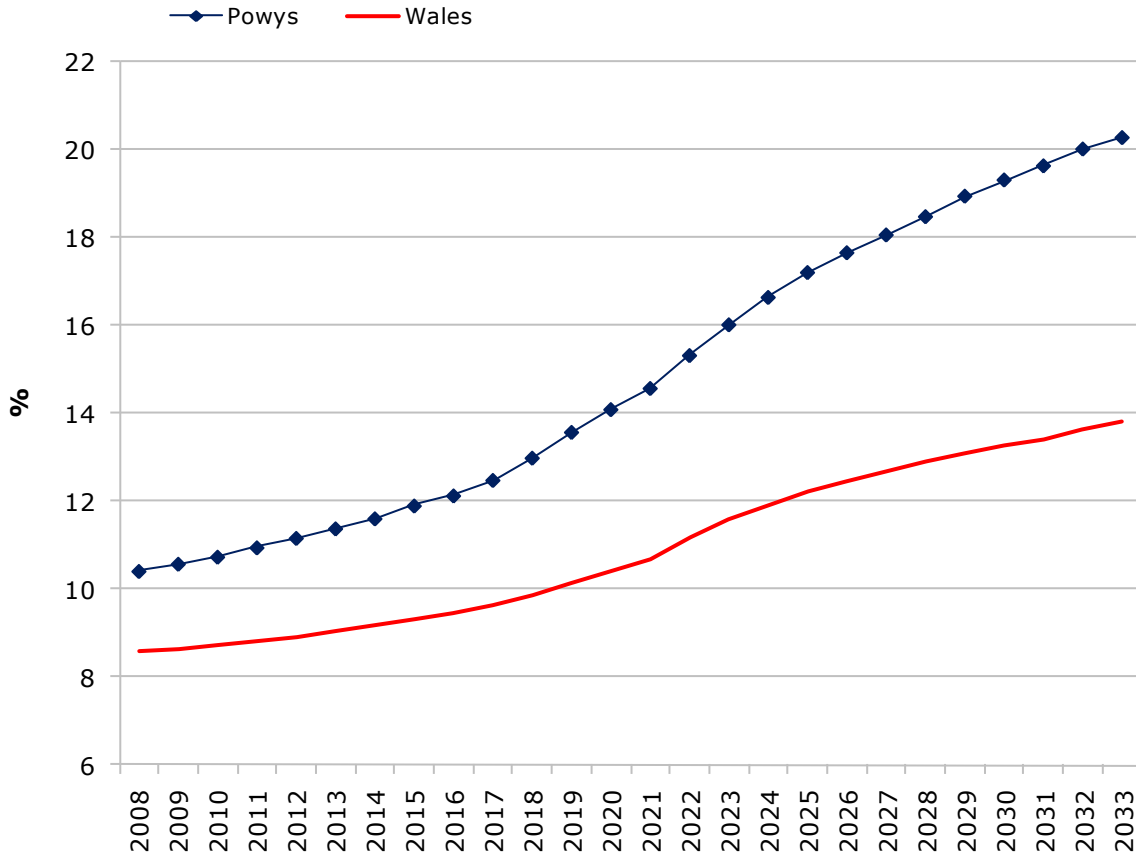


## 2.3.2 Population projections, persons aged 75 and over

### Local authorities within Powys Teaching Health Board\*

#### Projected population, 2008-2033, % aged 75 and over

Produced by Public Health Wales Observatory, using data from the Welsh Assembly Government



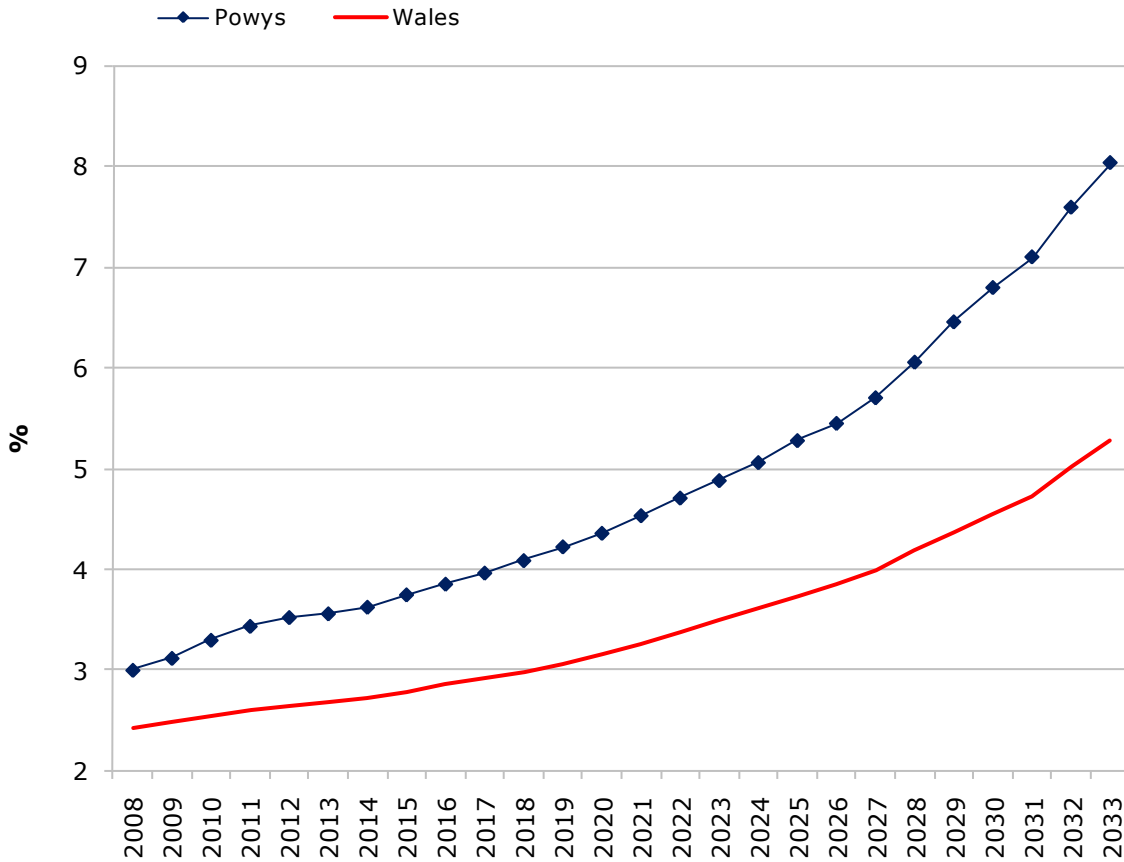
\* Y-axis is truncated

### 2.3.3 Population projections, persons aged 85 and over

#### Local authorities within Powys Teaching Health Board\*

##### Projected population, 2008-2033, % aged 85 and over

Produced by Public Health Wales Observatory, using data from the Welsh Assembly Government



\* Y-axis is truncated

## 2.4 Births

### 2.4.1 General fertility rate

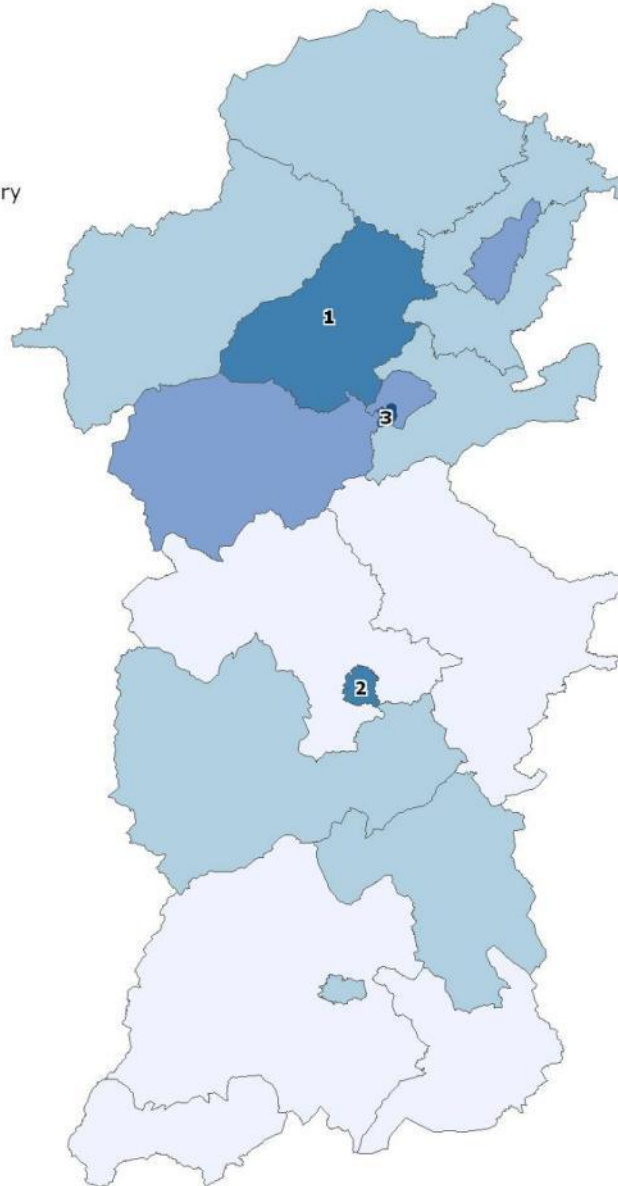
#### Middle super output areas

##### Fertility, 2006-08, females aged 15-44

MSOA. General Fertility Rate per 1,000; source: ADBE, ONS

- 77.6 to 84.9 (1)
- 70.1 to 77.6 (2)
- 62.6 to 70.1 (3)
- 55.1 to 62.6 (8)
- 47.6 to 55.1 (5)

MSOA boundary

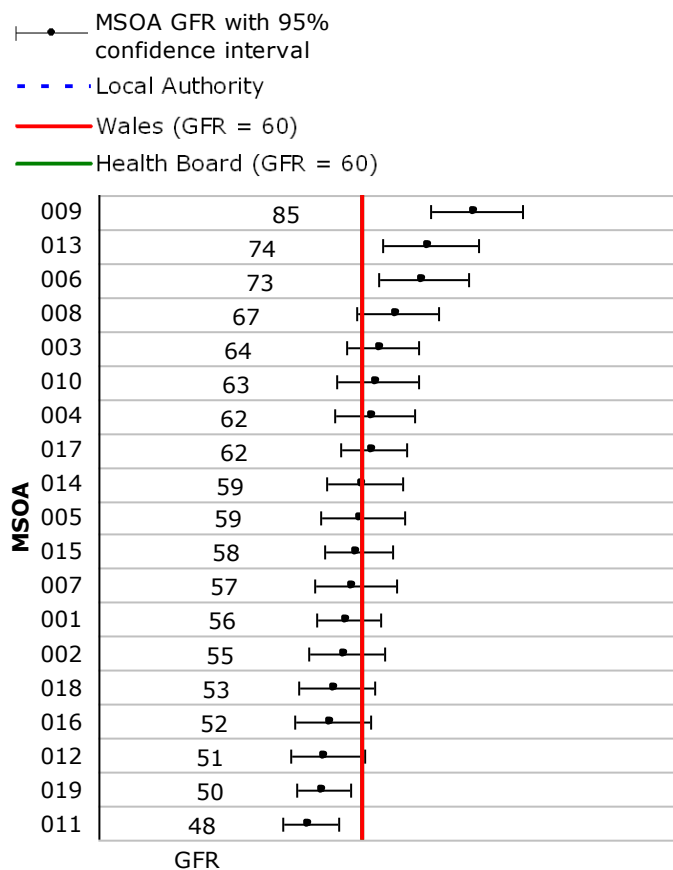


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Produced by Public Health Wales Observatory

Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

## General fertility rate per 1,000 in Powys Teaching Health Board area, females aged 15-44, 2006-08

Produced by Public Health Wales Observatory, using data from ONS (ADBE, MYE)

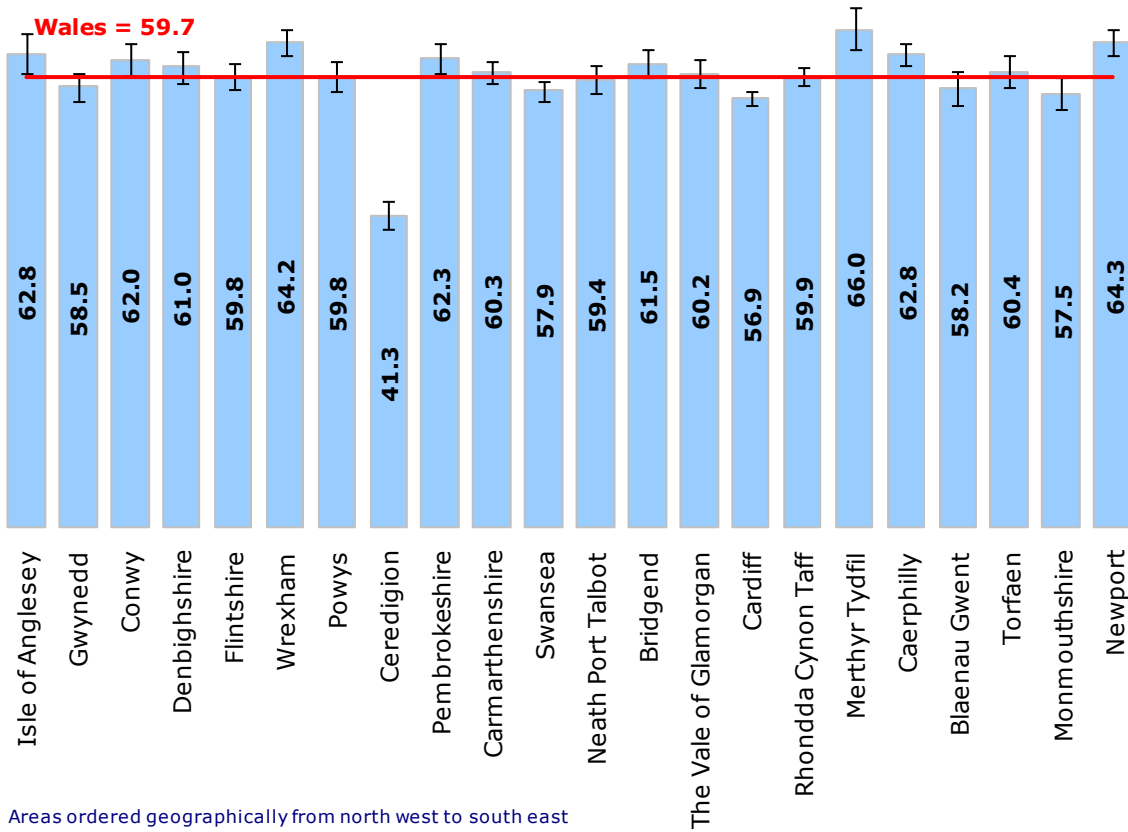


## Local authorities

### General fertility rate per 1,000, by local authority, 2006-08

Produced by Public Health Wales Observatory, using data from ONS (ADBE, MYE)

95% confidence interval



## 2.5 Deaths

### 2.5.1 All-cause mortality

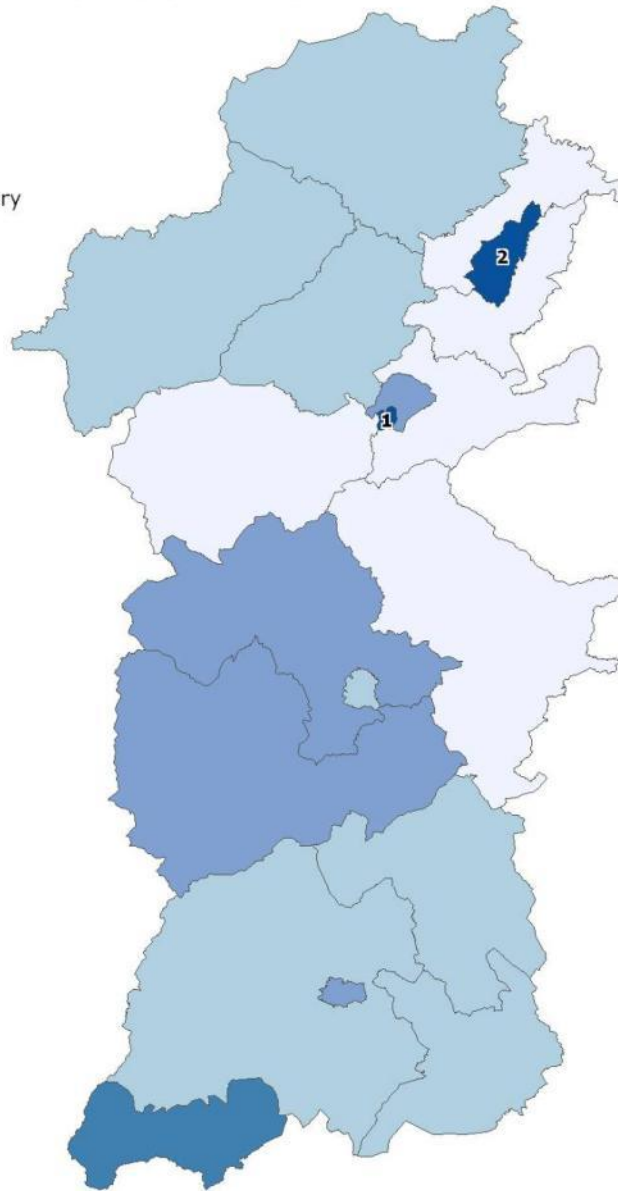
#### Middle super output areas

##### All-cause mortality, 2004-08, persons all ages

MSOA, European age-standardised rate per 100,000; source: ADDE/ONS

- 720 to 797 (2)
- 643 to 720 (1)
- 566 to 643 (4)
- 489 to 566 (7)
- 412 to 489 (5)

MSOA boundary

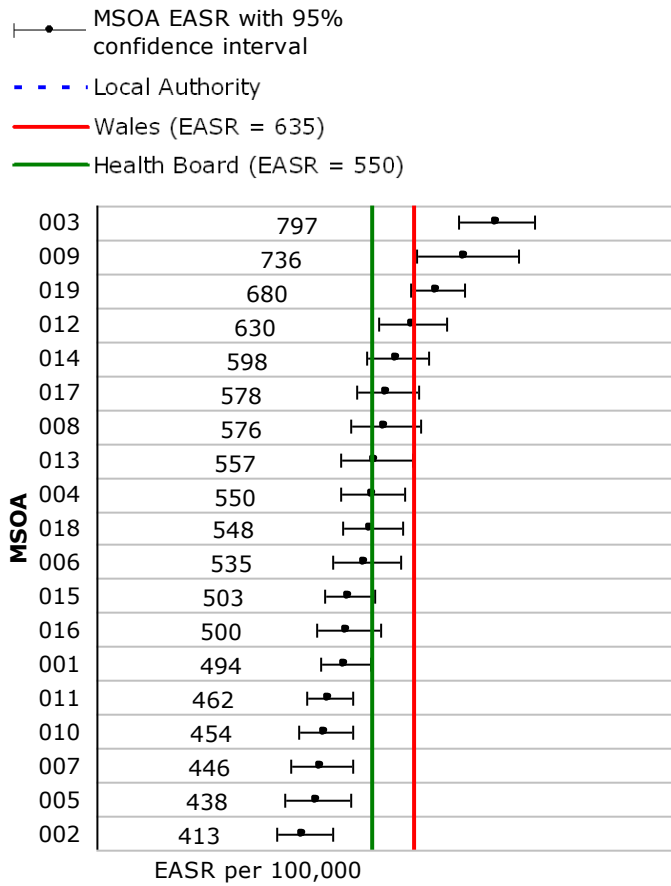


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Produced by Public Health Wales Observatory

Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

# **All-cause mortality in Powys Teaching Health Board area, all persons, 2004-08, European age-standardised rates per 100,000**

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

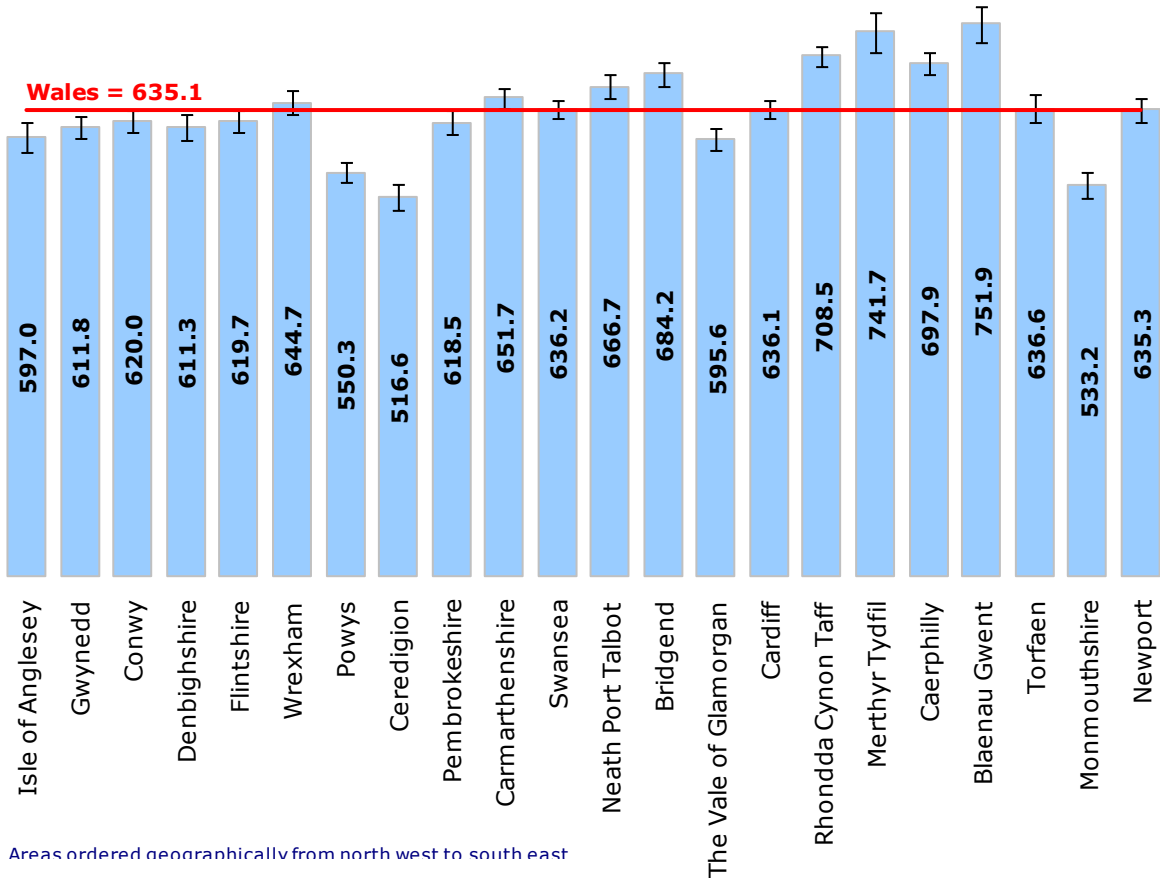


## Local authorities

### All cause mortality by local authority, all persons, 2004-08, European age-standardised rates per 100,000

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

95% confidence interval

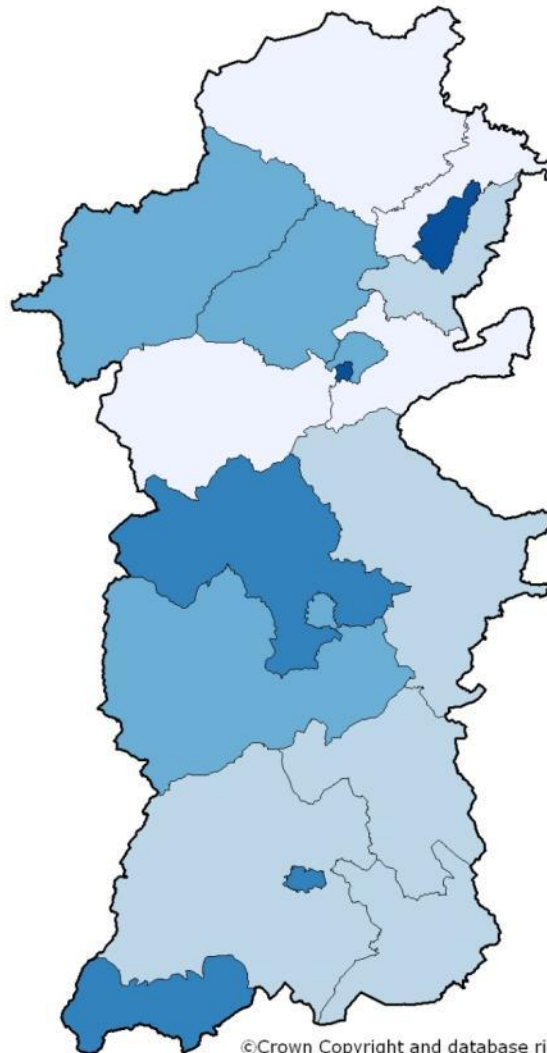
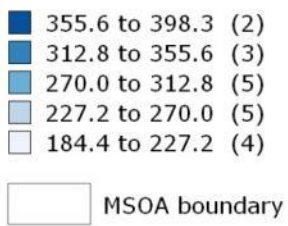


## 2.5.2 All-cause mortality, aged under 75

### Middle super output areas

#### All-cause mortality, 2004-08, persons aged under 75 years

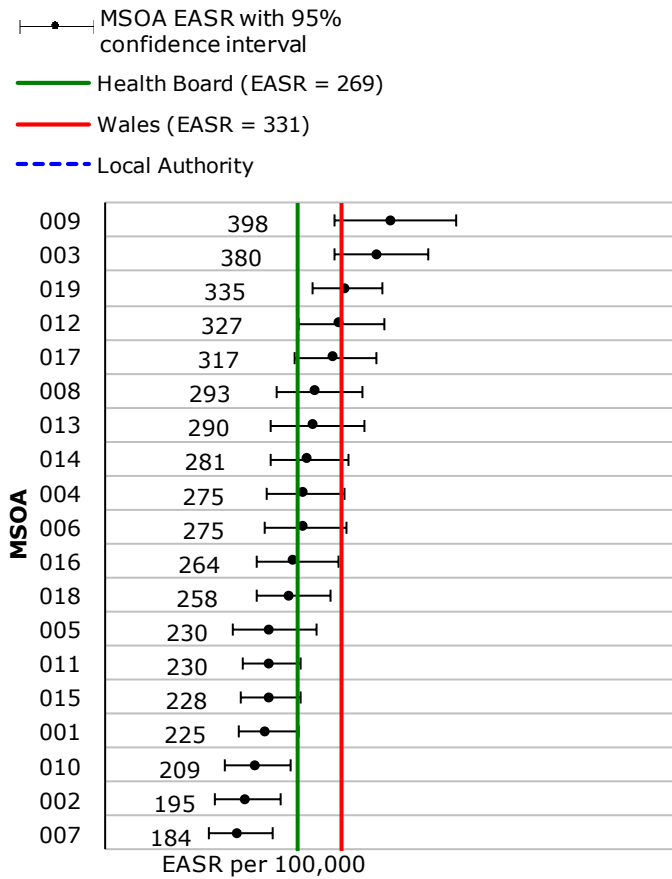
MSOA, European age-standardised rate per 100,000; source: ADDE/ONS



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# **All-cause mortality in Powys Teaching Health Board area, persons aged under 75 years, 2004-08, European age-standardised rates per 100,000**

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

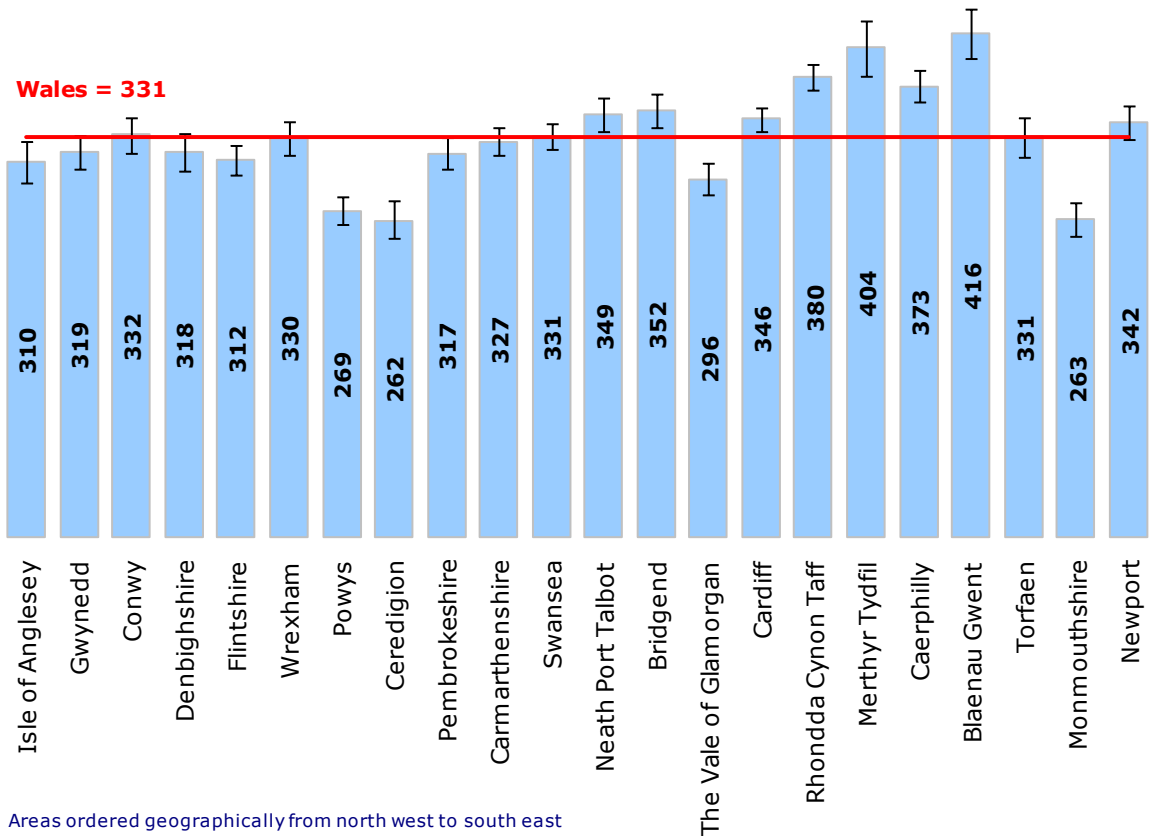


## Local authorities

### All cause mortality by local authority, persons aged under 75 years, 2004-08, European age-standardised rates per 100,000

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

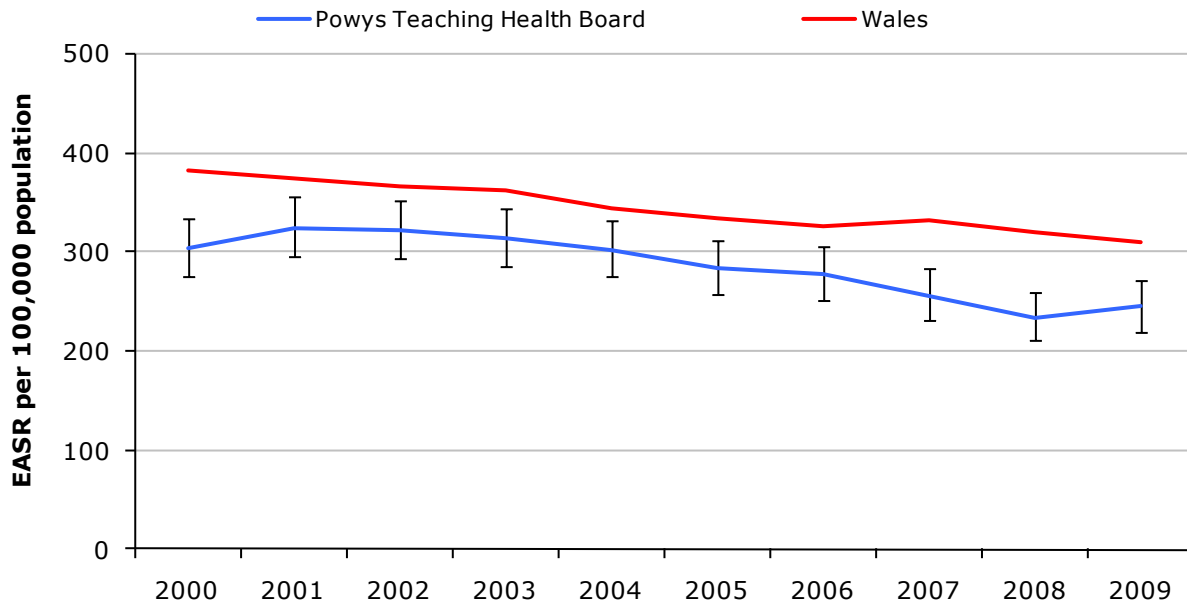
95% confidence interval



## Wales and Powys Teaching Health Board trend

### All-cause mortality rate trend for Powys Teaching Health Board, persons aged under 75: 2000 to 2009

Produced by the Public Health Wales Observatory, using data from ONS (ADDE, MYE)



## 3 Determinants of health

### 3.1 Determinants of health: key points

#### Pattern of deprivation

The pattern of deprivation as described by the Welsh Index of Multiple Deprivation shows that the most deprived areas are located to the south west of Welshpool and Maesyrhandir (south west of Newtown). The least deprived areas are in places like Llandrinio; Llandysilio; Forden; Trewern; Montgomery; the area to the northwest of Newtown; Builth Wells; Brecon; Llangynidr and to the west of Crickhowell.

#### Analysis of the association between deprivation and poor health

The association between socioeconomic deprivation and poor health outcomes is well-established. The Public Health Wales Observatory will be publishing a profile examining the relationship over time between deprivation and mortality later this year. This chart book contains some preliminary analysis released for inclusion in Director of Public Health Annual Reports. The analysis shows that the European age-standardised all-cause mortality rate in the most deprived fifth of areas within Powys Teaching Health Board is one and a half times that of the rate in the least deprived fifth for males. This gap is smaller for females. The charts also show the gap appears to be narrowing for females although the confidence intervals are wide, but remains roughly the same for males.

#### Lifestyle data

The Welsh Health Survey is a rich source of information on lifestyle. It is a self-reported survey randomly sampling around 15 thousand adults (aged 16+) per year in Wales. The sample is constructed to allow reporting at local authority level.

Lifestyle indicators in the Powys Teaching Health Board area are better than, or similar to, the Wales average. However, almost one in five people smoke, leading to around 250 deaths per year within the health board area.

Around two out of five people in the health board area drink more alcohol than the recommended limits and a quarter binge drink on at least one day a week. Hospital admissions due to alcohol and drugs are less common than in Wales but over 2,000 hospital admissions and 40 deaths of Powys residents are caused by alcohol each year.

Overall, around two out of five people eat the recommended amount of fruit and vegetables which is comparable to Wales. The ratio is similar for physical activity; however Powys is the local authority with the highest levels of self reported physical activity in Wales. Improving diet and physical activity are essential to reducing the high proportions of people who are overweight or obese. Over half of the adult population in the health board area are either overweight or obese.

## **3.2 Wider determinants of health**

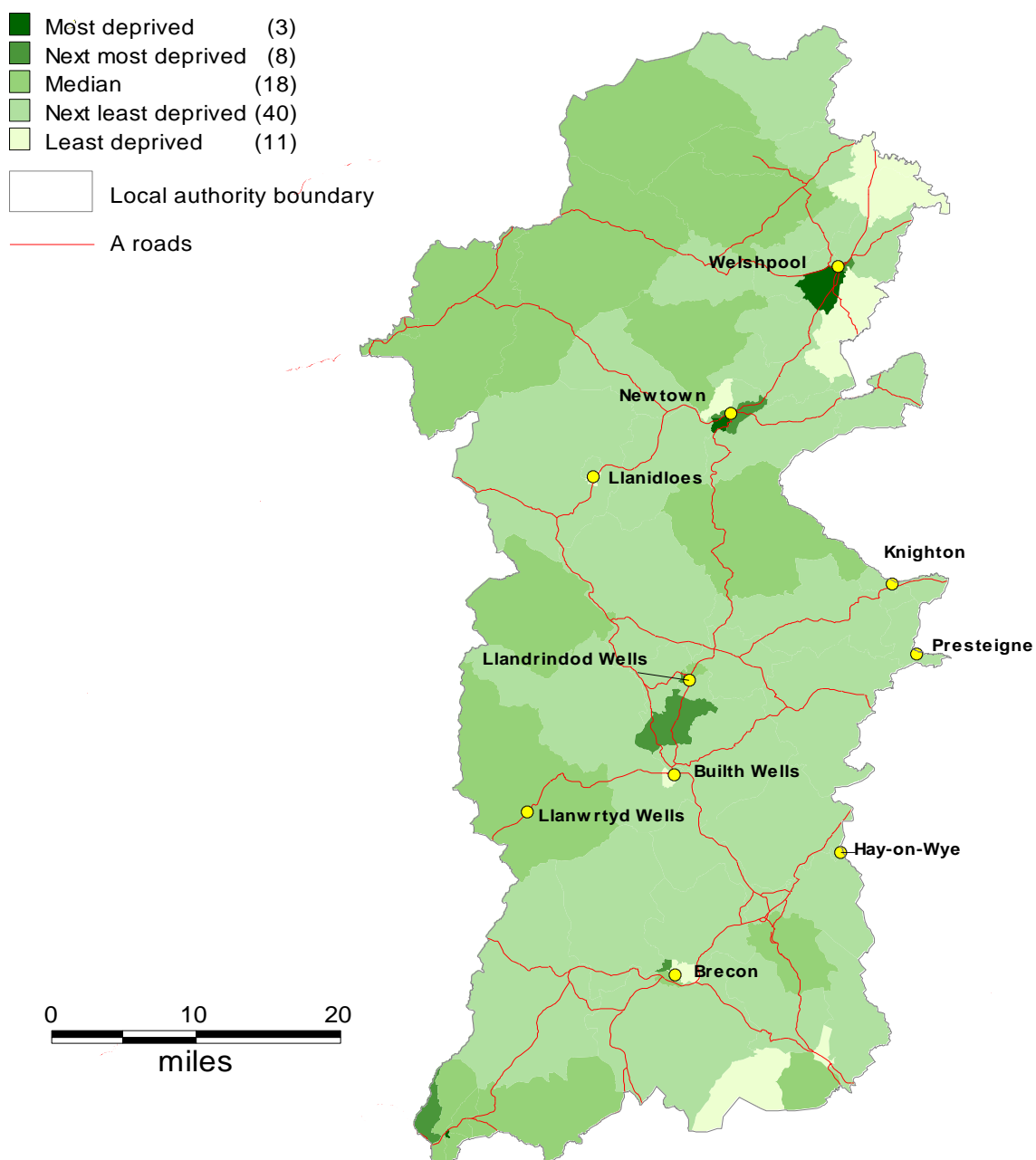
### **3.2.1 Deprivation in relation to Wales**

The Welsh Index of Multiple Deprivation (2008) is produced at a small area level called lower super output area, and is derived from a broad range of factors including income, employment, health, education, skills and training, community safety, housing, physical environment and access to services. It is a geographically based deprivation measure which can be used to show inequalities in health and suggest areas likely to most need measures to improve health and manage ill-health.

This map shows the level of deprivation in the health board in comparison to the rest of Wales.

# Overall Welsh Index of Multiple Deprivation 2008

Fifths of deprivation, Lower Super Output Areas, Data source: WAG



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### 3.2.2 Deprivation within the health board

This map shows the most and least deprived fifths within the health board. It is this grouping that is used to demonstrate inequalities in mortality in the next section.

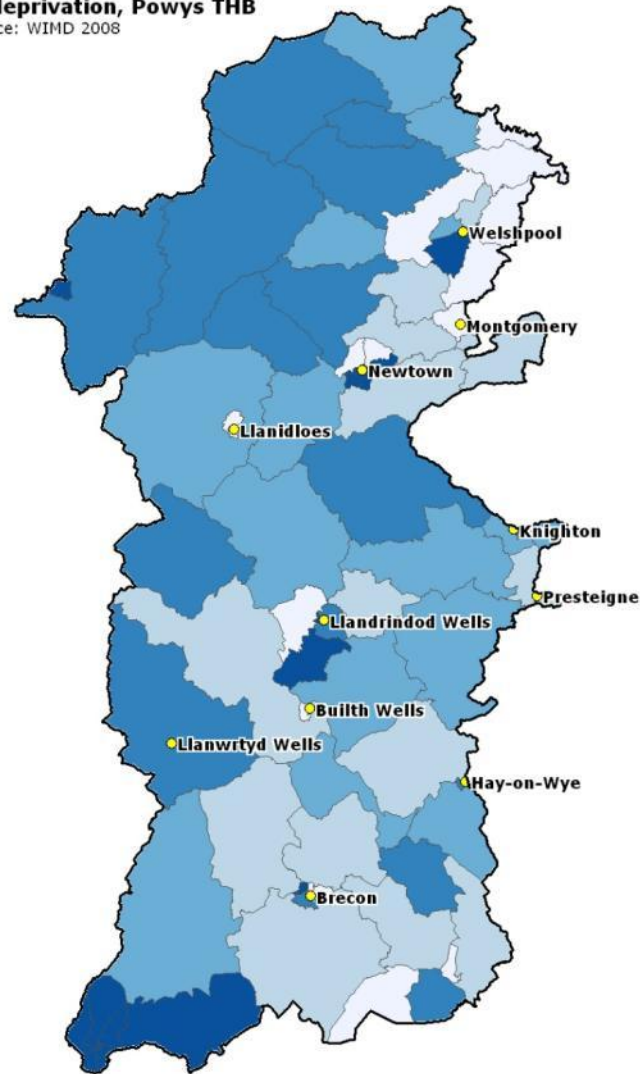
#### Health board fifths of deprivation, Powys THB

Lower Super Output Area. Source: WIMD 2008

- Most deprived
- Next most deprived
- Median
- Next least deprived
- Least deprived

LSOA boundary

LA boundary



0 15.00  
miles

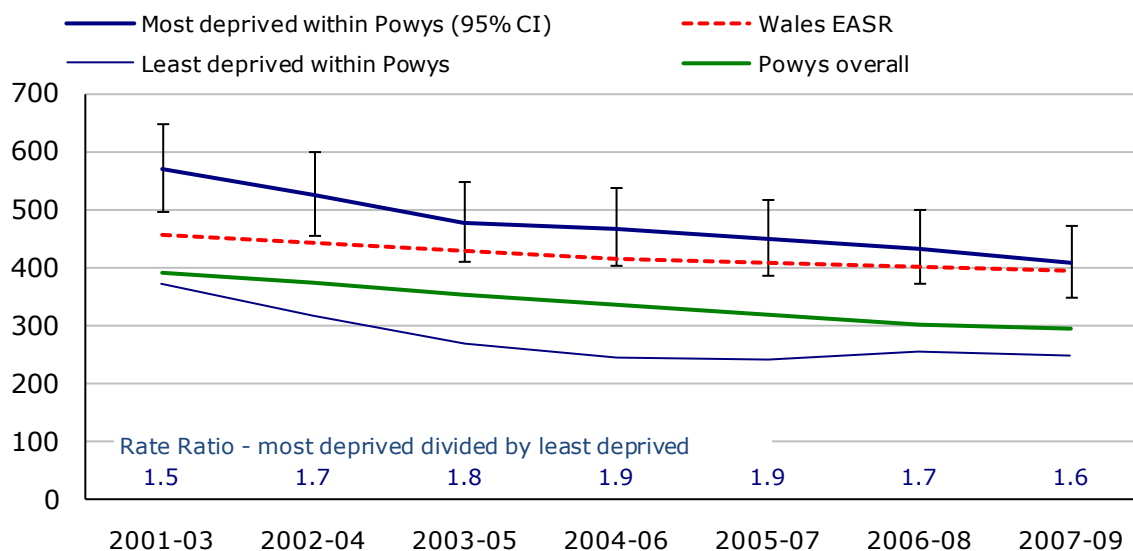
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### 3.2.3 Inequality in all-cause mortality

These graphs compare mortality in the most deprived fifth of the health board population with the least deprived fifth of health board population.

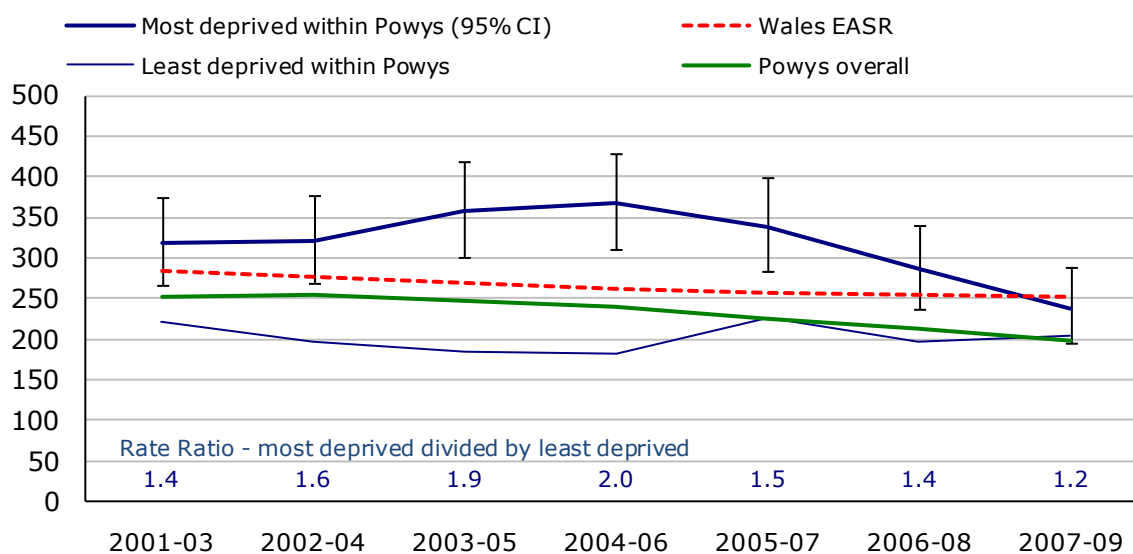
#### All-cause mortality, under 75, males, European age-standardised rate (EASR) per 100,000, Powys THB and Wales, 2001-09

Produced by Public Health Wales Observatory, using ADDE/MYE (ONS), WIMD 2008 (WAG)



#### All-cause mortality, under 75, females, European age-standardised rate (EASR) per 100,000, Powys THB and Wales, 2001-09

Produced by Public Health Wales Observatory, using ADDE/MYE (ONS), WIMD 2008 (WAG)

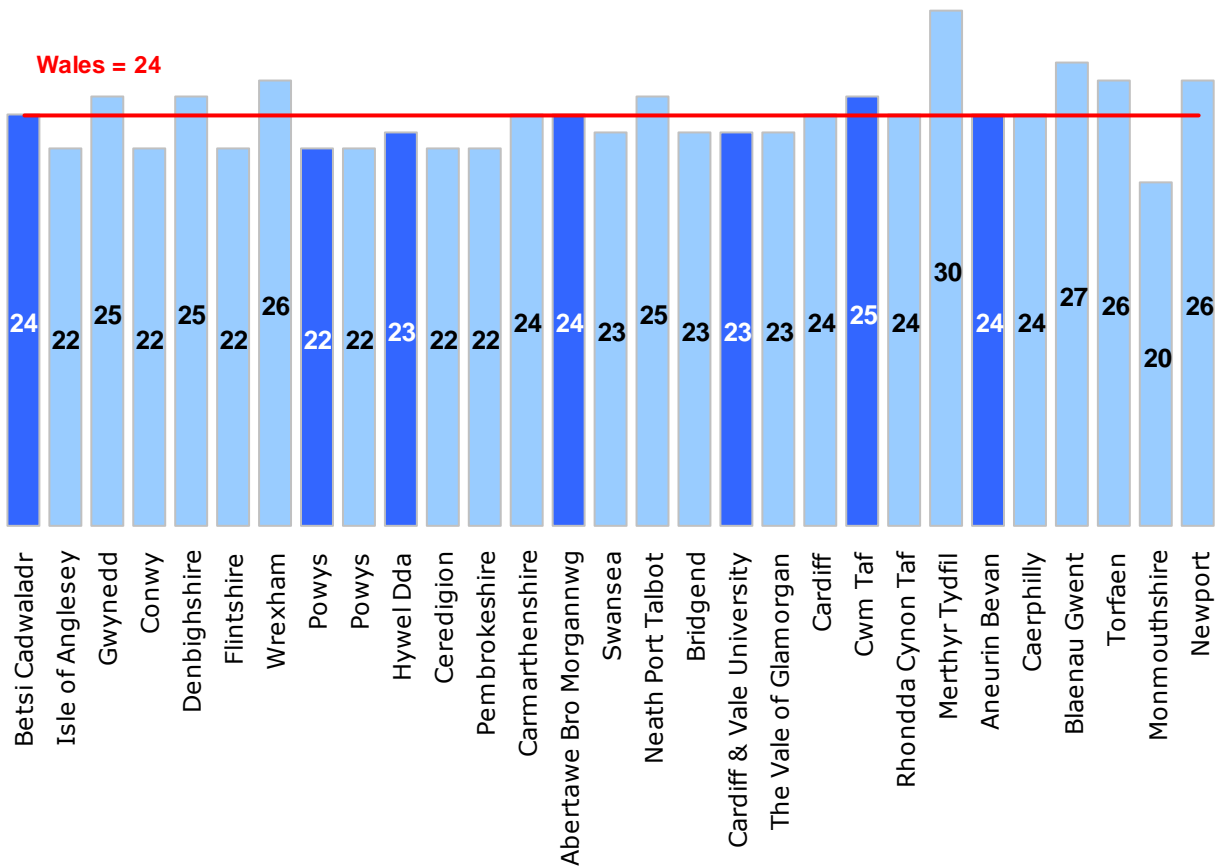


### 3.3 Lifestyle factors

#### 3.3.1 Smoking as reported by adults

##### Adults who reported being a current smoker by local authority and health board, age standardised percentage, 2008-2009

Produced by Public Health Wales Observatory using data from the Welsh Health Survey, 2008 and 2009

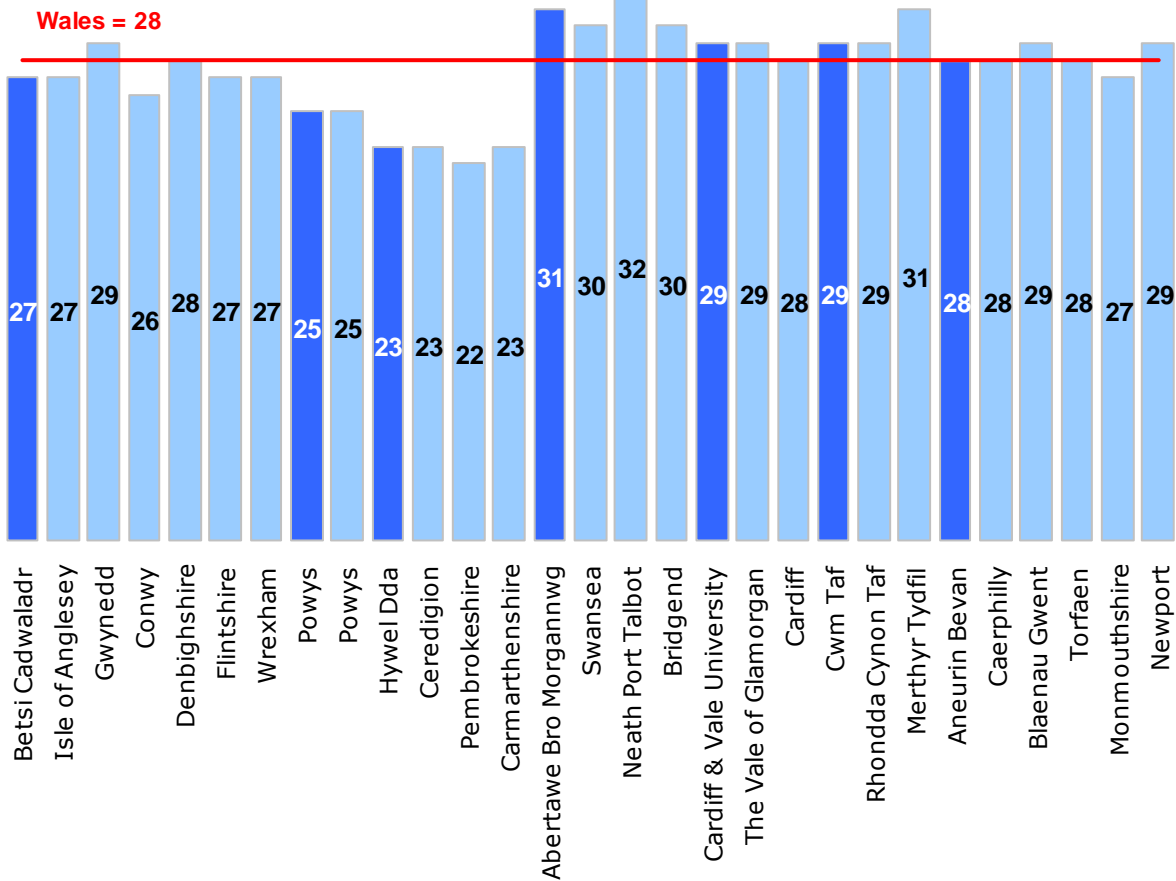


Areas ordered geographically from north west to south east

### 3.3.2 Binge drinking as reported by adults

#### Adults who reported binge drinking on at least one day in the past week by local authority and health board, age standardised percentage, 2008-2009

Produced by Public Health Wales Observatory using data from the Welsh Health Survey, 2008 and 2009

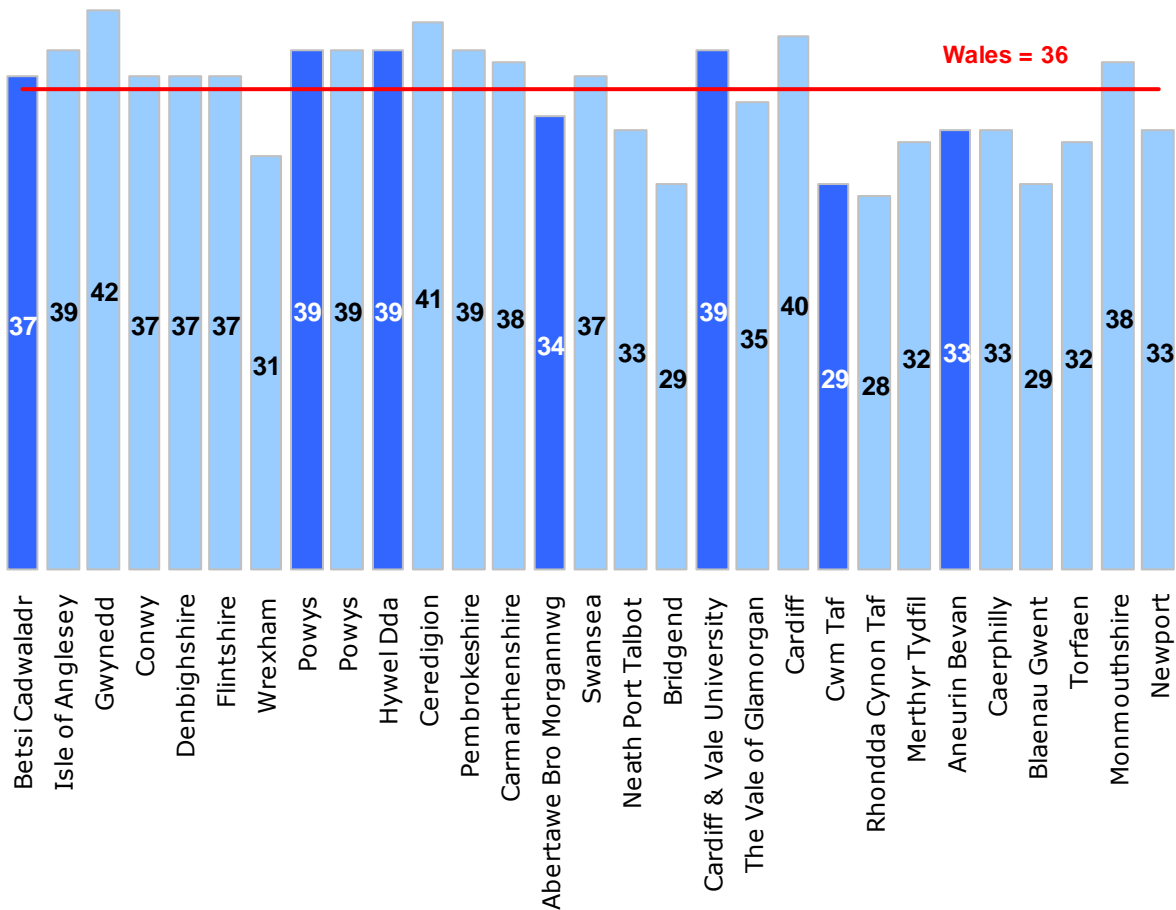


Areas ordered geographically from north west to south east

### 3.3.3 Five or more fruit or vegetables a day as reported by adults

#### Adults who reported eating five/more portions fruit/veg the previous day by local authority/health board, age standardised percentage, 2008-2009

Produced by Public Health Wales Observatory using data from the Welsh Health Survey, 2008 and 2009

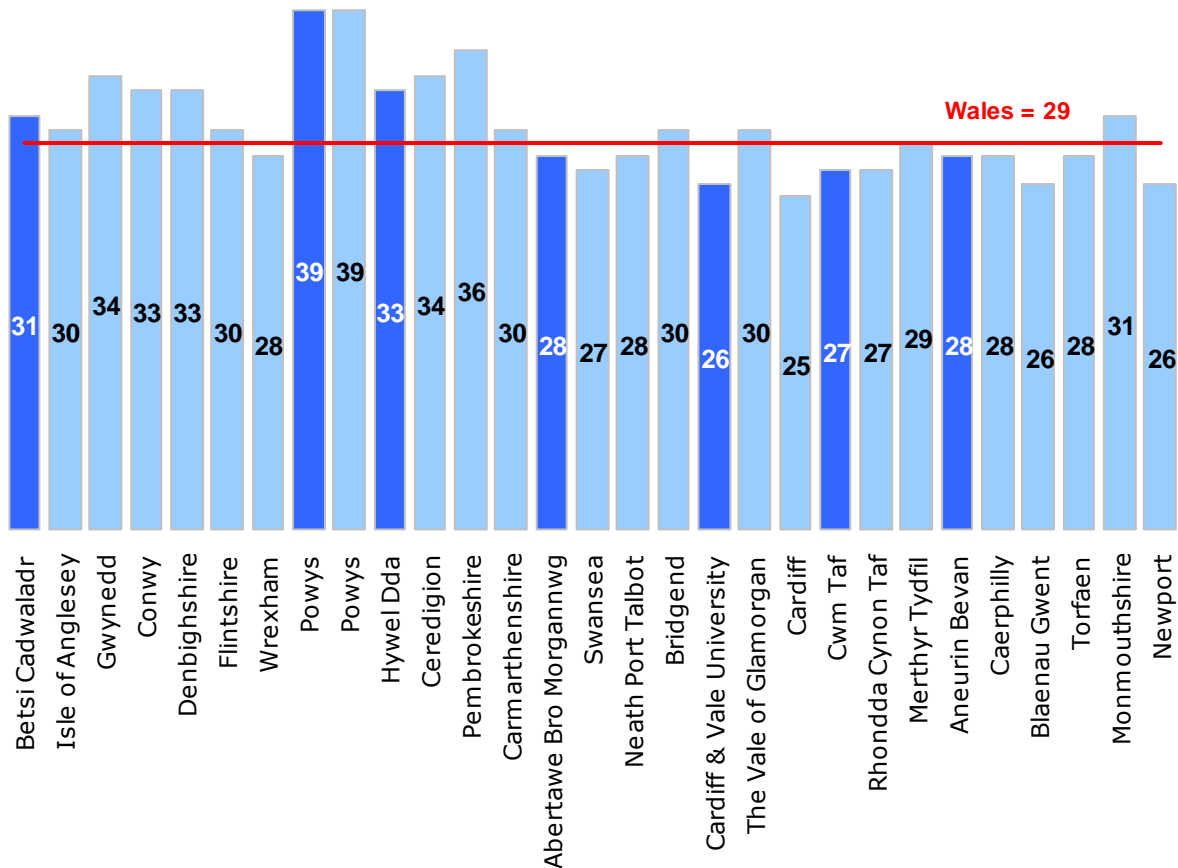


Areas ordered geographically from north west to south east

### 3.3.4 Physical activity as reported by adults

#### Adults who reported meeting physical activity guidelines in the past week by local authority/health board, age standardised percentage, 2008-2009

Produced by Public Health Wales Observatory using data from the Welsh Health Survey, 2008 and 2009

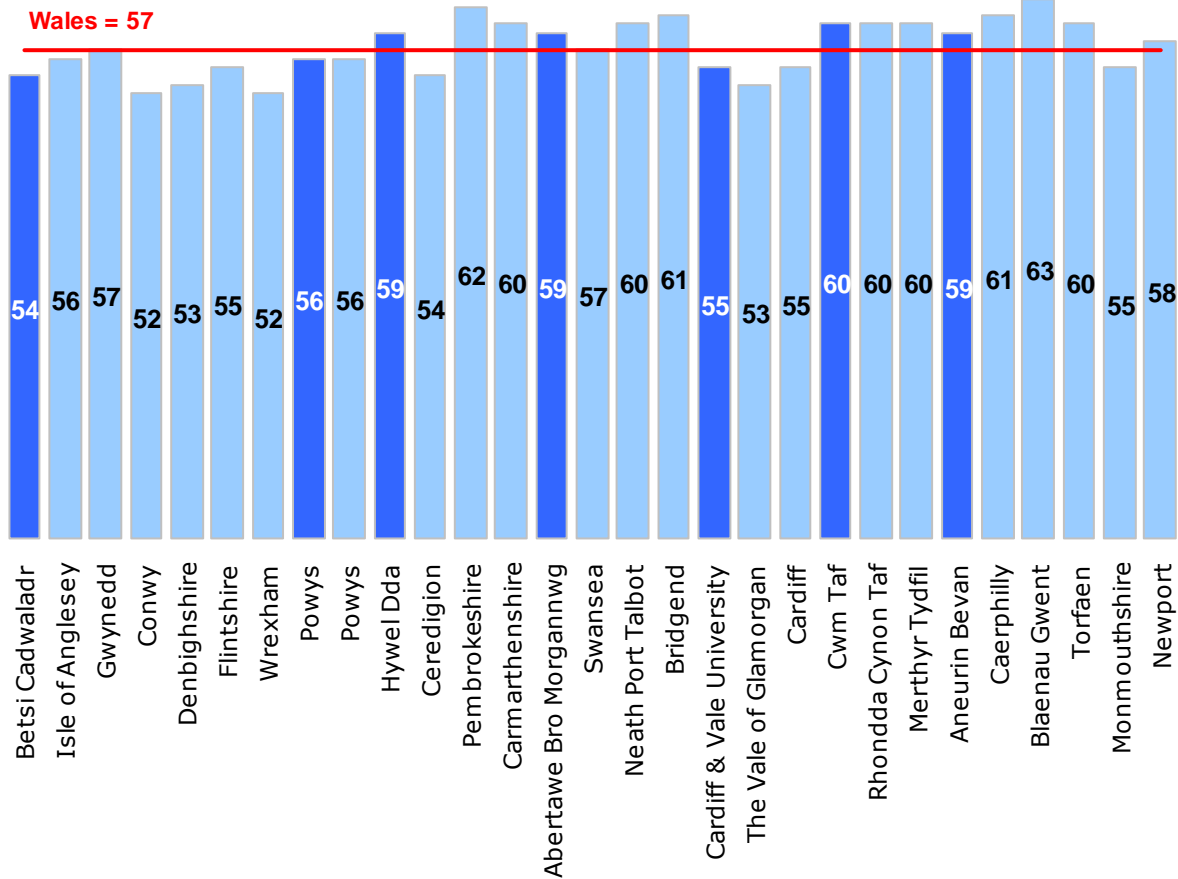


Areas ordered geographically from north west to south east

### 3.3.5 Overweight and obesity, adults based on self reported data

#### Adults who were overweight or obese by local authority and health board, age standardised percentage, 2008-2009

Produced by Public Health Wales Observatory using data from the Welsh Health Survey, 2008 and 2009



Areas ordered geographically from north west to south east

## 4 Use of services

### 4.1 Use of services: key points

#### Childhood immunisations

Childhood immunisation uptake rates show positive long term trends, although remain below target rates in a number of key areas. Immunisations in children under one year of age do not quite reach the 95% target. All immunisations scheduled for children in their second year of life do not reach the 95% target, and coverage of immunisations in five year olds and sixteen year olds are also below target. MMR vaccine uptake is a particular concern given a large outbreak of measles in Wales in 2009, and ongoing outbreaks in Europe in 2011. Uptakes of one dose of MMR in two year olds and two doses in five year olds have improved since 2005, but a 95% uptake of two doses is needed to eliminate measles in line with WHO goals. Improving uptake of pre-school and teenage immunisation will reduce risk of outbreaks of vaccine preventable diseases in future.

#### Seasonal influenza vaccination

In Wales, free seasonal influenza immunisation is offered to all people aged 65 years and over, and people between 6 months and 65 years in clinical risk groups (currently chronic respiratory disease, chronic heart disease, chronic renal disease, chronic liver disease, chronic neurological conditions, diabetes mellitus, and immunosuppression), residents of long-stay care homes and those who were the main carer for an elderly or disabled person whose welfare may be at risk if the carer fell ill. For 2009/10 WAG set a target immunisation uptake rate of 70% for people aged 65 years and over. For the 2010/11 seasonal influenza immunisation campaign the national uptake target was raised to the WHO target of 75% uptake in recommended groups. This target was also put in place for those younger than 65 years in 'at-risk' groups. During the 2010/11 campaign influenza immunisation was also offered to pregnant women who were not an existing clinical risk group.

Uptake of seasonal influenza immunisation for Powys Teaching Health Board in persons aged 65 years and over during 2010/11 was 12% under the target level. In persons aged under 65 years in the at risk groups, uptake during 2010/11 was 27% below the target level.

#### Population Based National Screening Programmes in Wales

Uptake/coverage rates in Powys Teaching Health Board for the national screening programmes for bowel, breast and cervical cancer and newborn hearing screening are slightly higher than or on a par with Wales. However only rates for cervical and newborn hearing screening achieve the UK target rates, the other programmes fall slightly short of the targets.

#### Primary care services

The latest Welsh Health Survey data show that age-standardised percentages of primary care service use by adults in Powys Teaching Health Board are generally slightly lower than those for Wales as a whole. The age-standardised percentage for use of dental services is higher than Wales, whereas that for the use of pharmacies is lower.

### **Use of secondary and tertiary care**

Age-standardised overall hospital admission rates in persons aged under 75 years for 2009 in Powys Teaching Health Board show that the overall rate is slightly lower than the rate for Wales. Drilling down to the MSOA level there is some variation. Rates are lowest in Beulah, Garth, Llangarmach Wells, Llanellwedd, Llanwrtyd Wells, Beguildy, Knighton, Llangunllo, Presteigne, Hengoed and Builth Wells. The highest rates are found in Brecon, Crickhowell, Llangattock, Llangors, Llangynidr and Newtown.

Looking at emergency admissions in this age group, the health board rate is one of the lowest in Wales. At the MSOA level the rate varies with the lowest rates again found in Beguildy, Knighton, Llangunllo, Presteigne and Hengoed. In-keeping with the pattern, the highest rates are found in Crickhowell, Llangattock, Llangors and Llangynidr. High rates of emergency hospital admission may be indicative of inadequate self-care and primary care services.

Contrary to the pattern set with all admissions and emergency admissions, the health board elective admission rate is slightly higher than the rate for Wales. At the MSOA level rates are highest in the Newtown, Maesyrhandir, Trehafren, Milford and Brecon areas. Rates are lowest in Beulah, Garth, Llangarmach Wells, Llanellwedd, Llanwrtyd Wells, Beguildy, Knighton, Llangunllo, Presteigne, Hengoed and Builth Wells areas.

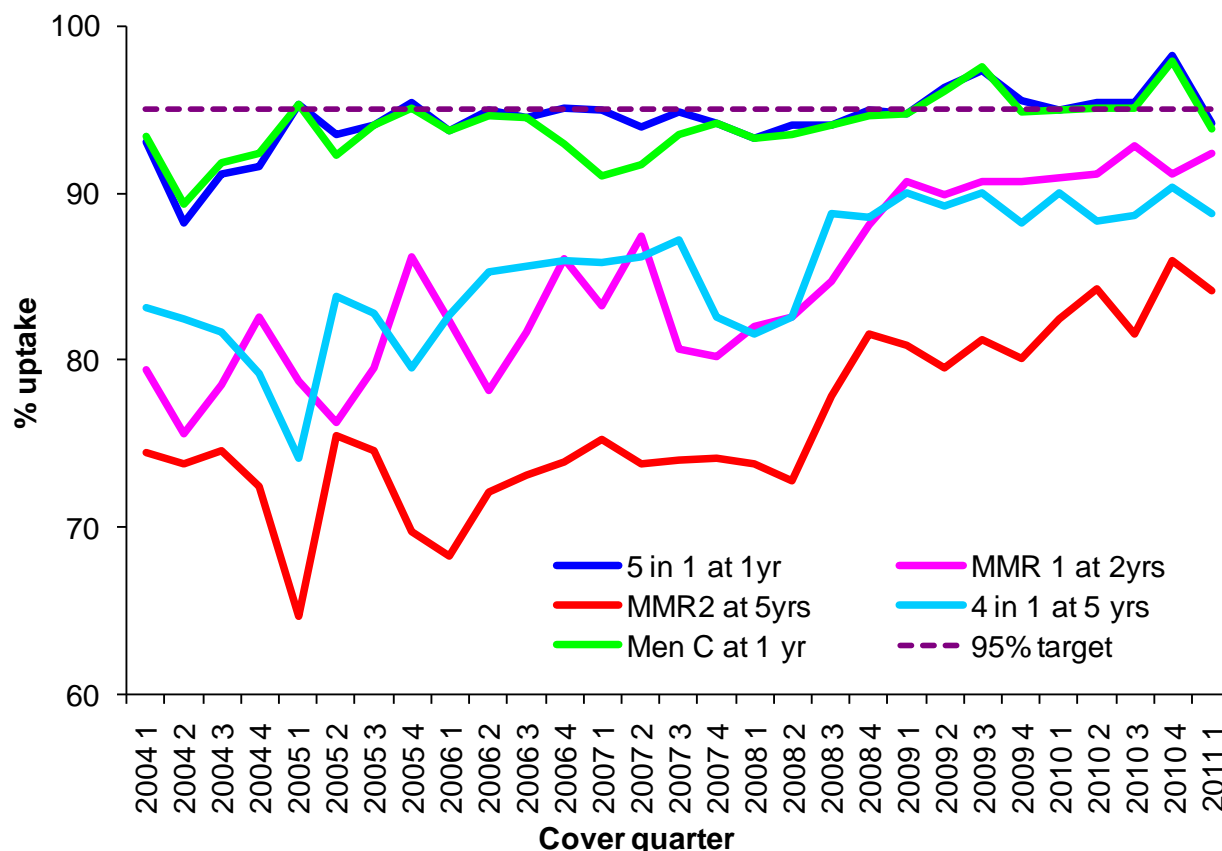
## 4.2 Prevention services: vaccination uptake

Note: Y-axes in the graphs of this section are truncated

### 4.2.1 Childhood immunisations

#### Routine childhood immunisation Powys Teaching Health Board area, trends 2004-2011

Produced by Public Health Wales Vaccine Preventable Disease Programme, from the Public Health Wales COVER reports



#### Routine childhood immunisation Powys Teaching Health Board area, 2011 quarter 1

Produced by Public Health Wales Vaccine Preventable Disease Programme, from the Public Health Wales COVER reports

#### Powys Teaching HB Summary - COVER98

5 in 1 primary by age 1y (3 doses)	94.2%
MenC primary by age 1y (2 doses)	93.8%
PCV primary by age 1y (2 doses)	93.8%
MMR by age 2y (1st dose)	92.4%
PCV by age 2y (final (3rd) dose)	93.8%
Hib/MenC booster by age 2y	94.6%
MMR by age 5y (2nd dose)	84.1%
4 in 1 pre-school booster by age 5y	88.7%
MMR coverage (1dose) by age 16y	88.8%
MMR coverage (2 doses) by age 16y	80.0%
3 in 1 Teenage booster by age 16y	76.8%

## 4.2.2 Seasonal influenza vaccination

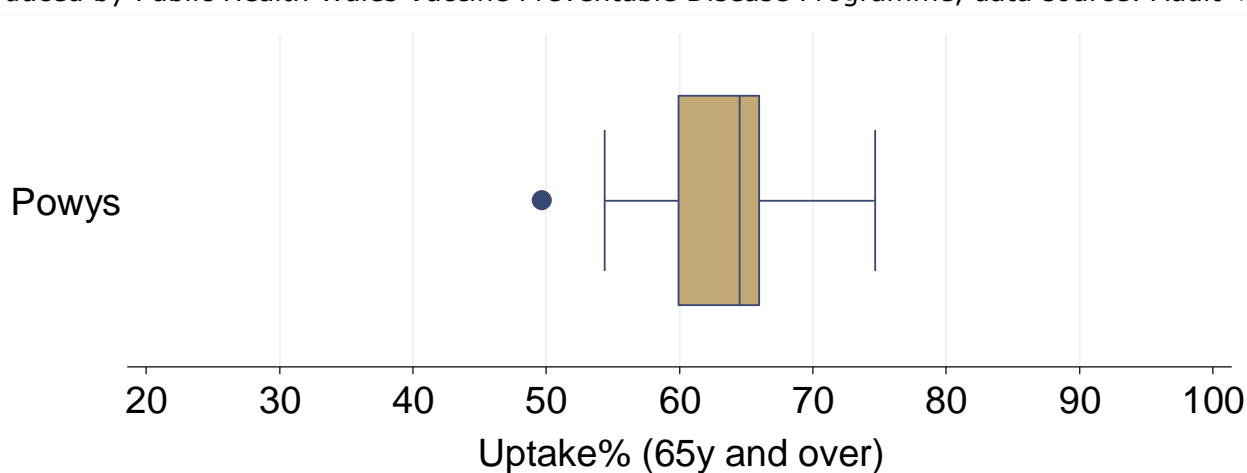
### Uptake of seasonal influenza immunisation in Powys Teaching Health Board area, 2010/2011

Produced by Public Health Wales Vaccine Preventable Disease Programme, data source: Audit +

	Patients aged 65y and over			Patients aged under 65y at risk		
	Total patients	Patients immunised	Uptake (%)	Total patients	Patients immunised	Uptake (%)
<b>Powys Teaching HB</b>	33,148	19,686	63.2	11,979	5,807	48.5

### Distribution of practice level seasonal influenza immunisation uptake rates (patients aged 65 years and over), Powys Teaching Health Board area, 2010/2011

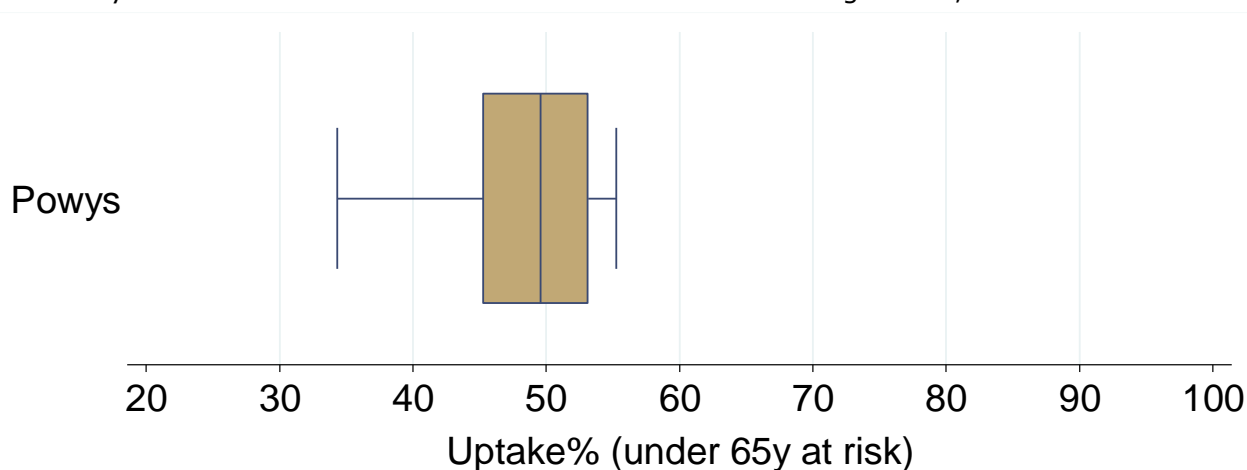
Produced by Public Health Wales Vaccine Preventable Disease Programme, data source: Audit +



Produced by Public Health Wales Vaccine Preventable Disease Programme  
Data source: Audit Plus Data Quality System

**Distribution of practice level seasonal influenza immunisation uptake rates (patients aged under 65 years at risk), Powys Teaching Health Board area, 2010/2011**

Produced by Public Health Wales Vaccine Preventable Disease Programme, data source: Audit +



Produced by Public Health Wales Vaccine Preventable Disease Programme  
Data source: Audit Plus Data Quality System

The line inside the shaded box represents the median practice uptake rate (half of the local authority practices have an uptake higher than the median value and half have an uptake lower than the median value). The shaded box represents the spread in uptake rates of the central 50% of practices, this is called the interquartile range. The whiskers extending above and below the shaded box represent the spread in practice uptake rates for the majority of practices within the local authority. Any practices with uptake rates that are very different from the majority of practices within the local authority are termed 'outliers' and appear as dots outside the whiskers.

### 4.3 Population Based National Screening Programmes in Wales

Screening is a process of identifying apparently healthy people who may be at increased risk of a disease or condition. They can then be offered information, further tests and appropriate treatment to reduce their risk and/or any complications arising from the disease or condition.

In the context of screening programmes:

**Uptake** is the proportion of people routinely invited for screening for who a screening test result is recorded within the same invitation episode. Uptake is an important measure of the acceptability of a screening programme. There are minimum uptake standards and targets set for each of the programmes.

**Coverage** is the proportion of people resident and eligible at a particular point in time who have been screened at least once in a defined time period (dependent on the screening interval of the different programmes).

#### 4.3.1 Uptake of national screening programmes in Wales

**Uptake of breast, bowel, cervical and newborn screening programme statistics for Powys Teaching Health Board area, period 1 April 2009-31 March 2010 compared to all Wales**

Produced by Screening Division, Public Health Wales

Screening programme	Age range / Test frequency in Wales	UK target rate	Wales rate	Powys Teaching	Powys
Bowel Screening <sup>1</sup>	Currently 60-69 years / every 2 years	Uptake: 60%	55.3%	57.5%	57.5%
Breast Screening <sup>2</sup>	50-70 years / every 3 years	Uptake: Minimum 70%, Target 80%	76.2%	77.5%	77.5%
Cervical Screening <sup>3</sup> (aged 20-64)	20-64 years / every 3 years	Coverage: 80% at 5 years (aged 25-64)	76.2%	80.1%	80.1%
Cervical Screening <sup>4</sup> (aged 25-64)	20-64 years / every 3 years	Coverage: 80% at 5 years (aged 25-64)	79.5%	82.2%	82.2%
Newborn Hearing Screening <sup>5</sup>	Newborn babies / within first month of birth	Uptake: 95%	99.7%	99.4%	99.4%

#### Notes

1 Bowel: Uptake of people invited April 2009 to end of March 2010

2 Breast: uptake stated (of those routinely invited, number screened)

3 Cervical (aged 20-64): coverage stated, tested within 5 years

4 Cervical (aged 25-64): coverage stated, tested within 5 years - the 25-64 age range allows direct comparison with England

5 Newborn: uptake stated (of babies born, number tested)

## 4.4 Primary care services

### 4.4.1 Use of primary care as reported by adults

**Powys Teaching Health Board adults who reported particular service use, Welsh Health Survey 2008 & 2009.**

	Observed per cent	Age- standardised percent	Wales per cent
<b>Health service use</b>			
Family doctor (GP) in the past two weeks	17	17	18
In the past three months: Accident, injury or poisoning needing hospital treatment or a visit to casualty	4	4	5
In the past twelve months:			
Pharmacist	64	62	70
Dentist	75	76	70
Optician	49	47	49
<b>Unweighted base (i)</b>			
All aged 16+	1,165	1,165	29,331

Source: Welsh Health Survey 2008 + 2009

(i) Bases vary: those shown are for the whole sample.

Age standardised rate is standardised to the Wales population.

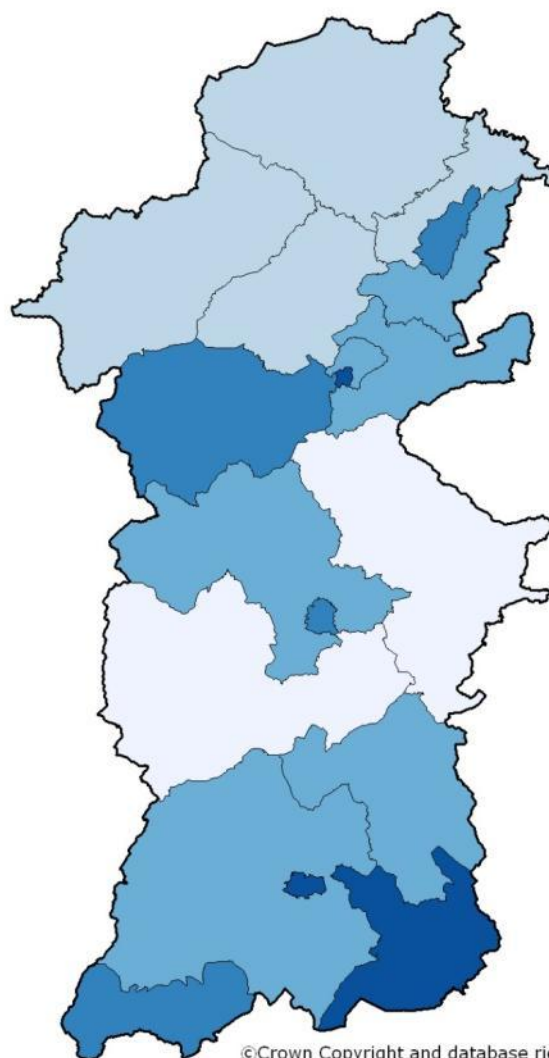
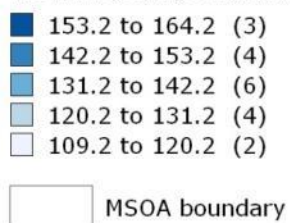
## 4.5 Use of secondary and tertiary care

### 4.5.1 Hospital admissions: individuals aged under 75

#### Middle super output areas

##### Admissions, 2009, persons aged under 75 years

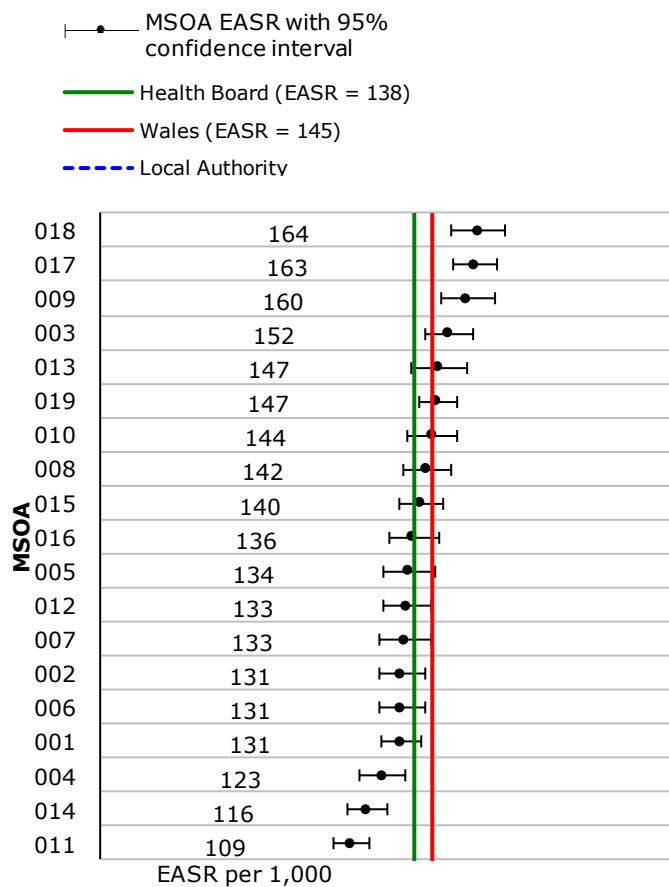
MSOA, European age-standardised rate per 1,000; source: PEDW/ONS



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Produced by the Public Health Wales Observatory

## Hospital admissions in Powys Teaching Health Board area, persons aged under 75, 2009, European age-standardised rates per 1,000

Produced by Public Health Wales Observatory, using data from NWIS (PEDW), ONS (MYE)

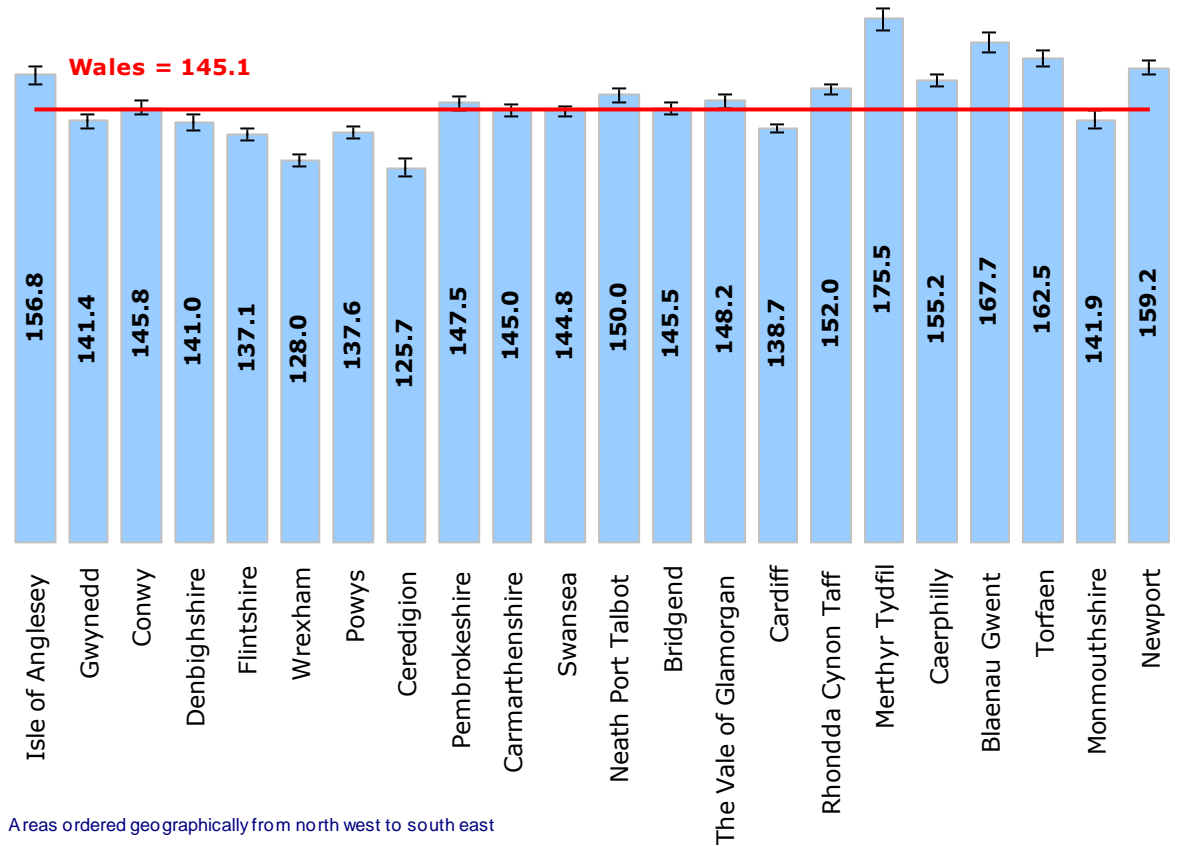


## Local authorities

### Hospital admissions by local authority, persons aged under 75, 2009, European age-standardised rates per 1,000

Produced by Public Health Wales Observatory, using data from NWS (PEDW), ONS (MYE)

95% confidence interval

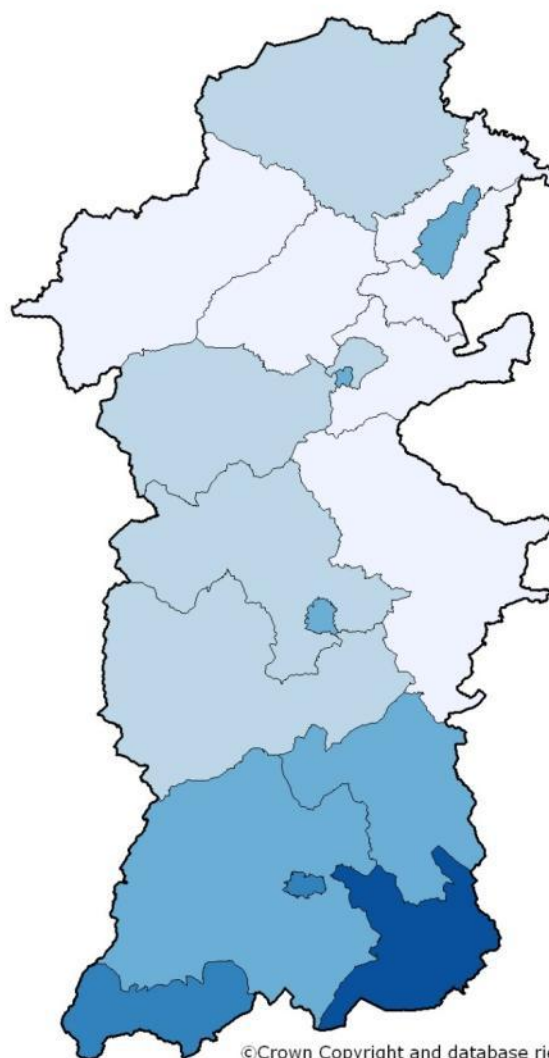
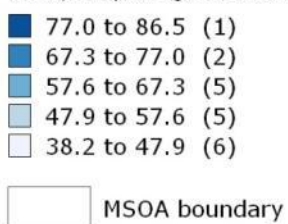


## 4.5.2 Emergency hospital admissions: individuals aged under 75

### Middle super output areas

#### Emergency admissions, 2009, persons aged under 75 years

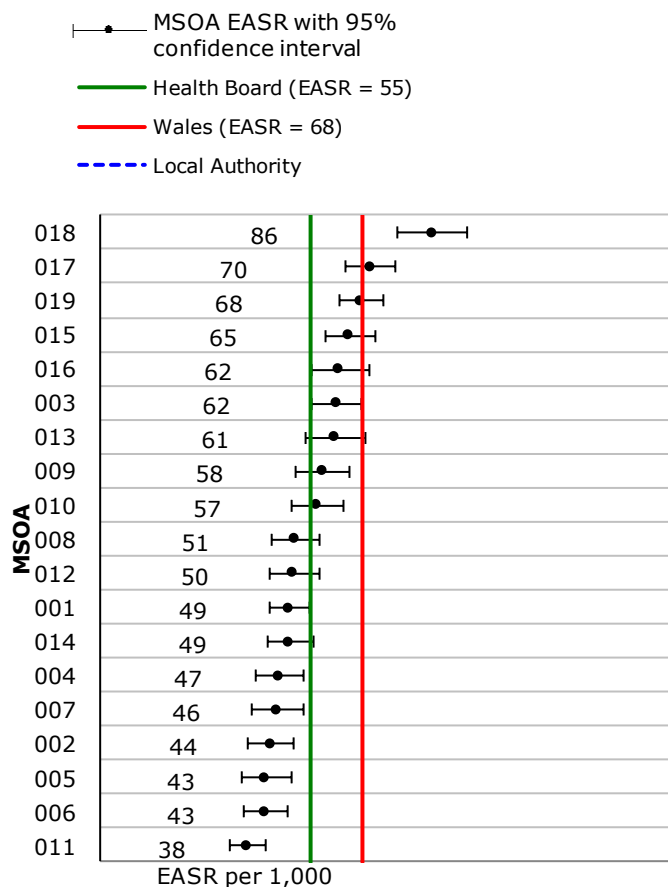
MSOA, European age-standardised rate per 1,000; source: PEDW/ONS



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Produced by the Public Health Wales Observatory

# Emergency hospital admissions in Powys Teaching Health Board area, persons aged under 75, 2009, European age-standardised rates per 1,000

Produced by Public Health Wales Observatory, using data from NWIS (PEDW), ONS (MYE)

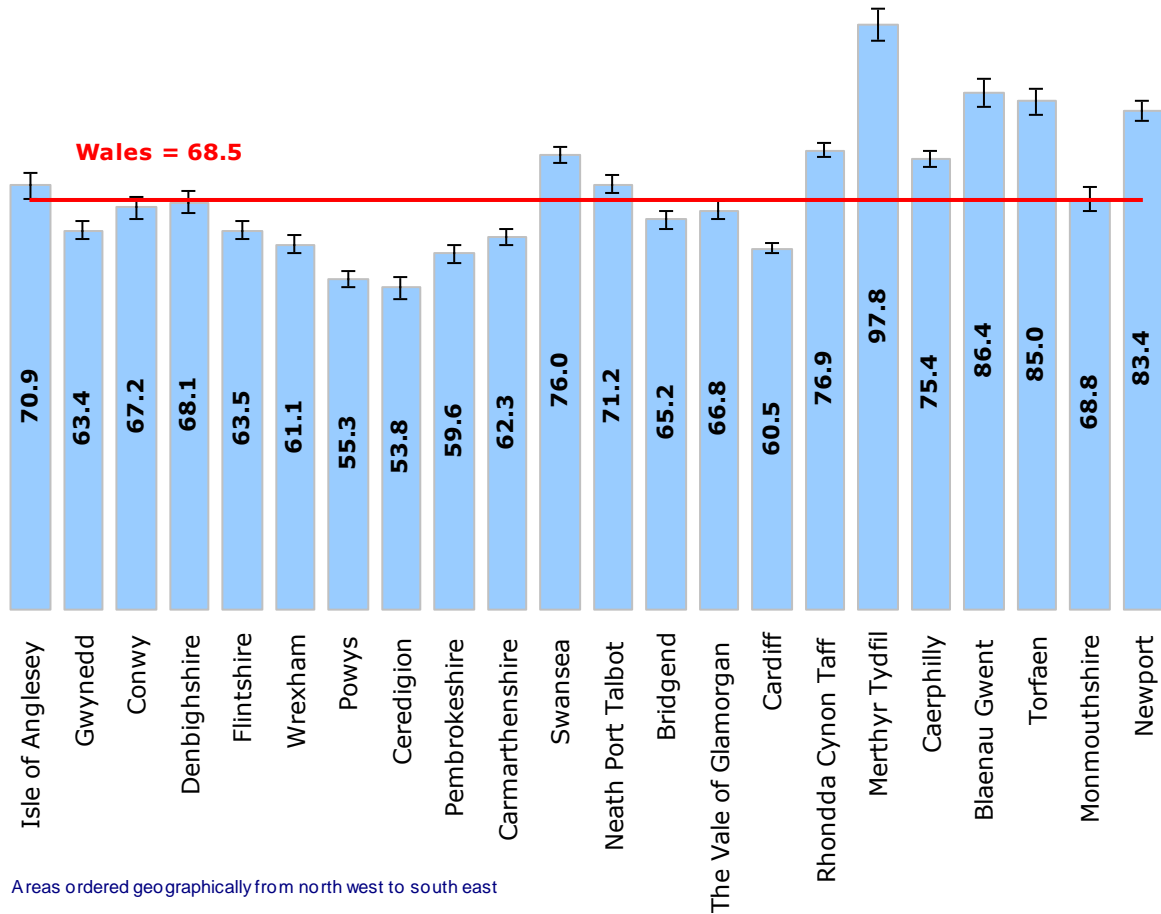


## Local authorities

### Emergency hospital admissions by local authority, persons aged under 75, 2009, European age-standardised rates per 1,000

Produced by Public Health Wales Observatory, using data from NWS (PEDW), ONS (M YE)

95% confidence interval

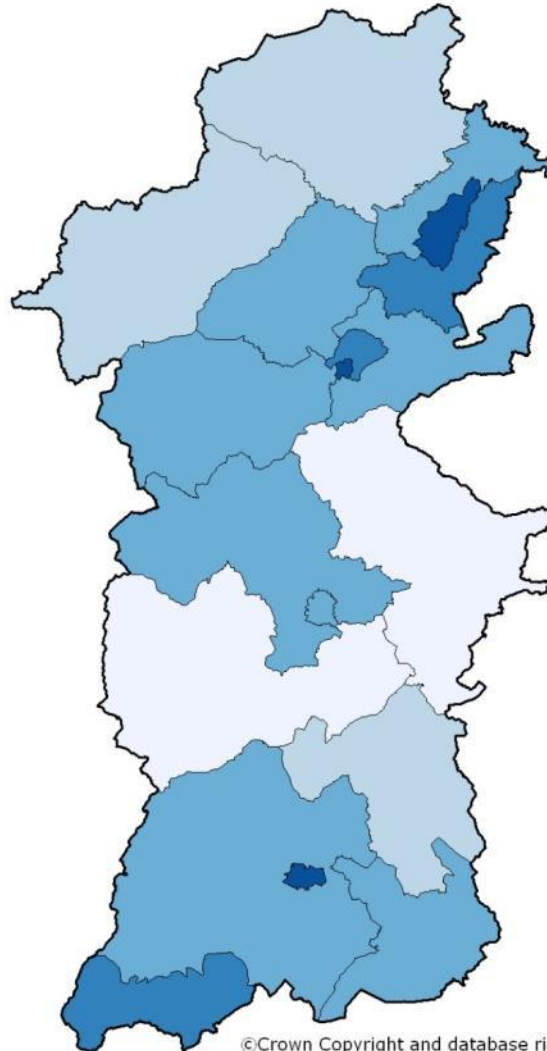
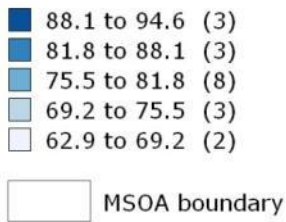


### 4.5.3 Elective hospital admissions: individuals aged under 75

#### Middle super output areas

##### Elective admissions, 2009, persons aged under 75 years

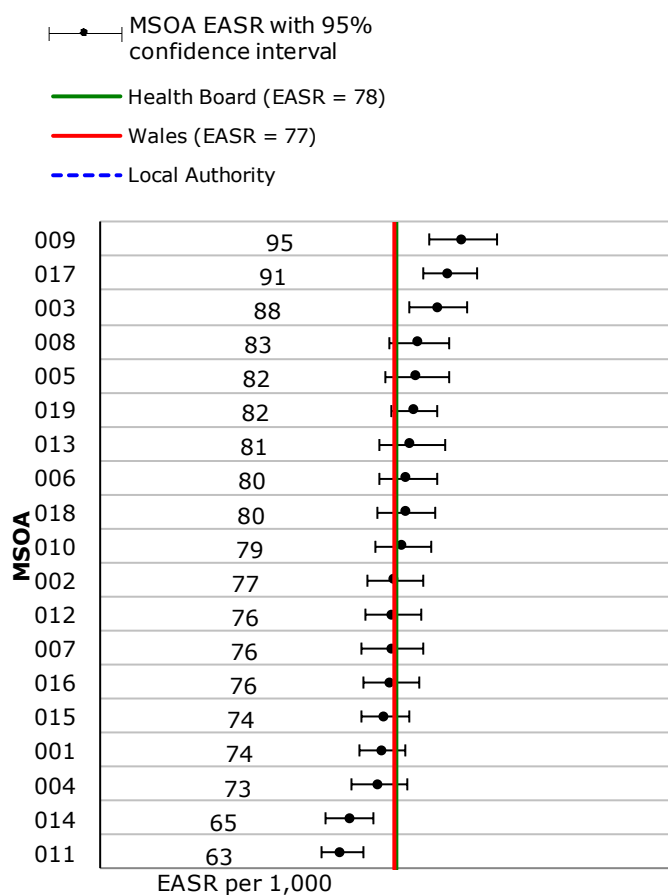
MSOA, European age-standardised rate per 1,000; source: PEDW/ONS



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Produced by the Public Health Wales Observatory

# Elective hospital admissions in Powys Teaching Health Board area, persons aged under 75, 2009, European age-standardised rates per 1,000

Produced by Public Health Wales Observatory, using data from NWIS (PEDW), ONS (MYE)

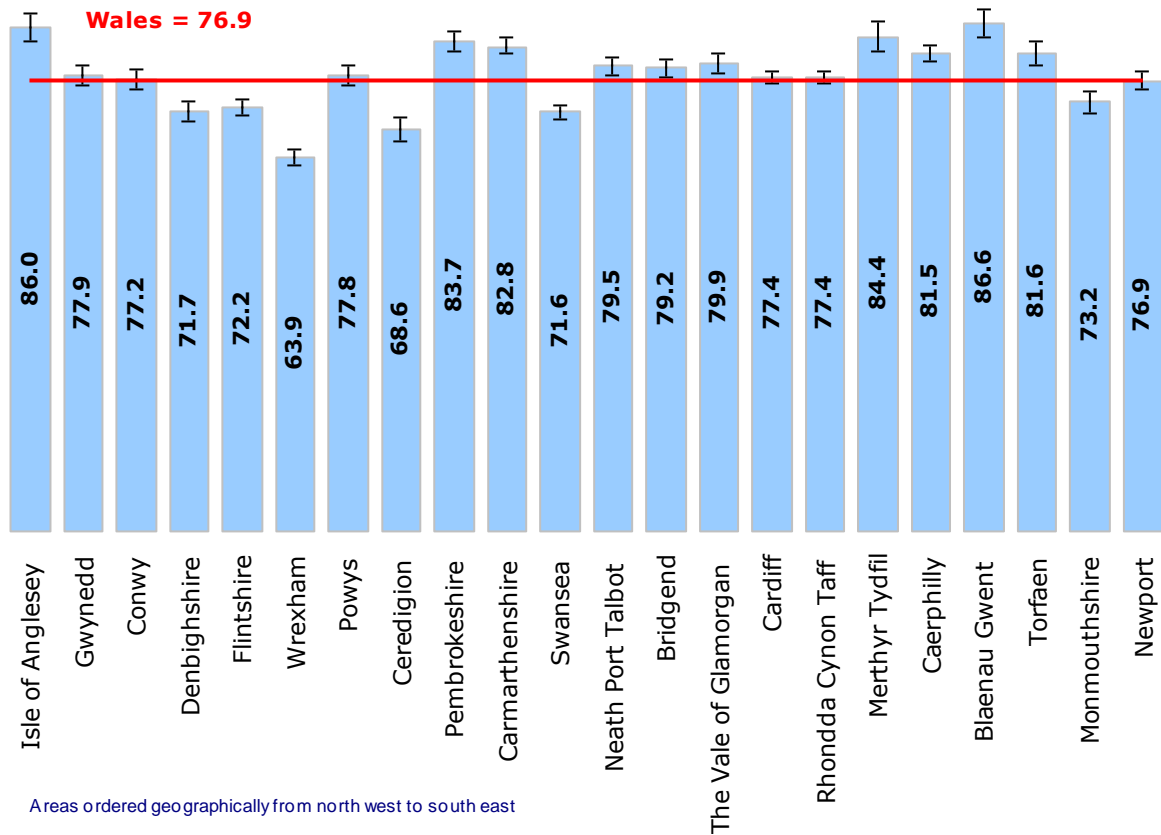


## Local authorities

### Elective hospital admissions by local authority, persons aged under 75, 2009, European age-standardised rates per 1,000

Produced by Public Health Wales Observatory, using data from NWIS (PEDW), ONS (M YE)

95% confidence interval



## 5 Health status

### 5.1 Health status: key points

There are consistent general patterns exhibited across the various indices of health status. Powys Teaching Health Board has generally better levels of health than Wales as a whole.

#### Low birth weight

Low birth weight is associated with poor maternal health and lifestyle and there is increasing evidence to show an association with adverse effects later in life. The percentage of singleton live born babies weighing under 2500g in Powys Teaching Health Board is lower than Wales. At the MSOA level, the areas with the highest percentages are found in the areas north and east of Newtown and in Brecon. The lowest percentages are located in the area west of Newtown: Church Stoke, Abermule, Kerry; and also in Felin Fach, Sennybridge, Talybont-on-Usk and Pont Faen.

#### Self-reported health status

The Welsh Health Survey contains a number of questions on health status, including the SF36 questionnaire which can be summarised into overall physical and mental health scores. The latest results show that self reported physical and mental health scores are better in Powys Teaching Health Board than in Wales as a whole. The data also show that Powys Teaching Health Board has the highest mean SF-36 mental component summary score out of the 22 local authorities in Wales. The age-standardised percentage for adults reporting a limiting long-term illness (which includes problems related to old age) is lower than Wales. Looking at persons reporting current treatment for a mental health condition, the health board rate is the lowest in Wales.

#### Mortality from specific conditions

Circulatory disease includes heart disease and stroke and is the most common underlying cause of death in Wales. Lifestyle factors such as diet, exercise, alcohol consumption and especially smoking are known to be implicated in circulatory disease. The European age-standardised mortality rate for Powys Teaching Health Board is lower than Wales. At MSOA level there is substantial variation between the lowest and highest area rates. Areas with the lowest rates are found in Berriew, Forden, Montgomery and Buttington; the highest rates are found in Welshpool, Newtown, Maesyrhandir, Trehafren, Milford, Aber-craf, Cwm-twrch, Ynyscedwn and Ystradgynlais. The pattern is similar in the under 75 age group.

Coronary heart disease is a sub-category within circulatory disease and includes heart attacks. Smoking is a major cause of coronary heart disease. The European age-standardised mortality rate for Powys Teaching Health Board is lower than the Wales rate. At MSOA level, once again, variation is high. The pattern is similar to that for circulatory disease with the highest rates in the Maesyrhandir, Trehafren, Milford areas of Newtown. The lowest rates are

found in Beguildy, Knighton, Langunllo and Presteigne; and in Hengoed, Machynlleth and Llanbrynmair.

Cancer is the second most common cause of death in Wales. Causes of cancer are multifactorial, varying depending on the site but smoking and other lifestyle factors are important risk factors. The European age-standardised mortality rate for Powys Teaching Health Board is lower than Wales. At MSOA level the difference between the highest and lowest rate is double. The pattern is familiar with the highest rates located in the Maesyrhandir, Trehafren, Milford areas of Newtown. The lowest rates are found in Church Stoke, Abermule and Kerry areas to the east of Newtown.

Respiratory disease is a very common cause of death. Once again, smoking is a major risk factor for respiratory disease. The European age-standardised mortality rate for Powys Teaching Health Board is lower than Wales. At the MSOA level there is even greater variation than with mortality from cancers; the difference is two and a half times between the lowest and highest rate. The wider confidence intervals on the caterpillar charts are indicative of the fact that there are fewer respiratory disease deaths than for cancer or circulatory disease. The lowest rates are found in Guilsfield; Llandrinio; Llandysilio; Llanidloes; Llandinam and Llangurig, and the highest rates are found in Welshpool.

### **Cancer survival**

Relative survival is the most widely used method in population studies. It is the ratio of the survival observed in the group of cancer patients to the survival that would be expected if they were subject to the same overall mortality rates by age, sex and calendar period as the general population. The expected probabilities are obtained from life tables for Wales that provide the life expectancy of persons for a given year by age and sex. The problems arising with crude survival are therefore overcome. It enables one to measure variations in cancer survival (or its complement, mortality) independently of variations in expected (background) mortality associated with various factors (age and sex in these analyses). The regional data for Wales indicate a steady improvement in one year relative survival for both males and females.

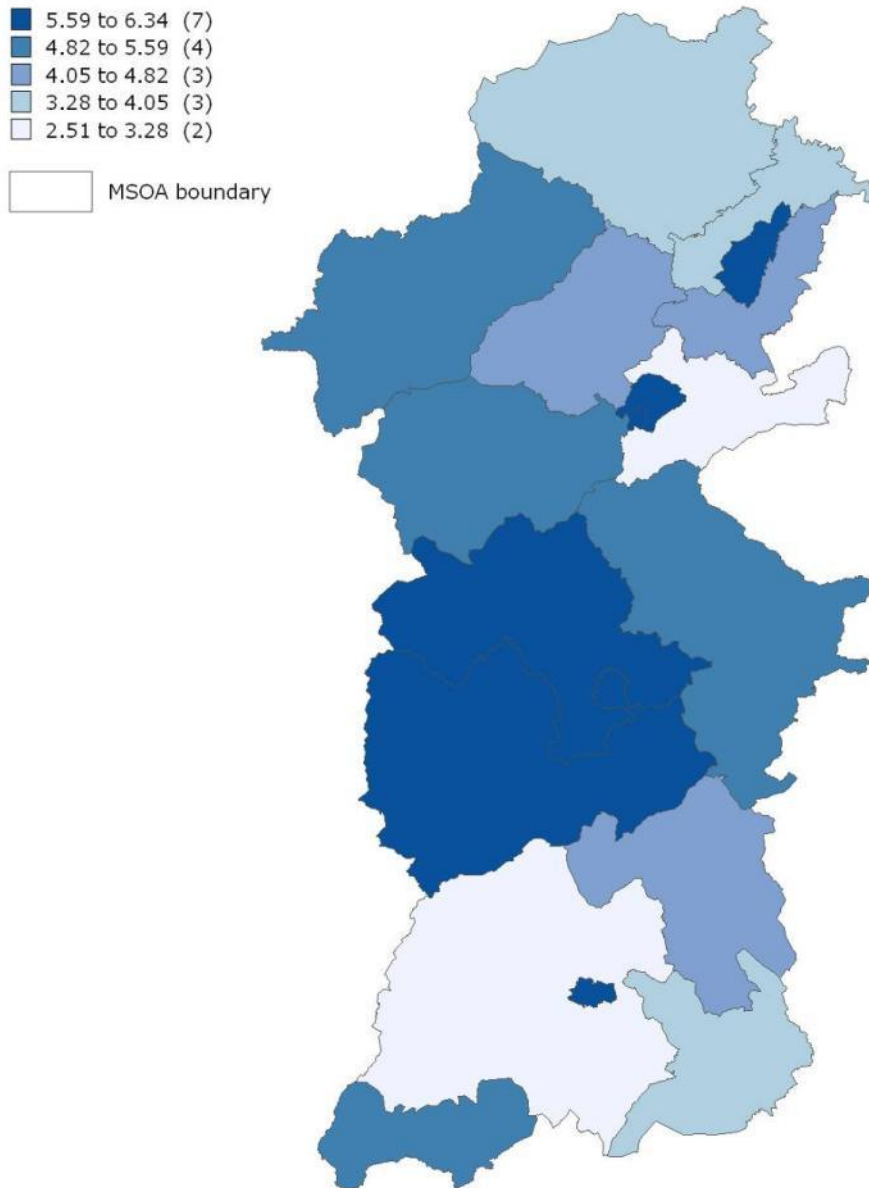
The site-specific one and five year relative survival figures indicate that there is little difference between Powys Teaching Health Board and Wales as a whole except for prostate cancer (males) where the five year survival was statistically significantly worse.

## 5.2 Physical and mental health

### 5.2.1 Low birth weight

#### Middle super output areas

**Low birth weight, 1998-2007, all singleton live births**  
MSOA, Percentage; source: ADBE/OIS

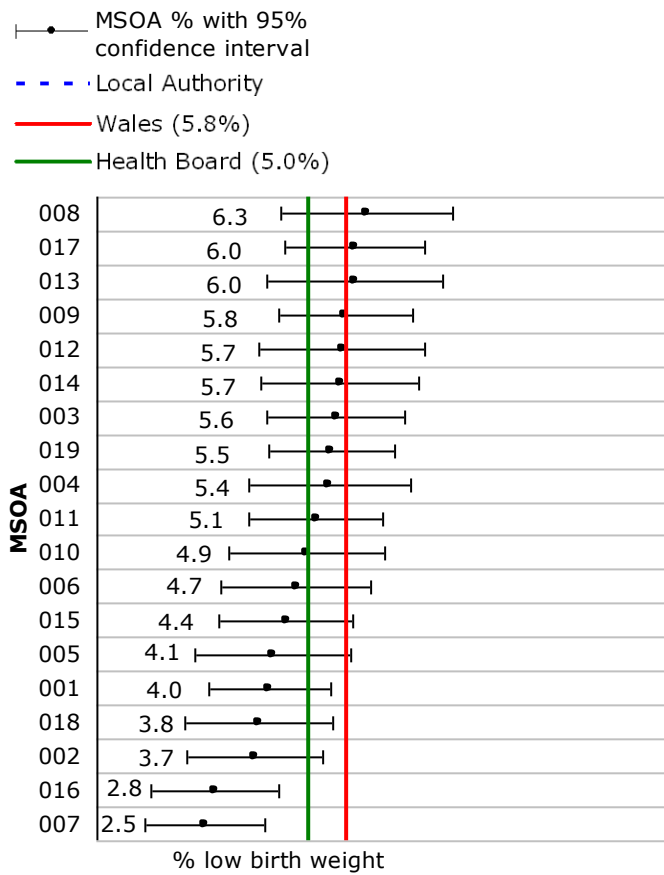


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Produced by Public Health Wales Observatory

Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

# **Low birth weight in Powys Teaching Health Board area, percentage of singleton live births, 1998-2007**

Produced by Public Health Wales Observatory, using data from ONS (ADBE, MYE)

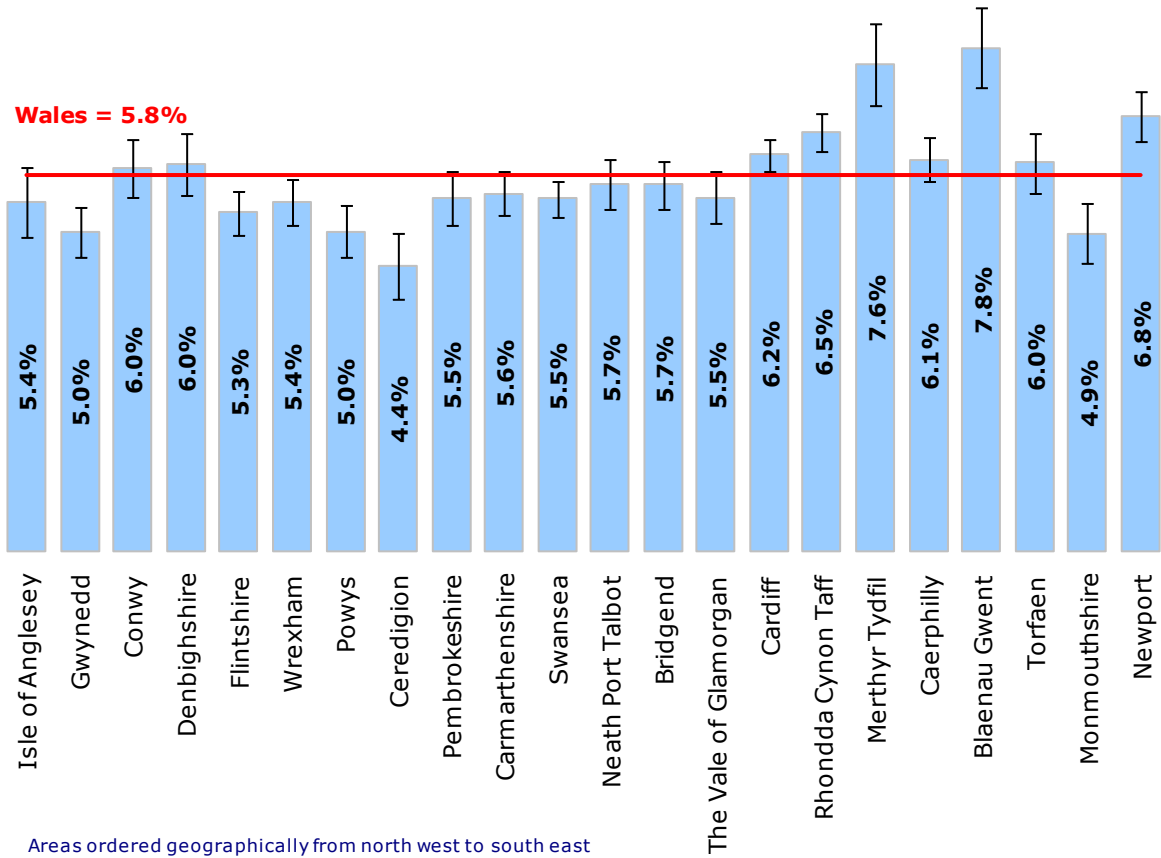


## Local authorities

### Low birth weight by local authority, percentage of singleton live births, 1998-2007

Produced by Public Health Wales Observatory, using data from ONS (ADBE, MYE)

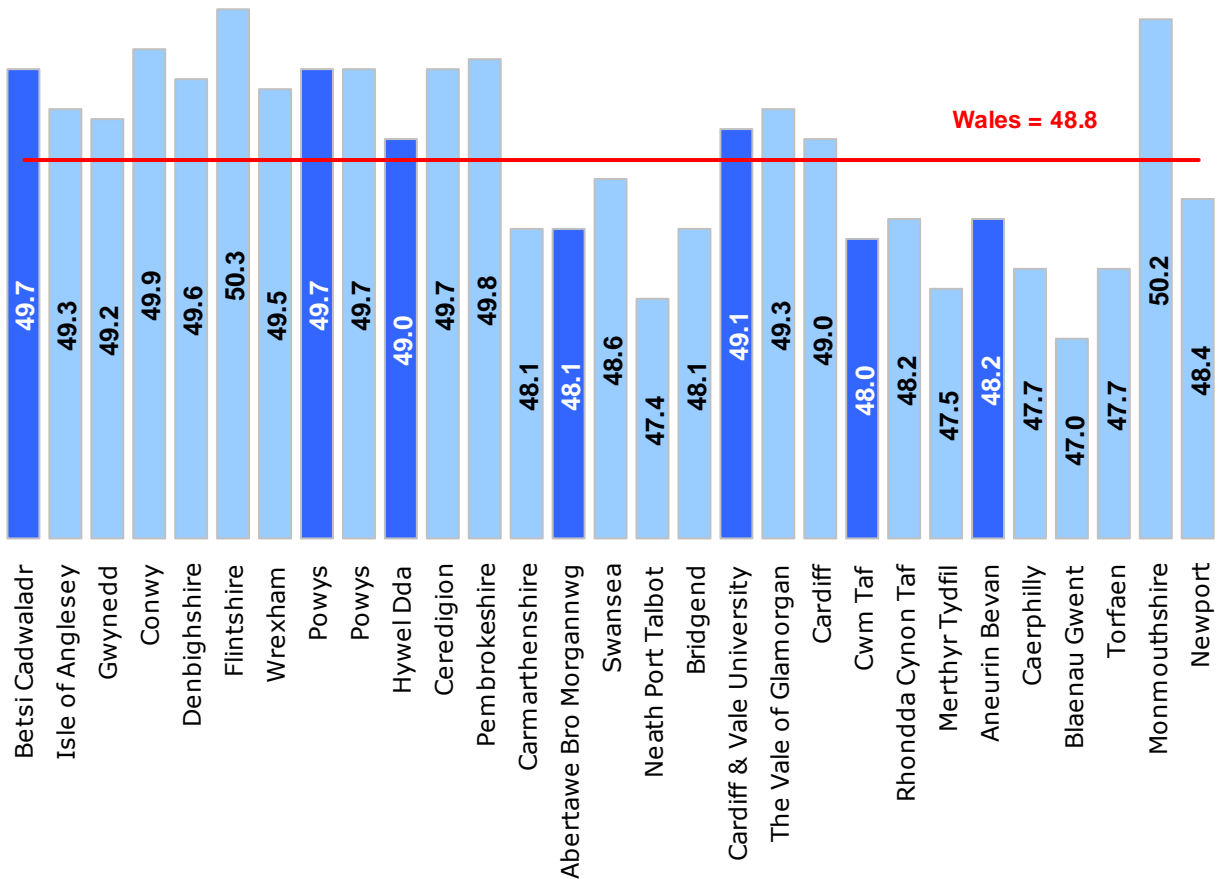
95% confidence interval



## 5.2.2 Physical health as reported by adults\*

### Mean SF-36 Physical component summary score by local authority and health board, age standardised rate, 2008-2009

Produced by Public Health Wales Observatory using data from the Welsh Health Survey, 2008 and 2009



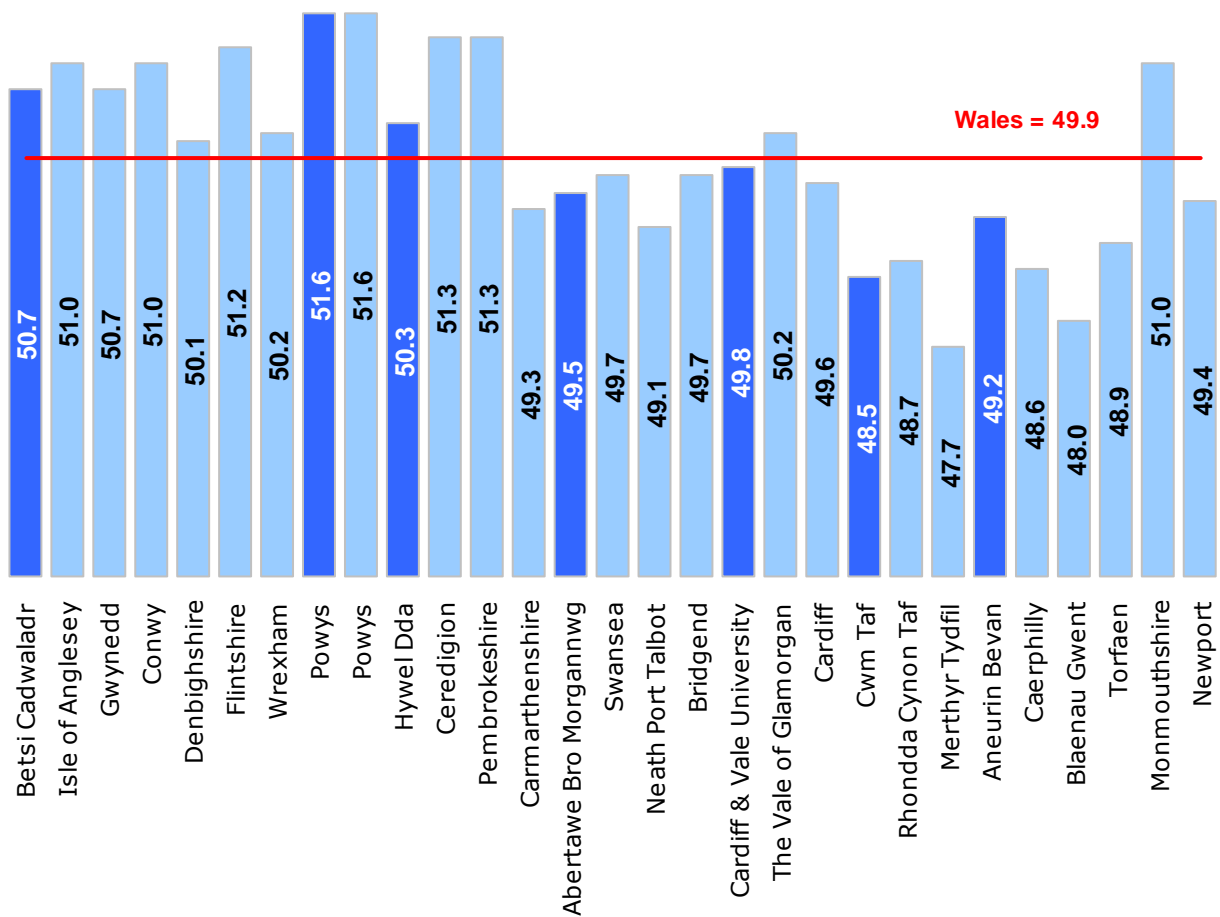
Areas ordered geographically from north west to south east

\* Y-axis is truncated to 45

### 5.2.3 Mental health as reported by adults\*

#### Mean SF-36 Mental component summary score by local authority and health board, age standardised rate, 2008-2009

Produced by Public Health Wales Observatory using data from the Welsh Health Survey, 2008 and 2009



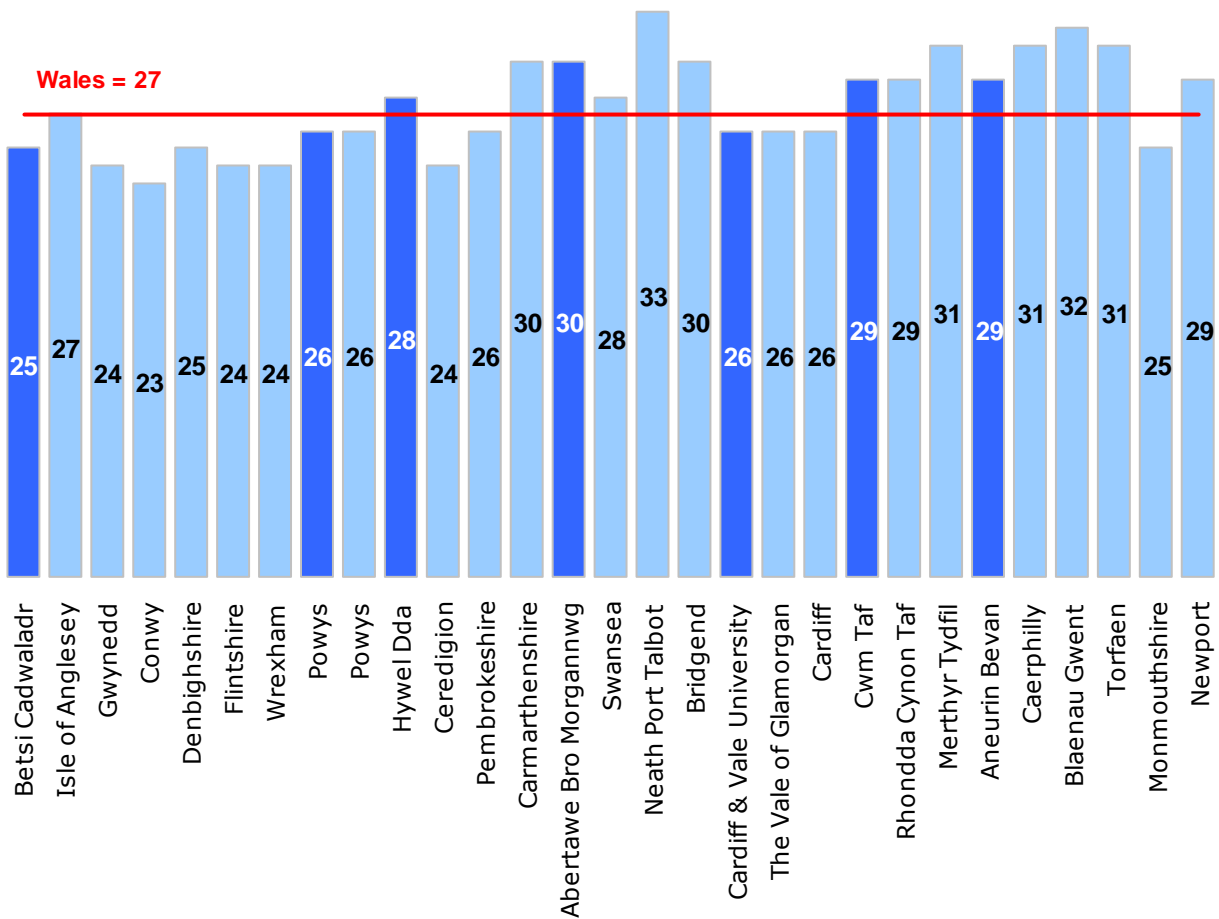
Areas ordered geographically from north west to south east

\* Y-axis is truncated to 45

## 5.2.4 Limiting long term illness as reported by adults

### Adults who reported having a limiting long-term illness by local authority and health board, age standardised percentage, 2008-2009

Produced by Public Health Wales Observatory using data from the Welsh Health Survey, 2008 and 2009

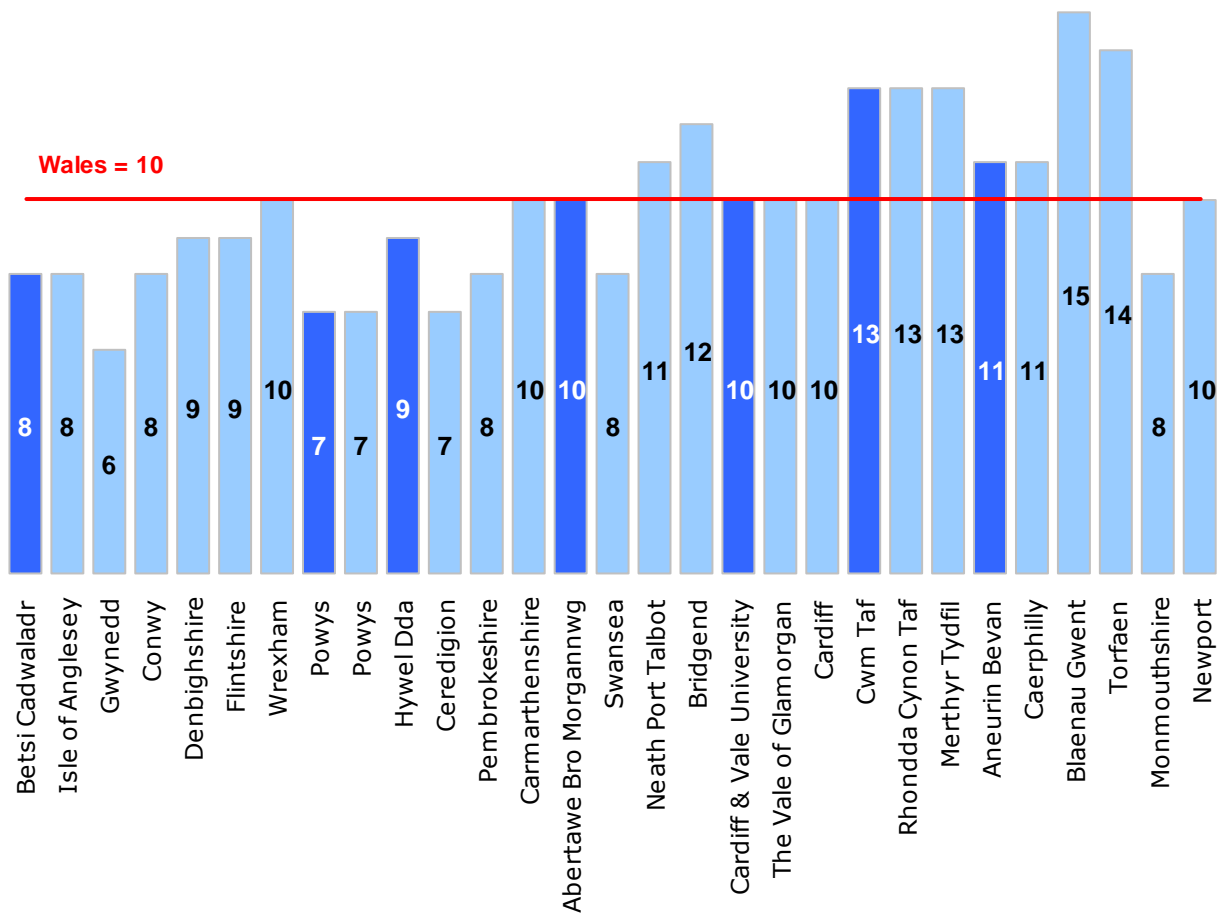


Areas ordered geographically from north west to south east

### 5.2.5 Mental illness as reported by adult

#### Adults who reported currently being treated for a mental illness by local authority and health board, age standardised percentage, 2008-2009

Produced by Public Health Wales Observatory using data from the Welsh Health Survey, 2008 and 2009



Areas ordered geographically from north west to south east

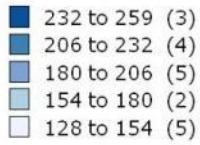
## 5.3 Mortality from specific conditions

### 5.3.1 Mortality from circulatory disease, all ages

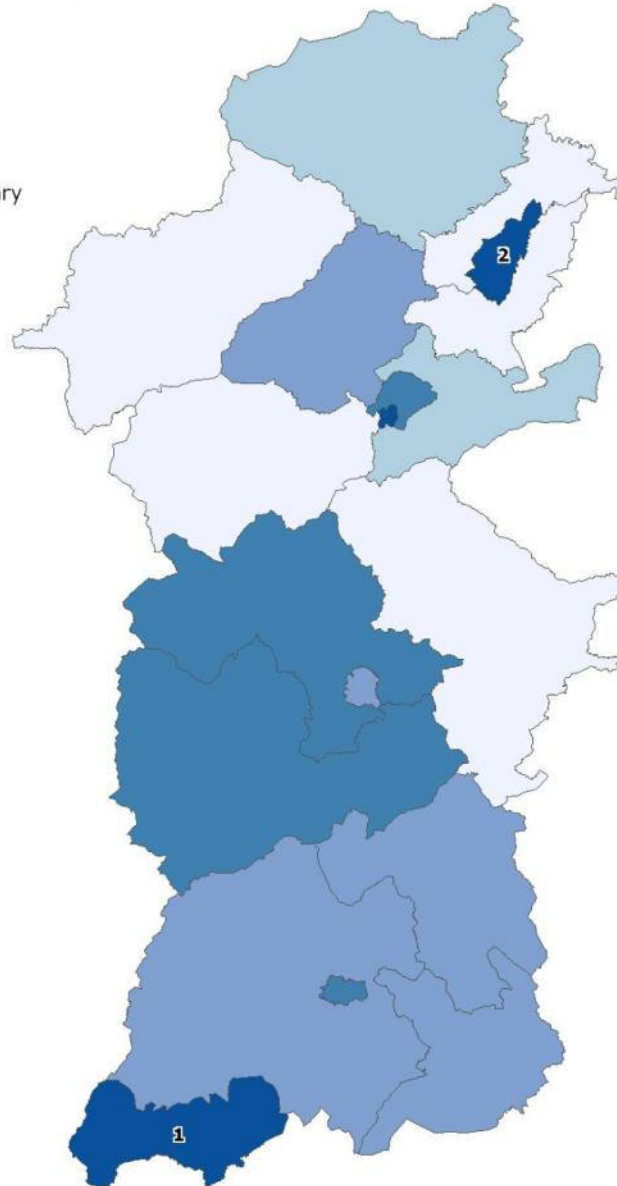
#### Middle super output areas

##### Circulatory mortality, 2004-08, all persons, all ages

MSOA, European age-standardised rate per 100,000; source: ADDE/ONS



MSOA boundary

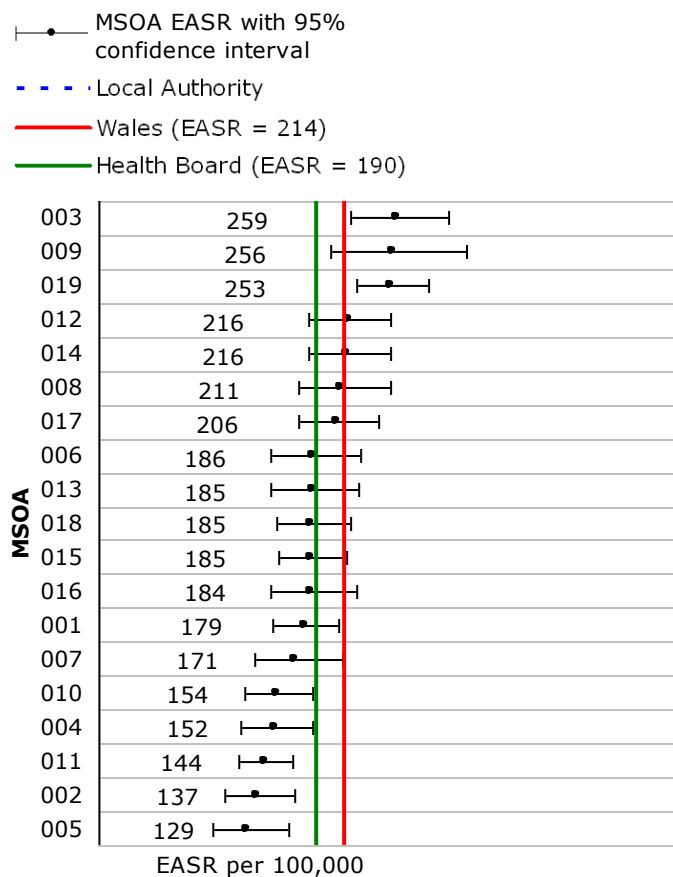


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Produced by Public Health Wales Observatory

Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

# Mortality from circulatory disease in Powys Teaching Health Board area, all persons, 2004-08, European age-standardised rates per 100,000

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

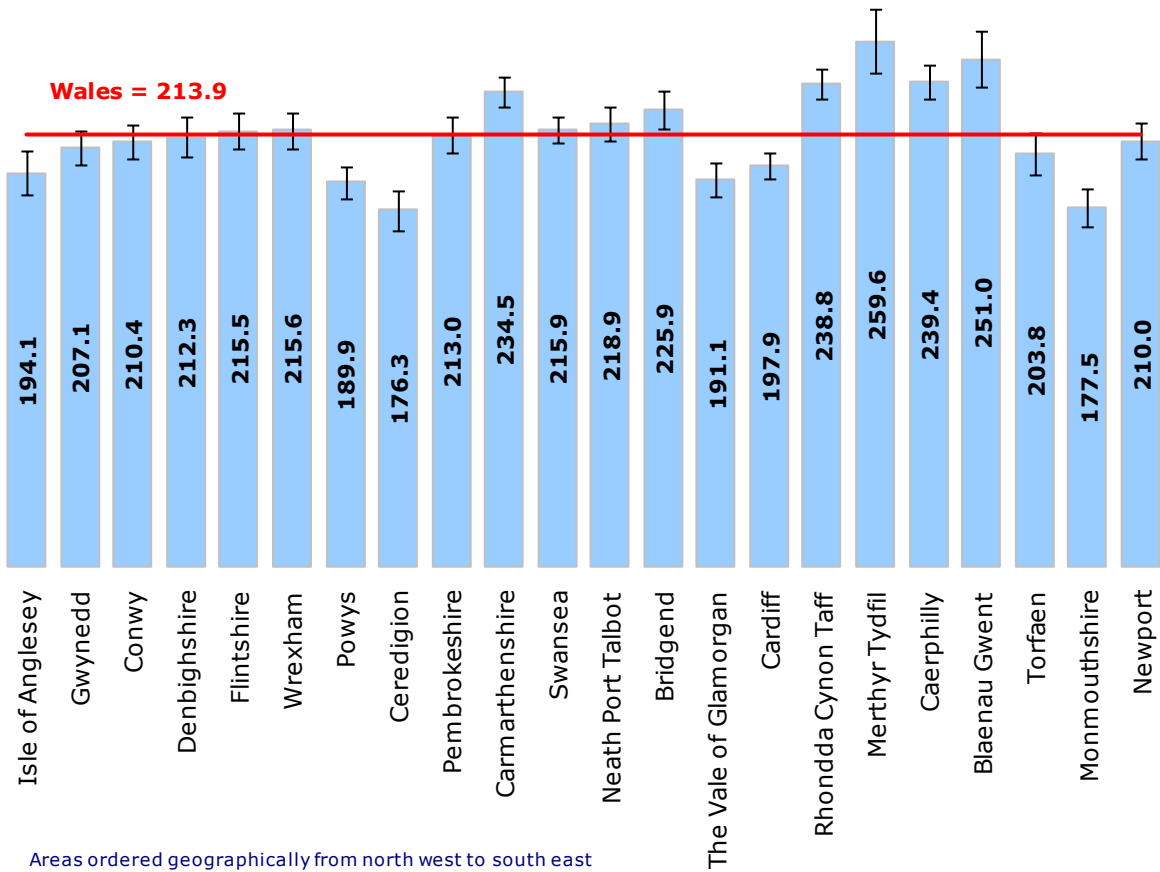


## Local authorities

### Mortality from circulatory disease by local authority, all persons, 2004-08, European age-standardised rates per 100,000

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

95% confidence interval



### 5.3.2 Mortality from circulatory disease, under 75s

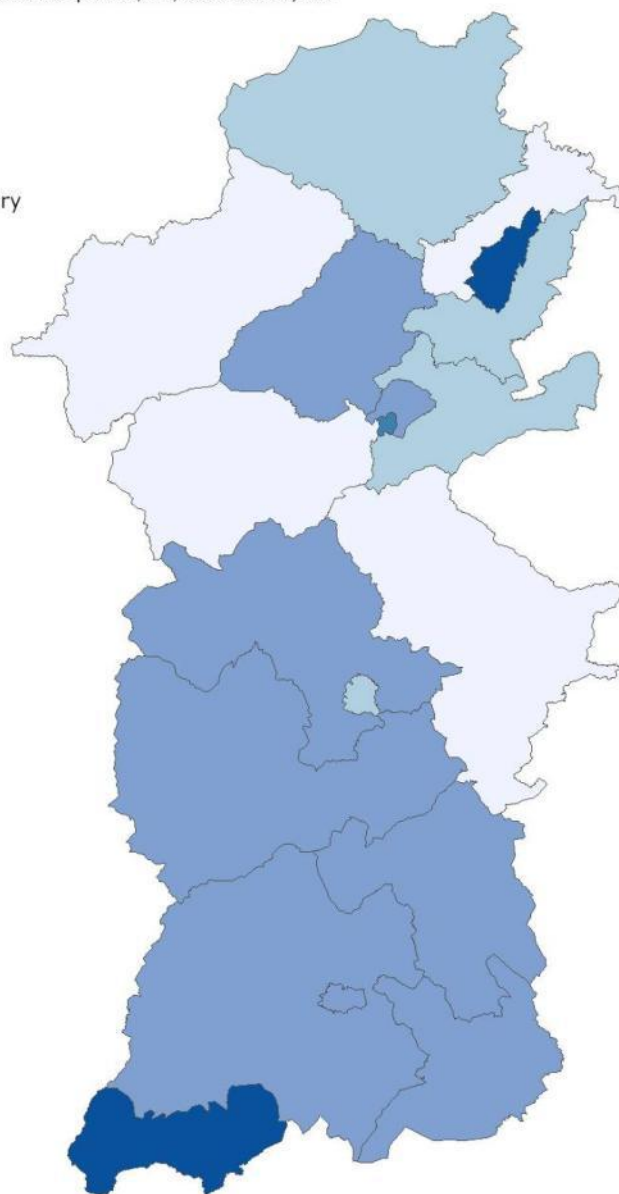
#### Middle super output areas

##### Circulatory mortality, 2004-08, all persons aged under 75 years

MSOA, European age-standardised rate per 100,000; source: ADDE/ONS

- 102.8 to 118.9 (2)
- 86.6 to 102.8 (1)
- 70.4 to 86.6 (8)
- 54.2 to 70.4 (4)
- 38.0 to 54.2 (4)

MSOA boundary

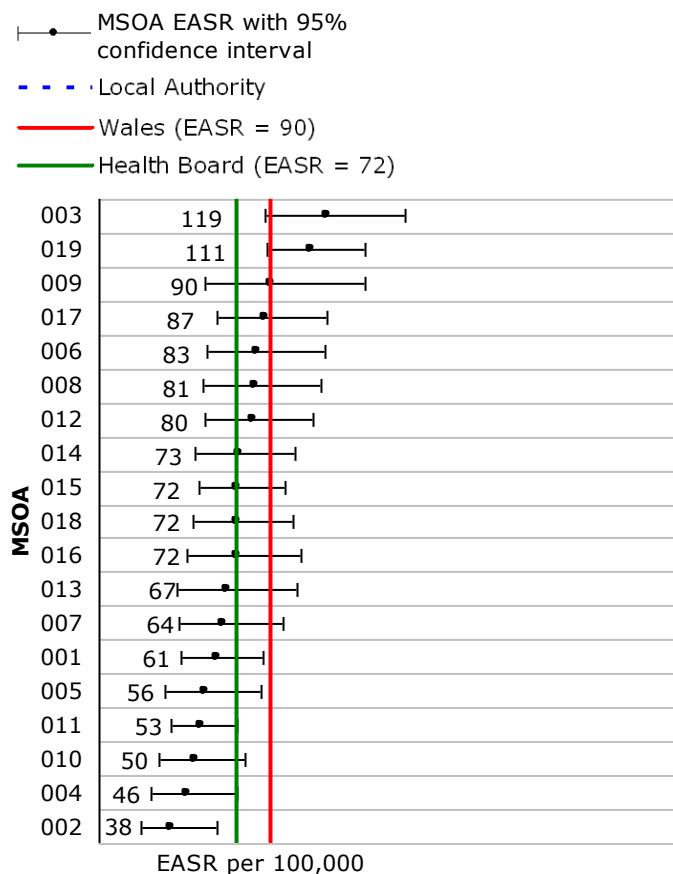


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Produced by Public Health Wales Observatory

Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

# Mortality from circulatory disease in Powys Teaching Health Board area, all persons aged under 75, 2004-08, European age-standardised rates per 100,000

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

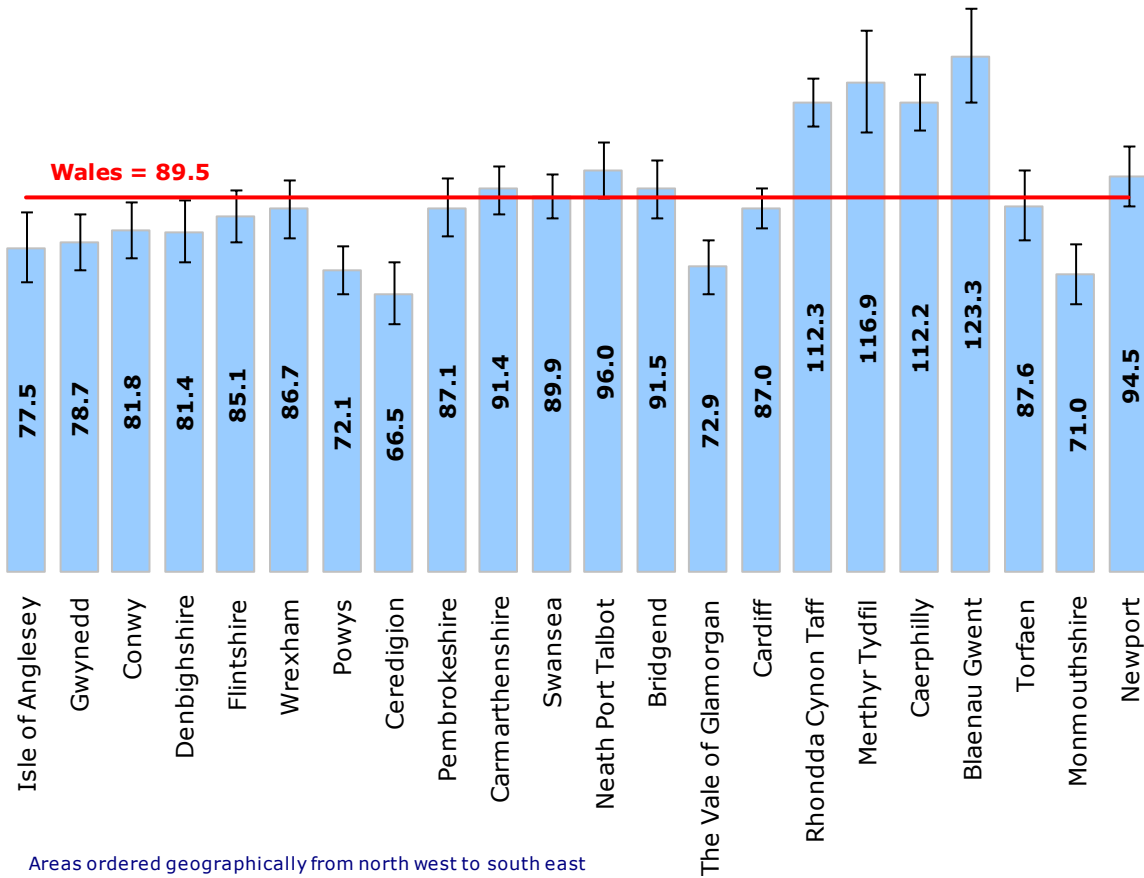


## Local authorities

### Mortality from circulatory disease by local authority, all persons aged under 75, 2004-08, European age-standardised rates per 100,000

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

95% confidence interval

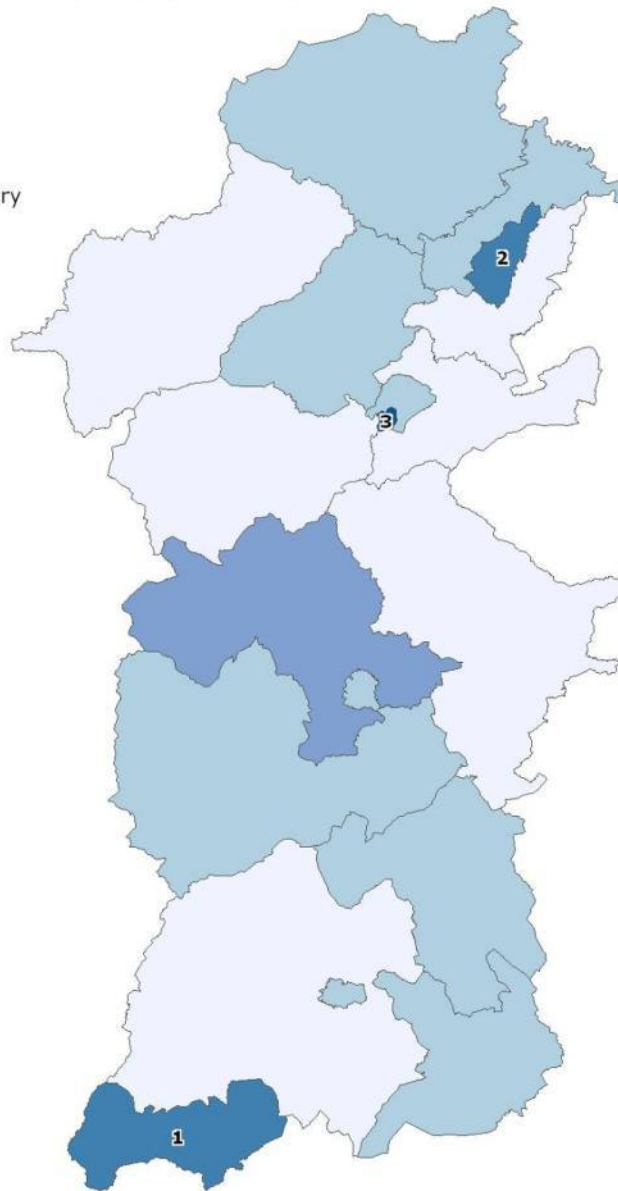


### 5.3.3 Mortality from coronary heart disease

#### Middle super output areas

##### Coronary heart disease mortality, 2004-08, all persons, all ages

MSOA, European age-standardised rate per 100,000; source: ADDE/ONS

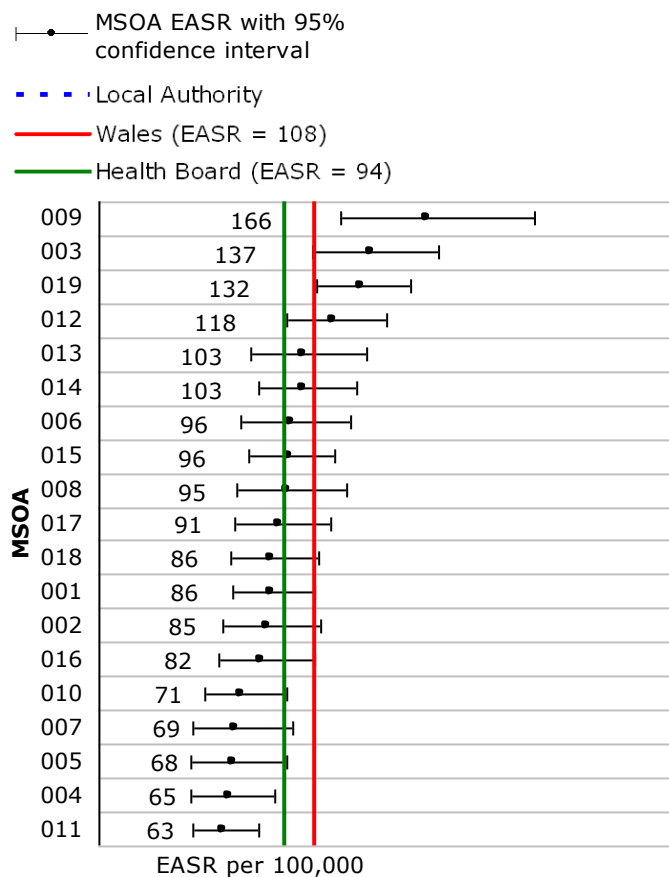


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Produced by Public Health Wales Observatory

Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

# Mortality from coronary heart disease in Powys Teaching Health Board area, all persons, 2004-08, European age-standardised rates per 100,000

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

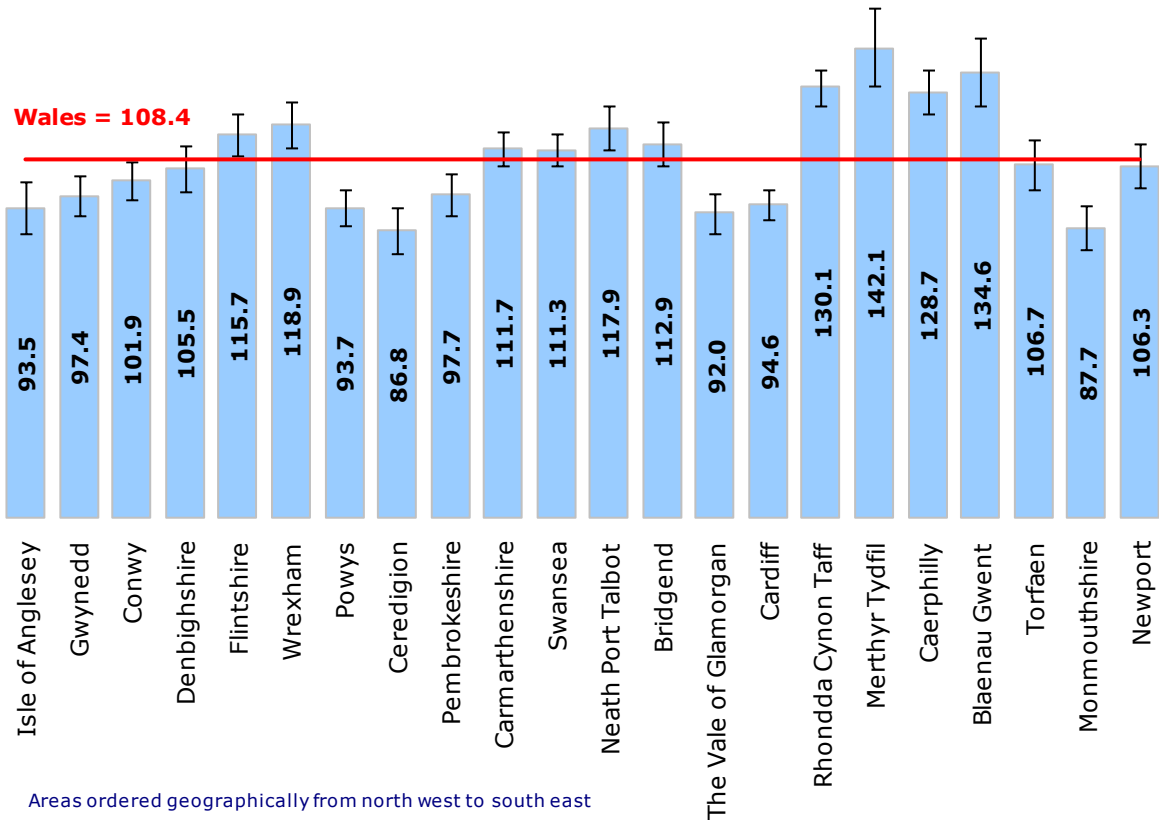


## Local authorities

### Mortality from coronary heart disease by local authority, all persons, 2004-08, European age-standardised rates per 100,000

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

95% confidence interval



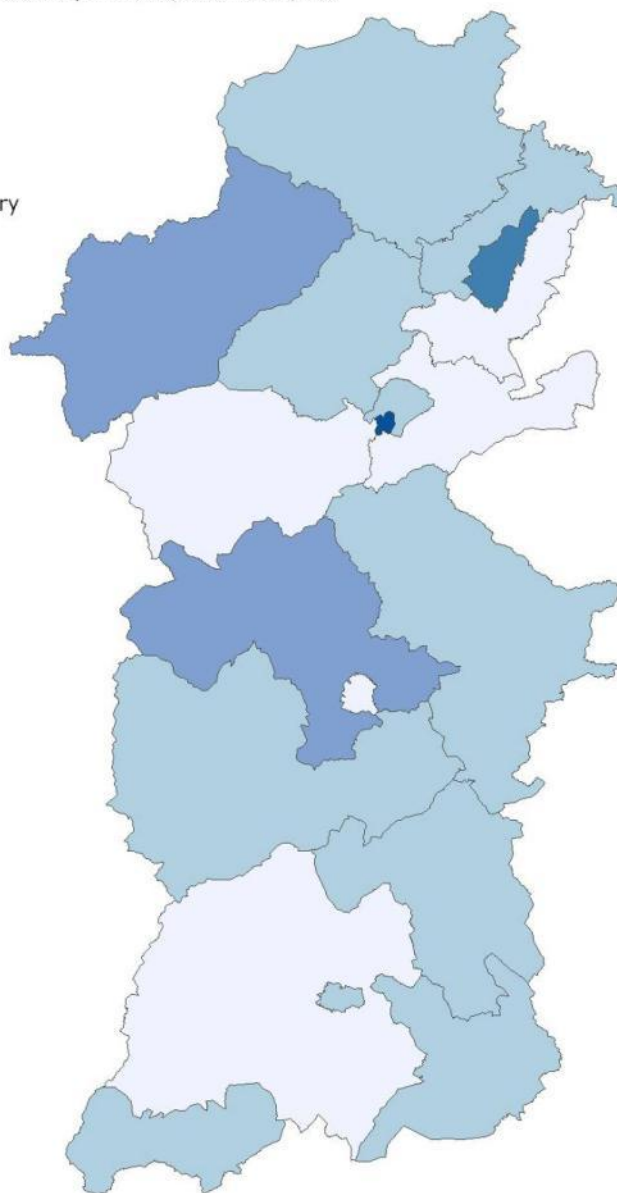
### 5.3.4 Mortality from cancer

#### Middle super output areas

**All cancer mortality, 2004-08, all persons, all ages**  
MSOA, European age-standardised rate per 100,000; source: ADDE/ONS

- 214 to 238 (1)
- 190 to 214 (1)
- 166 to 190 (2)
- 142 to 166 (10)
- 118 to 142 (5)

MSOA boundary

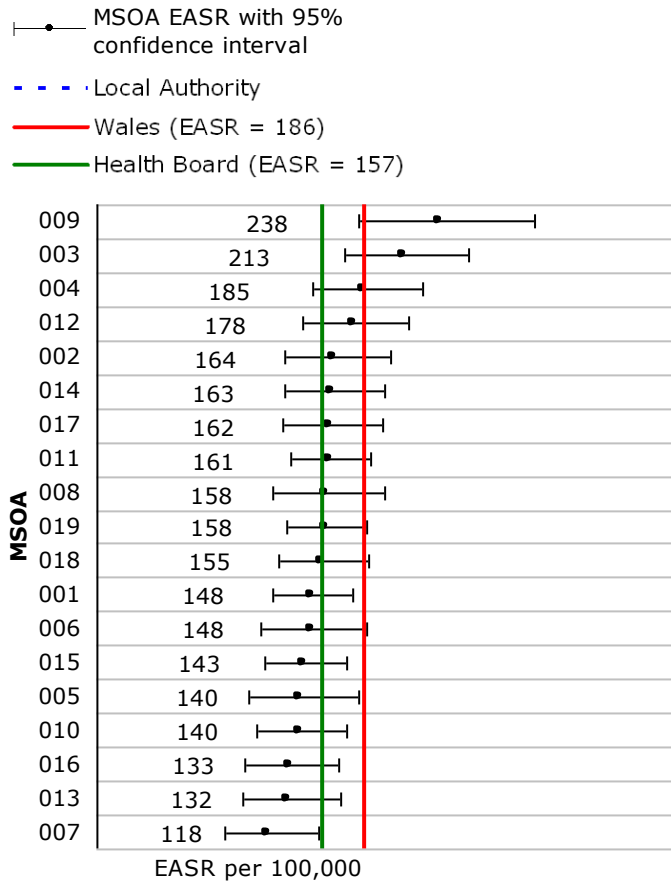


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Produced by Public Health Wales Observatory

Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

# Mortality from all cancers in Powys Teaching Health Board area, all persons, 2004-08, European age-standardised rates per 100,000

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

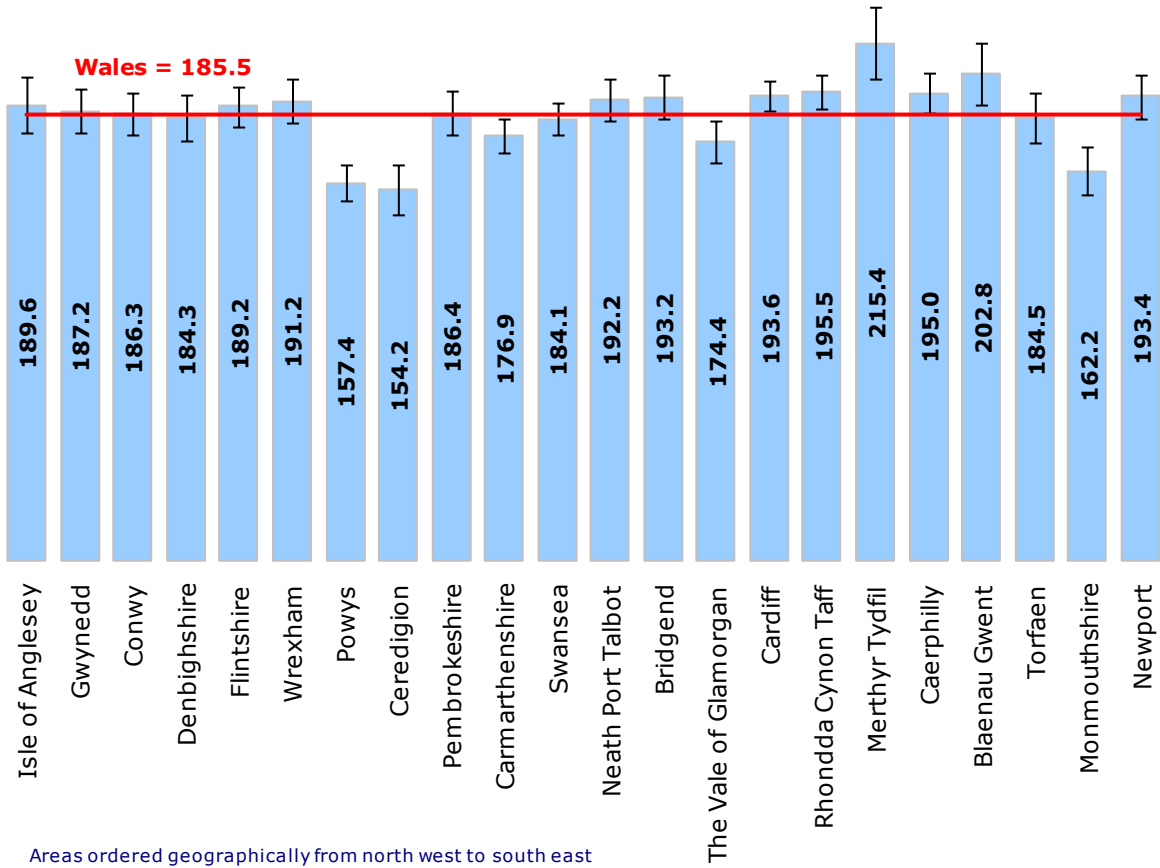


## Local authorities

### Mortality from all cancers by local authority, all persons, 2004-08, European age-standardised rates per 100,000

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

95% confidence  
interval

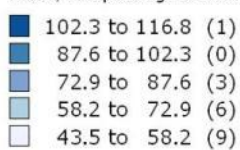


### 5.3.5 Mortality from respiratory disease

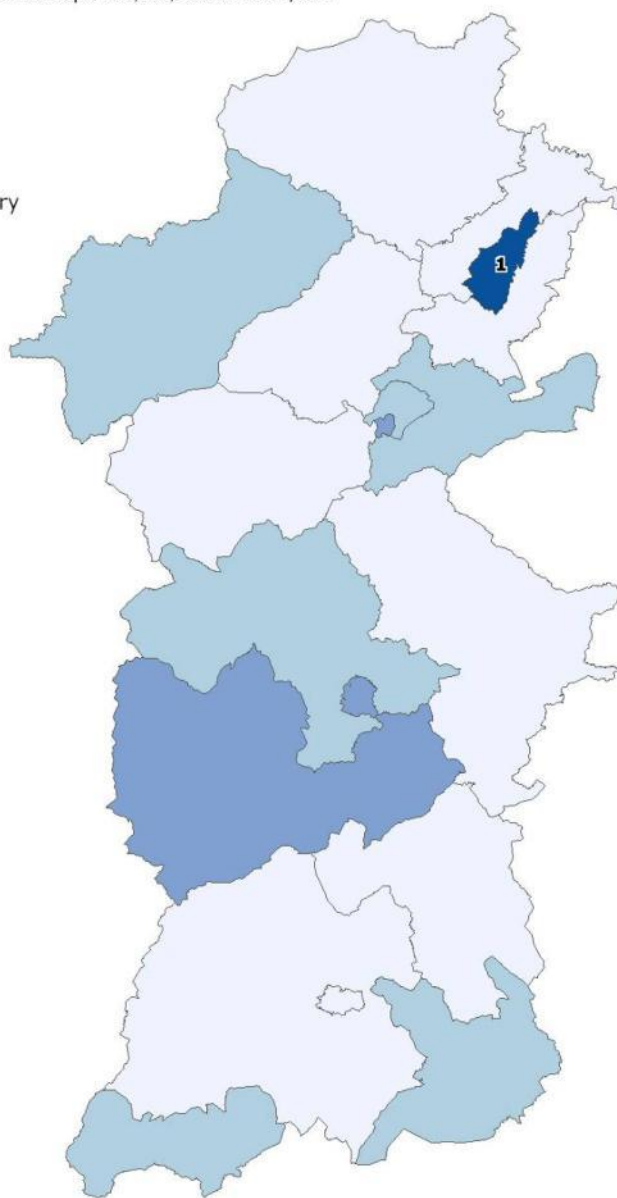
#### Middle super output areas

##### Respiratory mortality, 2004-08, all persons, all ages

MSOA, European age-standardised rate per 100,000; source: ADDE/ONS



MSOA boundary

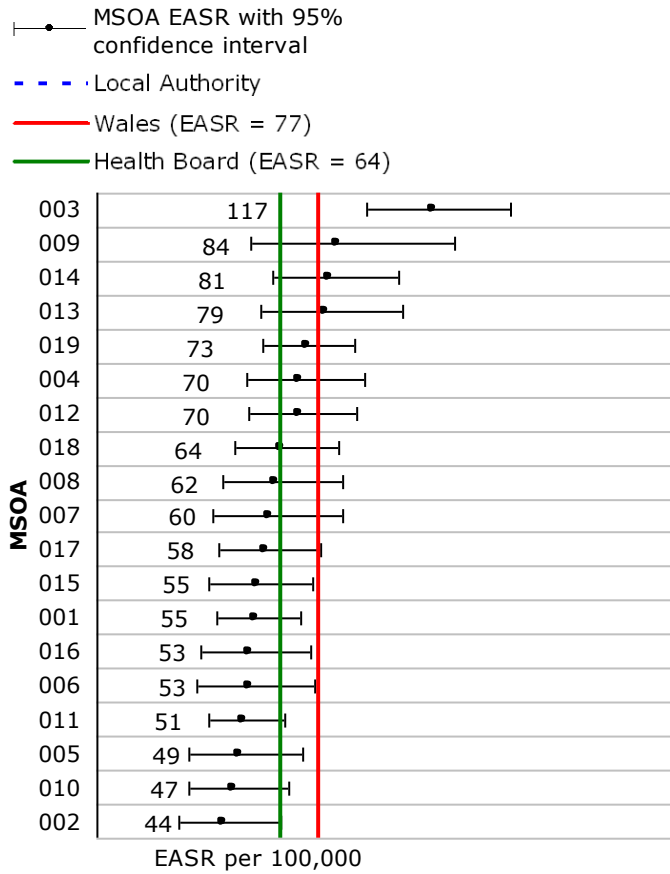


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Produced by Public Health Wales Observatory

Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

# Mortality from respiratory disease in Powys Teaching Health Board area, all persons, 2004-08, European age-standardised rates per 100,000

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

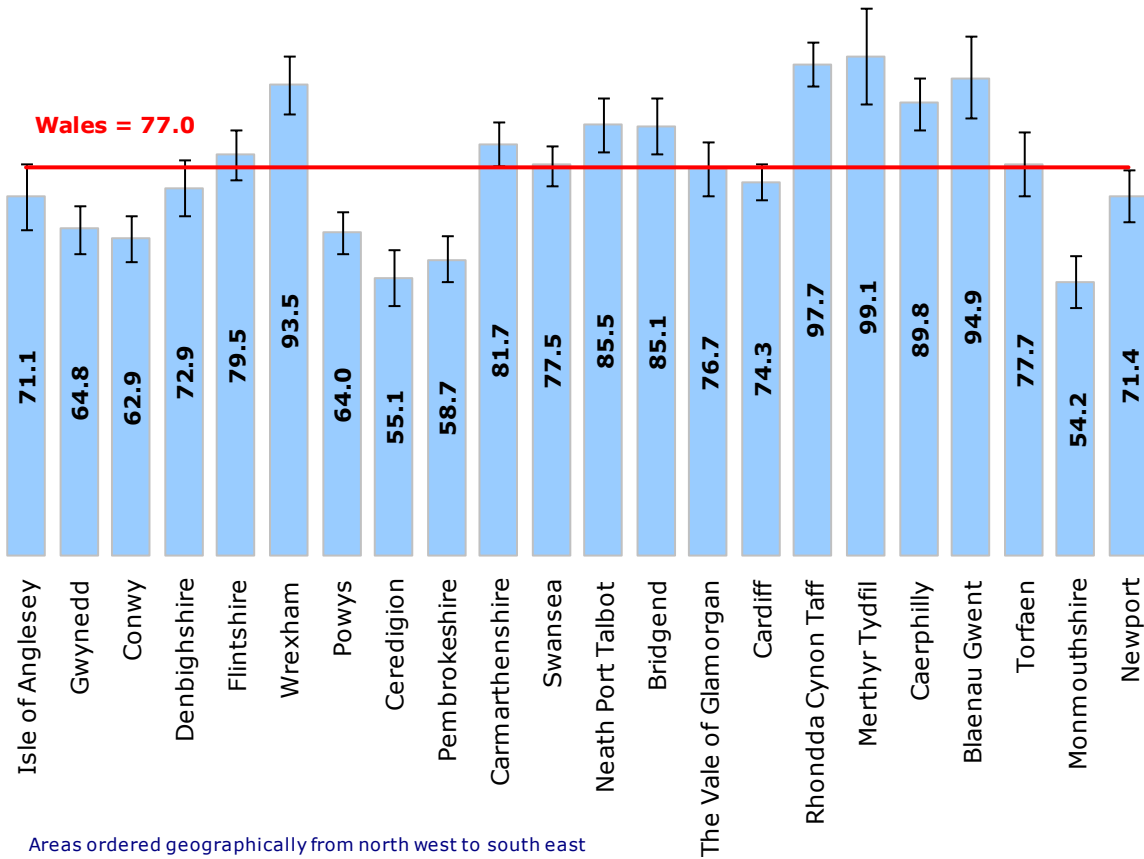


## Local authorities

### Mortality from respiratory disease by local authority, all persons, 2004-08, European age-standardised rates per 100,000

Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

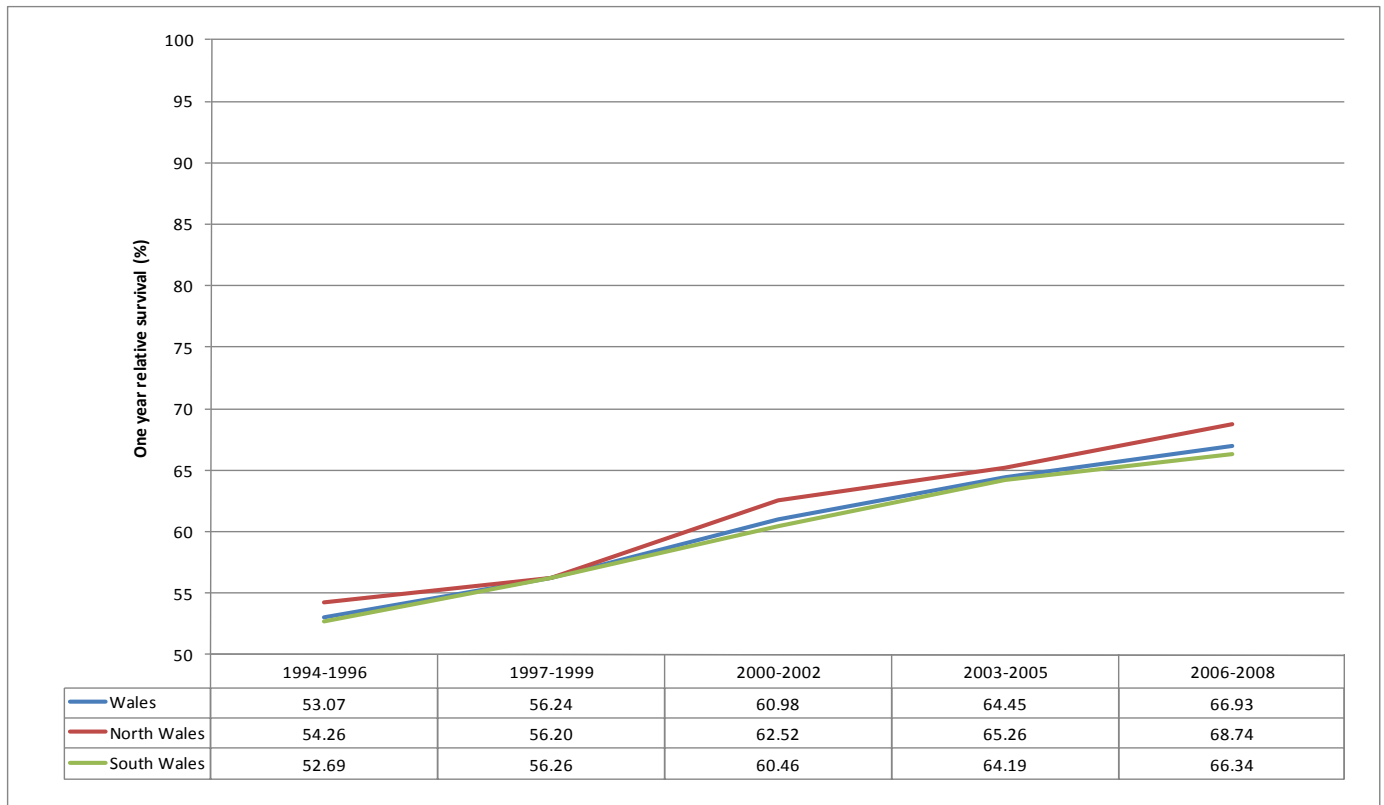
95% confidence interval



### 5.3.6 Cancer survival

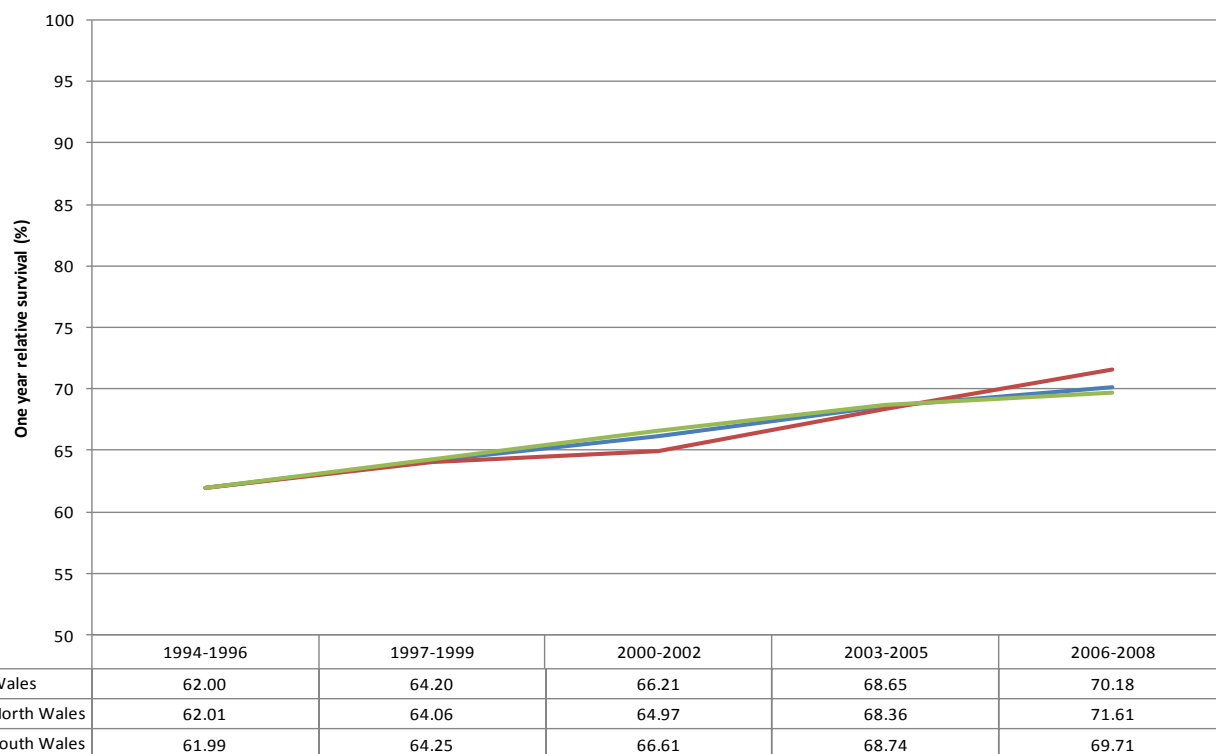
#### One year relative survival, all cancer (excluding non melanoma skin cancer), males, Wales regions, all persons, 1994/6-2006/8

Produced by the Welsh Cancer Intelligence and Surveillance Unit



# One year relative survival, all cancer (excluding non melanoma skin cancer), females, Wales regions, all persons, 1994/6-2006/8

Produced by the Welsh Cancer Intelligence and Surveillance Unit



# One year and five year relative survival, by cancer site Powys Teaching Health Board area, males and females, 2000-2004 (95% confidence intervals)

Produced by the Welsh Cancer Intelligence and Surveillance Unit

## Male

Cancer Site	1 year relative survival	
	Powys	All Wales
Prostate	85.93 (81.66, 89.28)	88.80 (87.95, 89.59)
Lung	25.20 (19.11, 31.72)	22.84 (21.71, 24.00)
Colorectal	73.86 (67.05, 79.48)	71.51 (70.12, 72.85)
Bladder	80.69 (70.17, 87.81)	86.10 (84.51, 87.53)
All malignancies (excl NMSC)	64.70 (62.16, 67.11)	62.11 (61.57, 62.63)

Cancer Site	5 year relative survival	
	Powys	All Wales
Prostate	69.93 (63.78, 75.24)	77.17 (75.83, 78.45)
Lung	8.43 (4.74, 13.46)	5.36 (4.73, 6.04)
Colorectal	48.72 (40.73, 56.23)	48.59 (46.91, 50.24)
Bladder	66.16 (52.99, 76.43)	72.34 (70.04, 74.50)
All malignancies (excl NMSC)	47.10 (44.21, 49.93)	45.39 (44.79, 45.99)

## Female

Cancer Site	1 year relative survival	
	Powys	All Wales
Breast	93.21 (90.28, 95.28)	93.41 (92.83, 93.94)
Lung	29.05 (21.18, 37.37)	25.53 (24.09, 26.99)
Colorectal	74.93 (67.34, 81.00)	68.80 (67.19, 70.36)
Ovary	67.63 (57.22, 76.03)	63.92 (61.50, 66.24)
Corpus Uteri	86.03 (72.41, 93.23)	89.83 (87.90, 91.46)
All malignancies (excl NMSC)	68.82 (66.40, 71.09)	67.24 (66.71, 67.76)

Cancer Site	5 year relative survival	
	Powys	All Wales
Breast	84.27 (79.96, 87.72)	82.06 (81.14, 82.94)
Lung	8.60 (4.20, 14.96)	6.85 (6.00, 7.76)
Colorectal	59.06 (50.25, 66.83)	49.18 (47.31, 51.01)
Ovary	36.80 (26.83, 46.78)	39.29 (36.78, 41.80)
Corpus Uteri	80.92 (64.15, 90.40)	77.77 (75.02, 80.25)
All malignancies (excl NMSC)	55.70 (52.95, 58.35)	52.76 (52.17, 53.36)

	Significantly higher than Wales
	Significantly lower than Wales

Excl NSCM: Excluding non melanoma skin cancer

## Appendix A: Original source reports and further information

The original reports for the data included in this chart book, together with further information and, in some cases, methodological information and other guides to interpretation can be found through the producers of the charts, tables or data included:

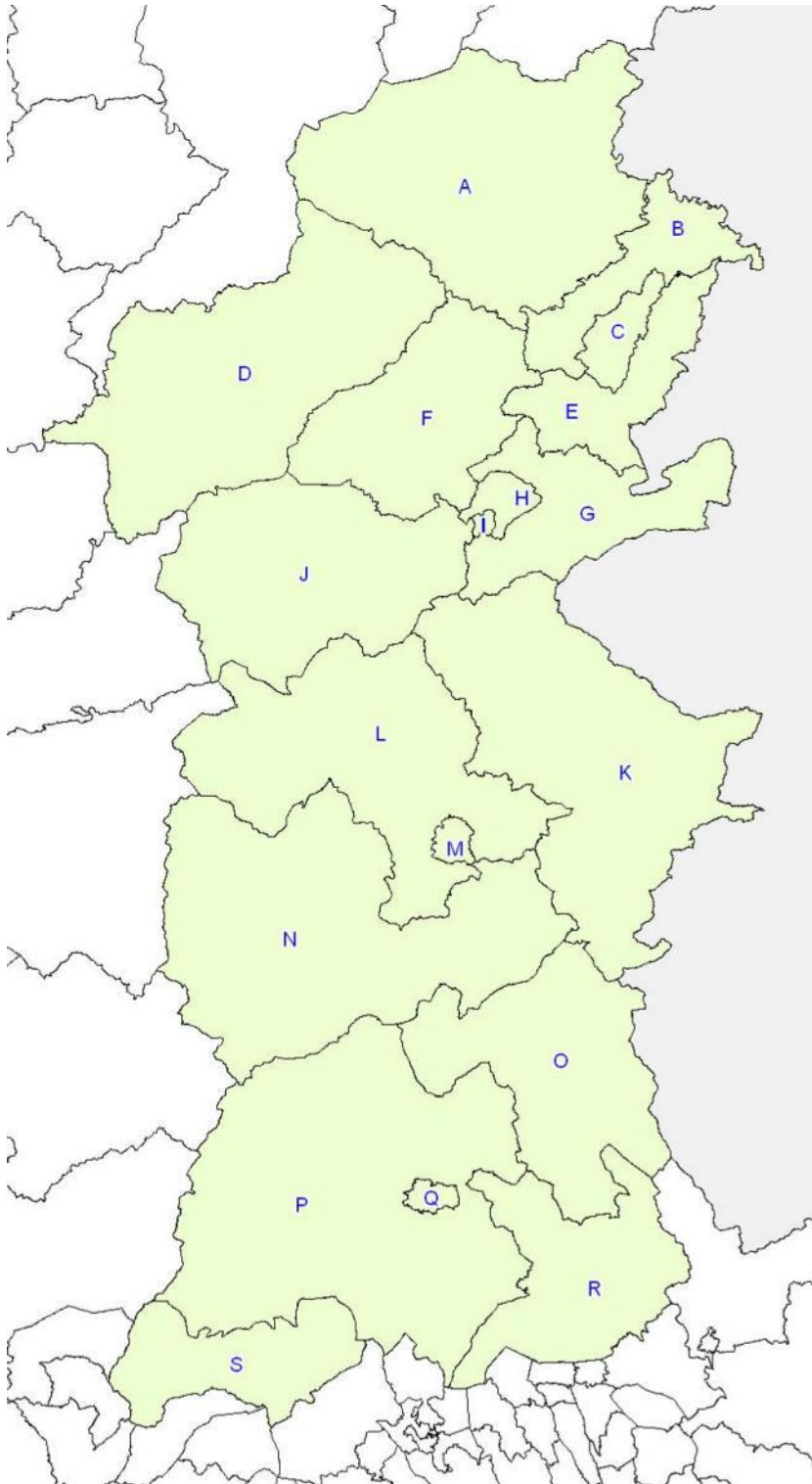
Demography	Public Health Wales Observatory	<a href="http://www.publichealthwalesobservatory.wales.nhs.uk">www.publichealthwalesobservatory.wales.nhs.uk</a>
Determinants of health	Public Health Wales Observatory	<a href="http://www.publichealthwalesobservatory.wales.nhs.uk">www.publichealthwalesobservatory.wales.nhs.uk</a>
Use of prevention services: vaccination uptake	Vaccine Preventable Disease Programme	<a href="http://www.wales.nhs.uk/sitesplus/888/page/43510">http://www.wales.nhs.uk/sitesplus/888/page/43510</a>
Use of prevention services: screening	Public Health Wales Screening Services	<a href="http://www.screeningservices.org.uk/">http://www.screeningservices.org.uk/</a>
Use of primary care by adults	Welsh Assembly Government, Welsh Health Survey	<a href="http://new.wales.gov.uk/">http://new.wales.gov.uk/</a>
Use of secondary and tertiary care	Public Health Wales Observatory	<a href="http://www.publichealthwalesobservatory.wales.nhs.uk">www.publichealthwalesobservatory.wales.nhs.uk</a>
Health status	Public Health Wales Observatory	<a href="http://www.publichealthwalesobservatory.wales.nhs.uk">www.publichealthwalesobservatory.wales.nhs.uk</a>
Cancer survival	Welsh Cancer Surveillance and Intelligence Unit	<a href="http://www.wales.nhs.uk/sites3/home.cfm?OrgID=242">http://www.wales.nhs.uk/sites3/home.cfm?OrgID=242</a>

## Appendix B: Glossary

<b>Middle Super Output Areas</b>	<p>Middle super output areas (MSOAs) were released by the Office for National Statistics (ONS) in 2004. In contrast with administrative boundaries such as electoral divisions (wards), super output areas were created for the purpose of showing statistical data.</p> <p>MSOAs have a mean population of 7,500 and a minimum of 5,000. There are 413 MSOAs in Wales and 19 MSOAs in the Powys Teaching Health Board area. These are shown on the maps in Appendix 2.</p> <p>The ONS have stated that super output area geographies will be fixed for at least 10 years. The advantage of using these statistical geographies is stability and homogeneity. However, the main drawback is that they do not conform to known administrative boundaries such as electoral divisions (wards); this makes them less amenable to the public and local government.</p>
<b>Age-standardised rate</b>	<p>Age-standardisation allows comparison of rates across different populations while taking account of the different age structures of those populations.</p> <p>This chart book uses the direct standardisation method, which produces the rate you would get if the population had the same age-structure as a particular 'standard' population.</p> <p>The Wales standard population has been used for the Welsh Health Survey indicators and the theoretical European standard population (ESP) has been used for all other age-standardised indicators included in this chart book.</p> <p>An age-standardised rate only allows for comparison between the rates which have been standardised to the same standard population.</p>
<b>Confidence intervals</b>	<p>Confidence intervals are indications of the random variation that would be expected around a rate. Confidence intervals must be considered when assessing or interpreting a rate. The 95% confidence interval represents a range which has a 95% probability of including the underlying population rate.</p> <p>The range of the confidence interval is dependent on the size of the population from which the events came. Rates based on small populations are likely to have wider confidence intervals and rates based on large populations are likely to have narrower confidence intervals.</p>
<b>Statistical significance</b>	<p>A result may be deemed statistically significant if it is considered unlikely to have occurred by chance alone. The basis for such judgements is a predetermined and arbitrary cut-off, usually taken as 5% or 0.05. A result may be clinically significant whilst not being statistically significant and vice versa.</p>

## Appendix C: Maps showing Middle Super Output Areas in the Powys Teaching Health Board area

The Public Health Wales Observatory has also produced a web-based interactive map showing MSOA boundaries, with the added facility of background Ordnance Survey mapping. Follow this link: <http://www2.nphs.wales.nhs.uk/InstantAtlas/GeographyTool/atlas.html>



- A Powys 001
- B Powys 002
- C Powys 003
- D Powys 004
- E Powys 005
- F Powys 006
- G Powys 007
- H Powys 008
- I Powys 009
- J Powys 010
- K Powys 011
- L Powys 012
- M Powys 013
- N Powys 014
- O Powys 015
- P Powys 016
- Q Powys 017
- R Powys 018
- S Powys 019