

Director of Public Health Annual Report: Chart Book



Cardiff and Vale University Health Board



Published July 2011

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1 Introduction

This Cardiff and Vale University Health Board (UHB) 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 Cardiff and Vale University 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 Cardiff and Vale University Health Board (UHB) is estimated to have been 461 thousand in 2009. More than 70 per cent of the Cardiff and Vale UHB population live in the Cardiff local authority area.

The age structure of the population is different to Wales with higher proportions of young children aged under 5 and adults aged 20-34, but lower proportions of persons aged 40 and over. The large student population in Cardiff contributes to a higher proportion aged 20 to 24 years than the Wales average.

At the health board level the proportion of the population aged 18 and over is comparable to that for Wales. At middle super output area level (MSOA), higher proportions of persons aged under 18 are found in the Ely; Trowbridge and St Melons areas of Cardiff. The areas with the lowest proportions are Cathays; Maindy and Blackweir in Cardiff where there is a large student population.

Among the older age groups the proportion aged 75 and over in Cardiff and Vale UHB area is below that for Wales. However at the local authority area level, Cardiff has a much lower proportion whereas the proportion for the Vale of Glamorgan is comparable to that for Wales as a whole. At the MSOA level, the highest proportions are found in the Rhiwbina; Garthmor and Pantmawr areas of Cardiff. For those aged 85 and over, the highest proportions are again found in the Rhiwbina; Garthmor and Pantmawr areas of Cardiff, and also in the Dyfan; Baruc, Illtyd; Penarth; St. Augustine's; Stanwell and Plymouth areas in the Vale of Glamorgan.

Population projections

The latest projections indicate that if current trends continue, the number of persons aged 65 and over resident in Cardiff and Vale UHB will increase by 60 per cent between 2008 and 2033. For Wales and the Vale of Glamorgan the proportion aged 75 and over is projected to increase from around eight or nine per cent to around 14 per cent over this period. However, the picture for Cardiff is very different with the proportion changing from just below 7 percent to around 7.5 per cent over the same period. In the Vale of Glamorgan, the percentage aged 85 and over is projected to double from around 2.5 per cent to around 5.5 per cent by 2033 which is comparable to Wales. Again the picture in Cardiff is quite different with the proportion aged 85 and over projected to increase much more slowly from 2 to 2.7 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 Cardiff and Vale UHB is similar to the rate for Wales and there is little variation across the local authorities within the health board. At the MSOA level, there is considerable variation. Rates are particularly low in areas of Cardiff where there are high numbers of students (Cathays and Blackweir). The area with the highest rates is Ely in Cardiff.

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 Cardiff and Vale UHB is similar to Wales although the rate for the Vale of Glamorgan local authority is lower. At the MSOA level, variation is considerable with rates ranging from 357 to 1,061 per 100,000 population. The lowest rates are found in the Llanishen and Thornhill areas of Cardiff; the highest rates are found in the Plasnewydd and Roath areas of Cardiff. 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 which is generally in line with the all Wales pattern.

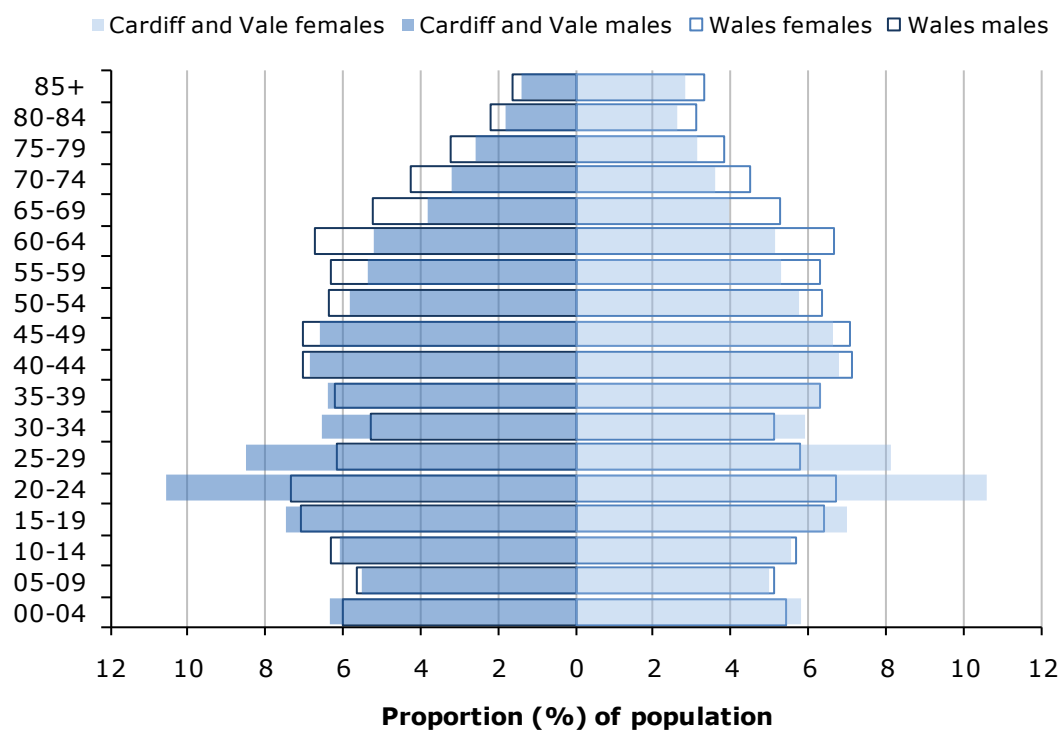
2.2 Population

2.2.1 Population by age and sex

Wales and Cardiff and Vale University Health Board

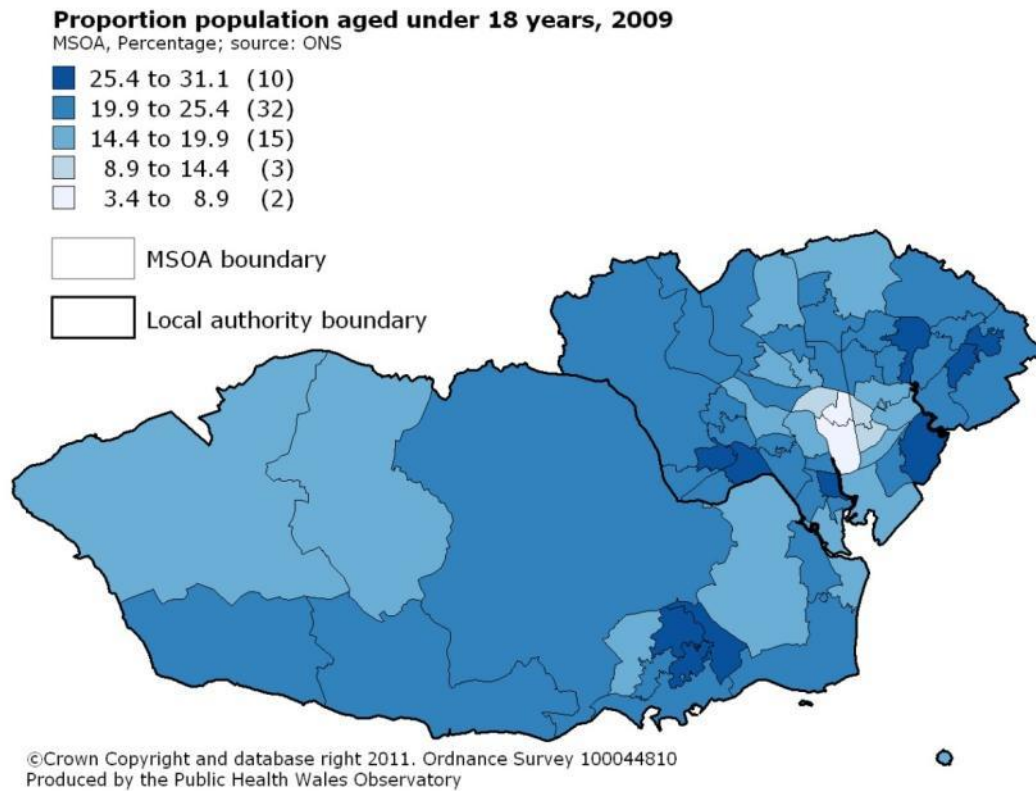
Proportion of population by age and sex Cardiff and Vale University Health Board: 2009

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

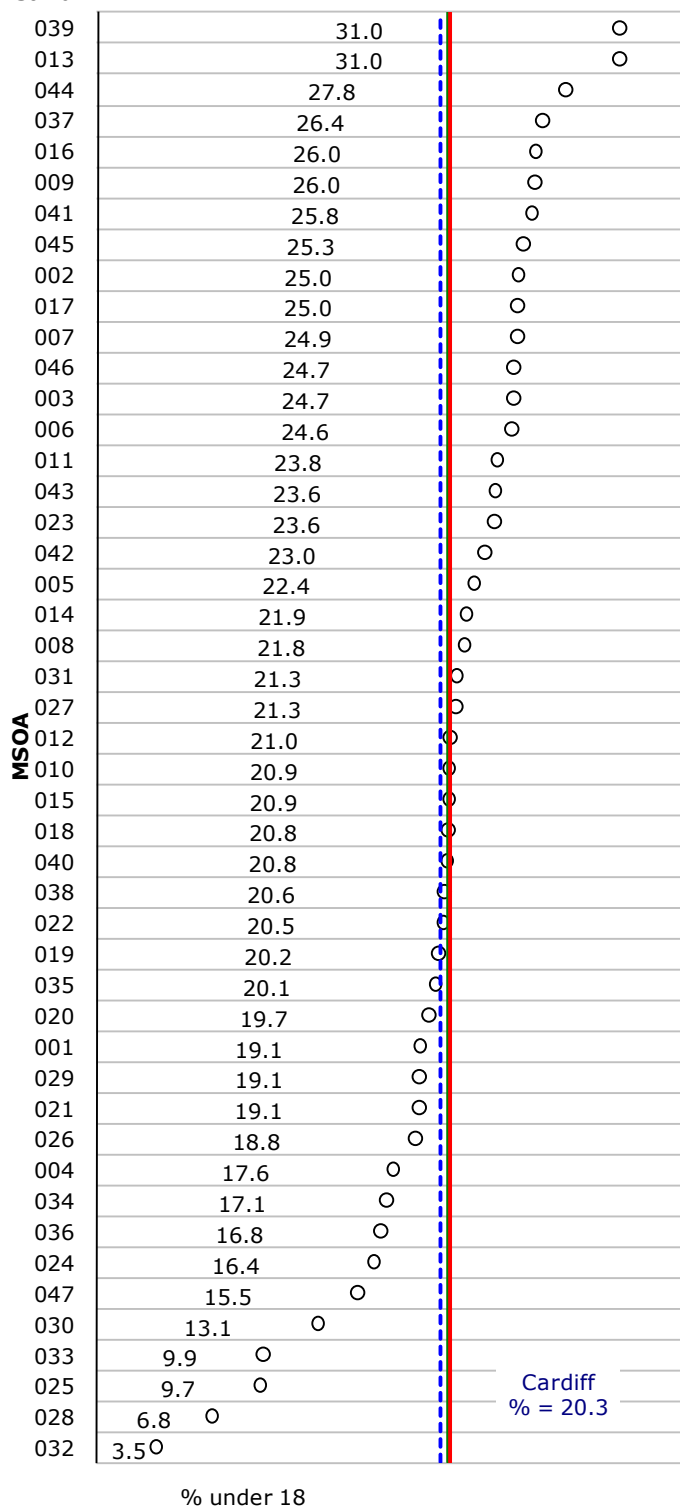


Percentage of population aged under 18 in Cardiff and Vale University Health Board area, 2009

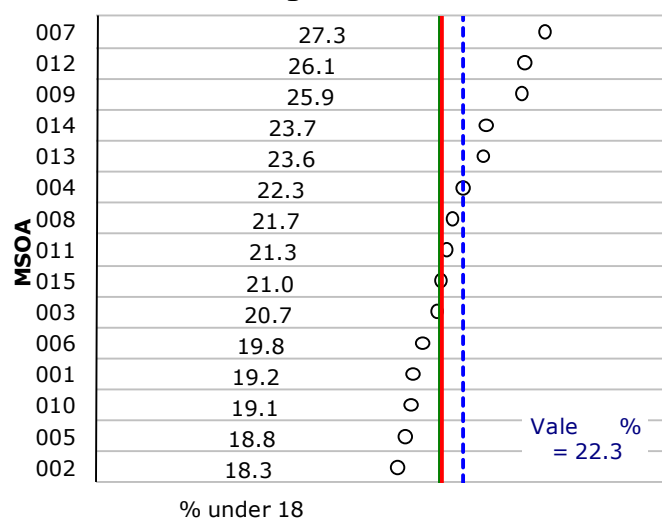
Produced by Public Health Wales Observatory, using data from ONS (MYE)

○ MSOA — Health Board (20.8%) — Wales (21.0%) - - - Local Authority

Cardiff



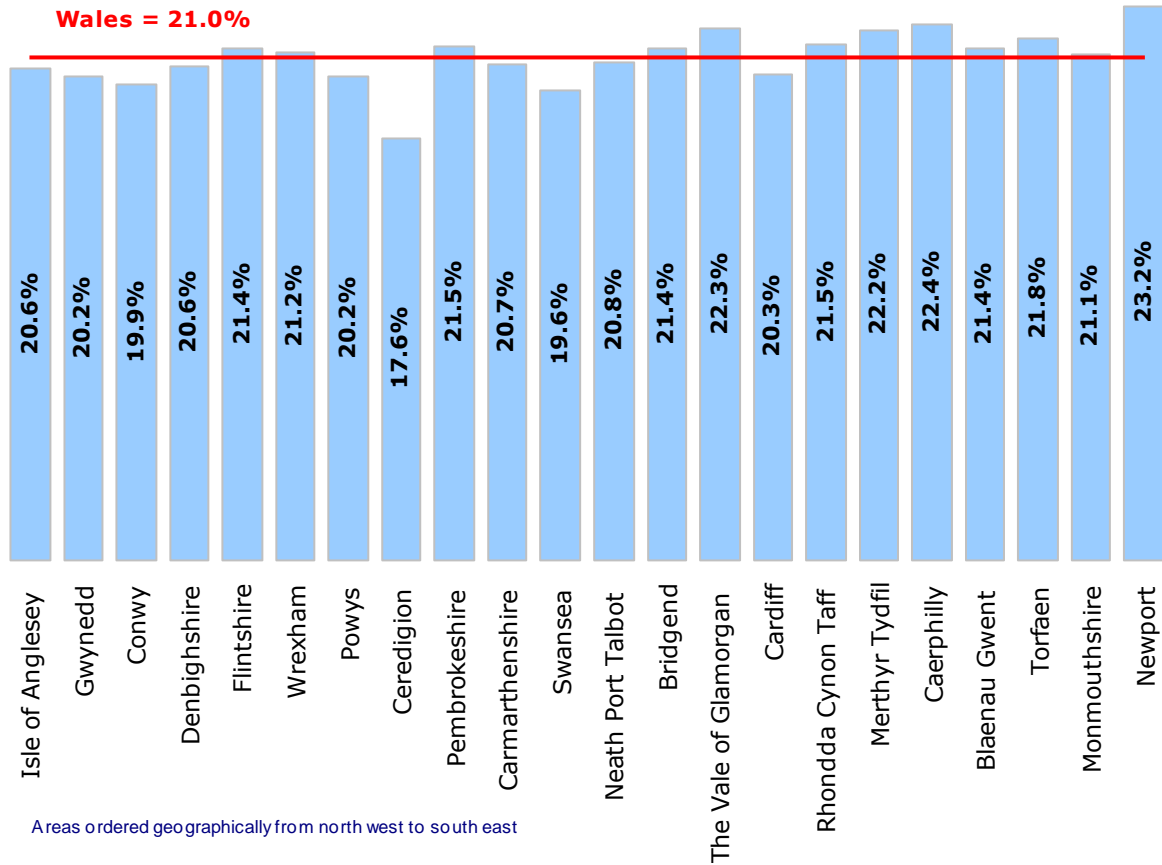
The Vale of Glamorgan



Local authorities

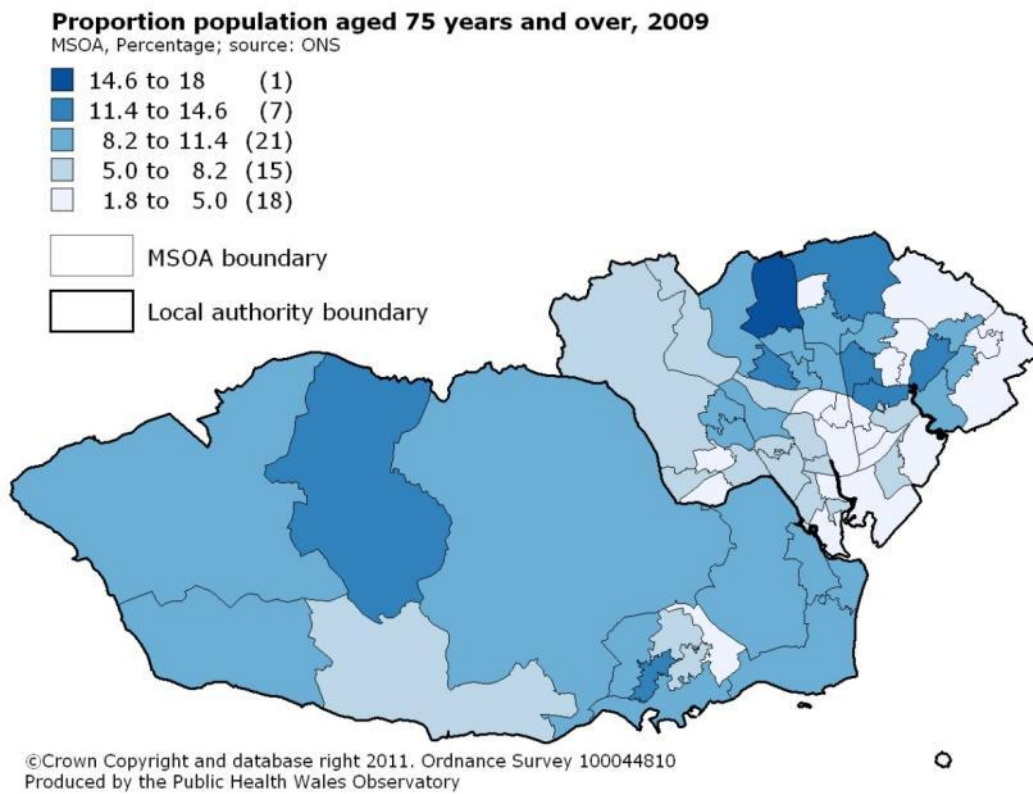
Percentage of population aged under 18 by local authority, 2009

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



2.2.3 Population aged 75 and over

Middle super output areas

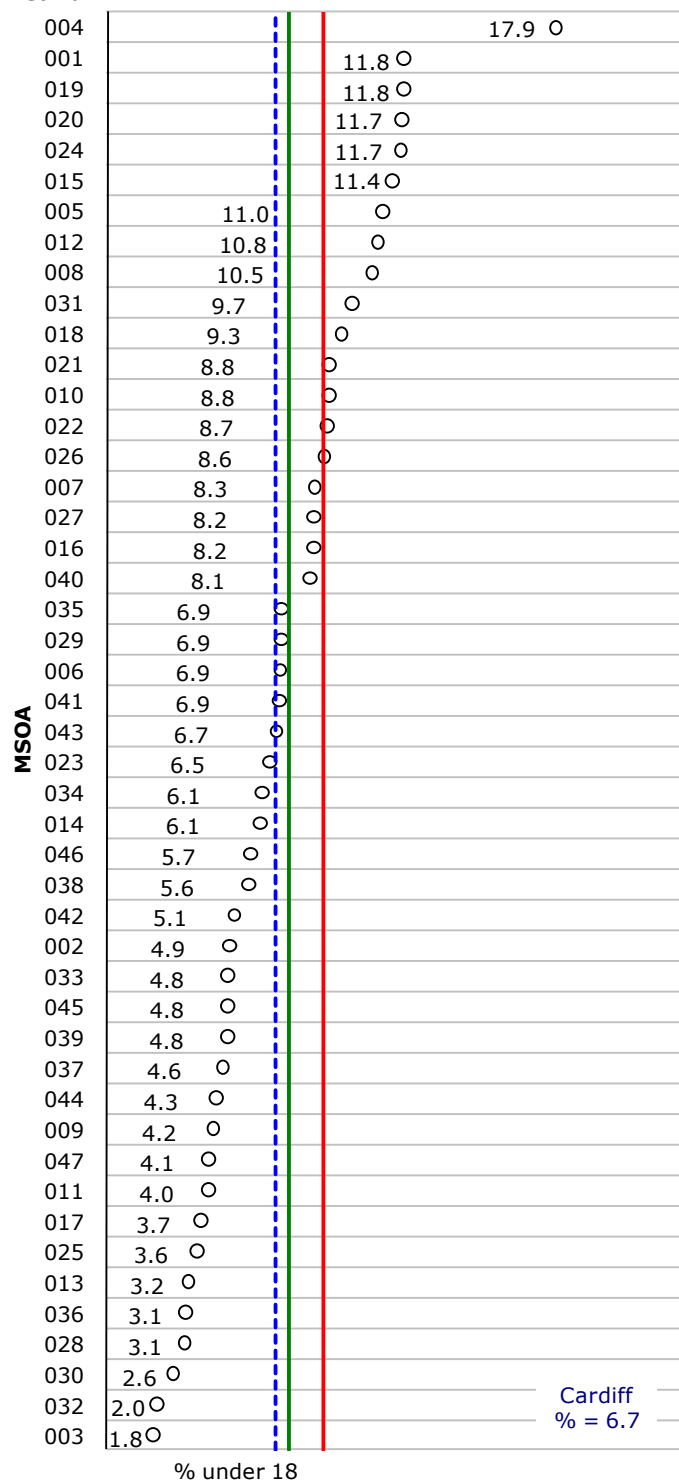


Percentage of population aged 75 and over in Cardiff and Vale University Health Board area, 2009

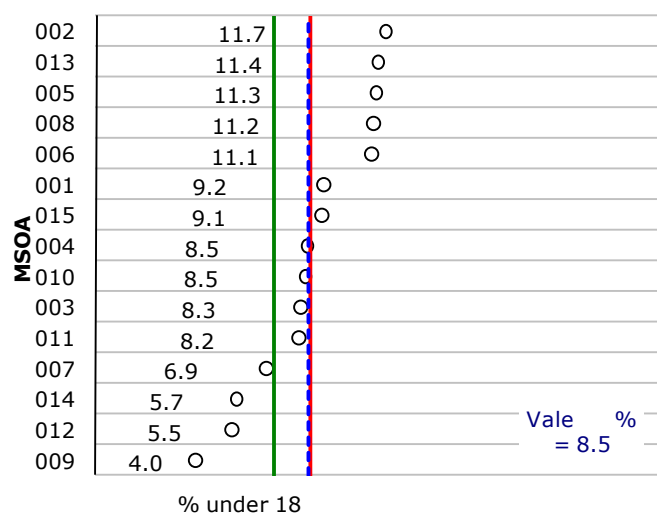
Produced by Public Health Wales Observatory, using data from ONS (MYE)

○ MSOA — Health Board (7.2%) — Wales (8.6%) - - - Local Authority

Cardiff



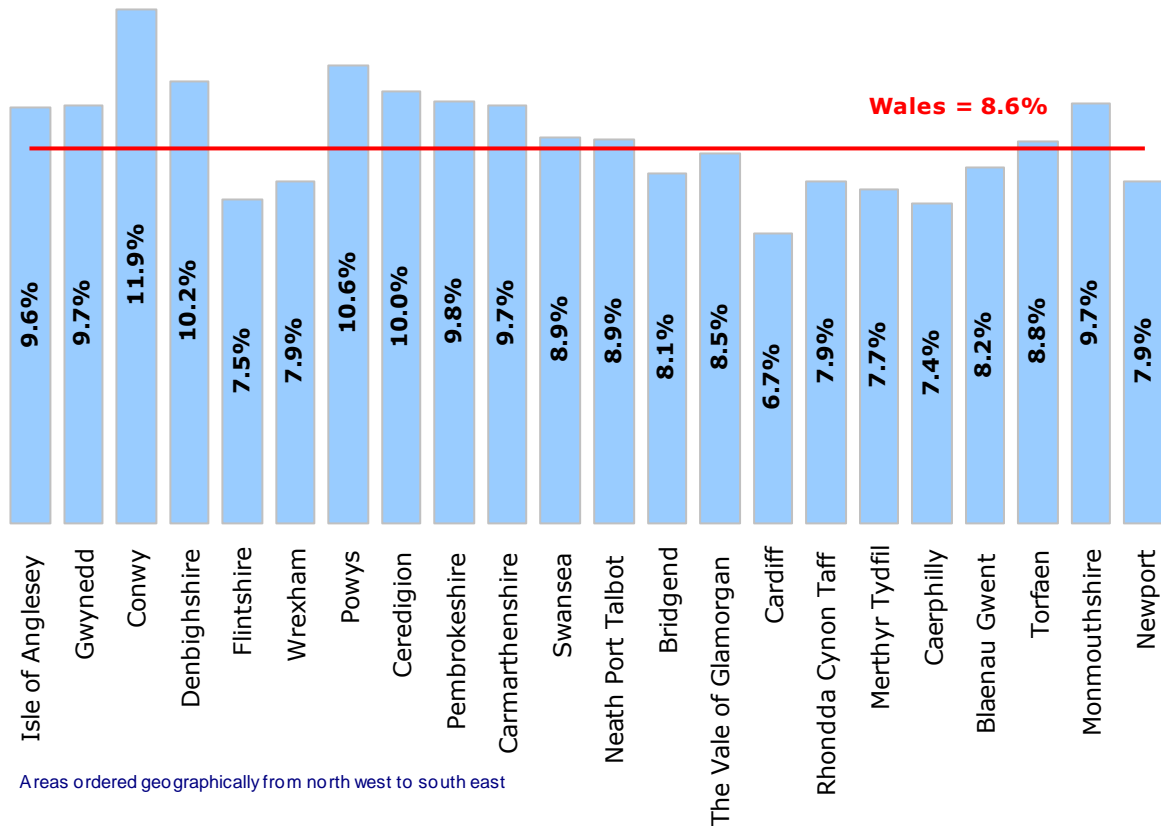
The Vale of Glamorgan



Local authorities

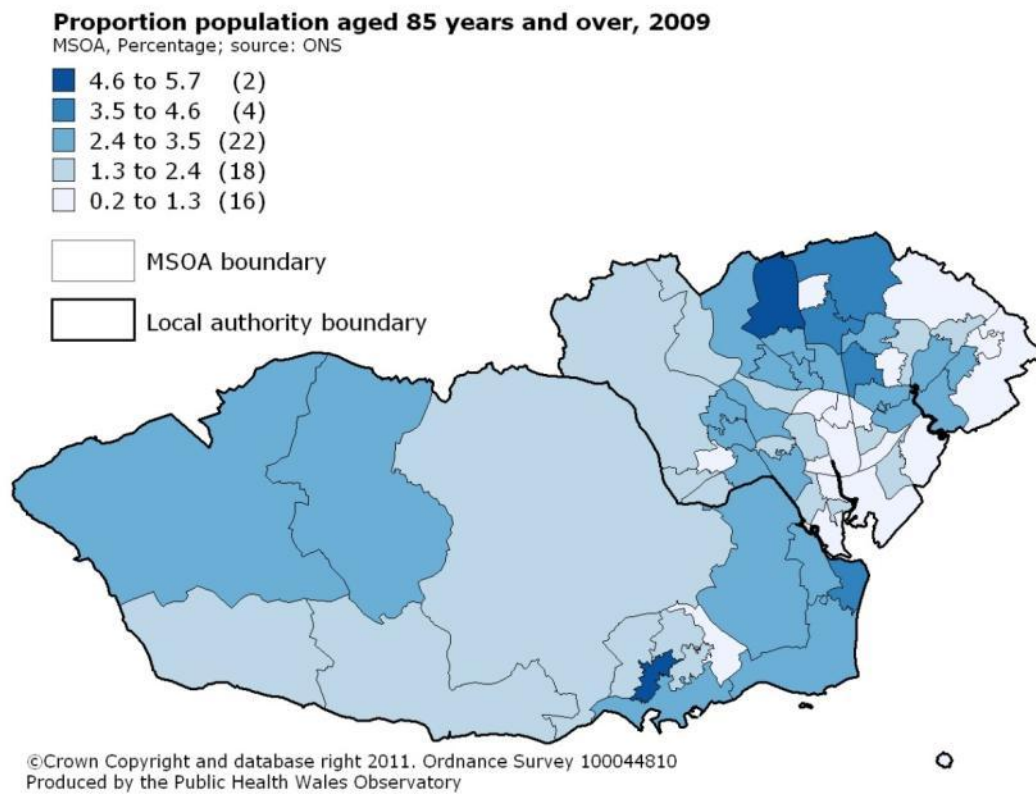
Percentage of population aged 75 and over by local authority, 2009

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



2.2.4 Population aged 85 and over

Middle super output areas

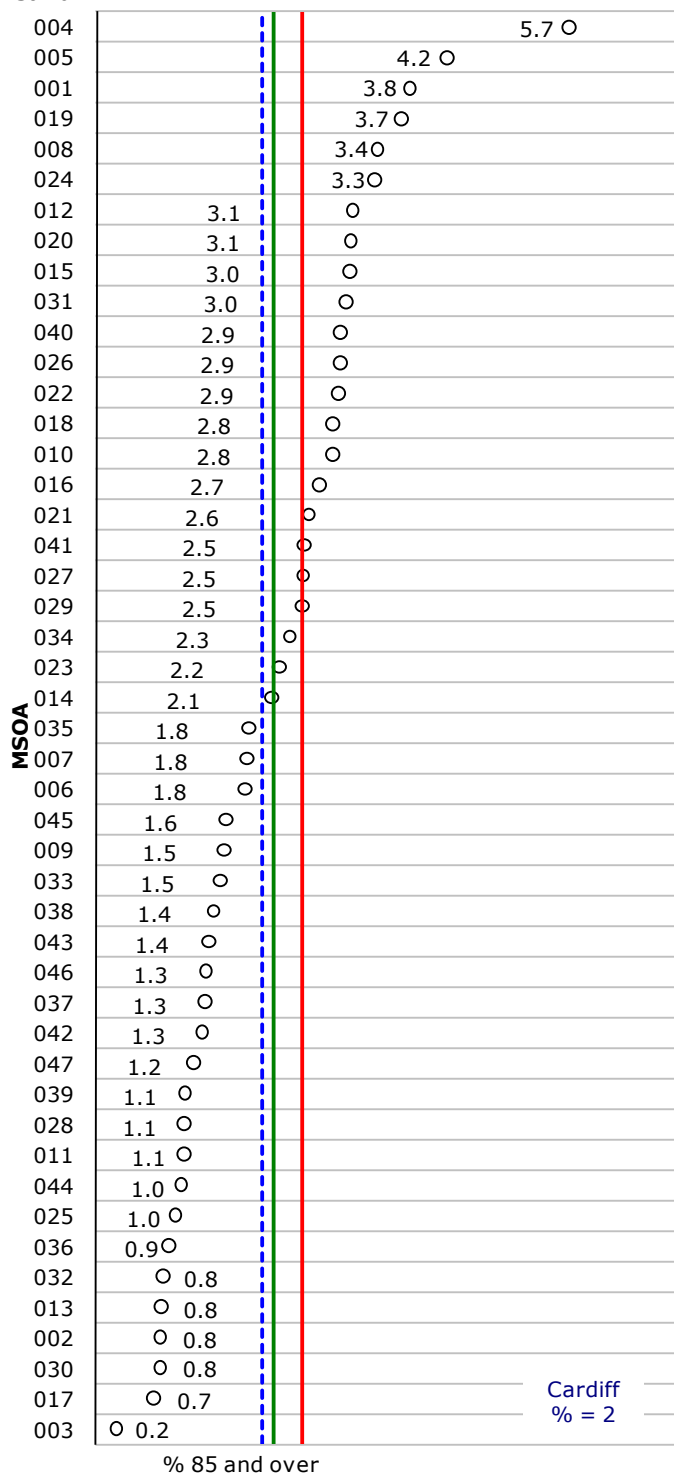


Percentage of population aged 85 and over in Cardiff and Vale University Health Board area, 2009

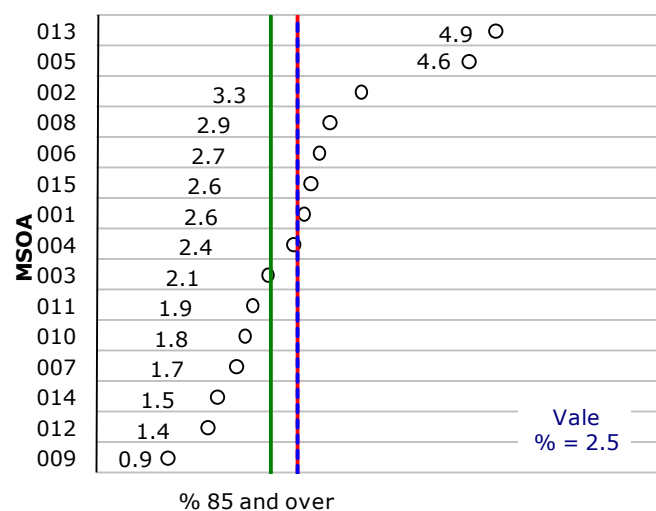
Produced by Public Health Wales Observatory, using data from ONS (MYE)

○ MSOA — Health Board (2.1%) — Wales (2.5%) - - - Local Authority

Cardiff



The Vale of Glamorgan



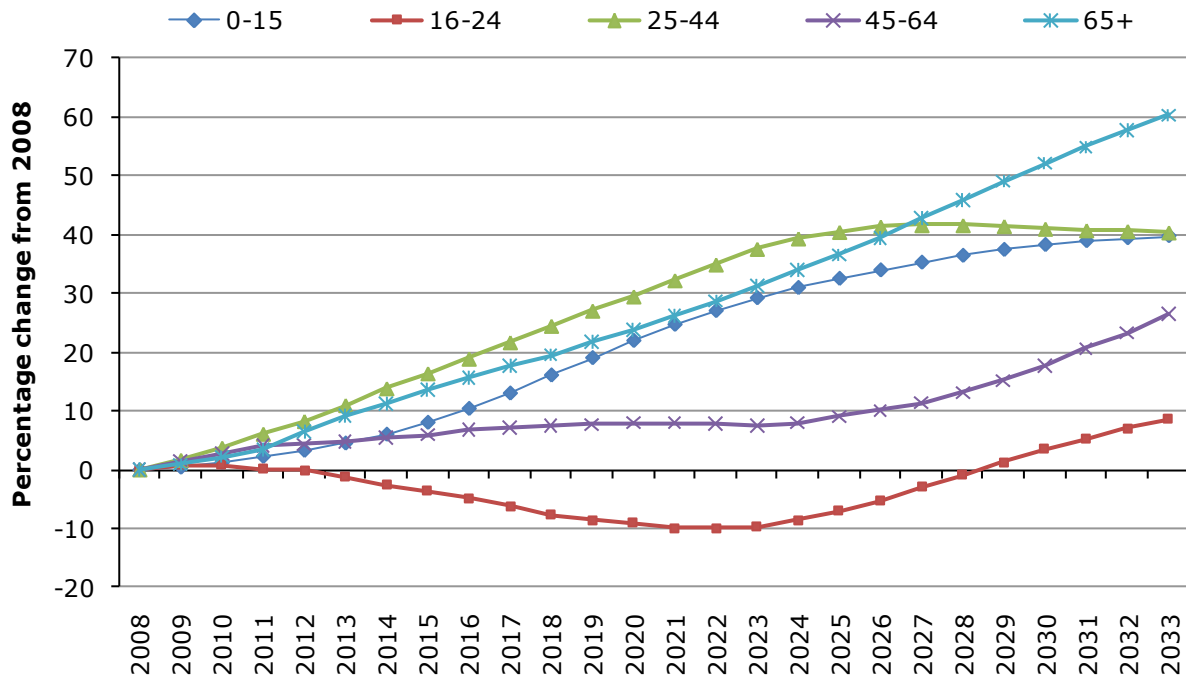
2.3 Population projections

2.3.1 Population projections by age group

Cardiff and Vale University Health Board

2008-based population projections for Cardiff and Vale University Health Board, persons: 2008 to 2033

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

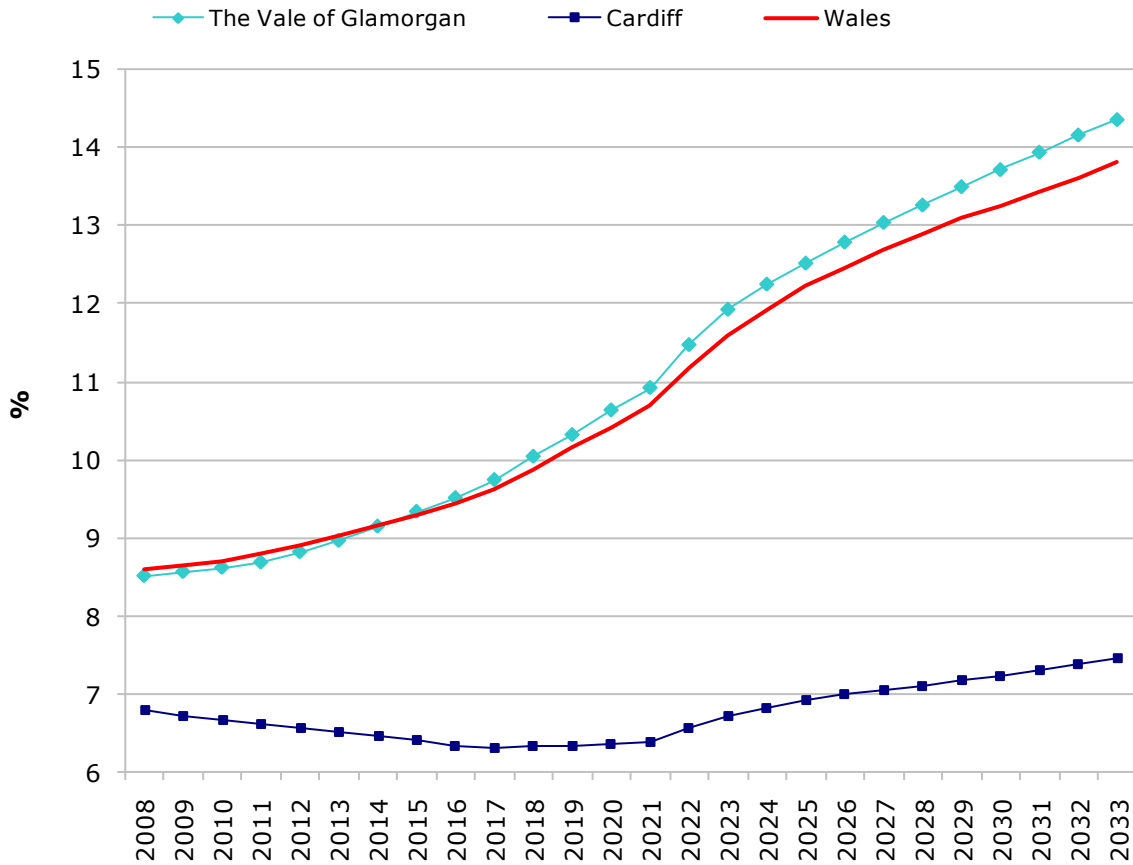


2.3.2 Population projections, persons aged 75 and over

Local authorities within Cardiff and Vale University Health Board*

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

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



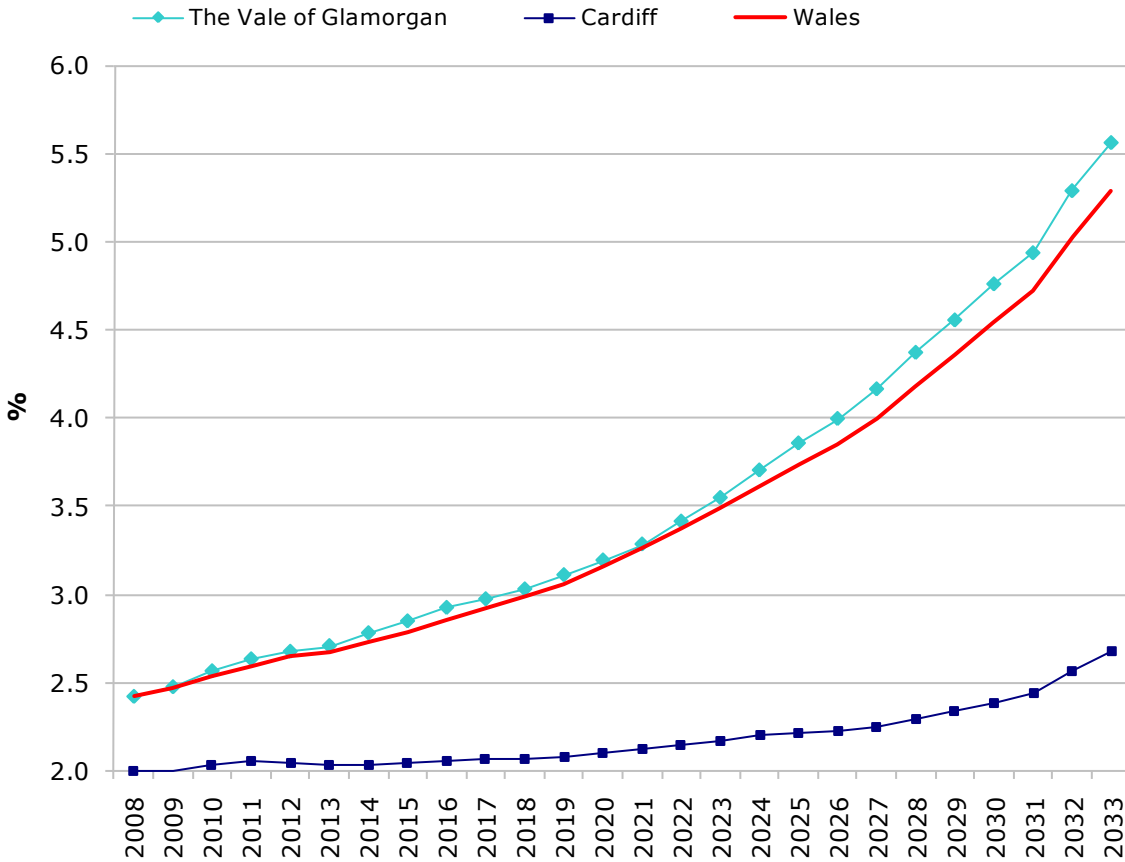
* Y-axis is truncated

2.3.3 Population projections, persons aged 85 and over

Local authorities within Cardiff and Vale University Health Board*

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

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

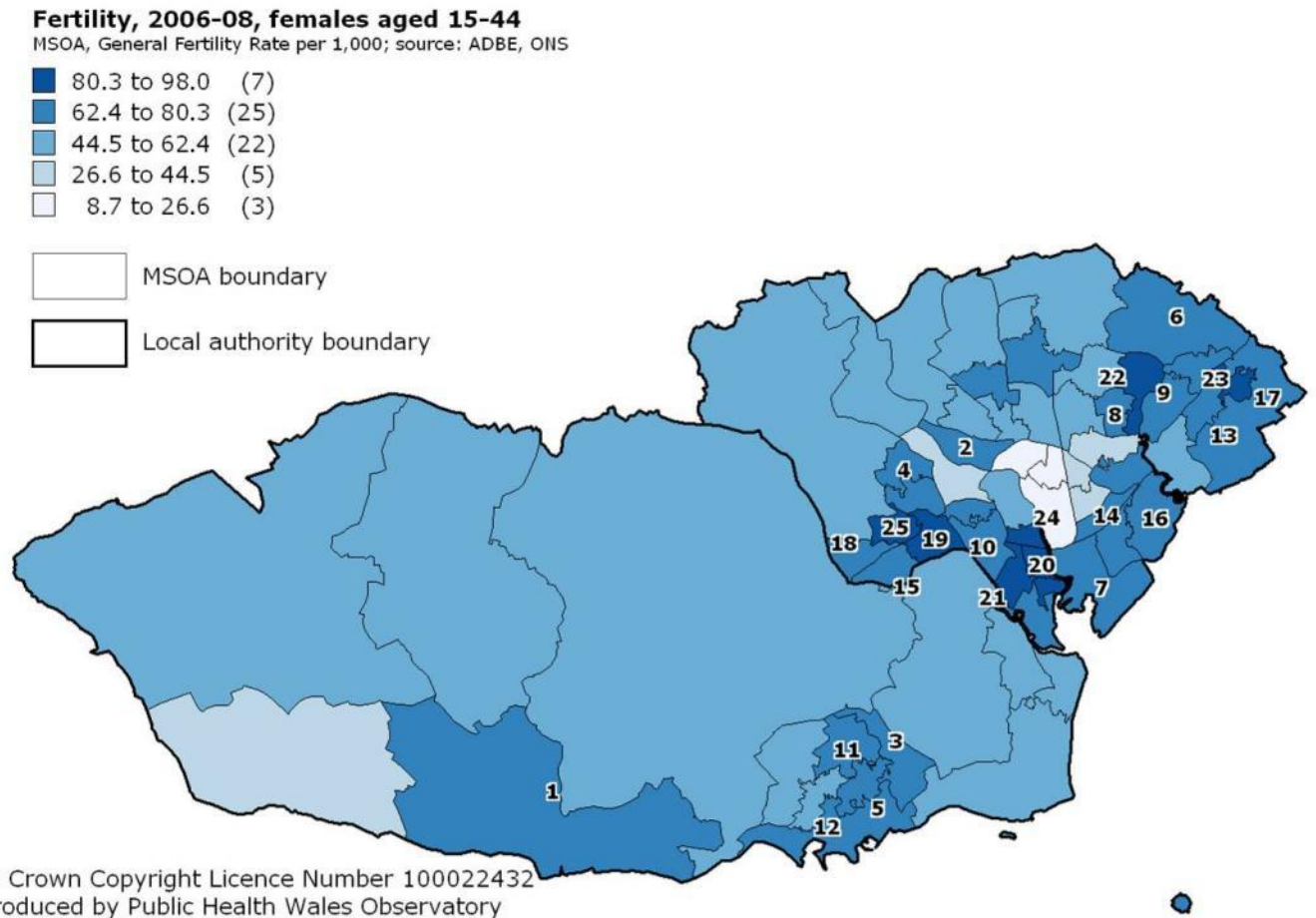


* Y-axis is truncated

2.4 Births

2.4.1 General fertility rate





Middle super output areas



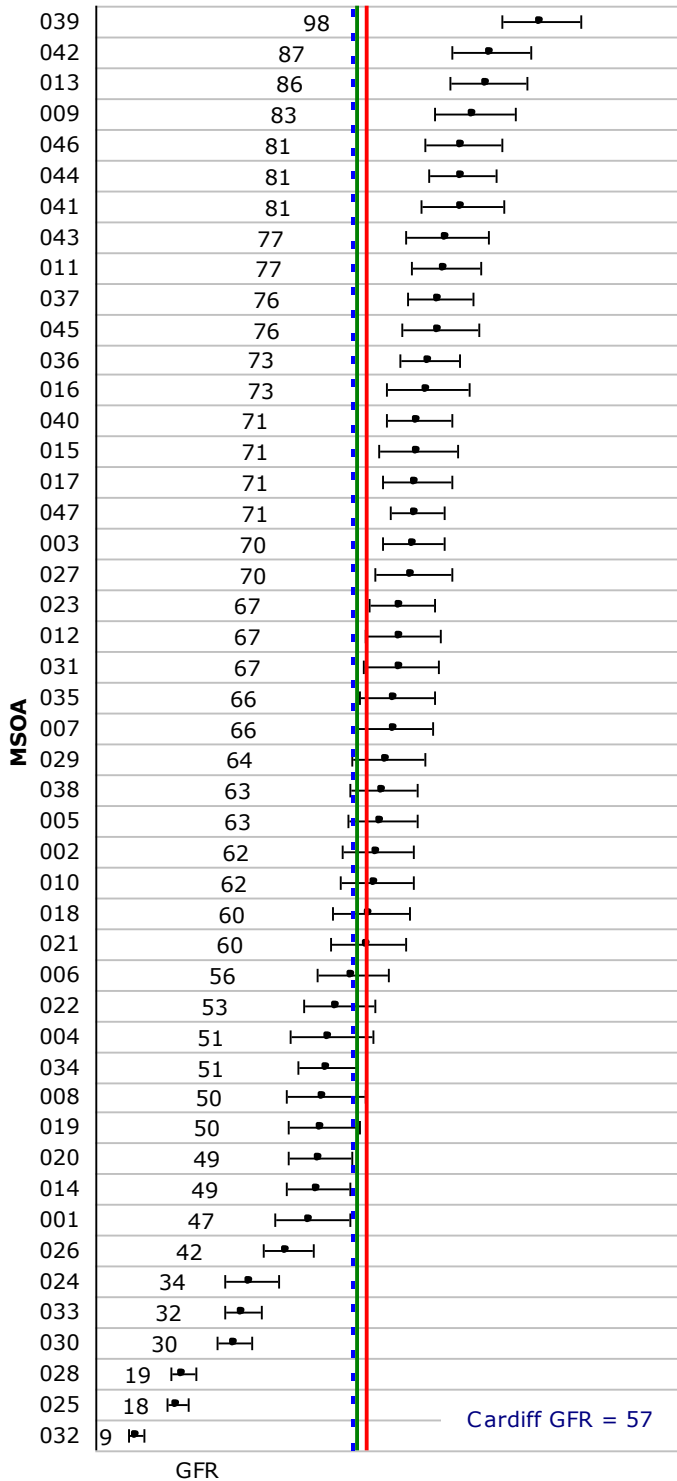
Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

General fertility rate per 1,000 in Cardiff and Vale University Health Board area, females aged 15-44, 2006-08

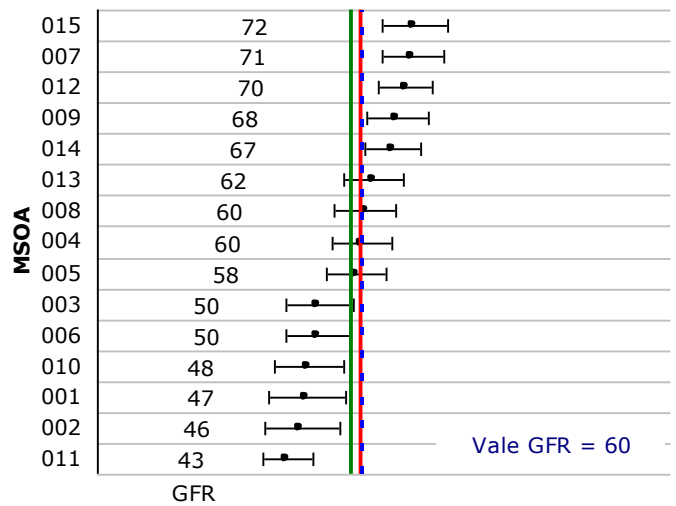
Produced by Public Health Wales Observatory, using data from ONS (ADBE, MYE)

 MSOA GFR with 95% confidence interval
  Health Board (GFR = 58)
  Wales (GFR = 60)
  Local Authority

Cardiff



The Vale of Glamorgan

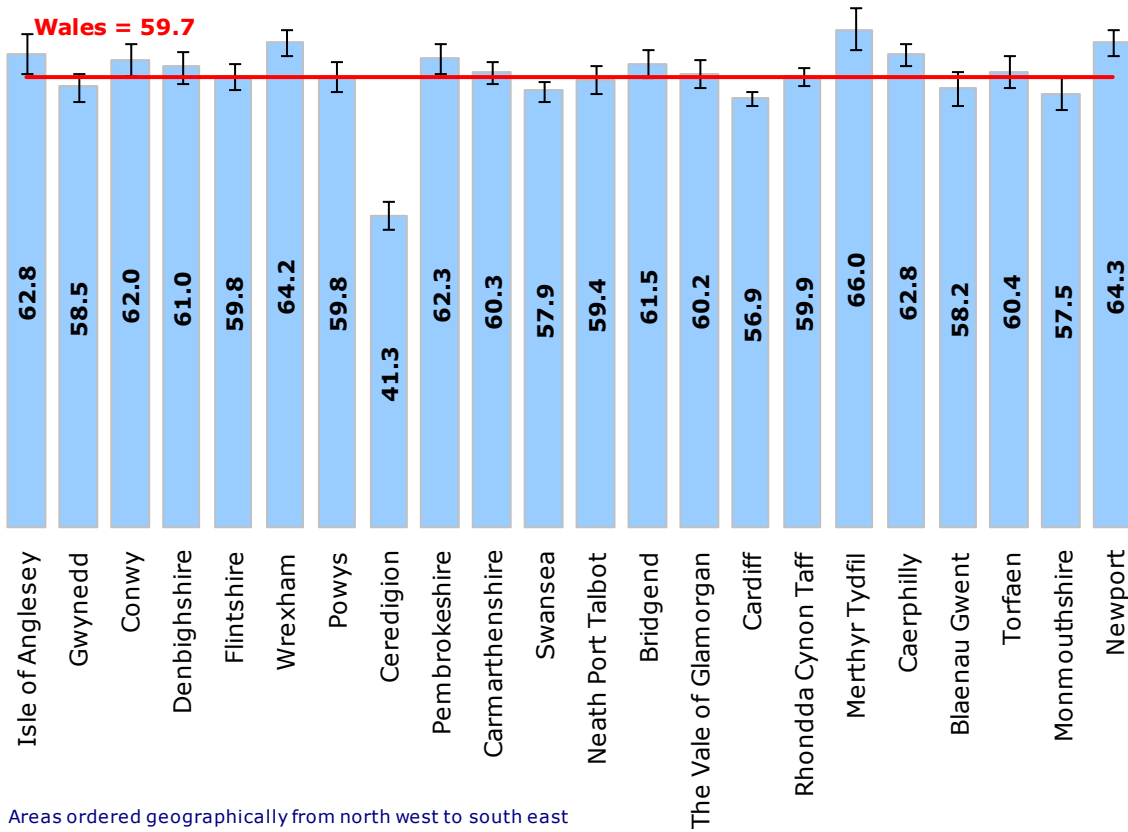


Local authorities

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

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

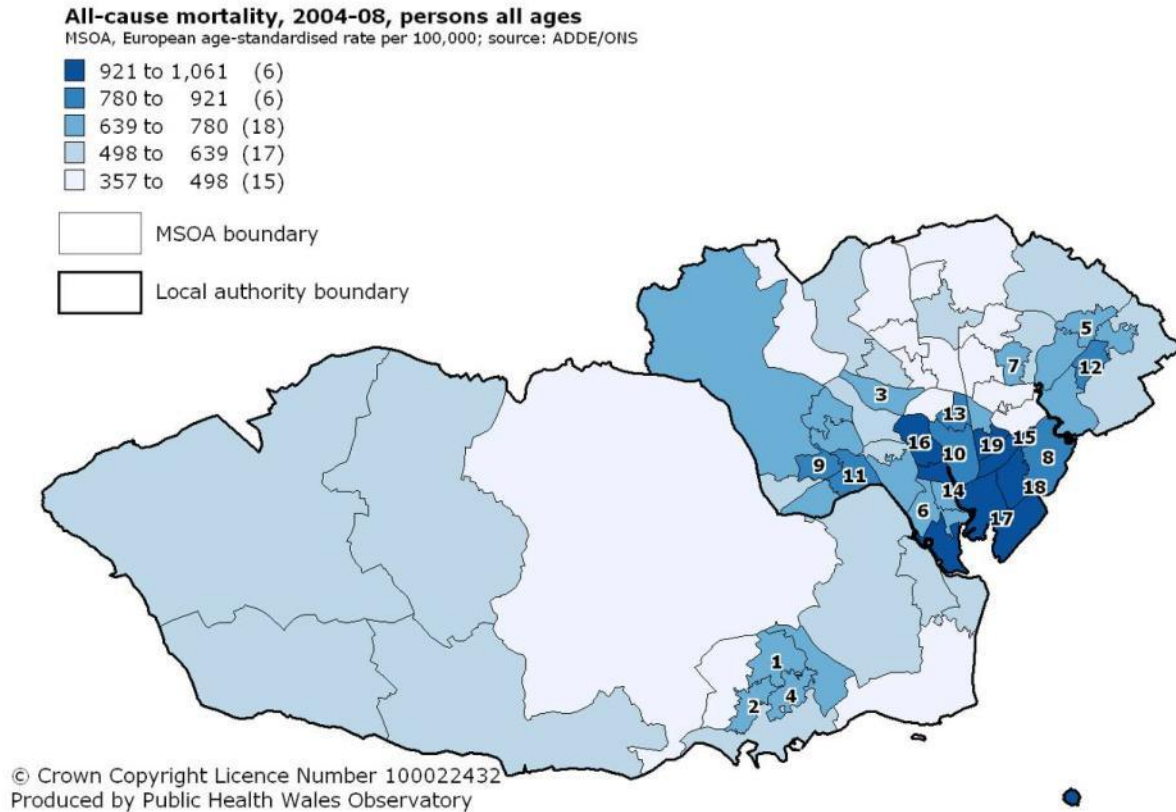
95% confidence interval



2.5 Deaths

2.5.1 All-cause mortality





Middle super output areas



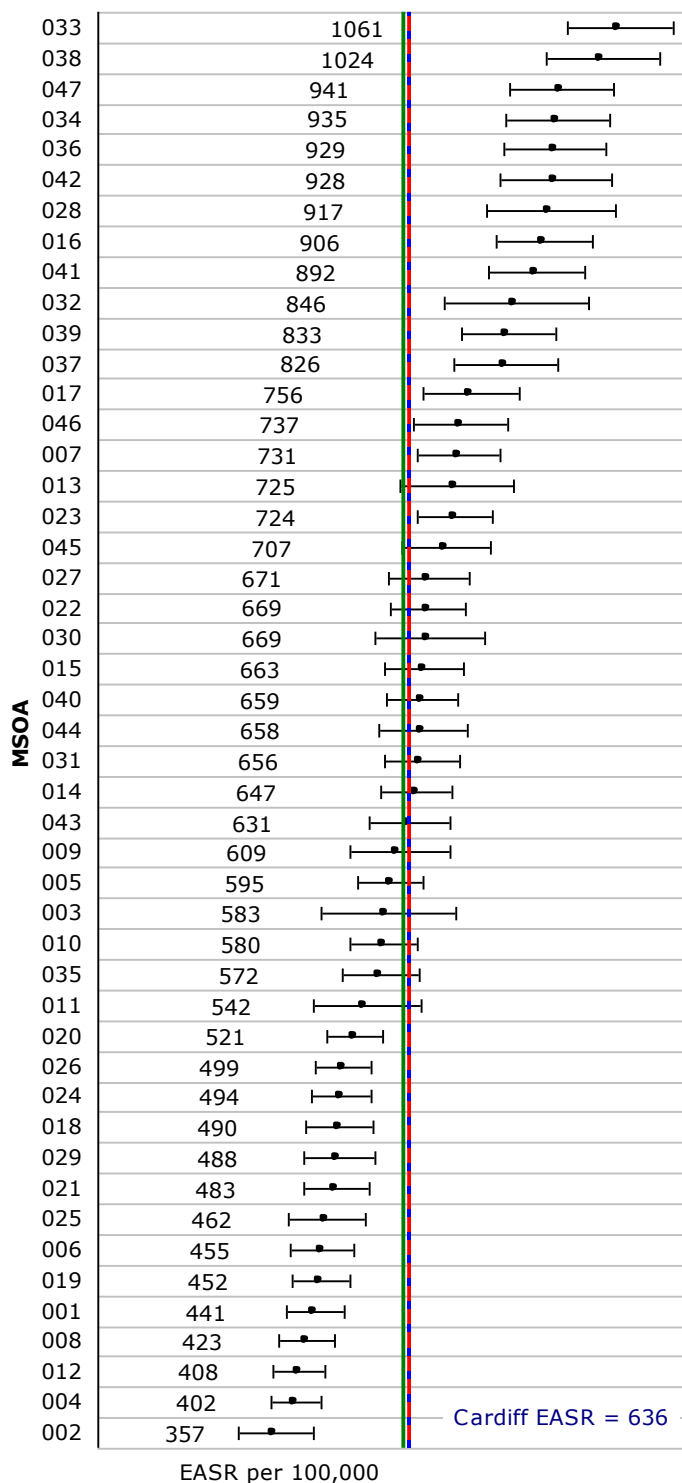
Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

All-cause mortality in Cardiff and Vale University Health Board area, all persons, 2004-08, European age-standardised rates per 100,000

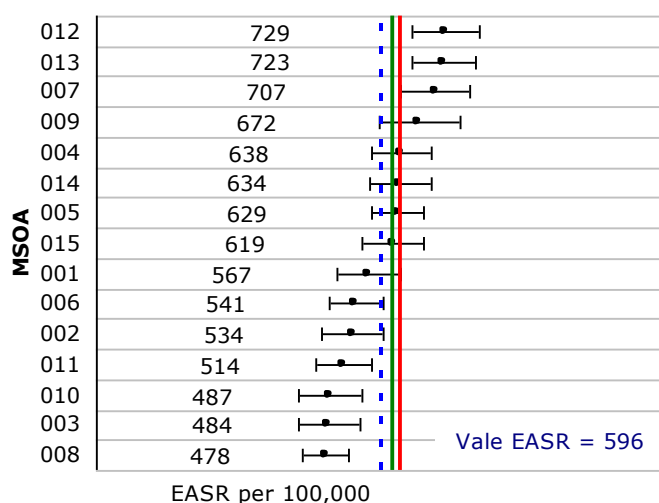
Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

 MSOA EASR with 95% confidence interval
  Health Board (EASR = 622)
  Wales (EASR = 635)
  Local Authority

Cardiff



The Vale of Glamorgan

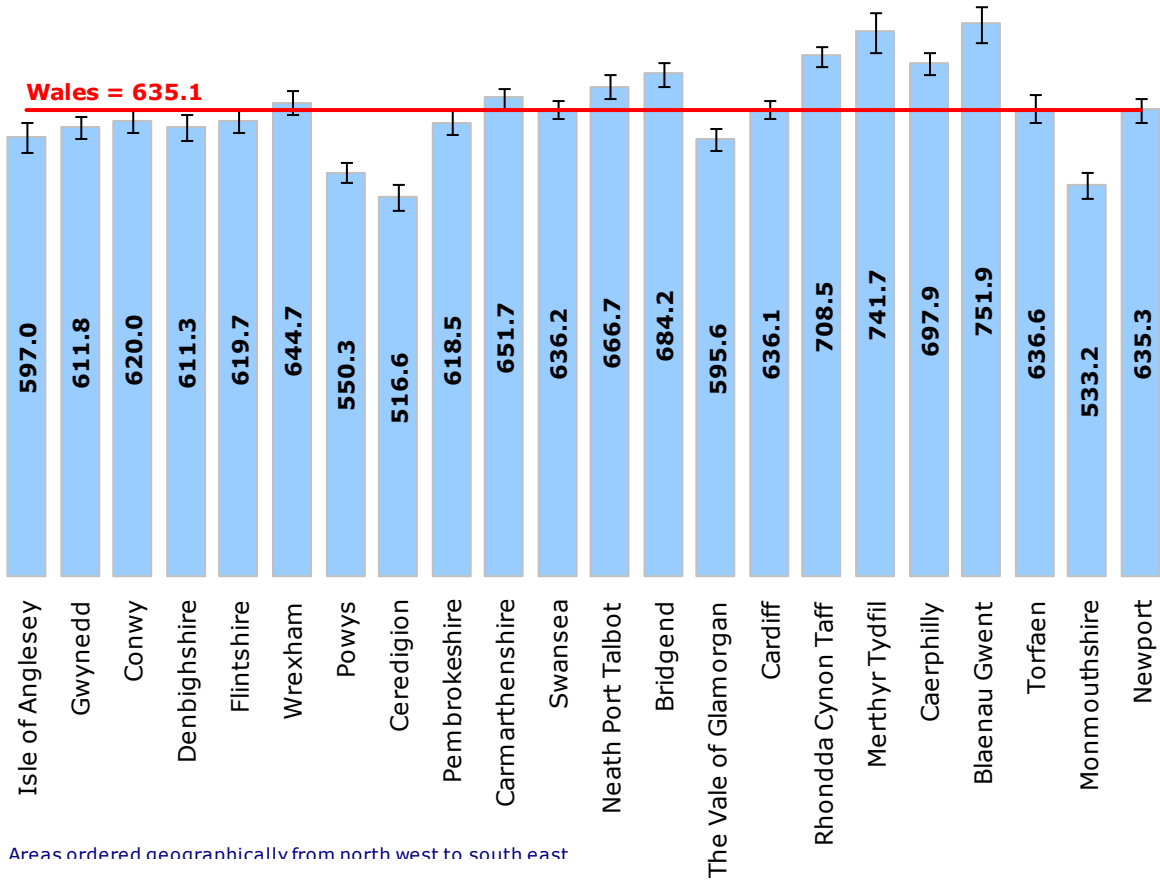


Local authorities

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

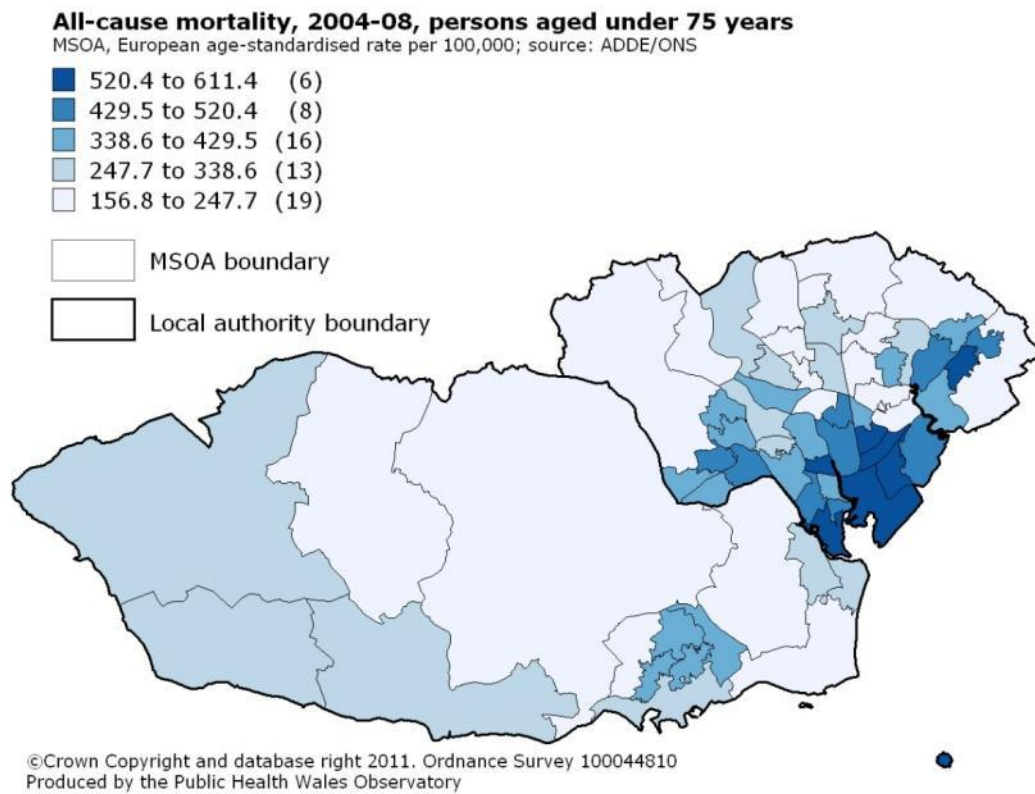
Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

95% confidence interval







2.5.2 All-cause mortality, aged under 75

Middle super output areas

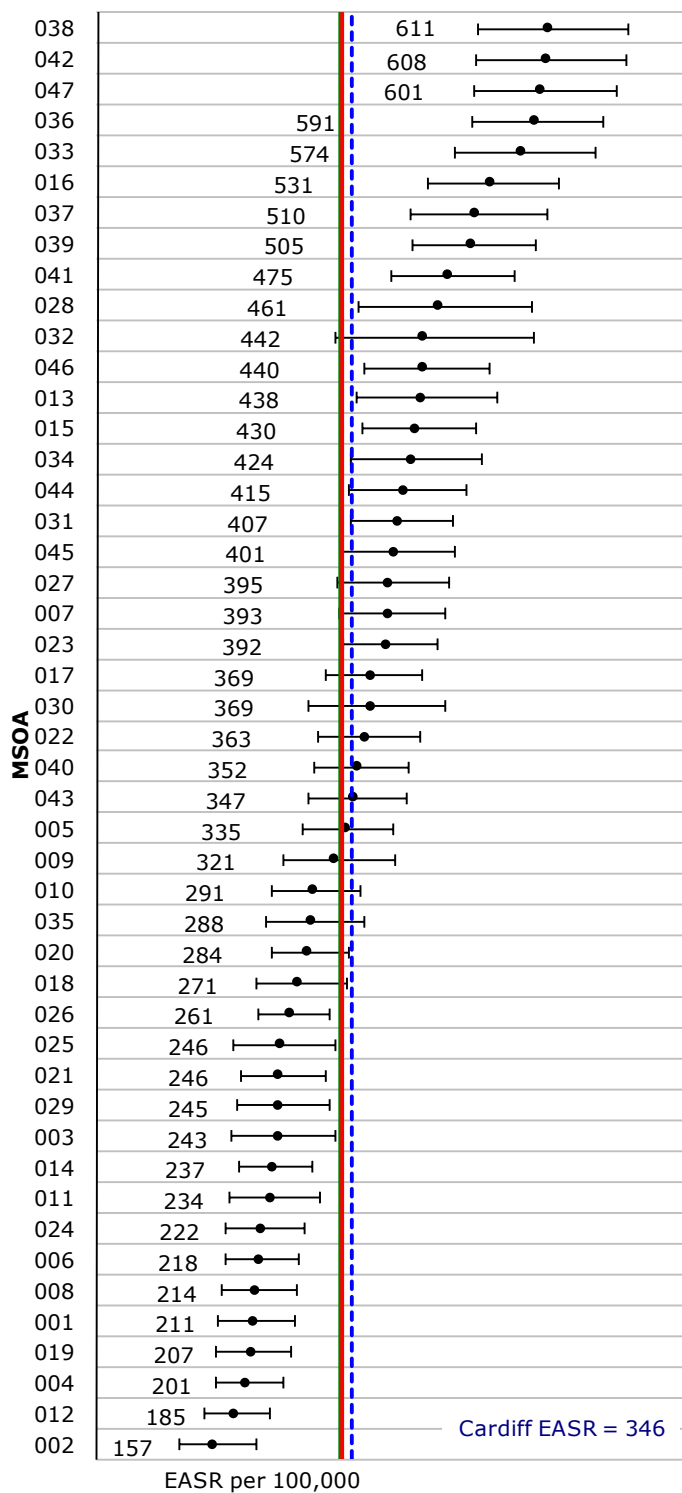


All-cause mortality in Cardiff and Vale University Health Board area, persons aged under 75 years, 2004-08, European age-standardised rates per 100,000

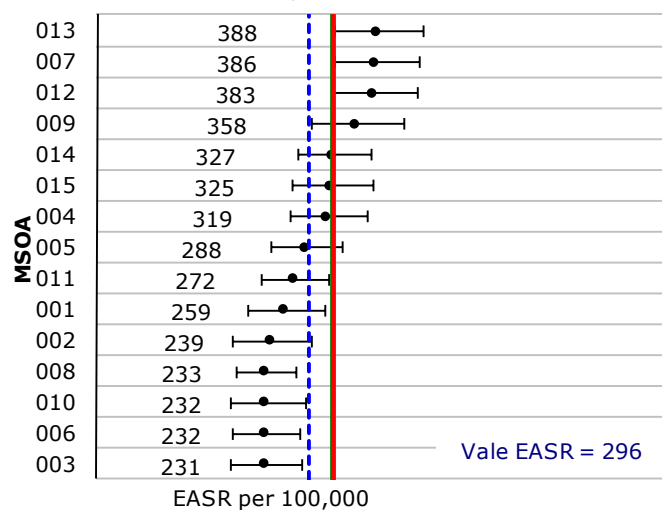
Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

 MSOA EASR with 95% confidence interval
  Health Board (EASR = 329)
  Wales (EASR = 331)
  Local Authority

Cardiff



The Vale of Glamorgan

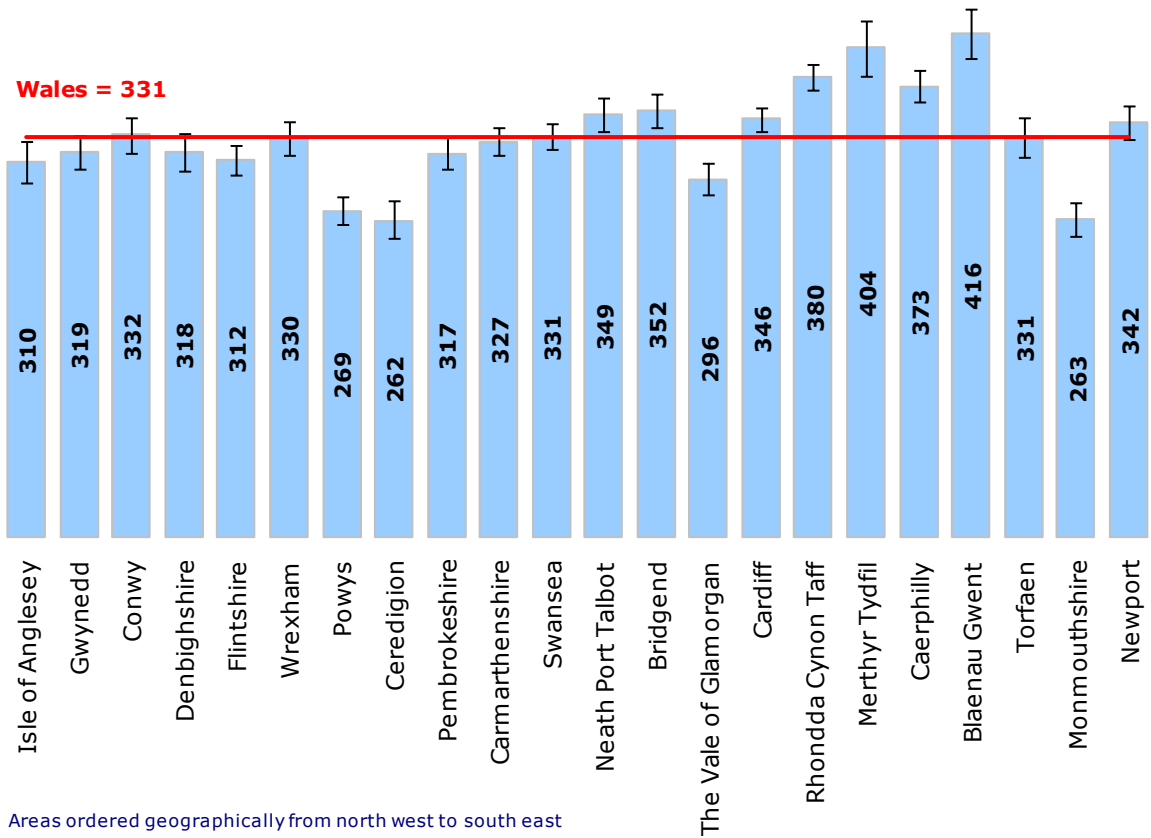


Local authorities

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)

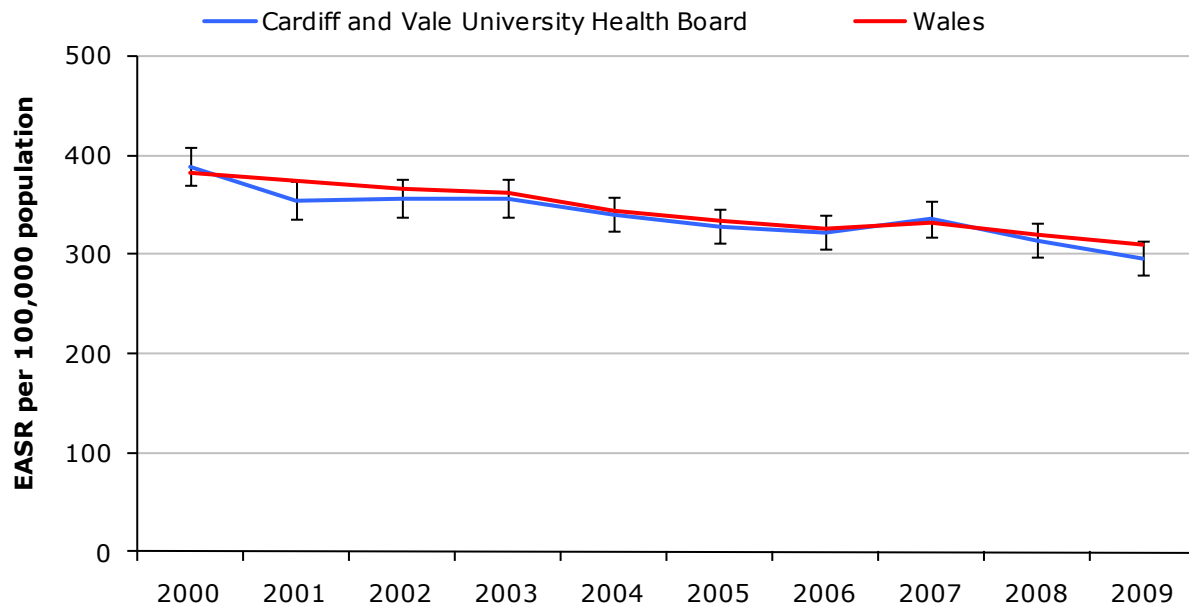
95% confidence interval



Wales and Cardiff and Vale University Health Board trend

All-cause mortality rate trend for Cardiff and Vale University 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 in Barry in the Vale of Glamorgan and in Cardiff local authority, areas in places like Trowbridge; Llanrumney; Pentwyn; Splott;; Llandaff and Butetown. The least deprived areas are in the Vale of Glamorgan in places like Cowbridge and Llantwit Major.

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 Cardiff and Vale UHB is almost three times that of the rate in the least deprived fifth. This gap is slightly higher in males than females. The charts also show the gap is not narrowing and that it may even be widening among females.

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 Cardiff and Vale UHB area are generally similar to the Wales average with the exception of physical activity which is worse than the rate for Wales. Almost one in four people smoke, leading to around 680 deaths per year within the health board area.

Nearly half the population of the health board area drinks more alcohol than the recommended limits and nearly one third binge drink on at least one day a week. Hospital admissions due to alcohol and drugs are more common for Cardiff and Vale UHB residents than in Wales as a whole, with particularly high levels found in Cardiff. In total, over 7,500 hospital admissions and around 150 deaths are caused by alcohol each year.

Overall, only around 40 per cent of people eat the recommended amount of fruit and vegetables, with even lower levels seen in the Vale of Glamorgan. The proportion of adults meeting recommended guidelines for physical activity are higher in the Vale or Glamorgan than in Cardiff. Improving diet and physical activity are essential to reducing the high proportions of people who are overweight or obese. Around 55 per cent of adults in the health board area are either overweight or obese.

3.2 Wider determinants of health

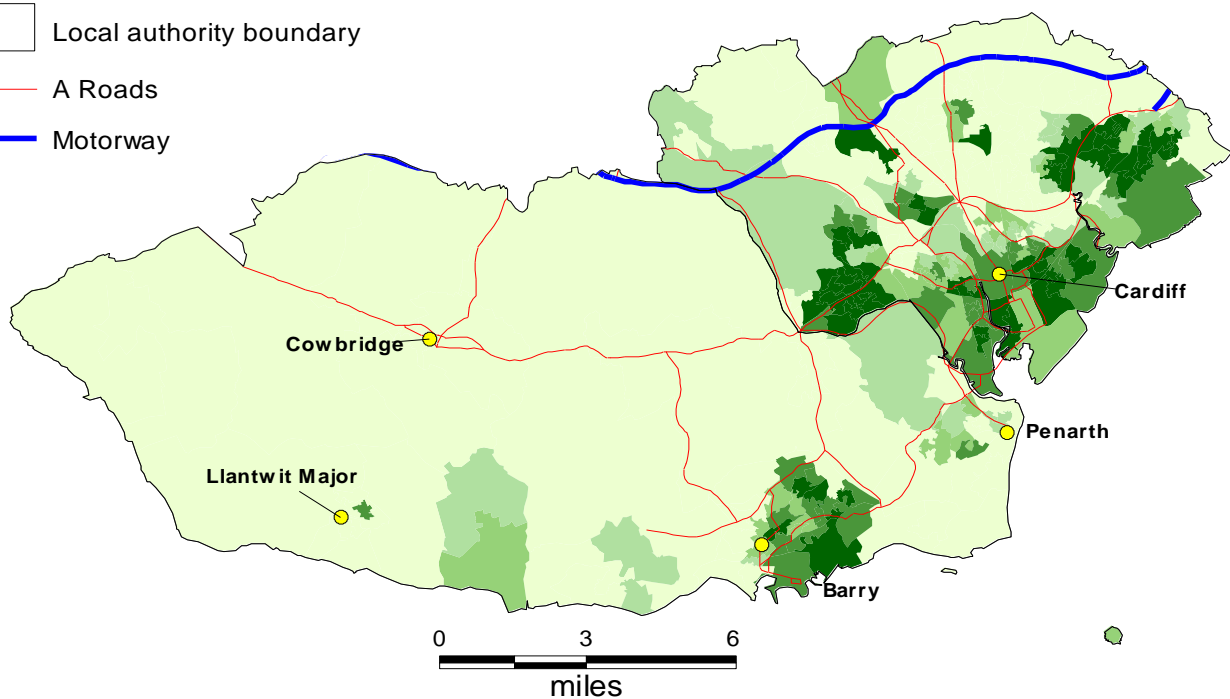
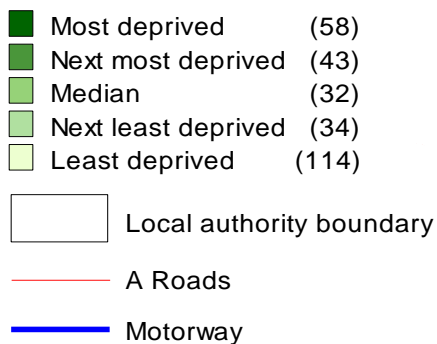
3.2.1 Deprivation in relation to Wales

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



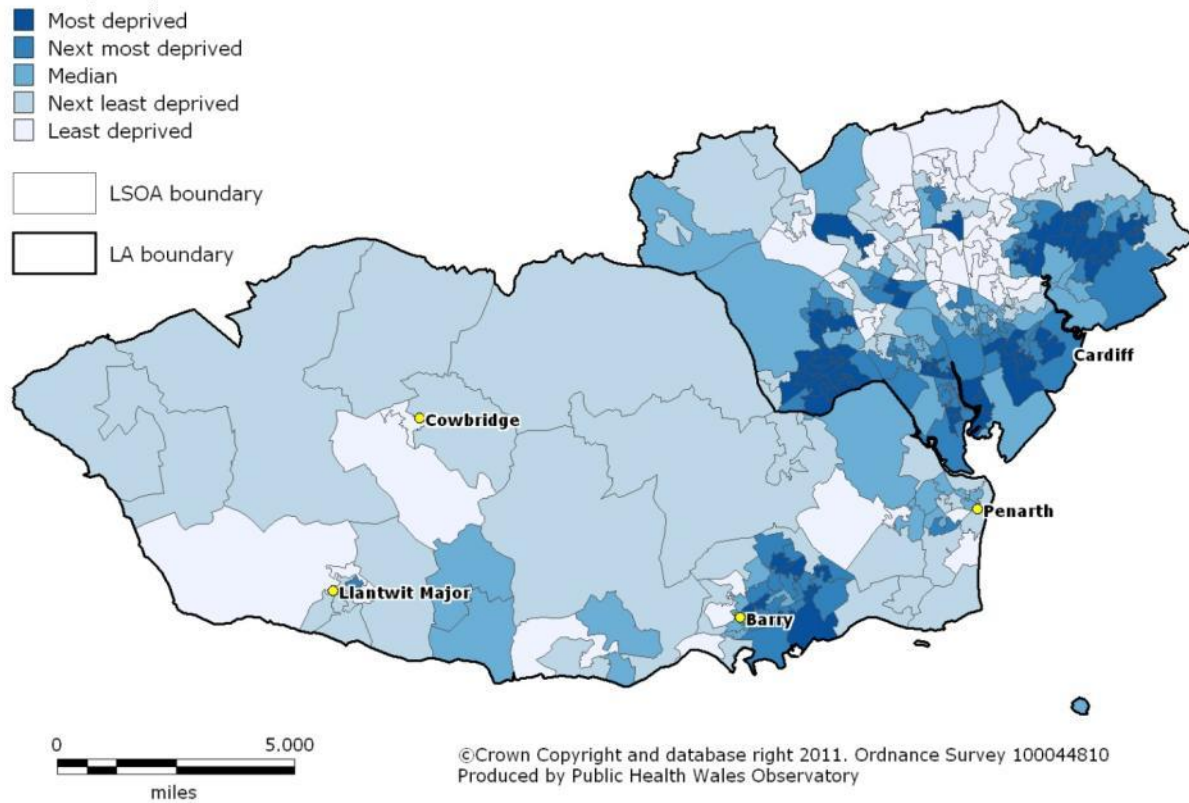
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3.2.2 Deprivation within the health board

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, Cardiff and Vale UHB

Lower Super Output Area. Source: WIMD 2008

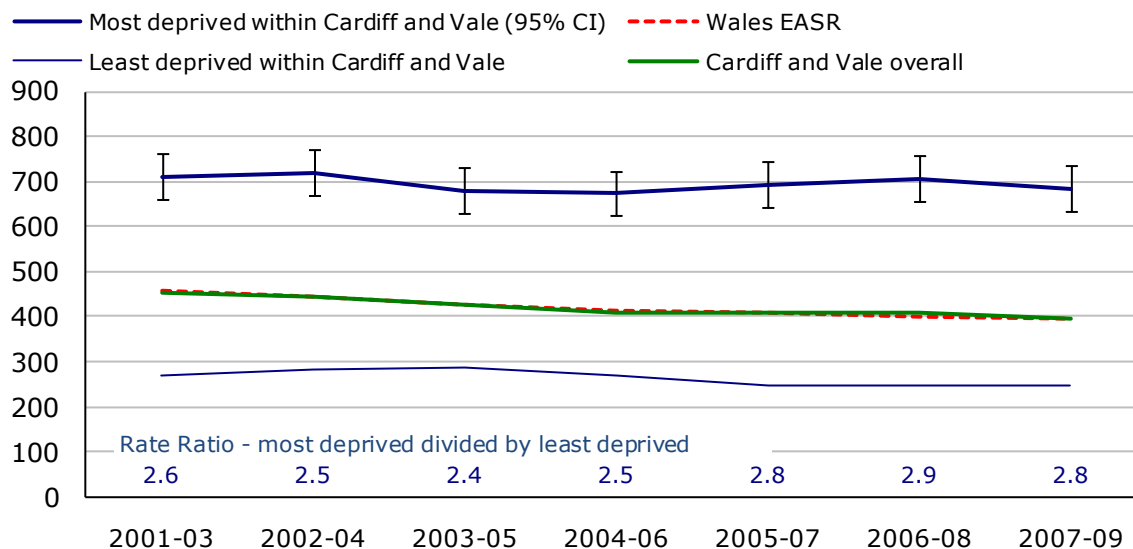


3.2.3 Inequality in all-cause mortality

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

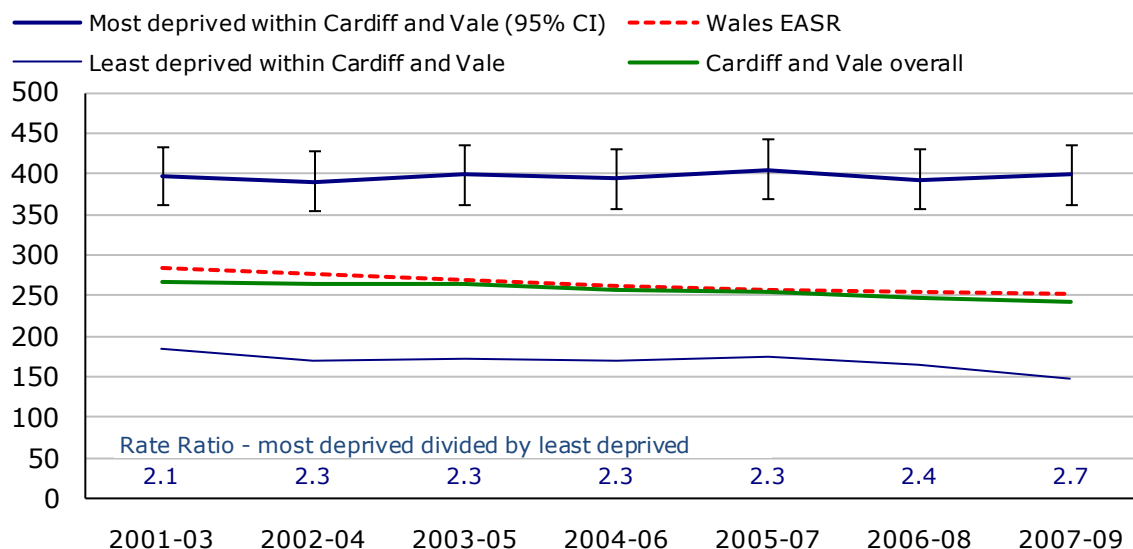
All-cause mortality, under 75, males, European age-standardised rate (EASR) per 100,000, Cardiff and Vale UHB and Wales, 2001-09

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, Cardiff and Vale UHB and Wales, 2001-09

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

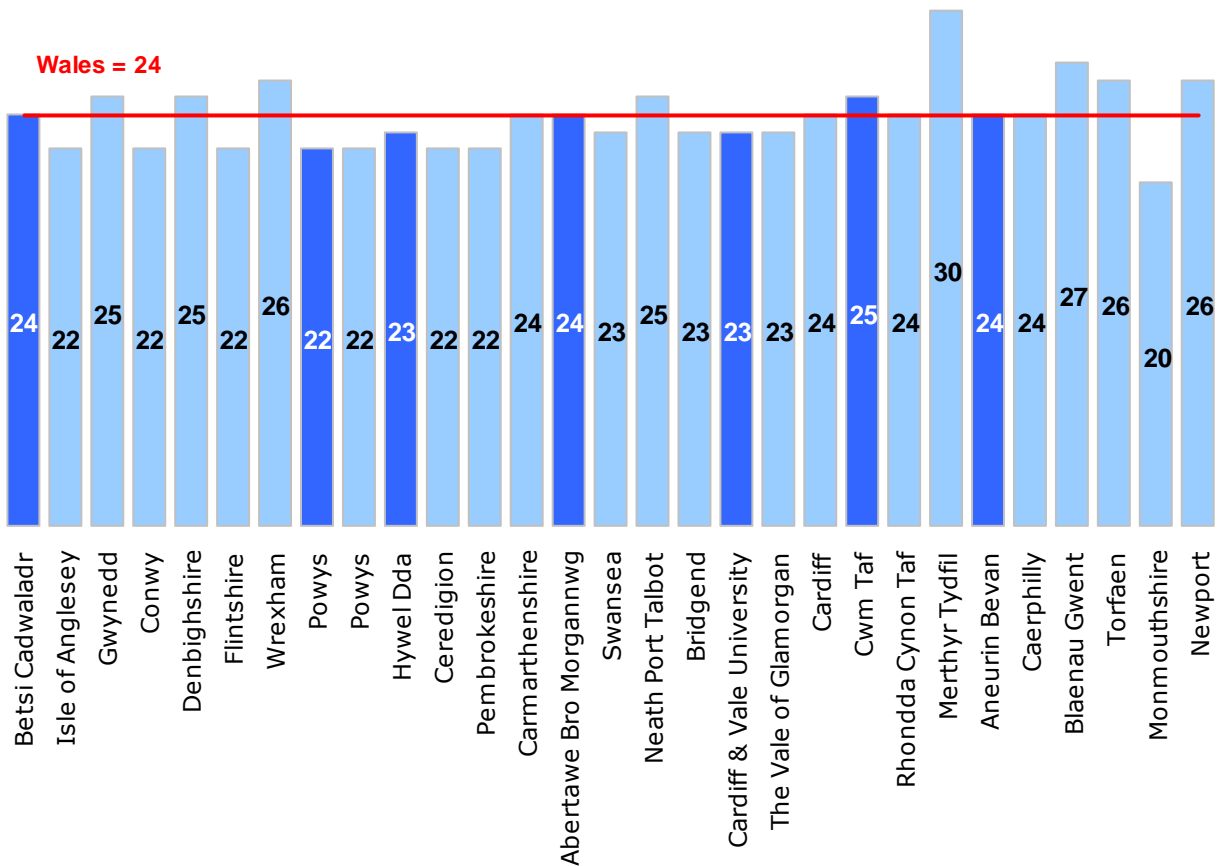


3.3 Lifestyle factors

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

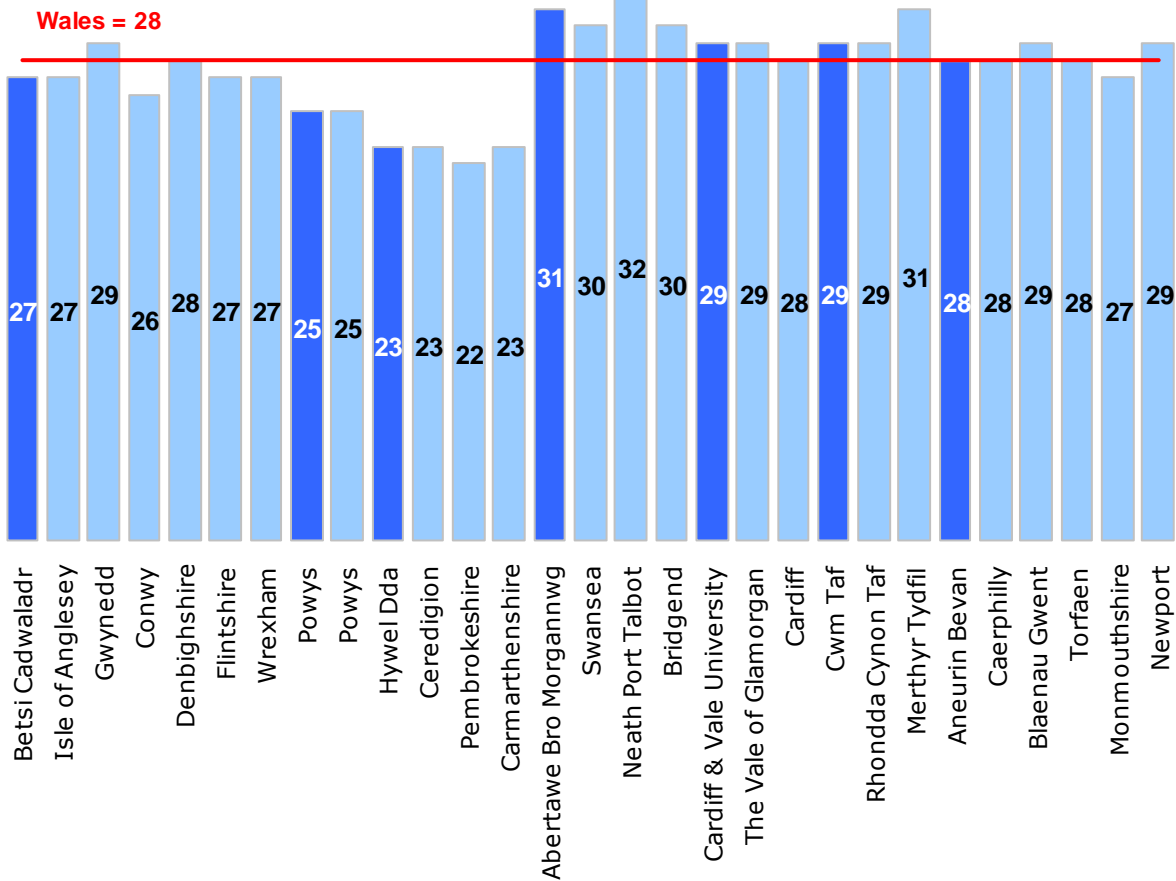


Areas ordered geographically from north west to south east

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

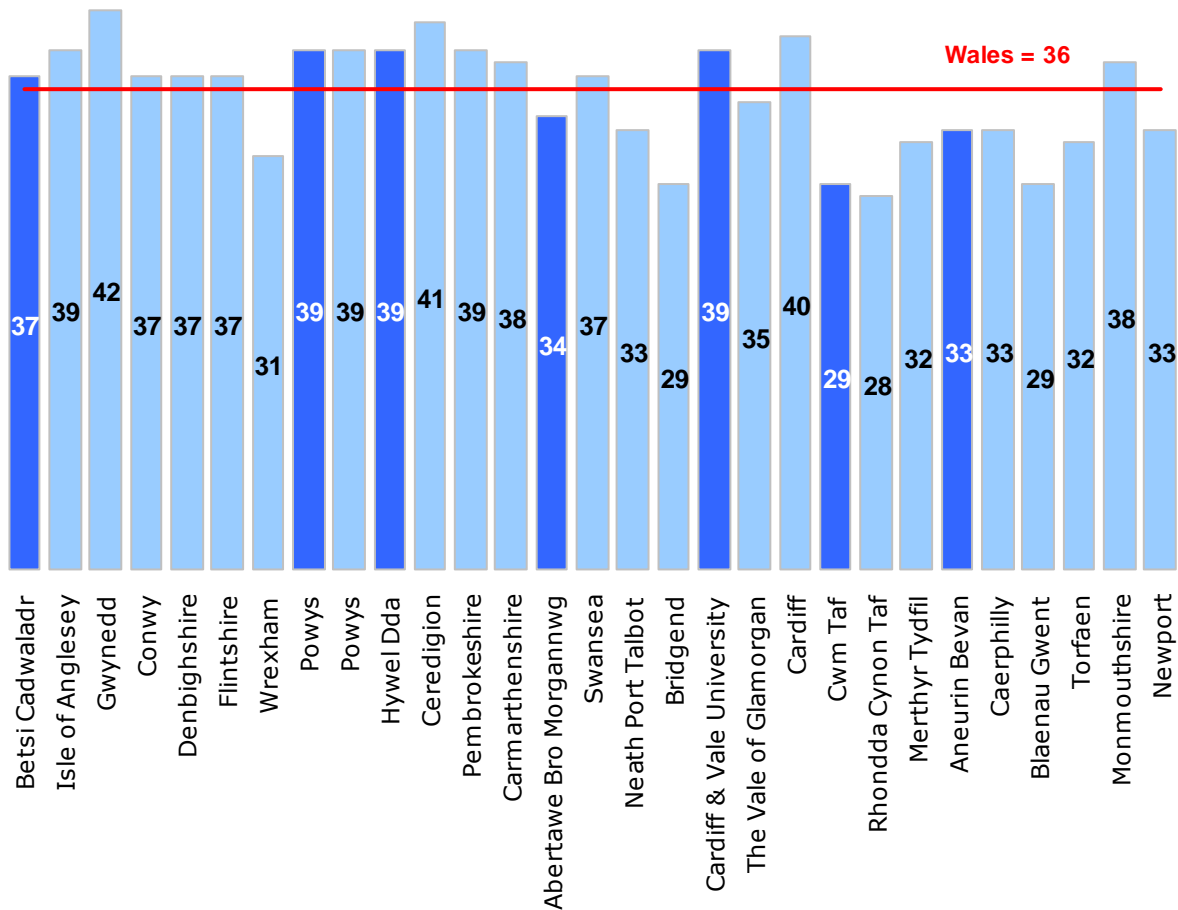


Areas ordered geographically from north west to south east

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

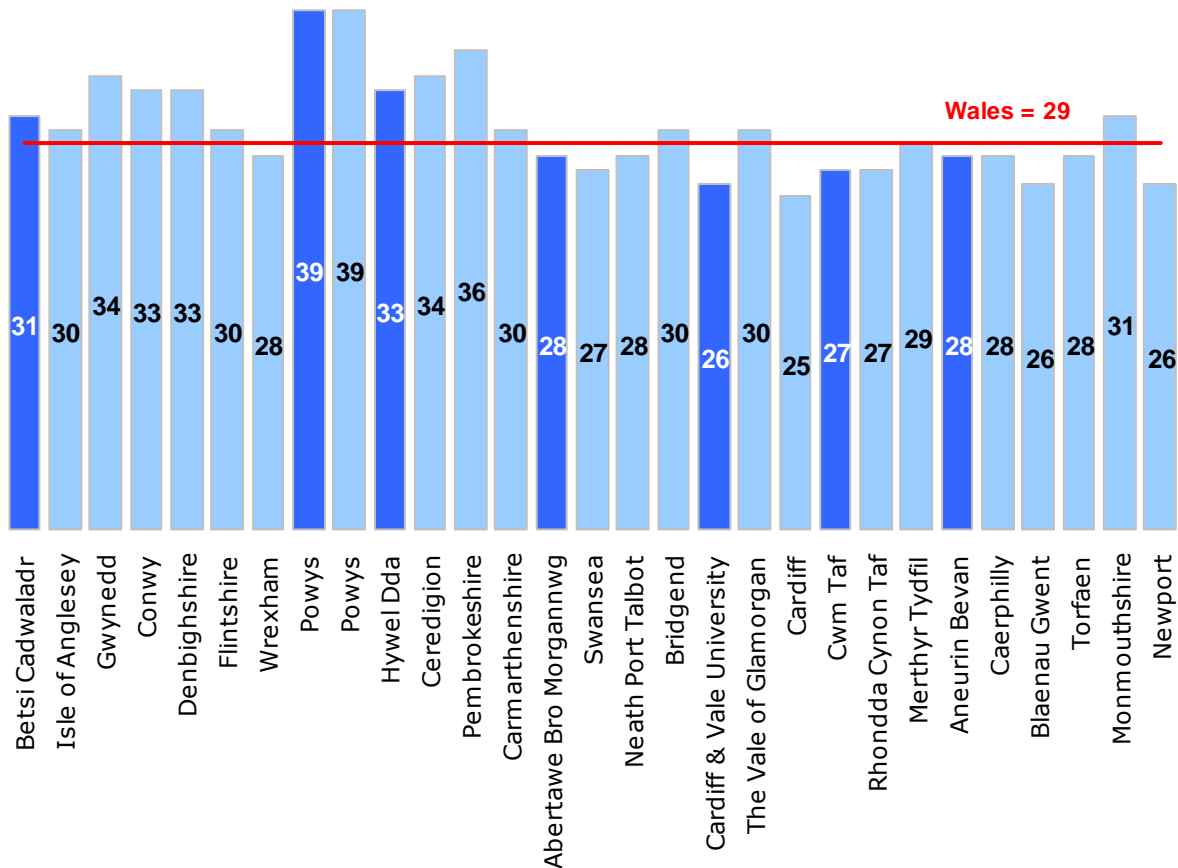


Areas ordered geographically from north west to south east

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

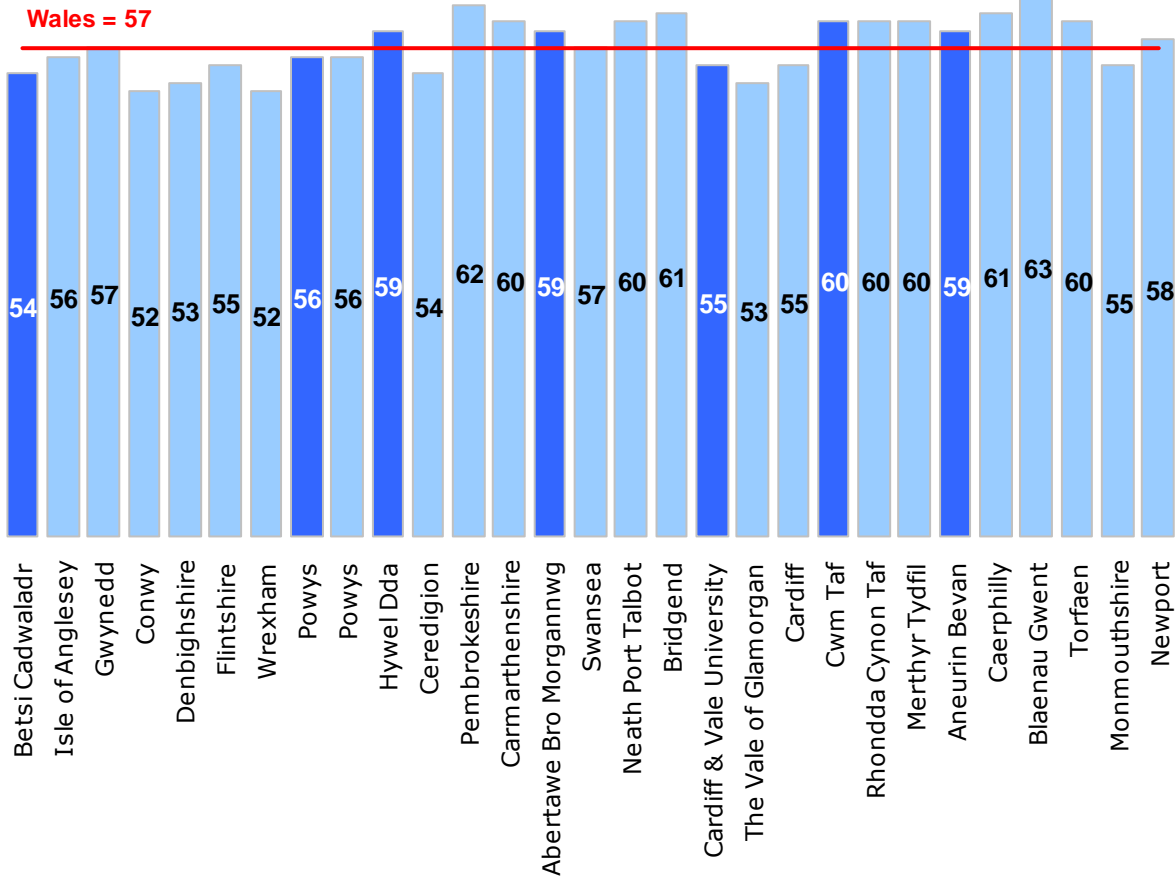


Areas ordered geographically from north west to south east

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 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 Cardiff and Vale University Health Board in persons aged 65 years and over during 2010/11 was 9% under the target level. In persons aged under 65 years in the at risk groups, uptake during 2010/11 was 28% below the target level.

Population Based National Screening Programmes in Wales

Uptake/coverage rates in Cardiff and Vale UHB for the national screening programmes for bowel, breast and cervical cancer and newborn hearing screening are consistently lower than Wales overall. Only the rate for newborn hearing screening achieves the UK target rates, the other programmes all fall short of the targets. Rates in Cardiff for all screening programmes are noticeably lower than those for the Vale of Glamorgan.

Primary care services

The latest Welsh Health Survey data show that age-standardised percentages of primary care service use by adults in Cardiff and Vale UHB are on a par with or above those for Wales as a whole.

Use of secondary and tertiary care

Age-standardised overall hospital admission rates in persons aged under 75 years for 2009 in Cardiff and Vale UHB and its local authority areas show that overall rates are similar to Wales. Drilling down to the MSOA level there is considerable variation. Rates are lowest in the Gabalfa area of Cardiff and highest in the Ely and Riverside areas of Cardiff.

Looking at emergency admissions in this age group, the health board rate is below that of Wales and lower in Cardiff than the Vale of Glamorgan. At the MSOA level the rate varies greatly with the lowest rates found in the Heath area and highest in the Riverside area of Cardiff. High rates of emergency hospital admission may be indicative of inadequate self-care and primary care services.

The health board and Cardiff local authority area elective admission rates are very similar to that for Wales, whereas the rate for the Vale of Glamorgan is marginally higher. At the MSOA level rates are highest in the Rumney and Trowbridge areas of Cardiff. The lowest rates are found in the Gabalfa; Cathays; Blackweir; Lisvane and Llanishen areas of Cardiff.

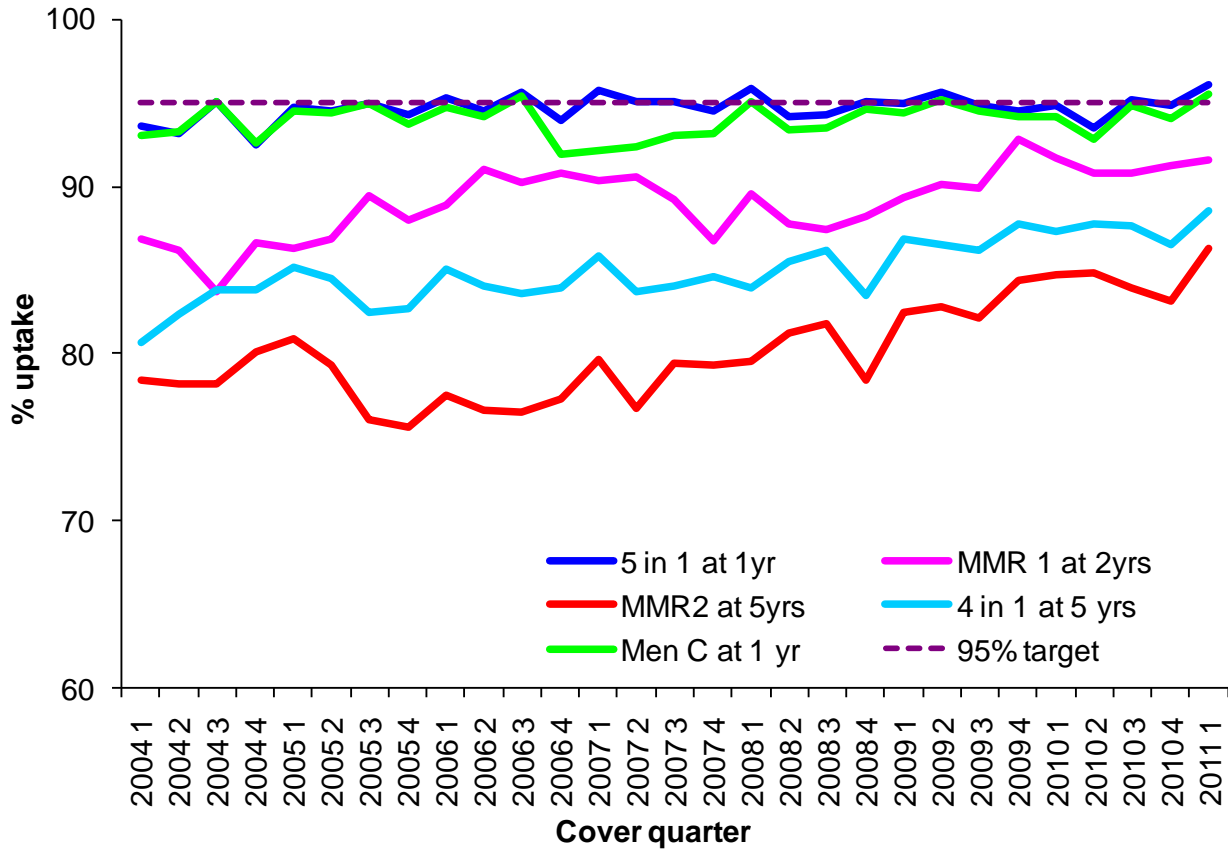
4.2 Prevention services: vaccination uptake

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

4.2.1 Childhood immunisations

Routine childhood immunisation Cardiff and Vale University Health Board area, trends 2004-2011

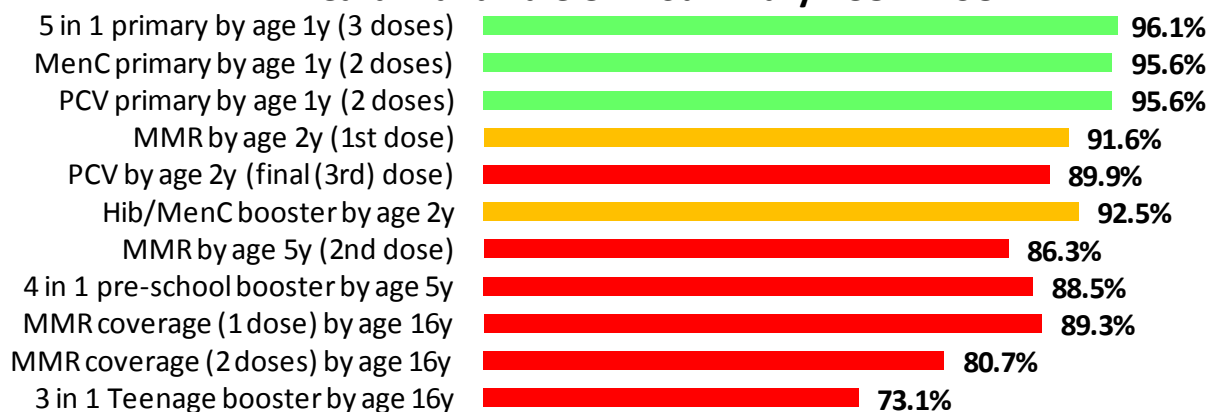
Produced by Public Health Wales Vaccine Preventable Disease Programme, from the Public Health Wales COVER reports



Routine childhood immunisation Cardiff and Vale University Health Board area, 2011 quarter 1

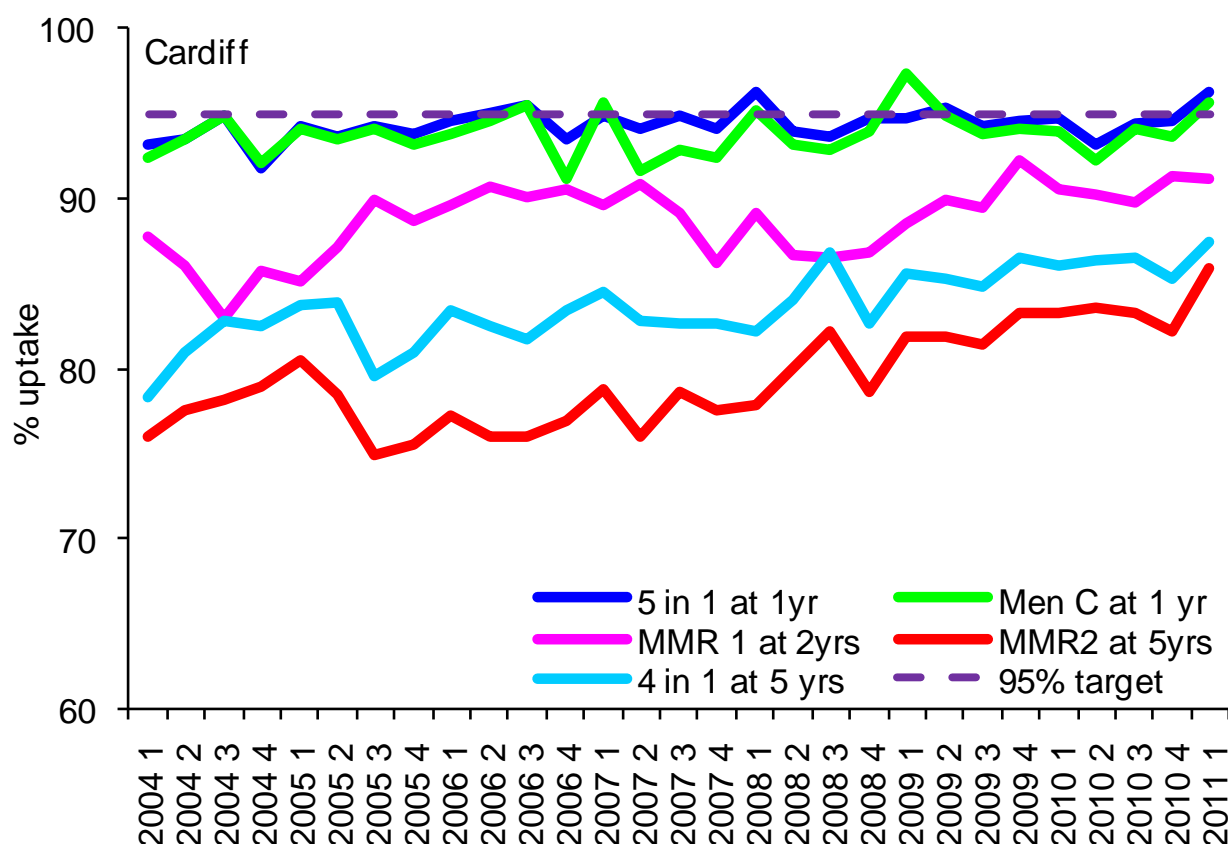
Produced by Public Health Wales Vaccine Preventable Disease Programme, from the Public Health Wales COVER reports

Cardiff and Vale UHB Summary - COVER98



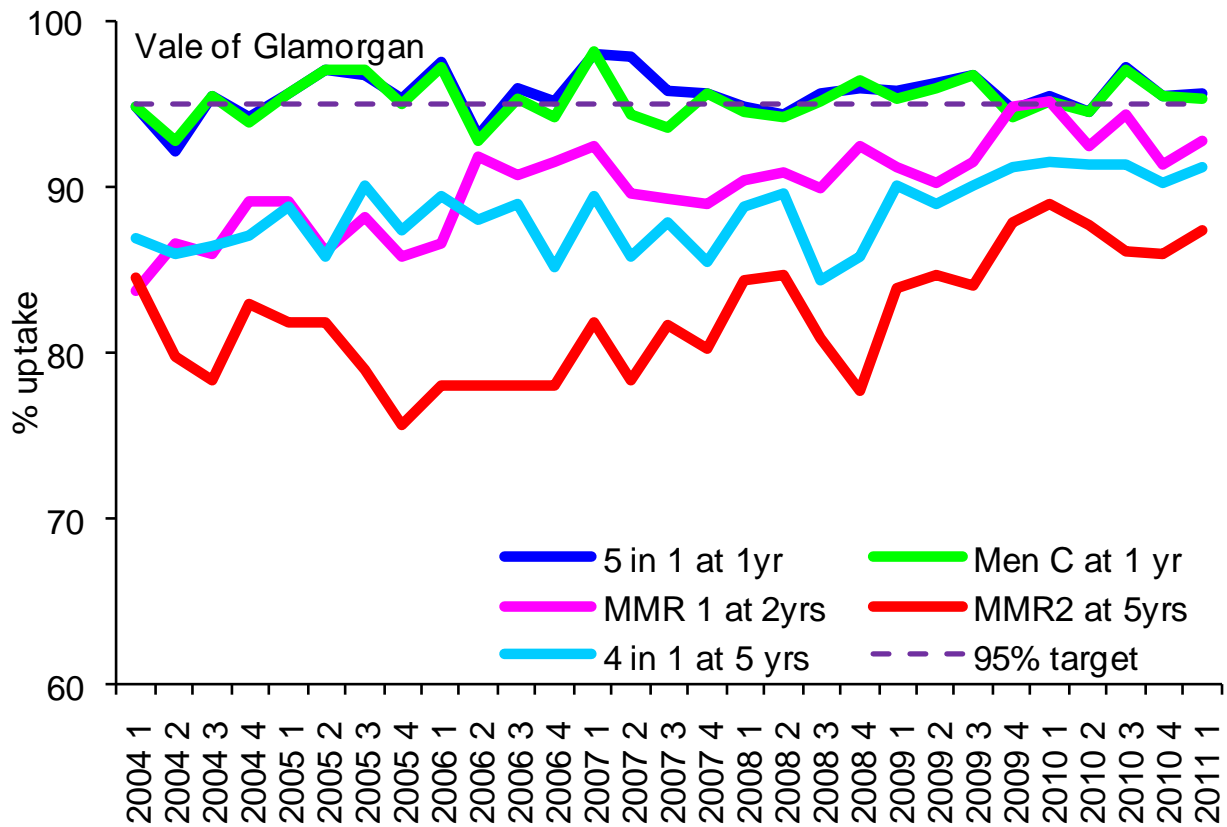
Routine childhood immunisation Cardiff local authority area, trends 2004-2011

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



Routine childhood immunisation Vale of Glamorgan local authority area, trends 2004-2011

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



4.2.2 Seasonal influenza vaccination

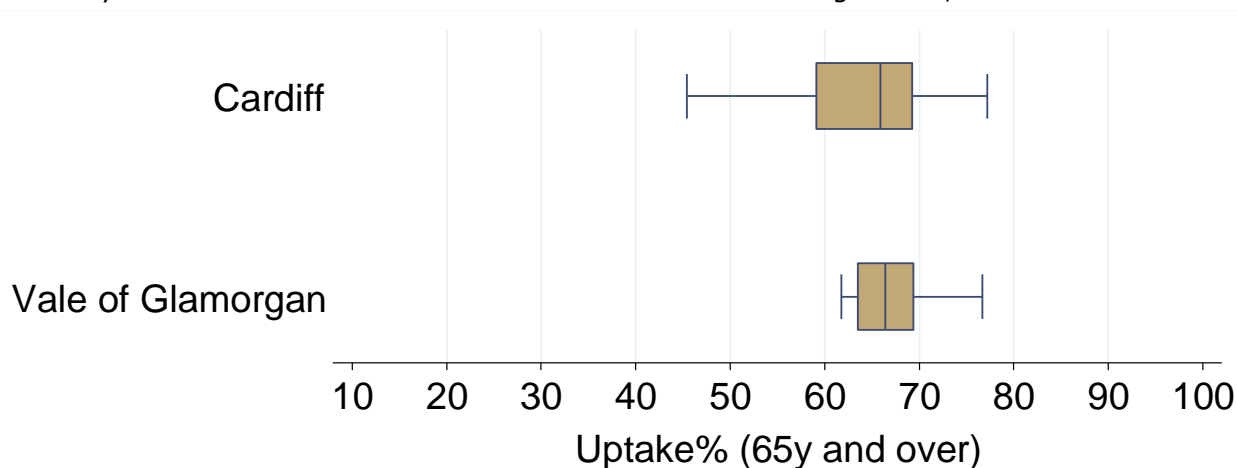
Uptake of seasonal influenza immunisation in Cardiff and Vale University Health Board area, 2010/2011

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 (%) |
| Cardiff | 47,977 | 31,312 | 65.3 | 33,833 | 16,116 | 47.6 |
| Vale of Glamorgan | 22,007 | 14,760 | 67.1 | 12,410 | 5,673 | 45.7 |
| Health Board total | 69,984 | 46,072 | 65.8 | 46,243 | 21,789 | 47.1 |

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

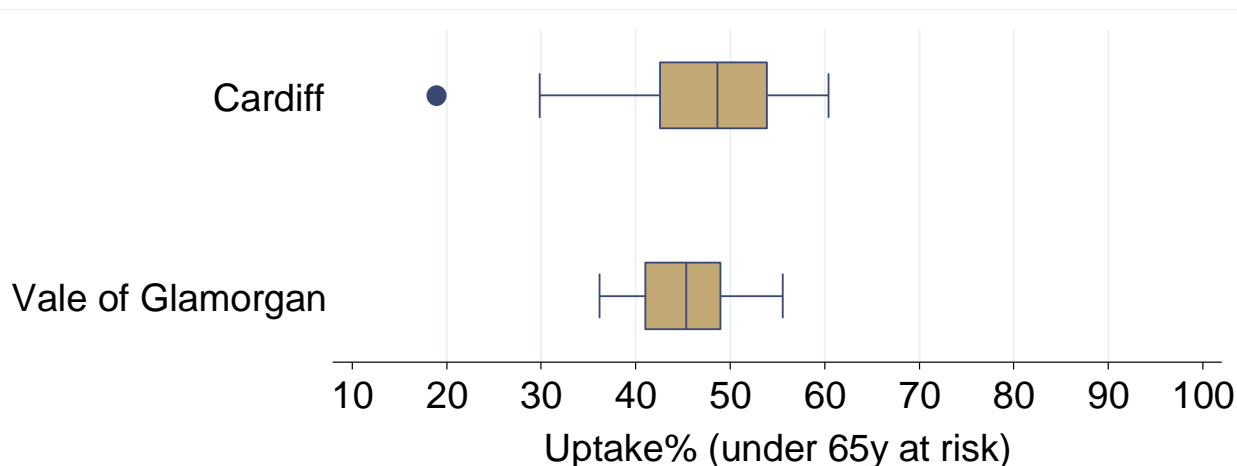
Produced by Public Health Wales Vaccine Preventable Disease Programme, data source: Audit +



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), Cardiff and Vale University 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 Cardiff and Vale University 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 | Cardiff & Vale | Cardiff | Vale of Glamorgan |
|--|--|---------------------------------------|------------|----------------|---------|-------------------|
| Bowel Screening ¹ | Currently 60-69 years / every 2 years | Uptake: 60% | 55.3% | 51.1% | 48.8% | 55.6% |
| Breast Screening ² | 50-70 years / every 3 years | Uptake: Minimum 70%, Target 80% | 76.2% | 70.7% | 66.4% | 78.8% |
| Cervical Screening ³ (aged 20-64) | 20-64 years / every 3 years | Coverage: 80% at 5 years (aged 25-64) | 76.2% | 73.2% | 71.0% | 79.9% |
| Cervical Screening ⁴ (aged 25-64) | 20-64 years / every 3 years | Coverage: 80% at 5 years (aged 25-64) | 79.5% | 77.8% | 76.2% | 82.1% |
| Newborn Hearing Screening ⁵ | Newborn babies / within first month of birth | Uptake: 95% | 99.7% | 99.6% | 99.4% | 99.9% |

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

Cardiff and Vale University Health Board adults who reported particular service use, Welsh Health Survey 2008 & 2009.

| | Observed per cent | Age- standardised percent | Wales per cent |
|---|----------------------|---------------------------------|-------------------|
| Health service use | | | |
| Family doctor (GP) in the past two weeks | 17 | 18 | 18 |
| In the past three months: Accident, injury or poisoning needing hospital treatment or a visit to casualty | 5 | 5 | 5 |
| In the past twelve months: | | | |
| Pharmacist | 72 | 73 | 70 |
| Dentist | 70 | 70 | 70 |
| Optician | 50 | 52 | 49 |
| Unweighted base (i) | | | |
| All aged 16+ | 3,242 | 3,242 | 29,331 |

Source: Welsh Health Survey 2008 + 2009

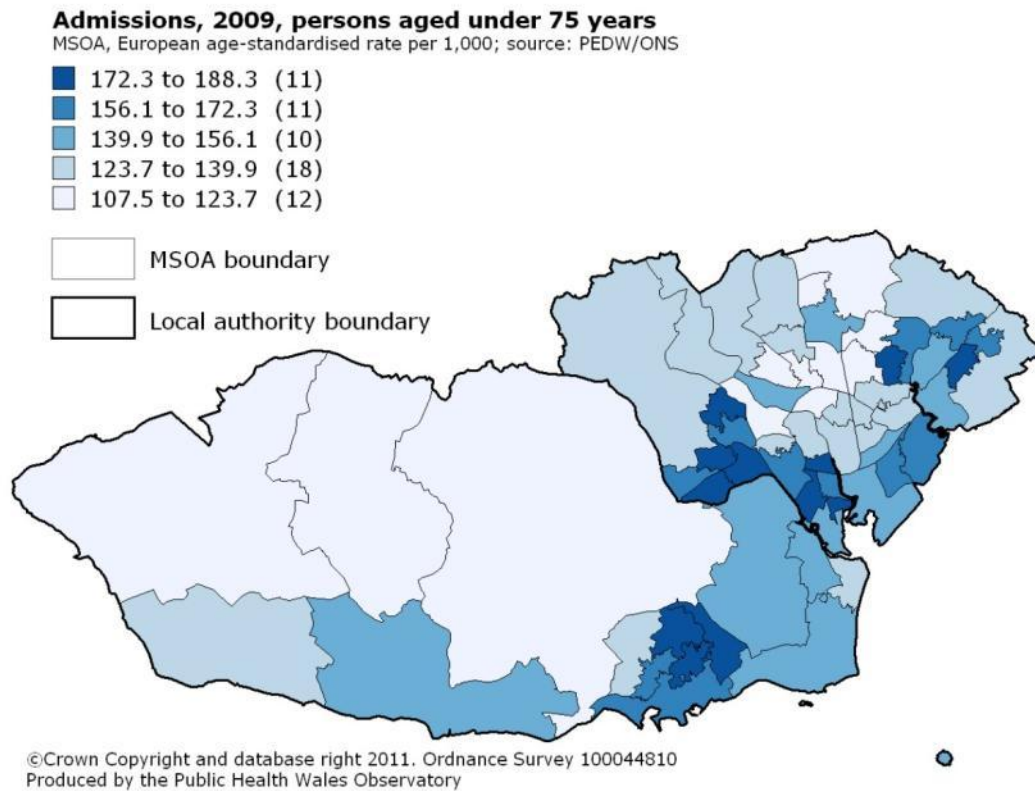
(i) Bases vary: those shown are for the whole sample.

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

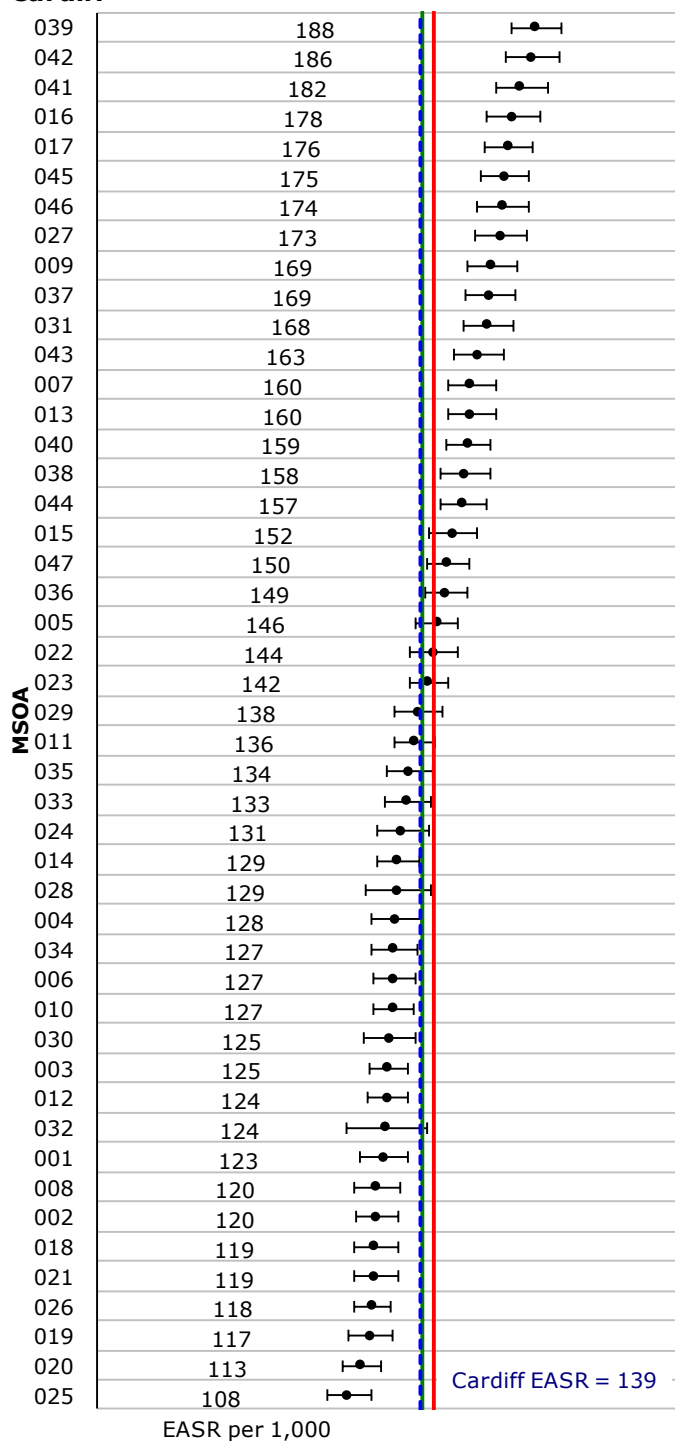


Hospital admissions in Cardiff and Vale University Health Board area, persons aged under 75, 2009, European age-standardised rates per 1,000

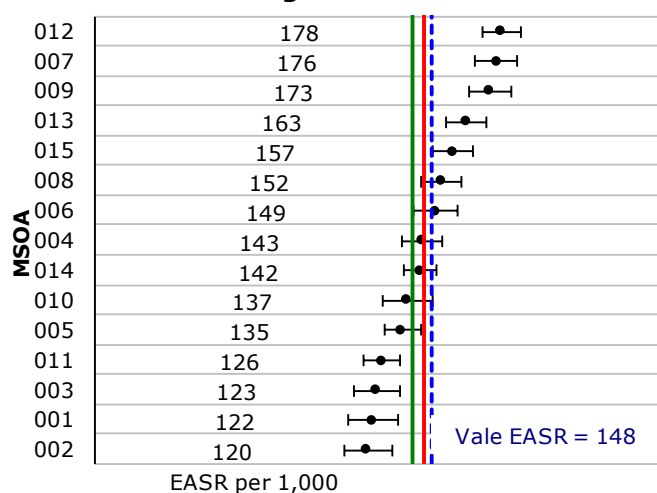
Produced by Public Health Wales Observatory, using data from NWIS (PEDW), ONS (MYE)

 MSOA EASR with 95% confidence interval
  Health Board (EASR = 140)
  Wales (EASR = 145)
  Local Authority

Cardiff



The Vale of Glamorgan

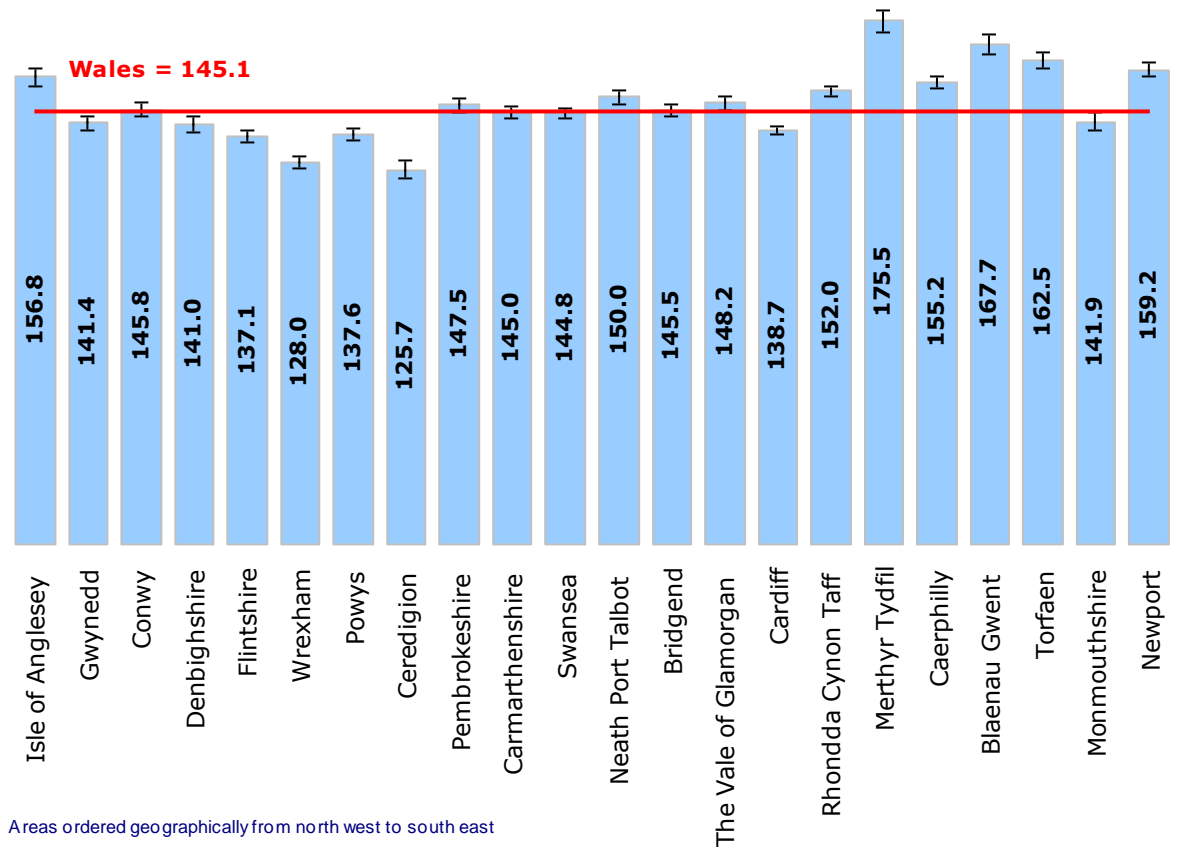


Local authorities

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

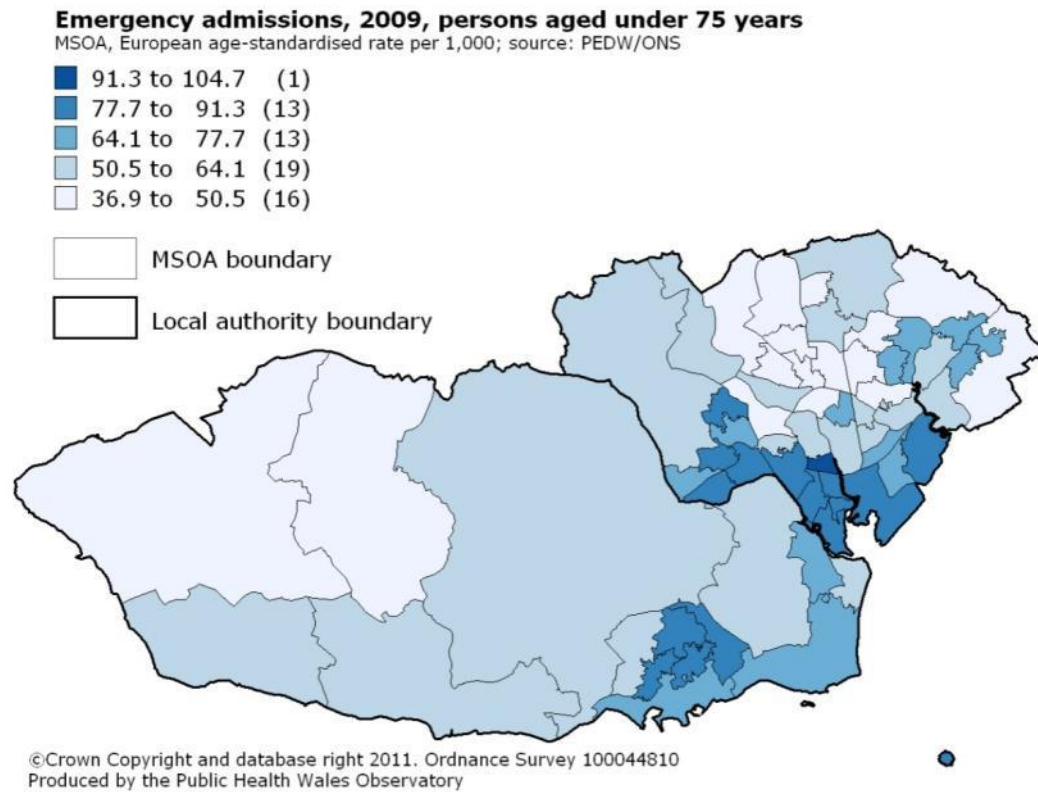
Produced by Public Health Wales Observatory, using data from NWS (PEDW), ONS (MYE)

95% confidence interval



4.5.2 Emergency hospital admissions: individuals aged under 75

Middle super output areas

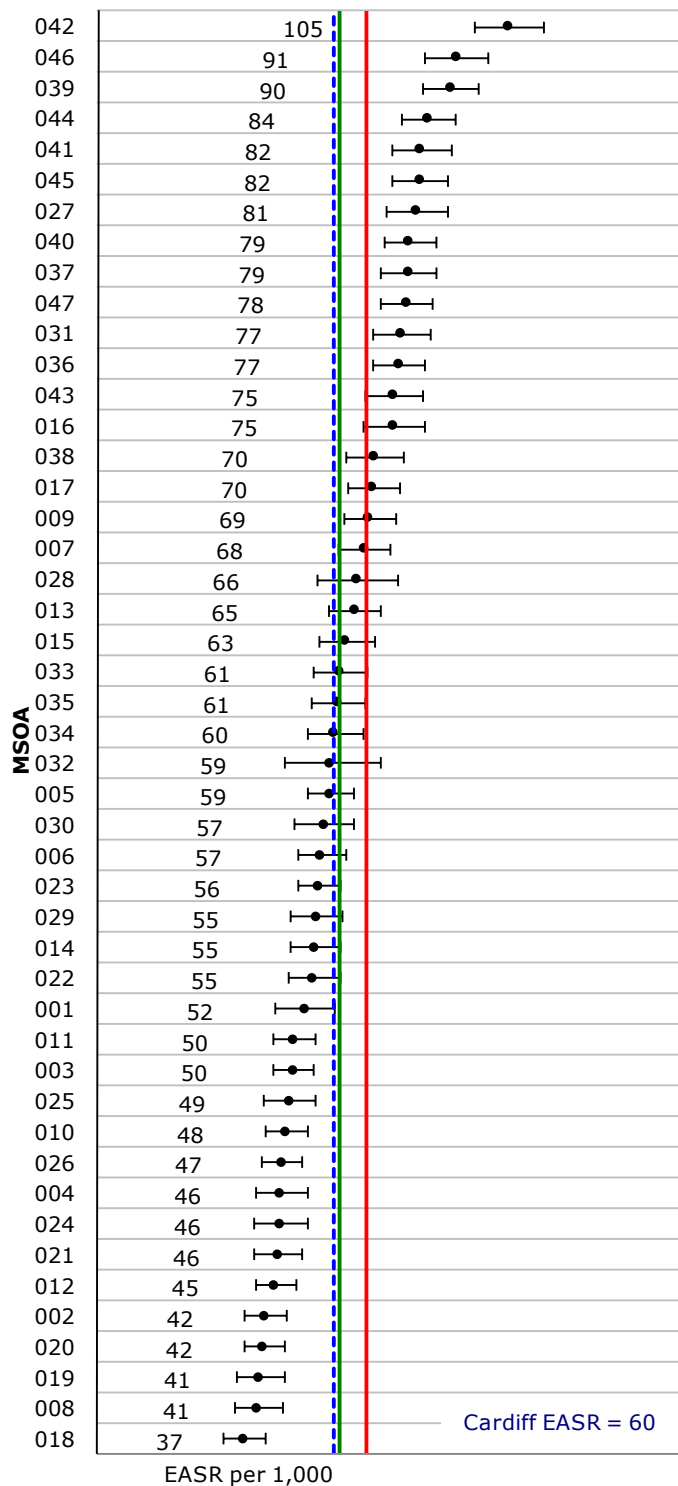


Emergency hospital admissions in Cardiff and Vale University Health Board area, persons aged under 75, 2009, European age-standardised rates per 1,000

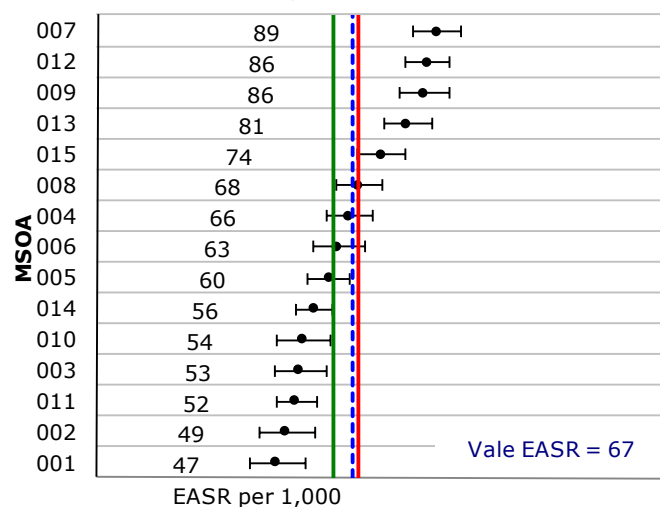
Produced by Public Health Wales Observatory, using data from NWIS (PEDW), ONS (MYE)

 MSOA EASR with 95% confidence interval
  Health Board (EASR = 62)
  Wales (EASR = 68)
  Local Authority

Cardiff



The Vale of Glamorgan

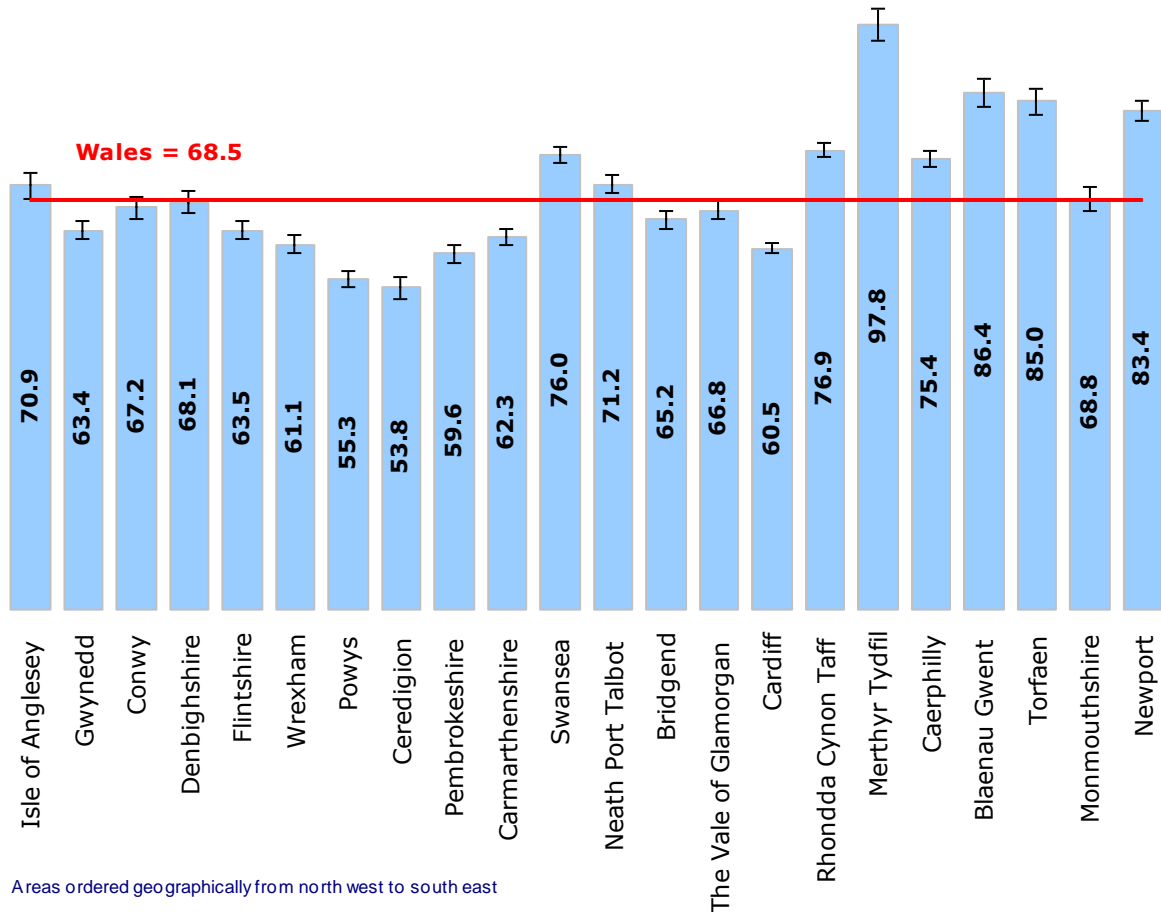


Local authorities

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

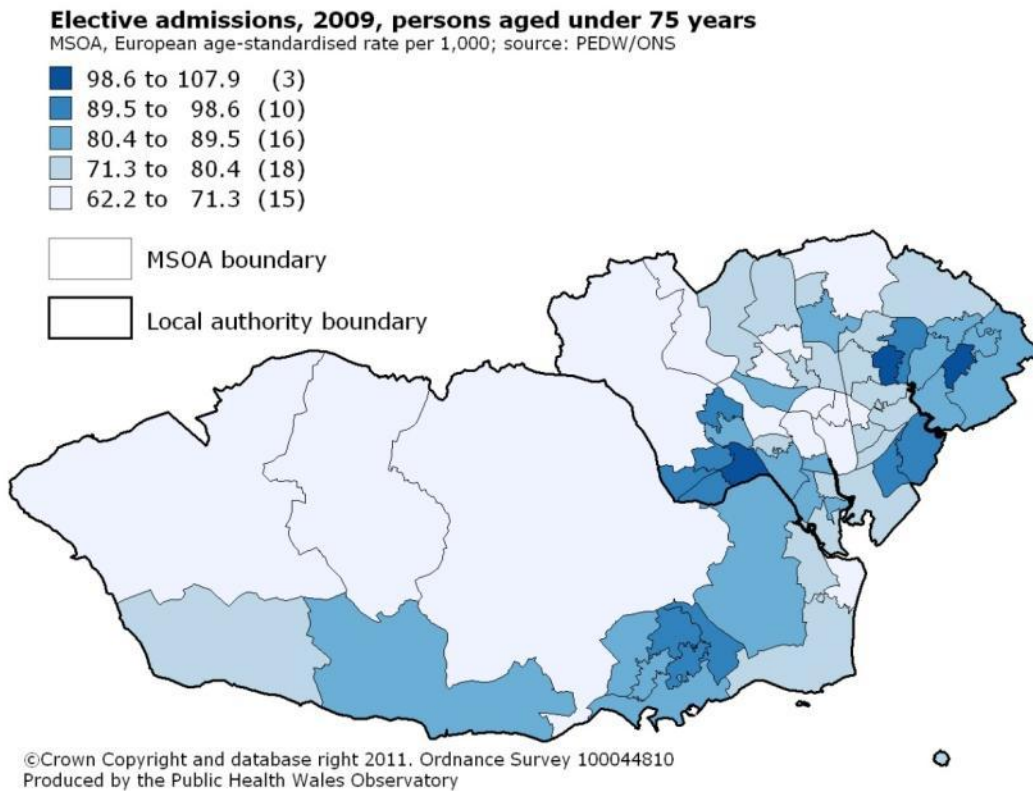
Produced by Public Health Wales Observatory, using data from NWS (PEDW), ONS (M YE)

95% confidence interval




4.5.3 Elective hospital admissions: individuals aged under 75

Middle super output areas

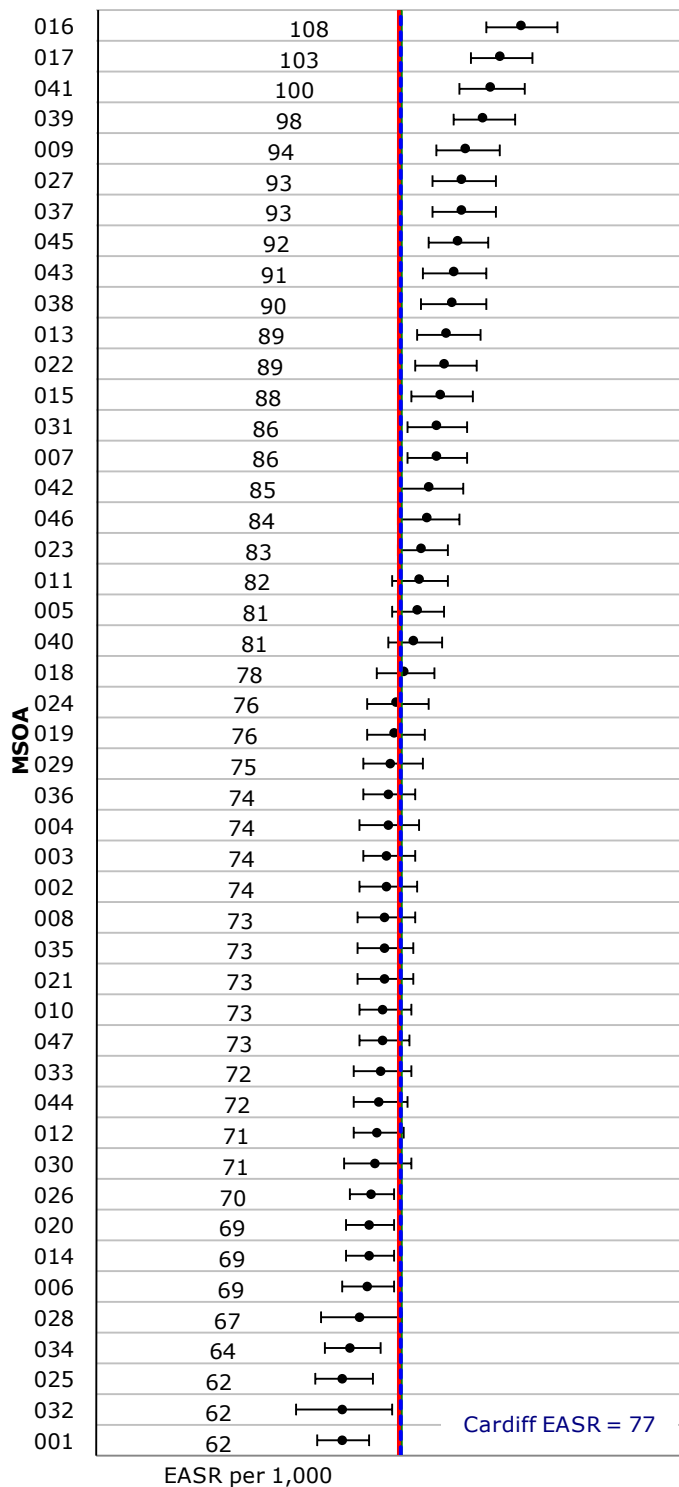


Elective hospital admissions in Cardiff and Vale University Health Board area, persons aged under 75, 2009, European age-standardised rates per 1,000

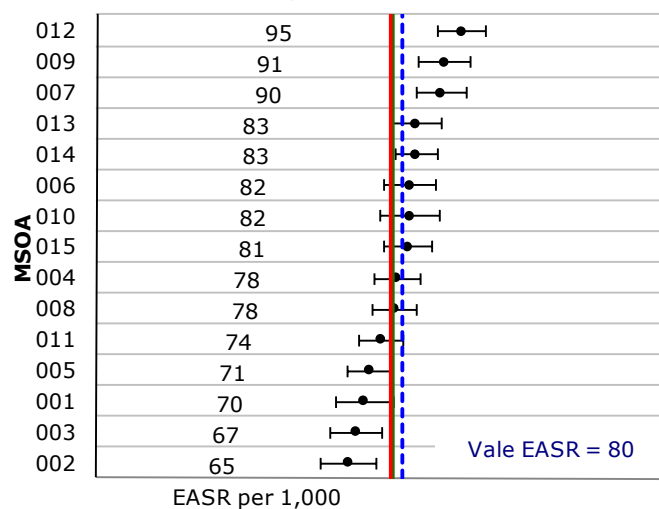
Produced by Public Health Wales Observatory, using data from NWIS (PEDW), ONS (MYE)

 MSOA EASR with 95% confidence interval
  Health Board (EASR = 78)
  Wales (EASR = 77)
  Local Authority

Cardiff



The Vale of Glamorgan

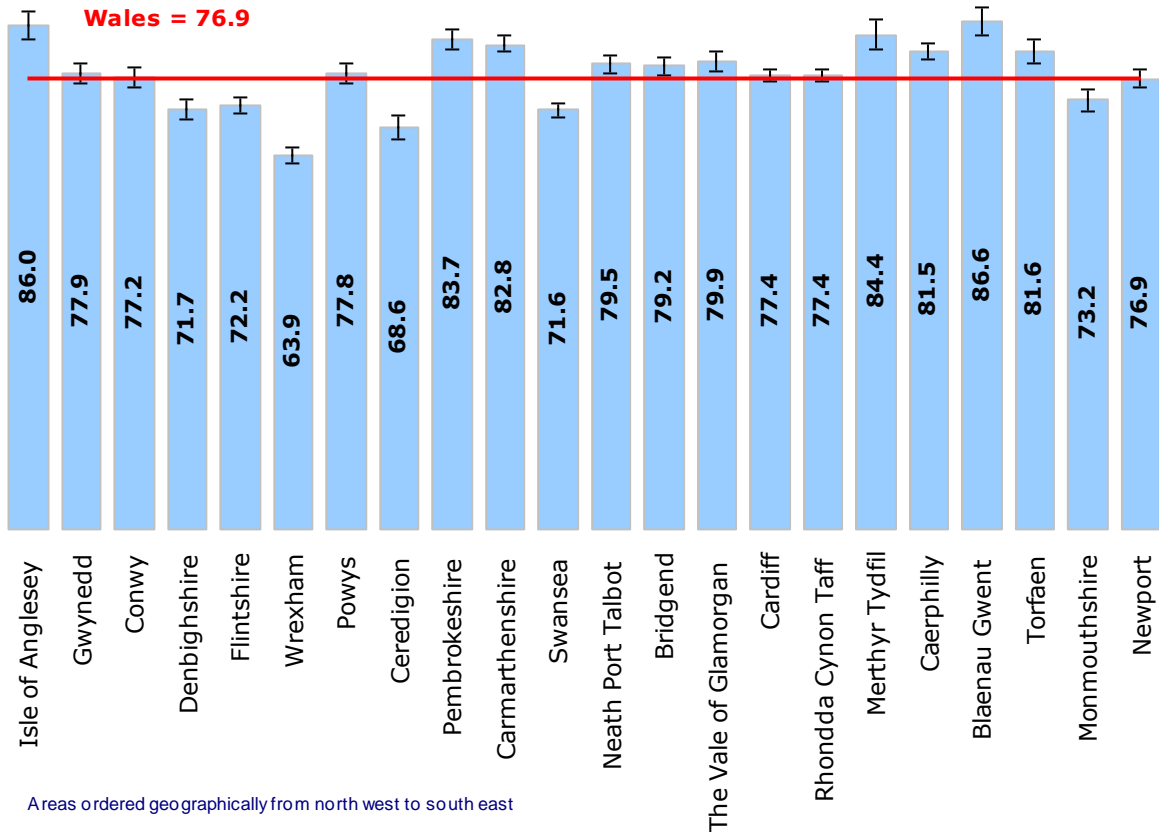


Local authorities

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 (MYE)

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. Cardiff and Vale UHB generally has similar or better levels of health than Wales as a whole. Between the local authority areas of the health board, Cardiff shows poorer levels of health than the Vale of Glamorgan; however there is considerable variation within local authority areas.

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 Cardiff and Vale UHB is similar to Wales. At the MSOA level, the areas with the highest percentages are Fairwater, Llanrumney and Pontprennau in Cardiff.

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 broadly similar to Wales as a whole. At the local authority level, self reported physical and mental health scores are better in the Vale of Glamorgan than in Cardiff. The data also show that Cardiff and Vale UHB and its local authority areas have lower age-standardised self reported rates of limiting long term illness (which includes problems related to old age) than Wales. Looking at persons reporting current treatment for a mental health condition, the health board and local authority rates are again similar to 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 Cardiff and Vale UHB is lower than that for Wales and there is no substantial variation across the two local authority areas. However, at MSOA level there is over a trebling of the rate between the lowest and highest areas. The lowest rates are found in the Cyncoed area of Cardiff and the highest in the Plasnewydd; Roath and Riverside areas of Cardiff. The pattern is broadly similar for mortality from circulatory disease for 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 Cardiff and Vale UHB is lower than that for Wales and there is no substantial variation across the two local authorities in the health board area. At MSOA level, once again, variation is high. Highest rates are seen for the Butetown; Grangetown; Cathays and Blackweir in Cardiff. The lowest rates are in the Cyncoed; Lisvane; Llanishen; Rhiwbina; Garthmor and Pantmawr areas of Cardiff.

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 Cardiff and Vale UHB is similar to Wales but at local authority level, the rate for Cardiff is higher than the rate for the Vale of Glamorgan. At MSOA level there is significant variation. The lowest rates are located in Llanishen and Thornhill areas of Cardiff; with the highest rates in the Splott area of Cardiff.

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 Cardiff and Vale UHB is similar to Wales and there is no substantial variation across local authorities in the health board area. At the MSOA level there is considerable variation with the highest rate more than seven times greater than the lowest 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 Llanishen; Thornhill; Radyr; Morganstown; Pentyrch; Heath; Whitchurch; Tongwynlais; Cyncoed and Pentwyn areas of Cardiff. Higher rates are seen in Splott in Cardiff.

Cancer survival

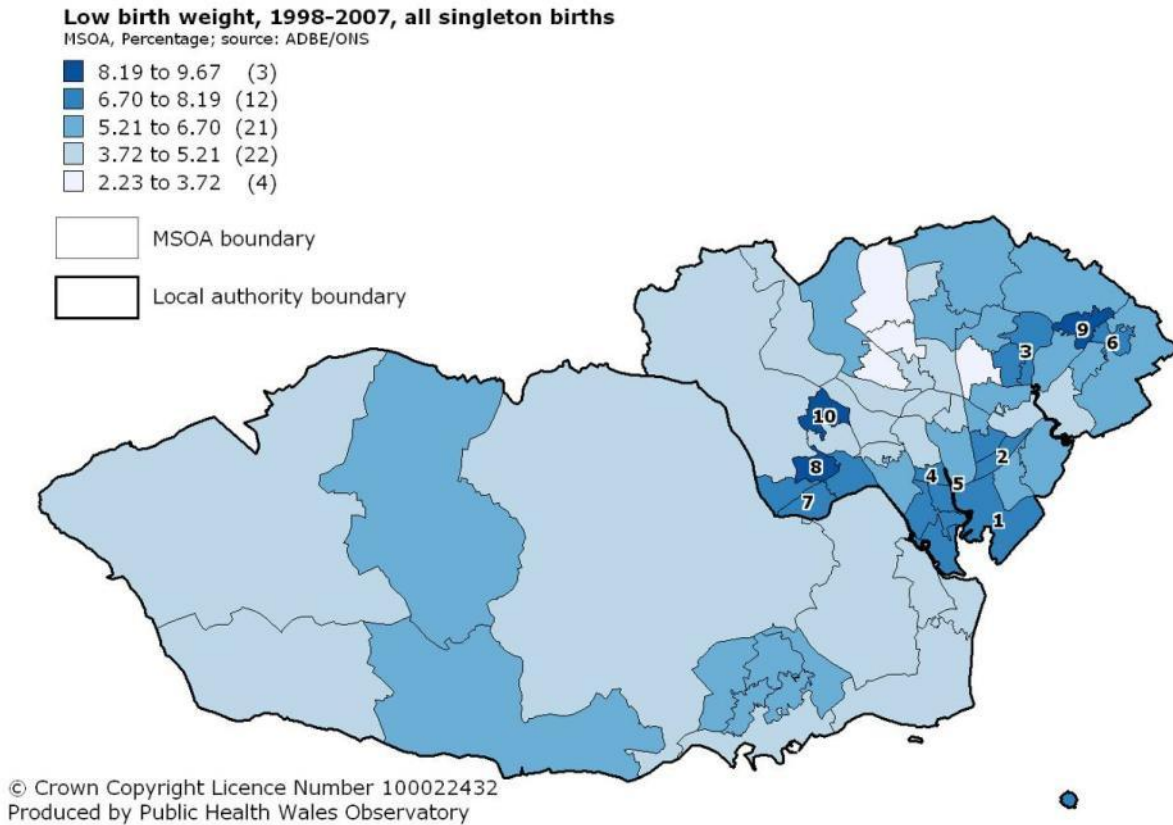
Relative survival is the most widely used method in population studies. It is the ratio of the survival observed in the group of cancer patients to the survival that would be expected if they were subject to the same overall mortality rates by age, sex and calendar period as the general population. The 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 are comparable between Cardiff and Vale UHB and Wales as a whole. However, all malignancies survival for one and five years for males and survival for one year for females are statistically significantly better in Cardiff and Vale UHB than Wales, as is five year survival for prostate cancer (males).

5.2 Physical and mental health

5.2.1 Low birth weight

Middle super output areas



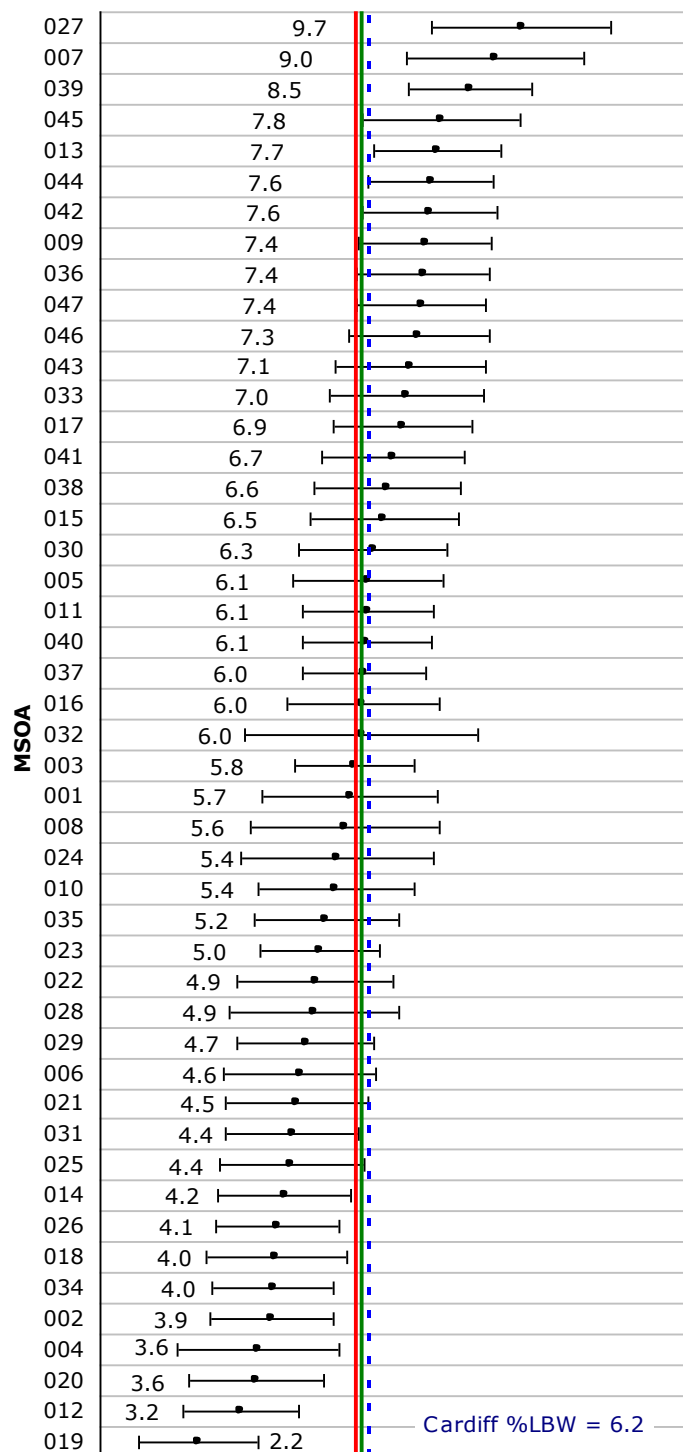
Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

Low birth weight in Cardiff and Vale University Health Board area, percentage of singleton live births, 1998-2007

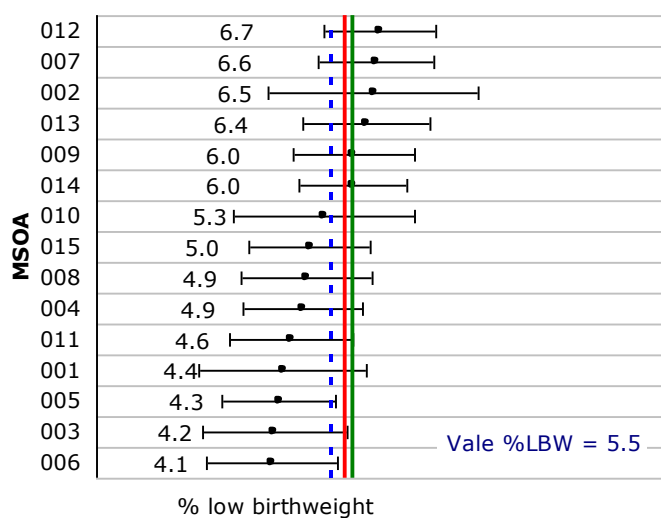
Produced by Public Health Wales Observatory, using data from ONS (ADBE, MYE)

—•— MSOA % with 95% confidence interval — Health Board (6.0%) — Wales (5.8%) - - - Local Authority

Cardiff



The Vale of Glamorgan

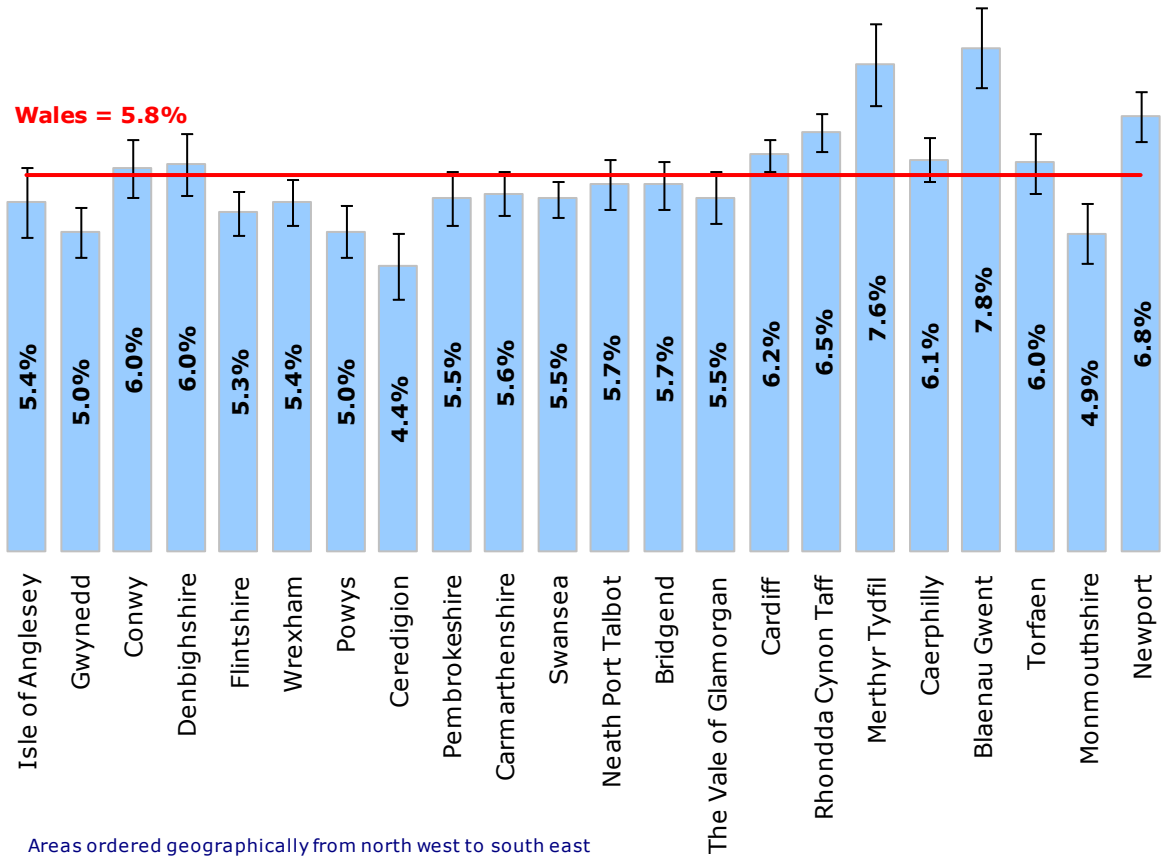


Local authorities

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)

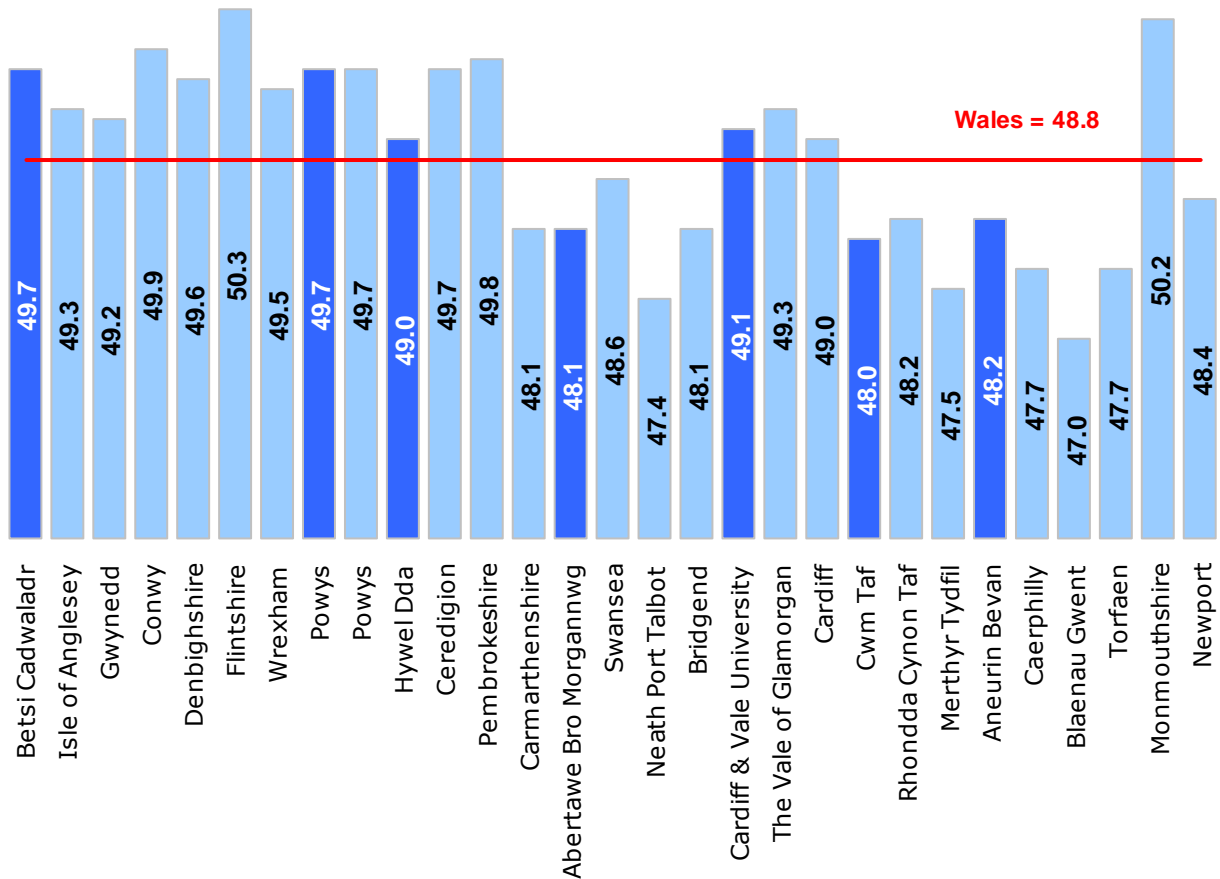
95% confidence interval



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



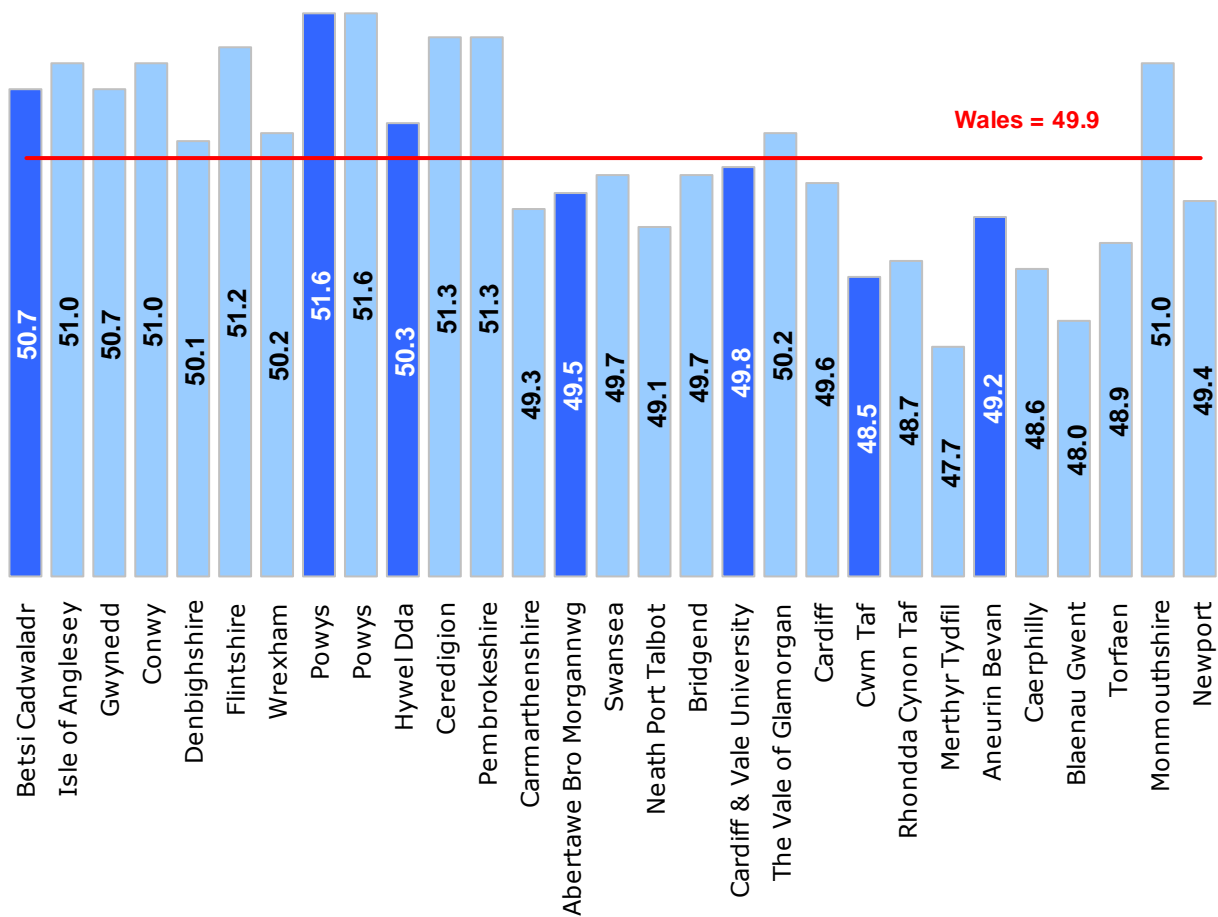
Areas ordered geographically from north west to south east

* 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



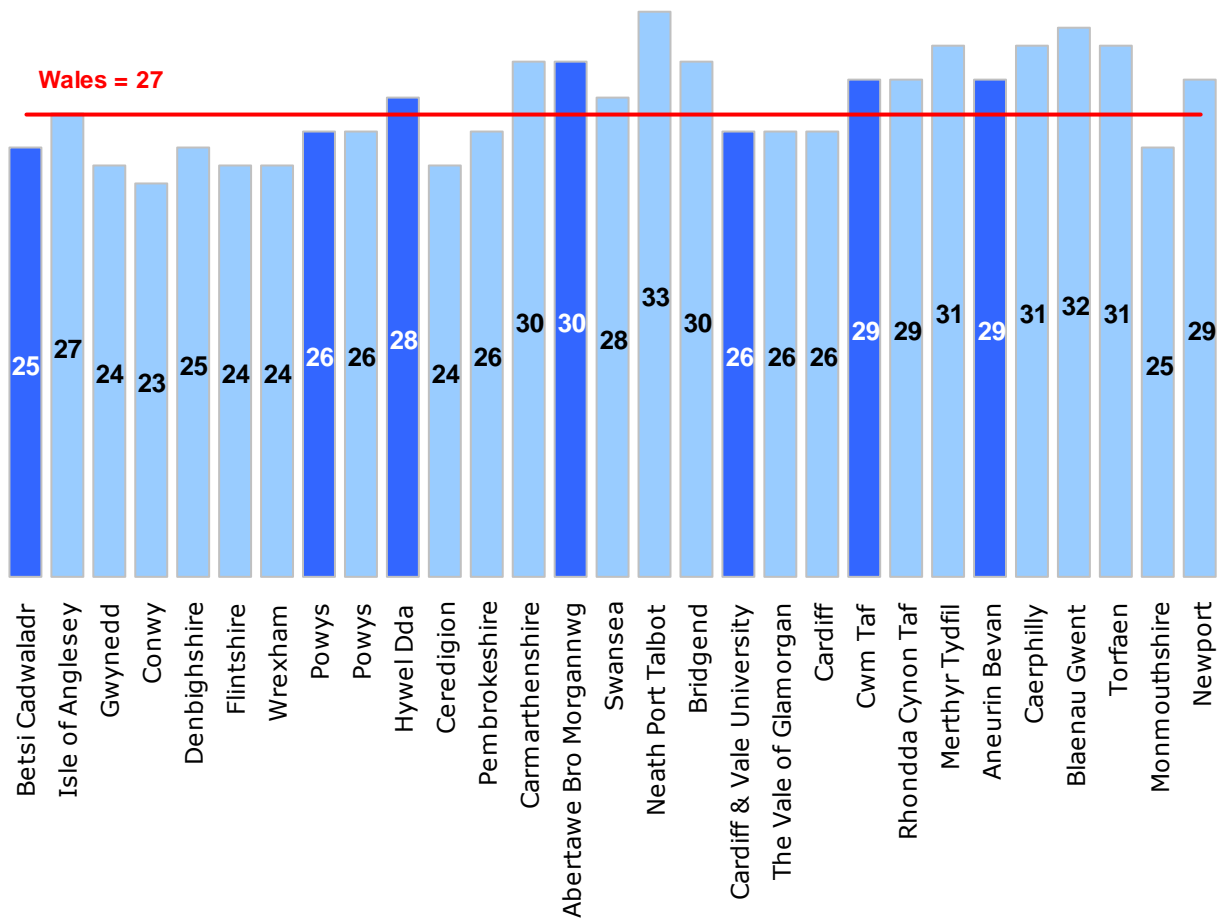
Areas ordered geographically from north west to south east

* 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

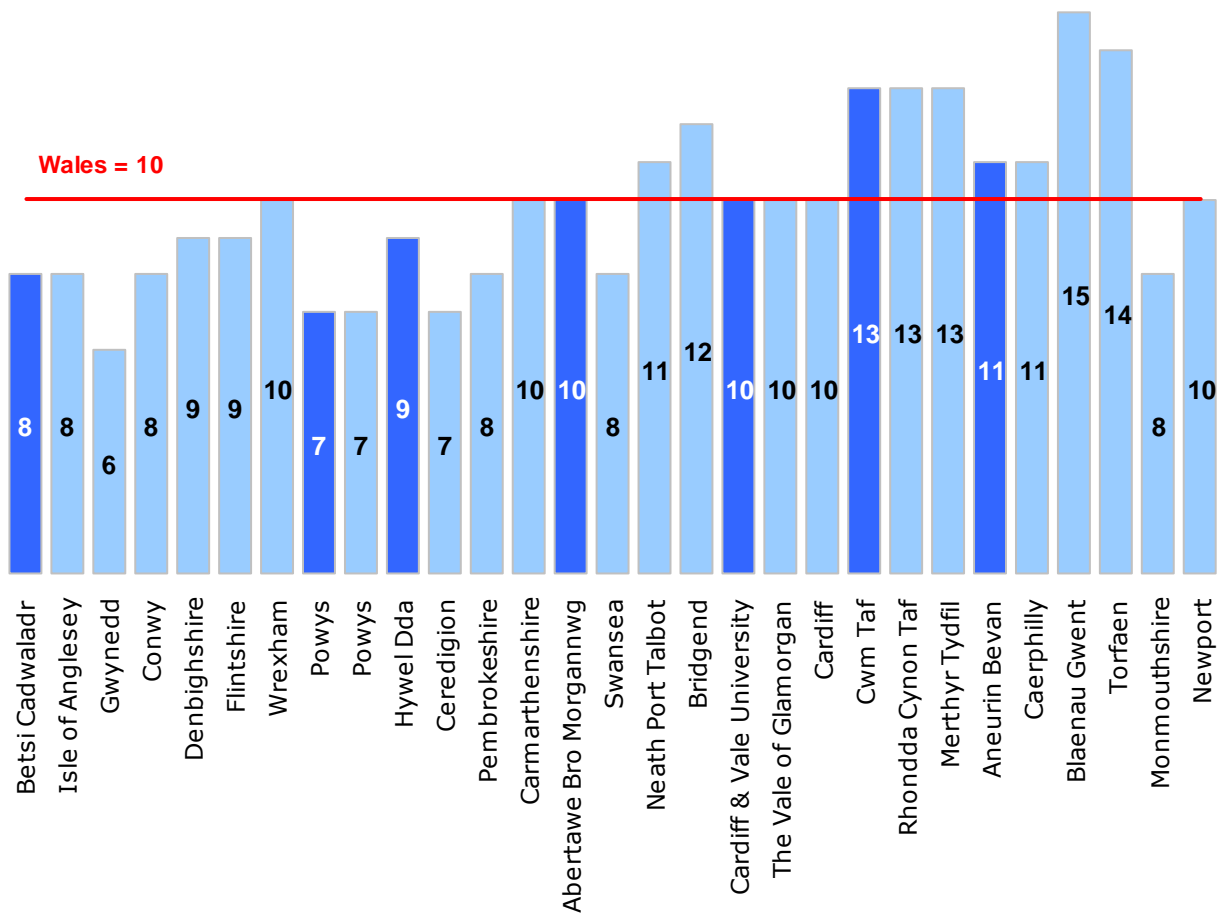


Areas ordered geographically from north west to south east

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

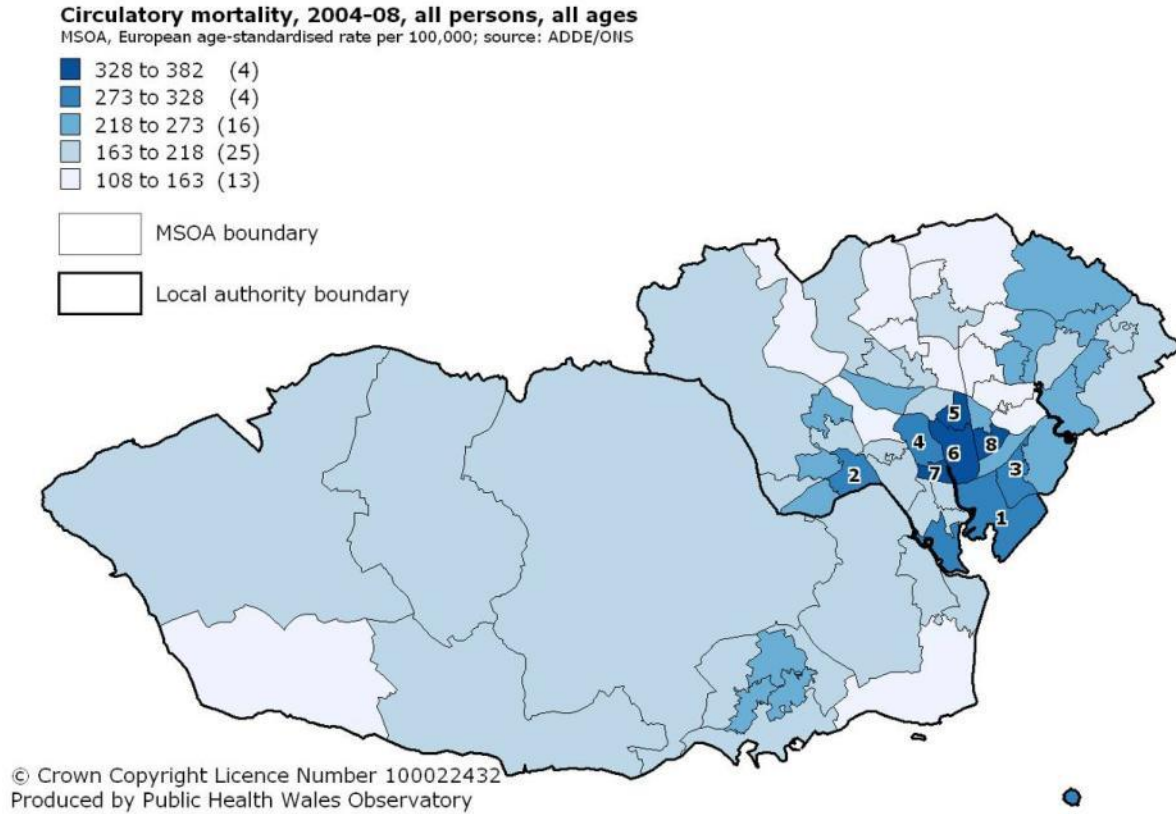


Areas ordered geographically from north west to south east

5.3 Mortality from specific conditions

5.3.1 Mortality from circulatory disease, all ages

Middle super output areas



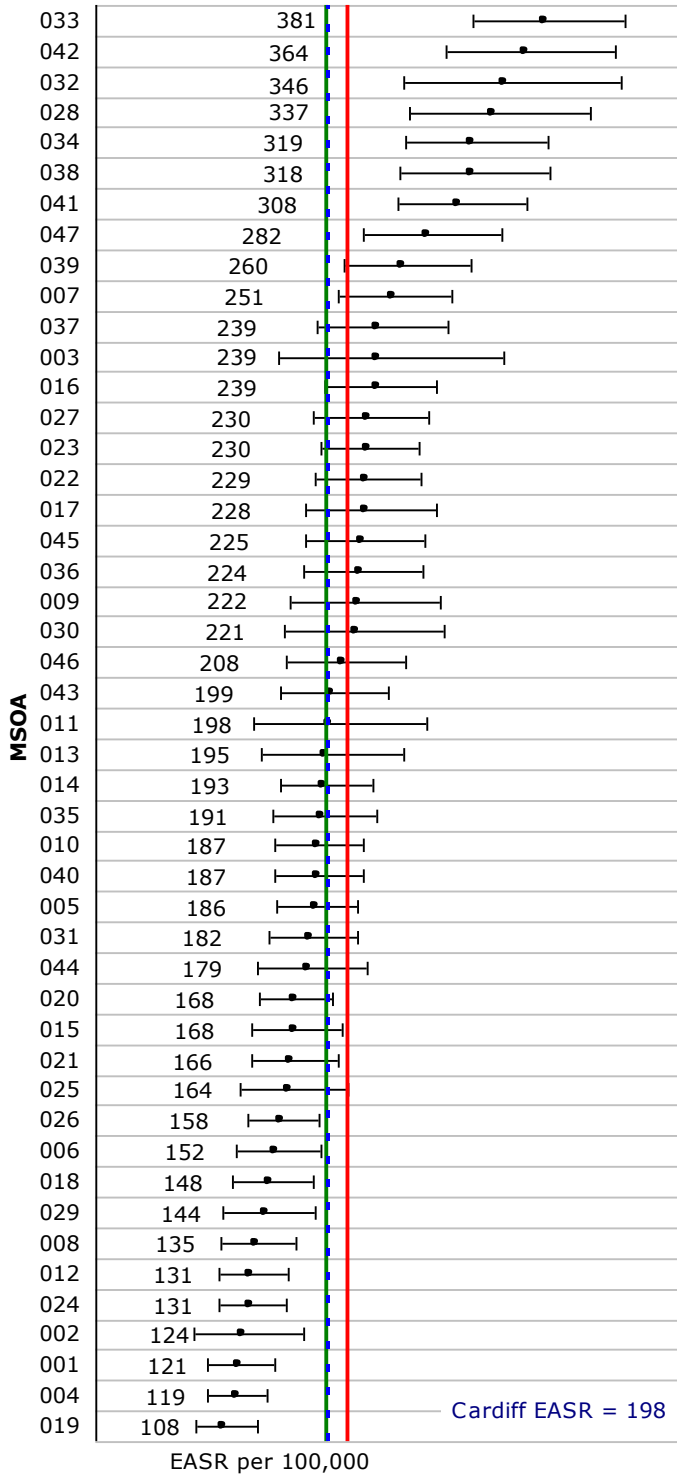
Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

Mortality from circulatory disease in Cardiff and Vale University Health Board area, all persons, 2004-08, European age-standardised rates per 100,000

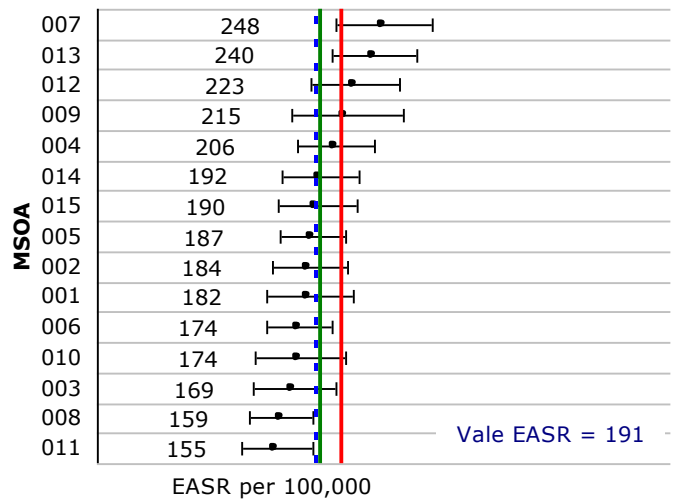
Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

—•— MSOA EASR with 95% confidence interval — Health Board (EASR = 195) — Wales (EASR = 214) - - - Local Authority

Cardiff



The Vale of Glamorgan

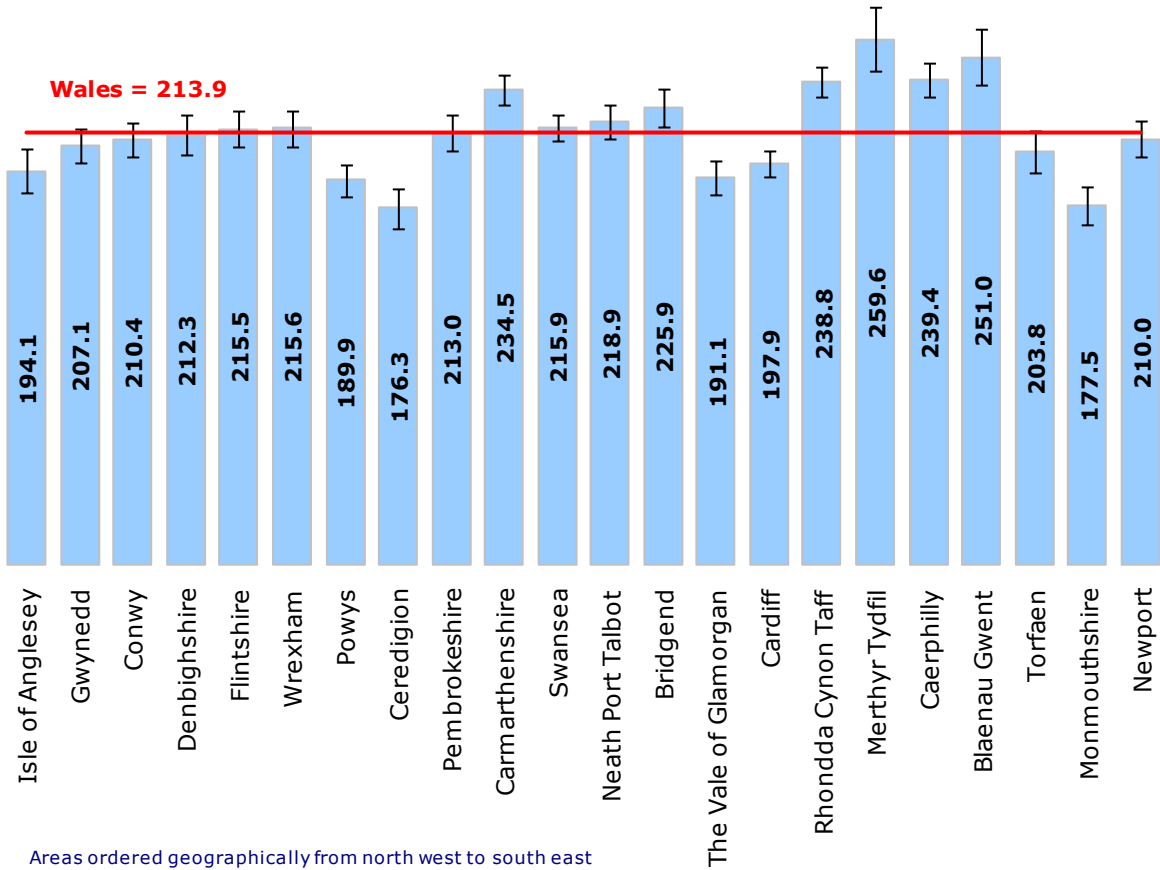


Local authorities

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

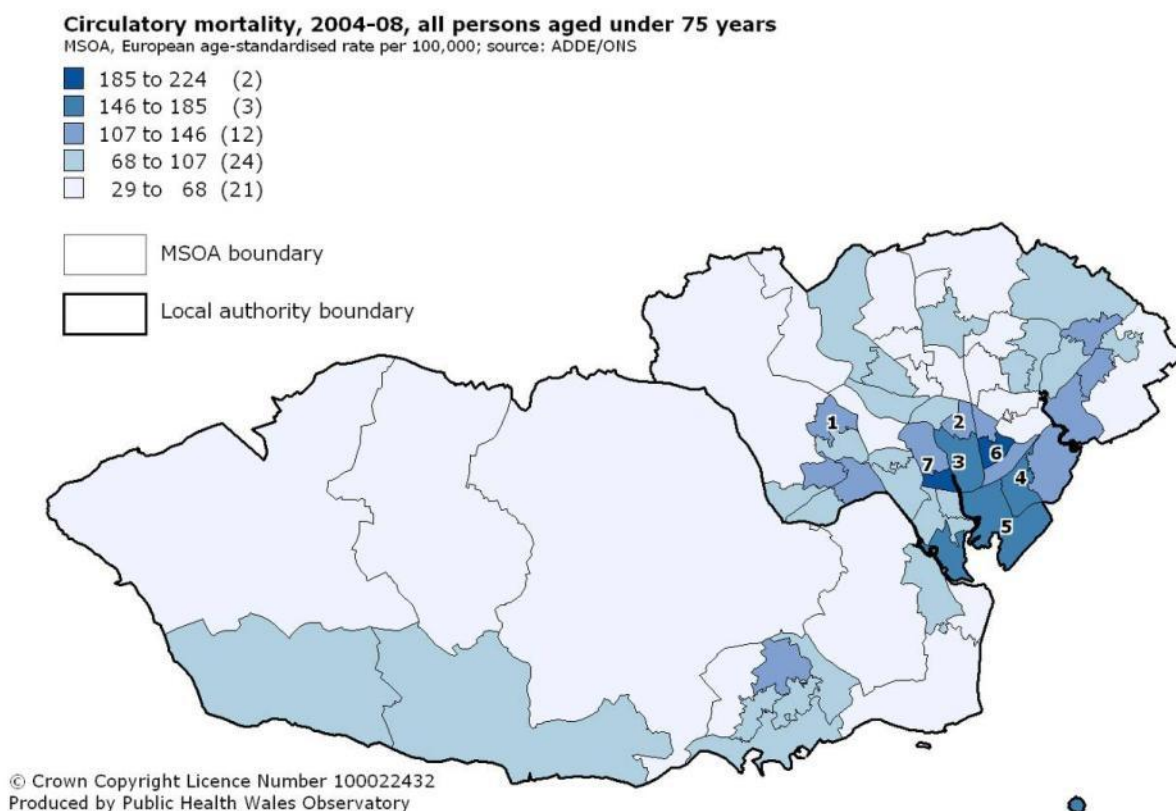
Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

95% confidence interval



5.3.2 Mortality from circulatory disease, under 75s

Middle super output areas



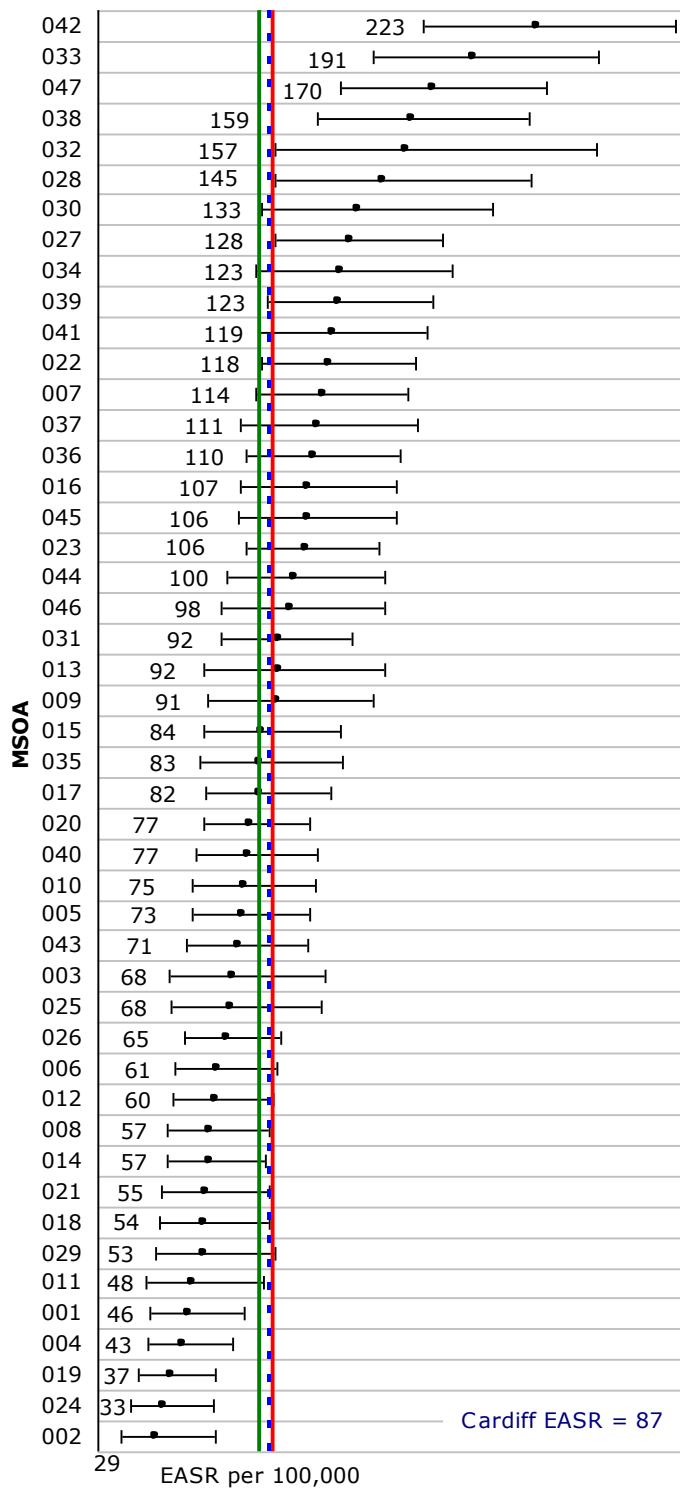
Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

Mortality from circulatory disease in Cardiff and Vale University Health Board area, all persons aged under 75, 2004-08, European age-standardised rates per 100,000

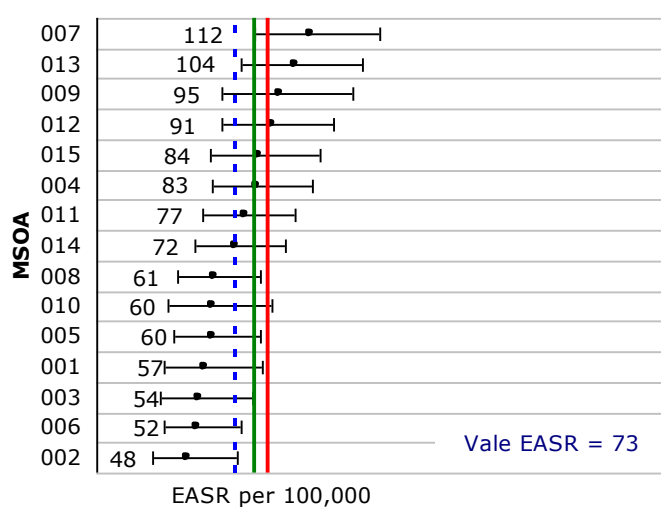
Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

—•— MSOA EASR with 95% confidence interval — Health Board (EASR = 82) — Wales (EASR = 90) - - - Local Authority

Cardiff



The Vale of Glamorgan

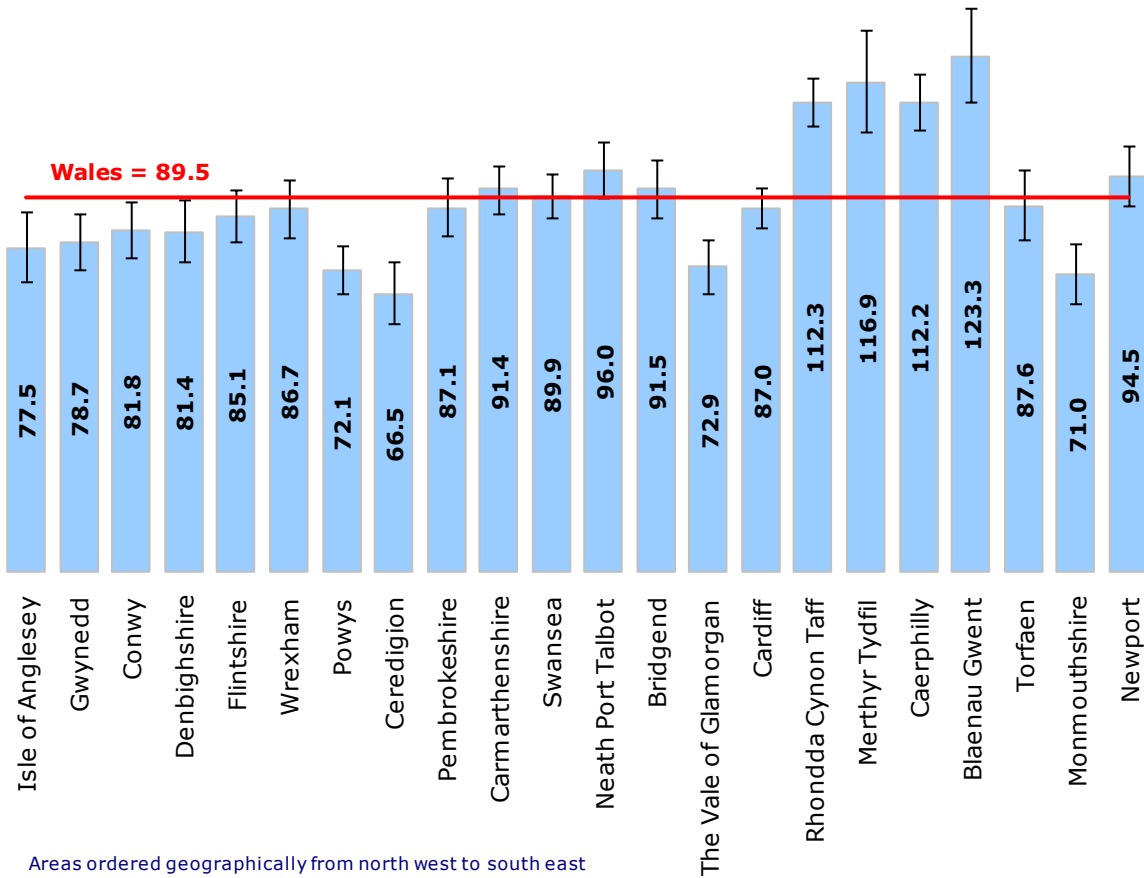


Local authorities

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

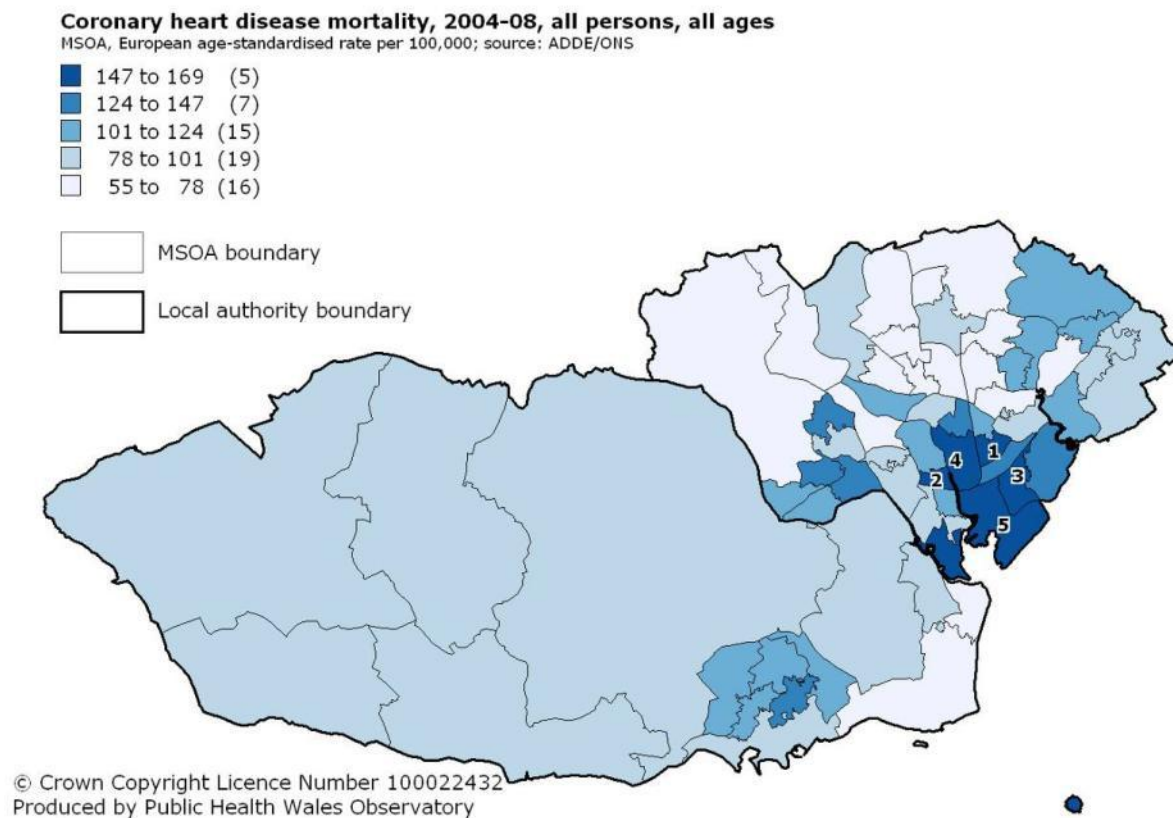
Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

95% confidence interval



5.3.3 Mortality from coronary heart disease

Middle super output areas



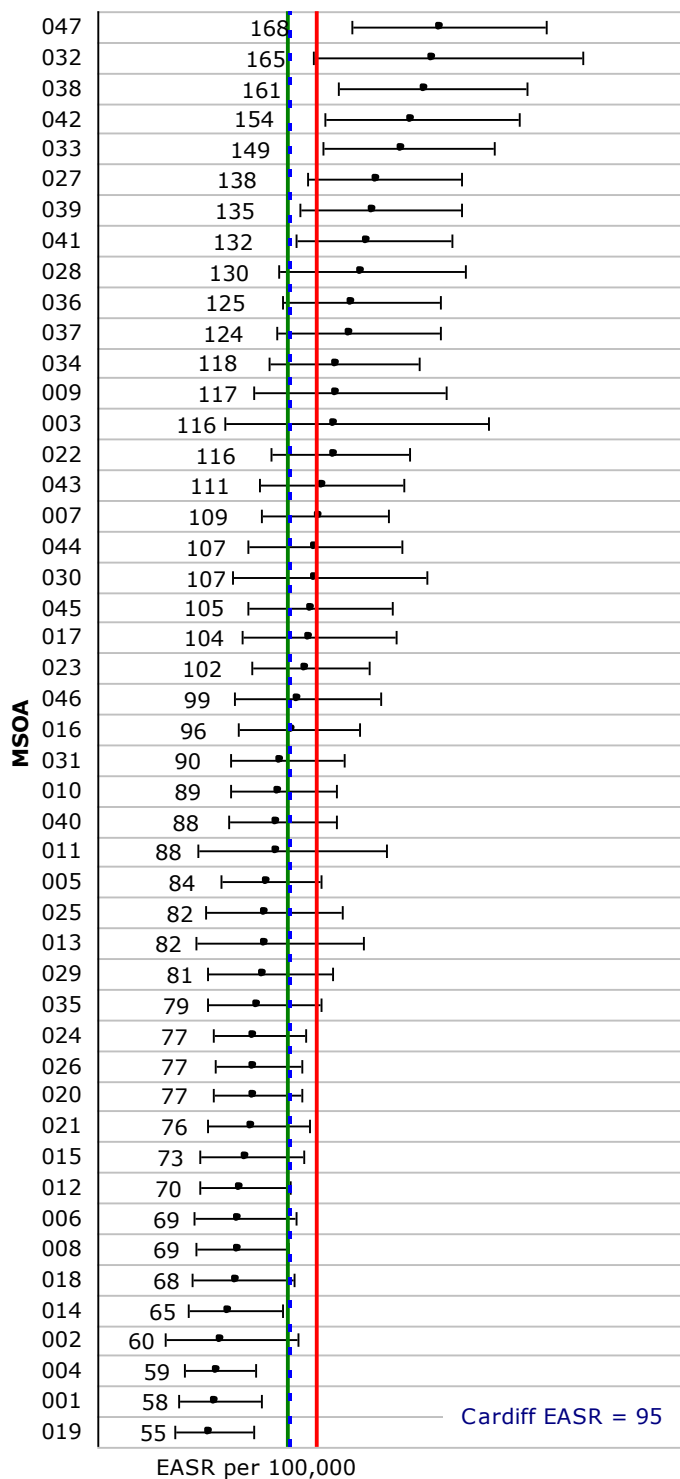
Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

Mortality from coronary heart disease in Cardiff and Vale University Health Board area, all persons, 2004-08, European age-standardised rates per 100,000

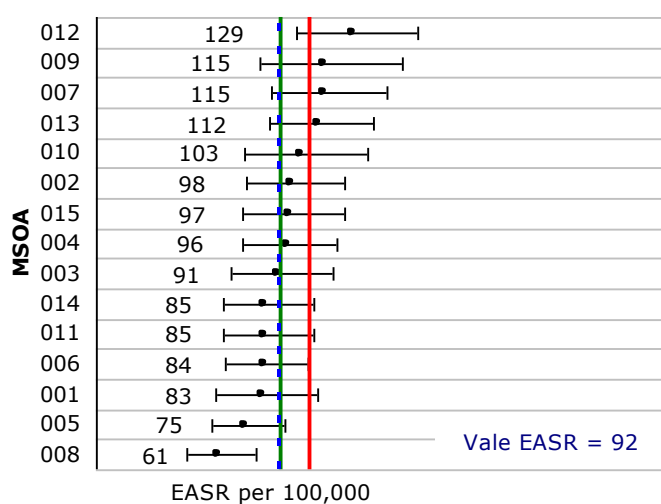
Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

MSOA EASR with 95% confidence interval Health Board (EASR = 94) Wales (EASR = 108) Local Authority

Cardiff



The Vale of Glamorgan

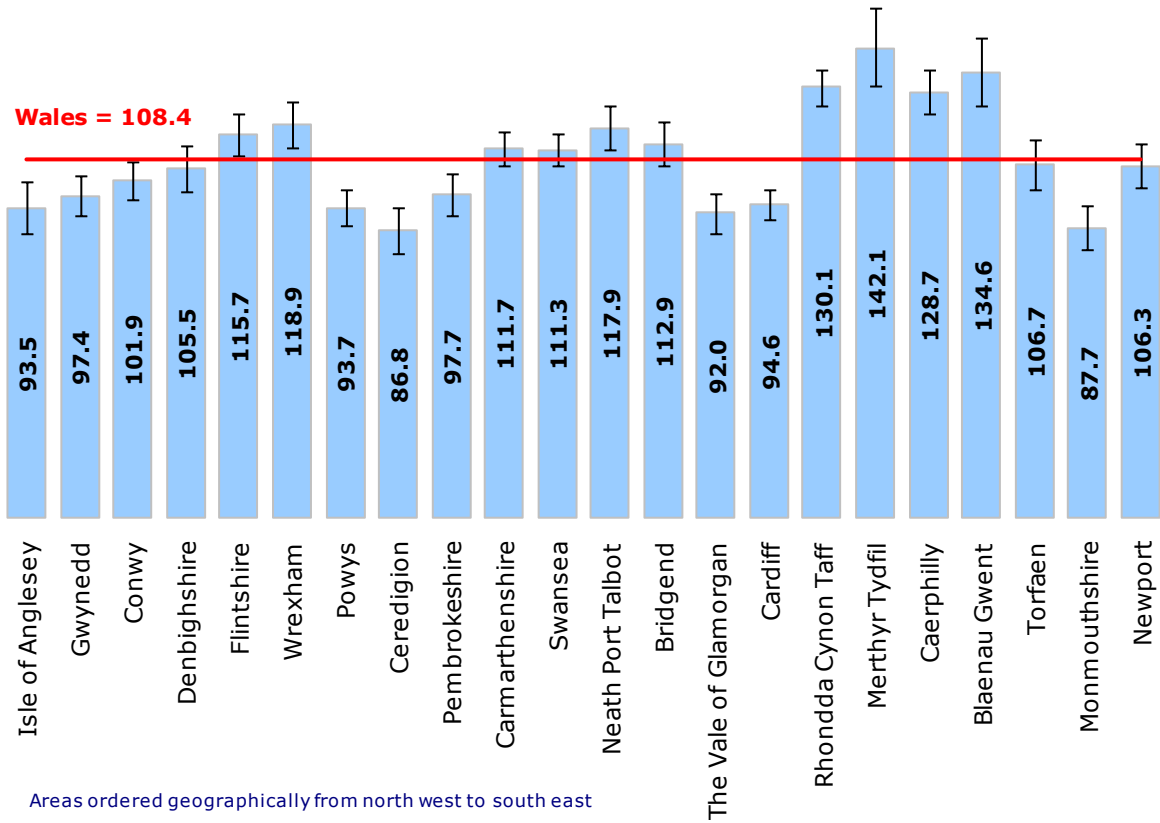


Local authorities

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

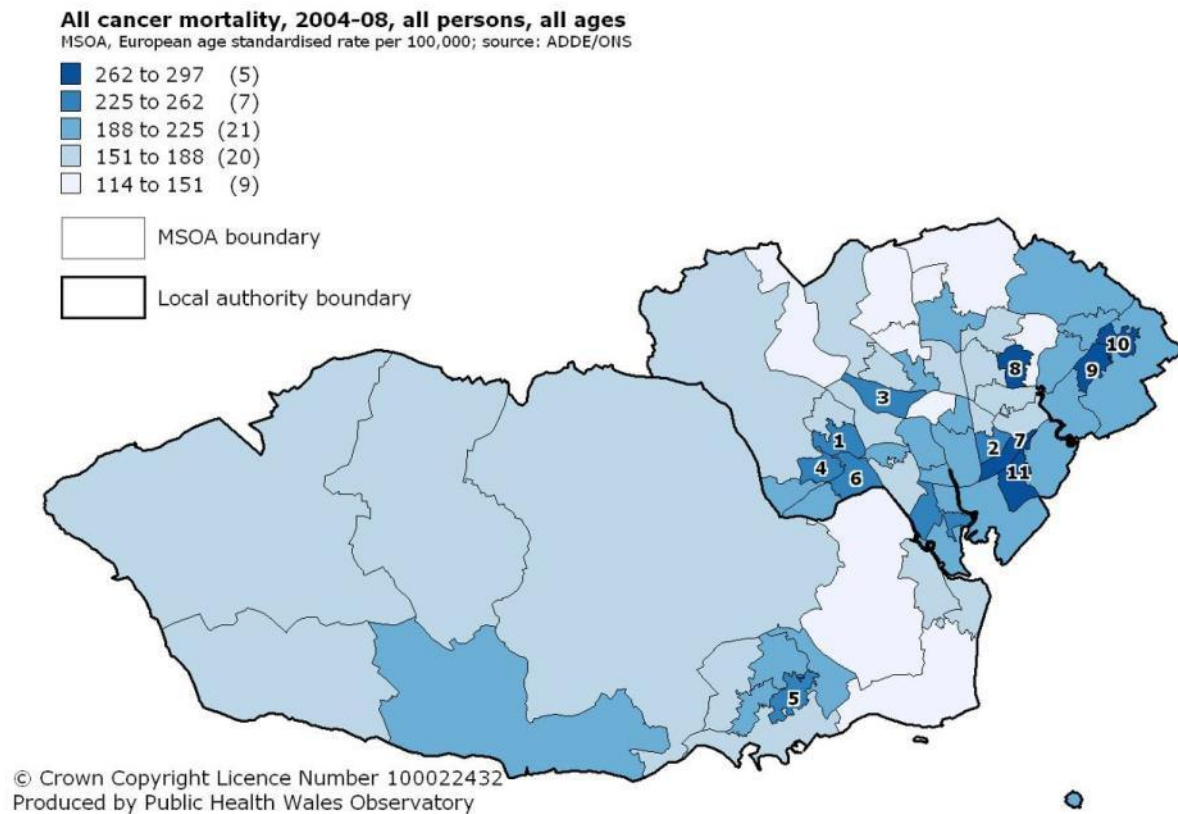
Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

95% confidence interval



5.3.4 Mortality from cancer

Middle super output areas



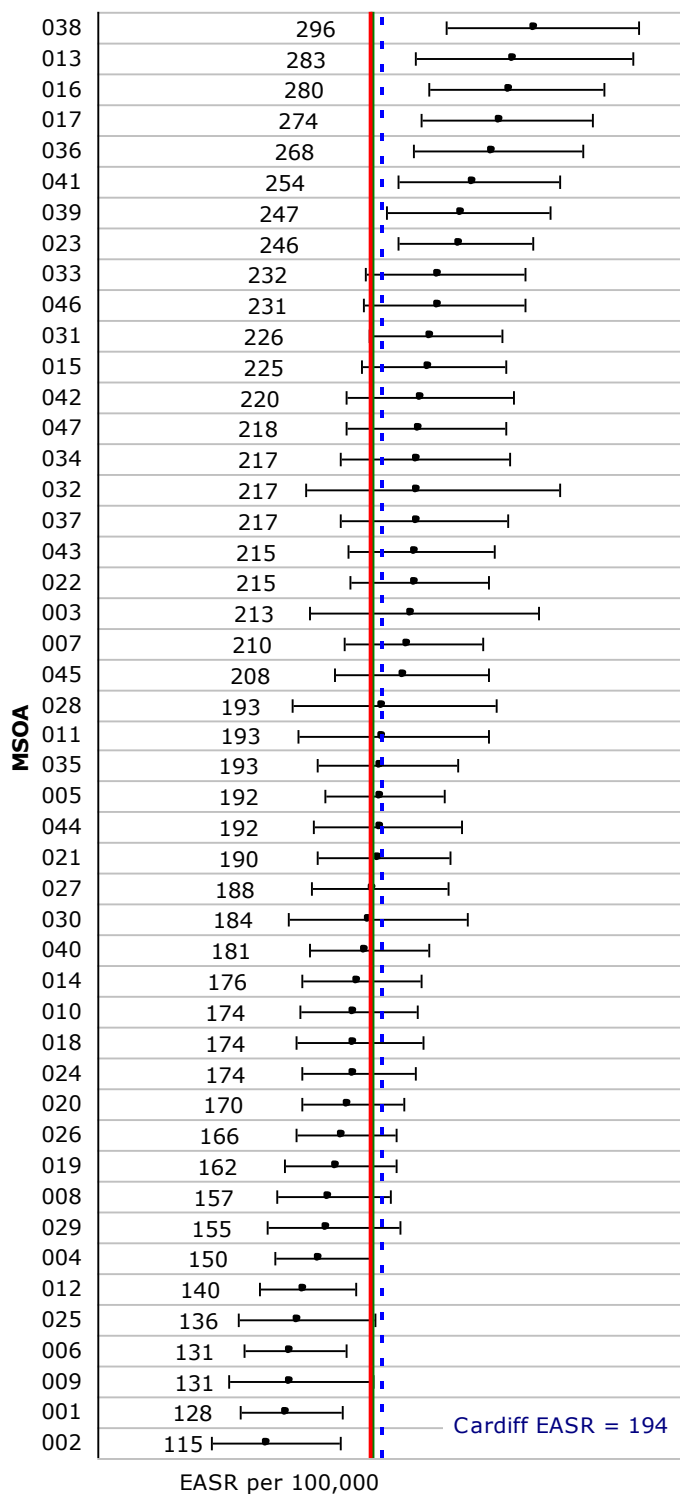
Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

Mortality from all cancers in Cardiff and Vale University Health Board area, all persons, 2004-08, European age-standardised rates per 100,000

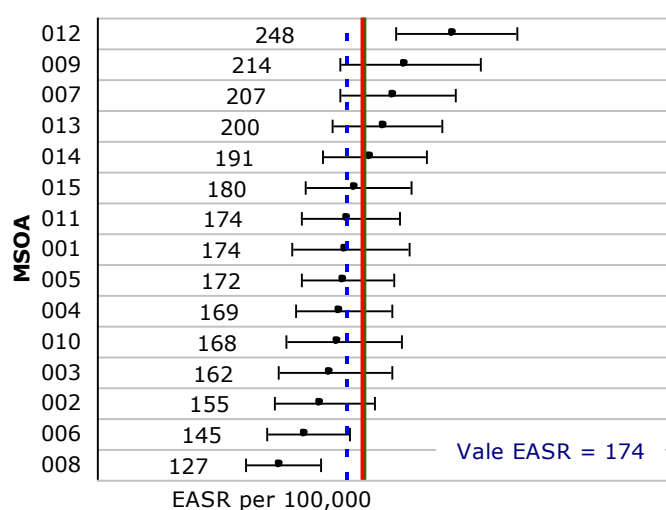
Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

—•— MSOA EASR with 95% confidence interval — Health Board (EASR = 187) — Wales (EASR = 186) - - - Local Authority

Cardiff



The Vale of Glamorgan

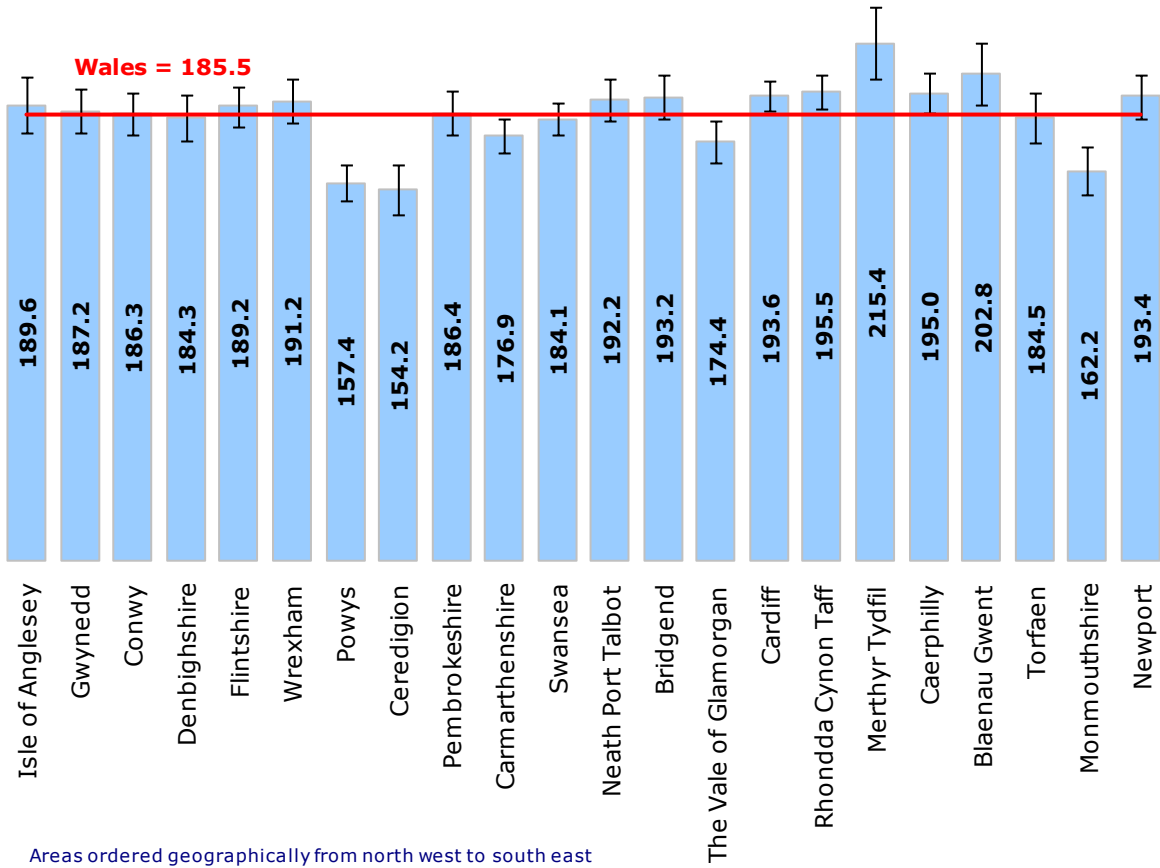


Local authorities

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

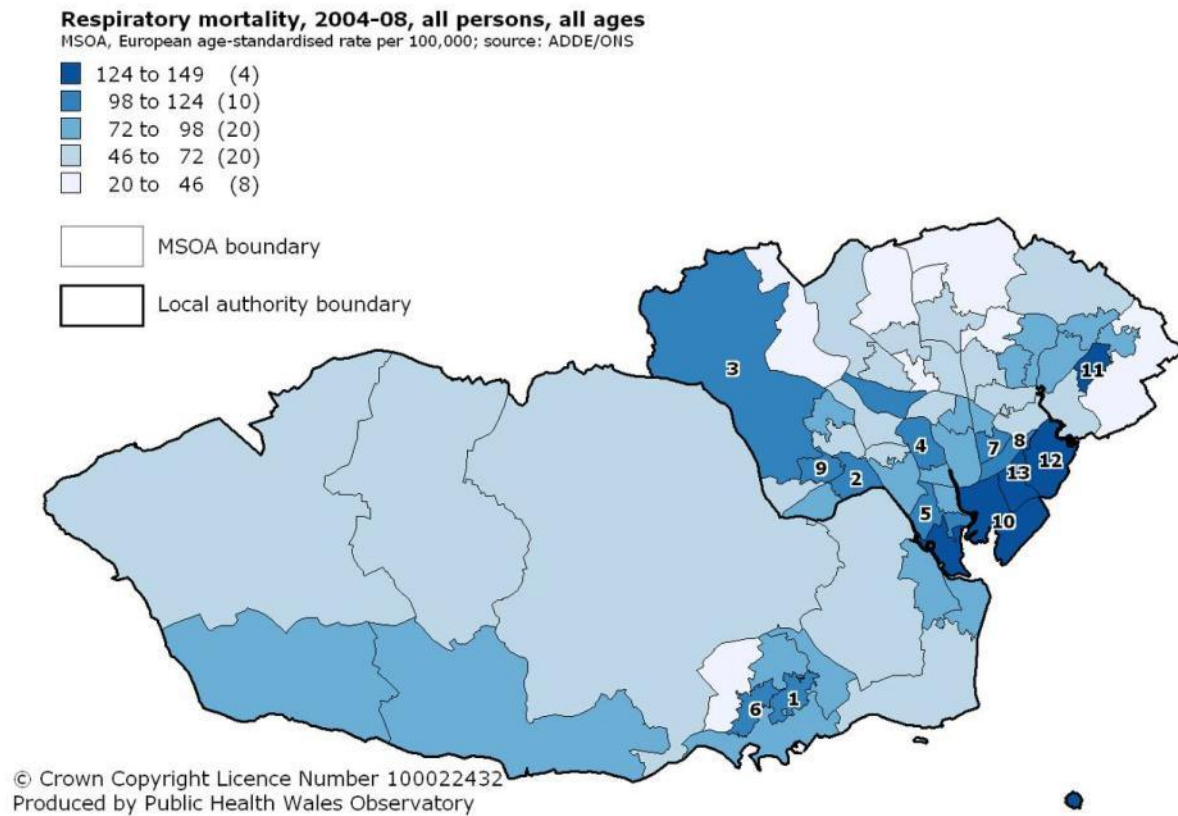
Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

95% confidence
interval



5.3.5 Mortality from respiratory disease

Middle super output areas



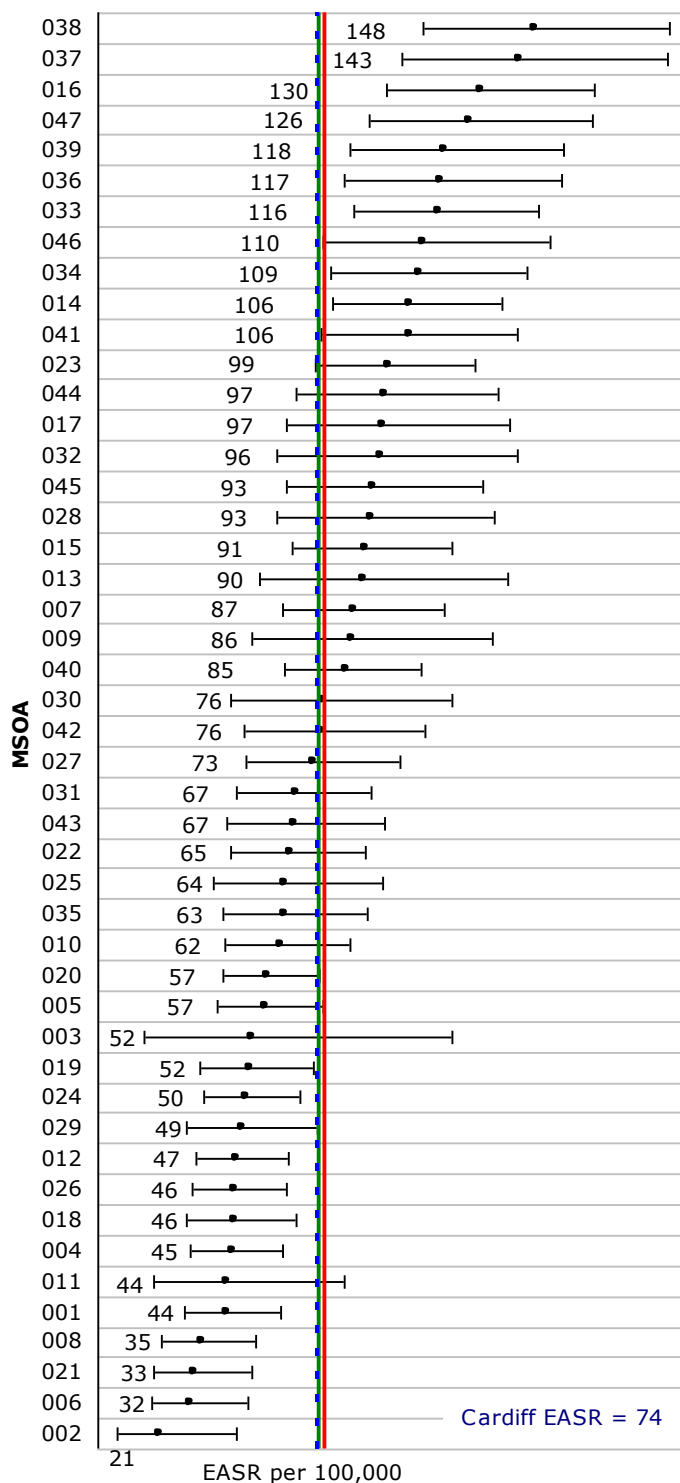
Numbers on map indicate MSOAs with a rate statistically significantly higher than the all Wales rate.

Mortality from respiratory disease in Cardiff and Vale University Health Board area, all persons, 2004-08, European age-standardised rates per 100,000

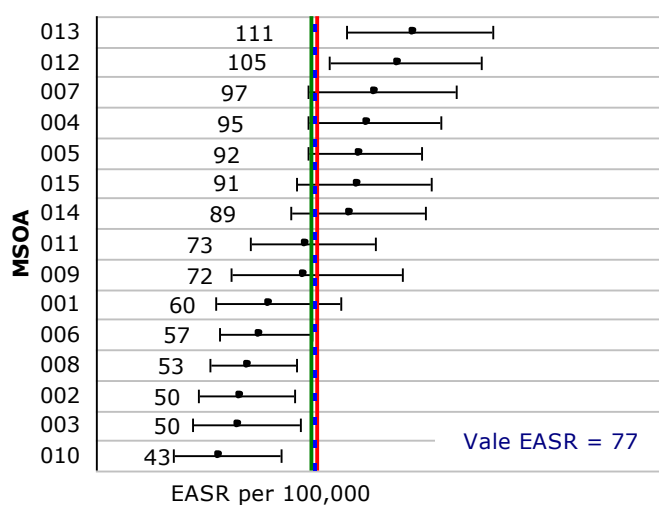
Produced by Public Health Wales Observatory, using data from ONS (ADDE, MYE)

—•— MSOA EASR with 95% confidence interval — Health Board (EASR = 75) — Wales (EASR = 77) - - - Local Authority

Cardiff



The Vale of Glamorgan

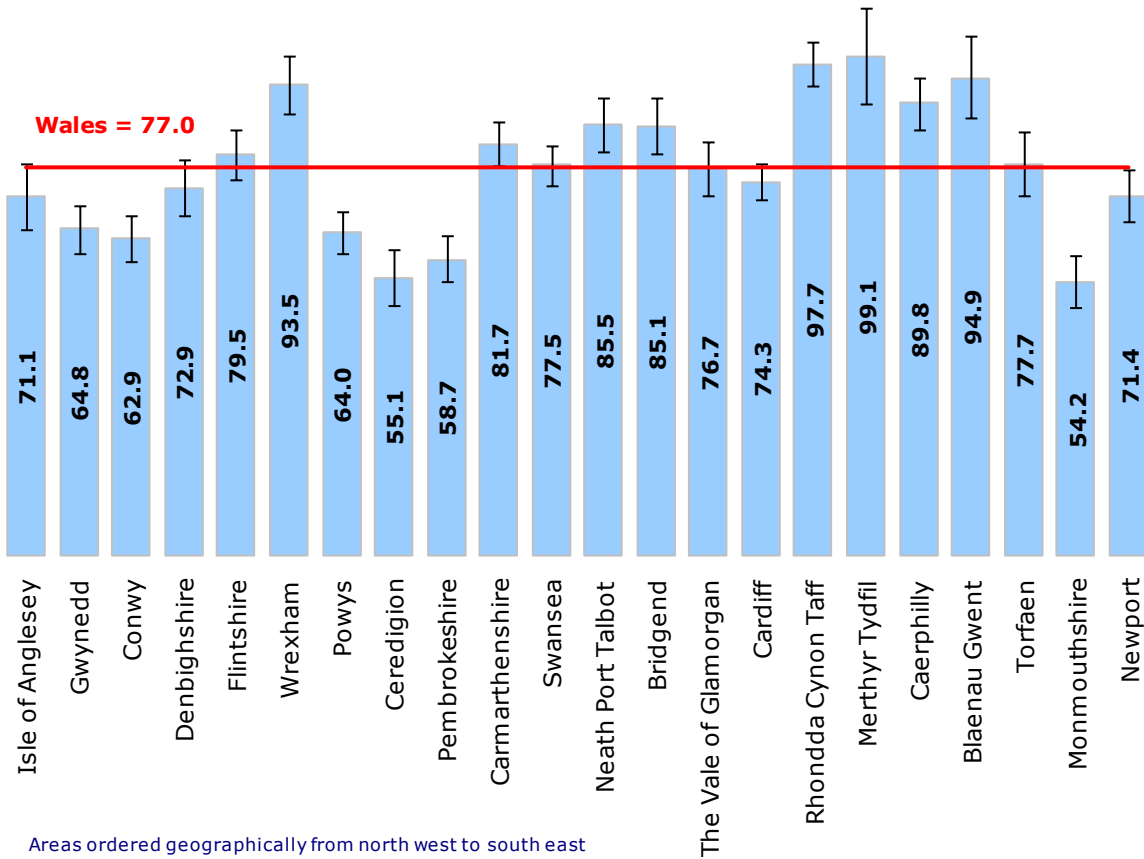


Local authorities

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)

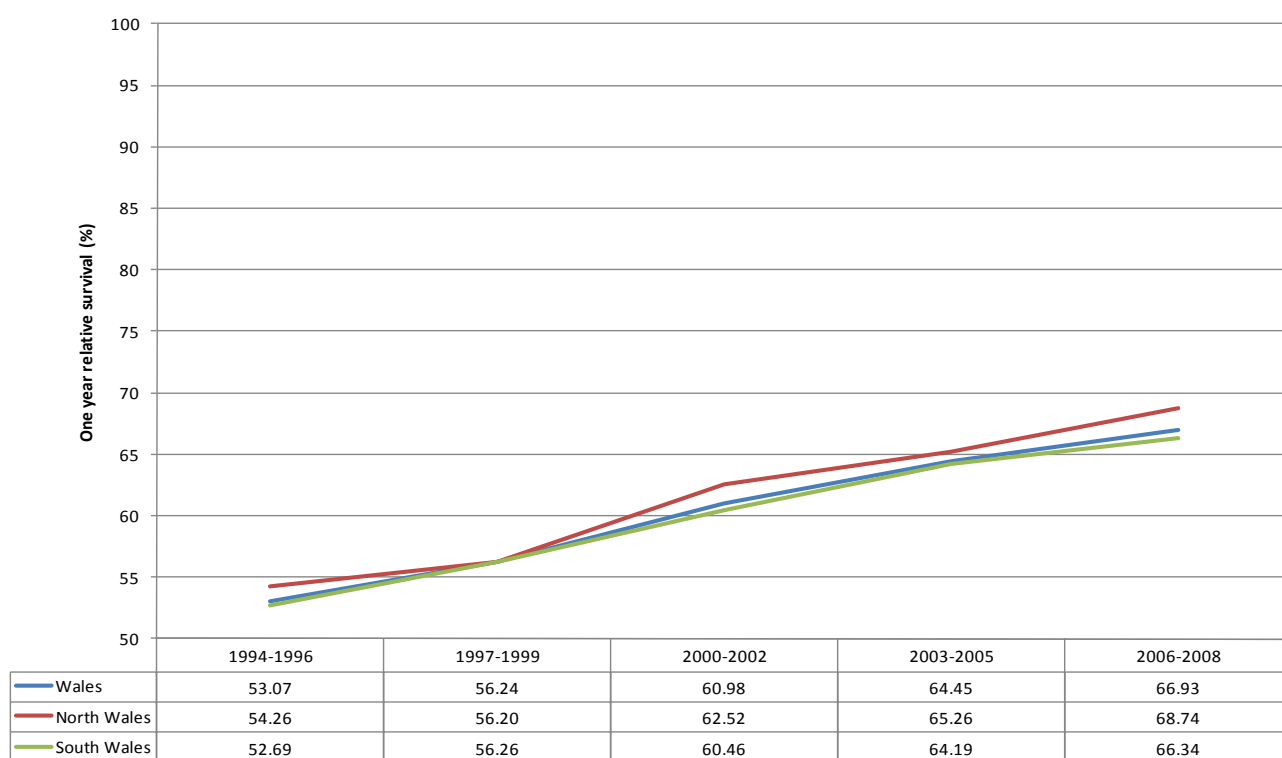
95% confidence interval



5.3.6 Cancer survival

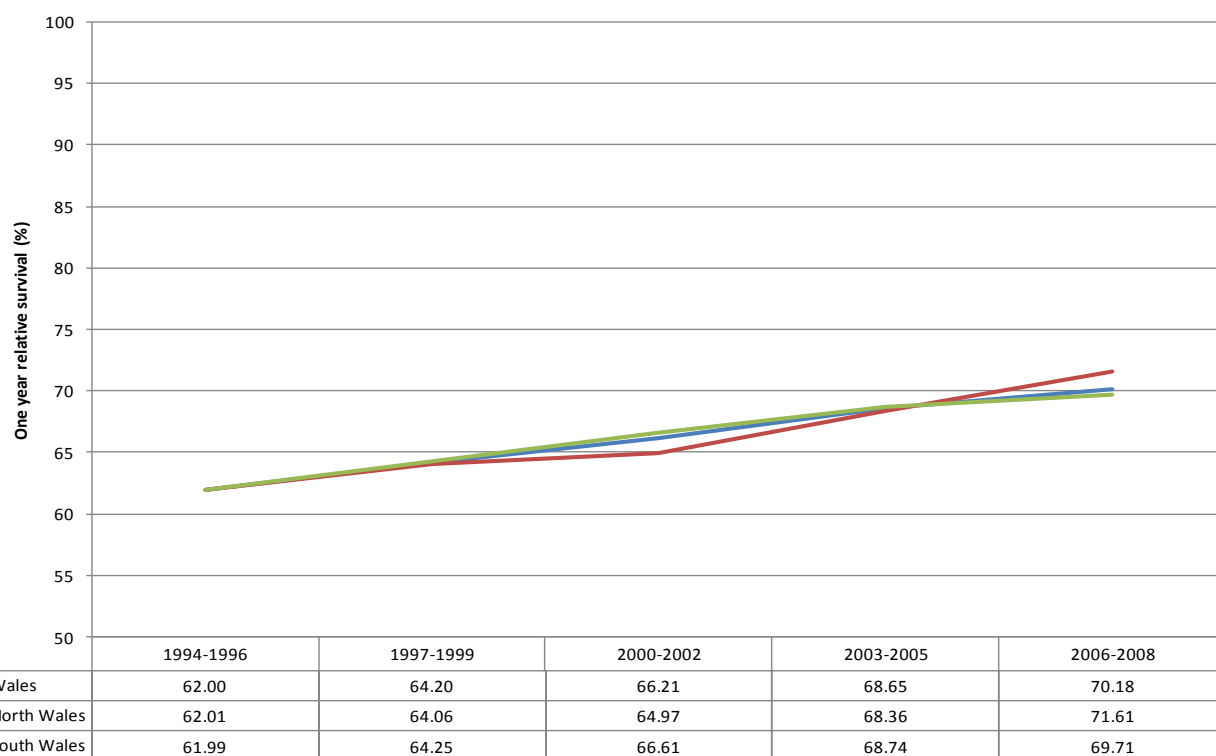
One year relative survival, all cancer (excluding non melanoma skin cancer), males, Wales regions, all persons, 1994/6-2006/8

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 Cardiff and Vale University 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 | |
|------------------------------|--------------------------|----------------------|
| | Cardiff & Vale | All Wales |
| Prostate | 91.14 (88.96, 92.90) | 88.80 (87.95, 89.59) |
| Lung | 22.92 (19.71, 26.28) | 22.84 (21.71, 24.00) |
| Colorectal | 72.88 (68.73, 76.58) | 71.51 (70.12, 72.85) |
| Bladder | 85.38 (80.69, 89.00) | 86.10 (84.51, 87.53) |
| All malignancies (excl NMSC) | 64.65 (63.20, 66.07) | 62.11 (61.57, 62.63) |

| Cancer Site | 5 year relative survival | |
|------------------------------|--------------------------|----------------------|
| | Cardiff & Vale | All Wales |
| Prostate | 83.06 (79.75, 85.87) | 77.17 (75.83, 78.45) |
| Lung | 4.96 (3.37, 6.99) | 5.36 (4.73, 6.04) |
| Colorectal | 49.09 (44.20, 53.80) | 48.59 (46.91, 50.24) |
| Bladder | 72.50 (66.12, 77.89) | 72.34 (70.04, 74.50) |
| All malignancies (excl NMSC) | 49.05 (47.40, 50.67) | 45.39 (44.79, 45.99) |

Female

| Cancer Site | 1 year relative survival | |
|------------------------------|--------------------------|----------------------|
| | Cardiff & Vale | All Wales |
| Breast | 95.01 (93.40, 96.24) | 93.41 (92.83, 93.94) |
| Lung | 27.82 (23.78, 31.99) | 25.53 (24.09, 26.99) |
| Colorectal | 71.64 (66.97, 75.77) | 68.80 (67.19, 70.36) |
| Ovary | 69.49 (62.46, 75.47) | 63.92 (61.50, 66.24) |
| Corpus Uteri | 88.96 (82.63, 93.08) | 89.83 (87.90, 91.46) |
| All malignancies (excl NMSC) | 69.70 (68.23, 71.11) | 67.24 (66.71, 67.76) |

| Cancer Site | 5 year relative survival | |
|------------------------------|--------------------------|----------------------|
| | Cardiff & Vale | All Wales |
| Breast | 84.33 (81.68, 86.62) | 82.06 (81.14, 82.94) |
| Lung | 7.39 (5.10, 10.22) | 6.85 (6.00, 7.76) |
| Colorectal | 52.55 (47.03, 57.76) | 49.18 (47.31, 51.01) |
| Ovary | 37.92 (30.75, 45.04) | 39.29 (36.78, 41.80) |
| Corpus Uteri | 76.08 (67.59, 82.63) | 77.77 (75.02, 80.25) |
| All malignancies (excl NMSC) | 54.87 (53.17, 56.53) | 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 | www.publichealthwalesobservatory.wales.nhs.uk |
| Determinants of health | Public Health Wales Observatory | www.publichealthwalesobservatory.wales.nhs.uk |
| Use of prevention services: vaccination uptake | Vaccine Preventable Disease Programme | http://www.wales.nhs.uk/sitesplus/888/page/43510 |
| Use of prevention services: screening | Public Health Wales Screening Services | http://www.screeningservices.org.uk/ |
| Use of primary care by adults | Welsh Assembly Government, Welsh Health Survey | http://new.wales.gov.uk/ |
| Use of secondary and tertiary care | Public Health Wales Observatory | www.publichealthwalesobservatory.wales.nhs.uk |
| Health status | Public Health Wales Observatory | www.publichealthwalesobservatory.wales.nhs.uk |
| Cancer survival | Welsh Cancer Surveillance and Intelligence Unit | http://www.wales.nhs.uk/sites3/home.cfm?OrgID=242 |

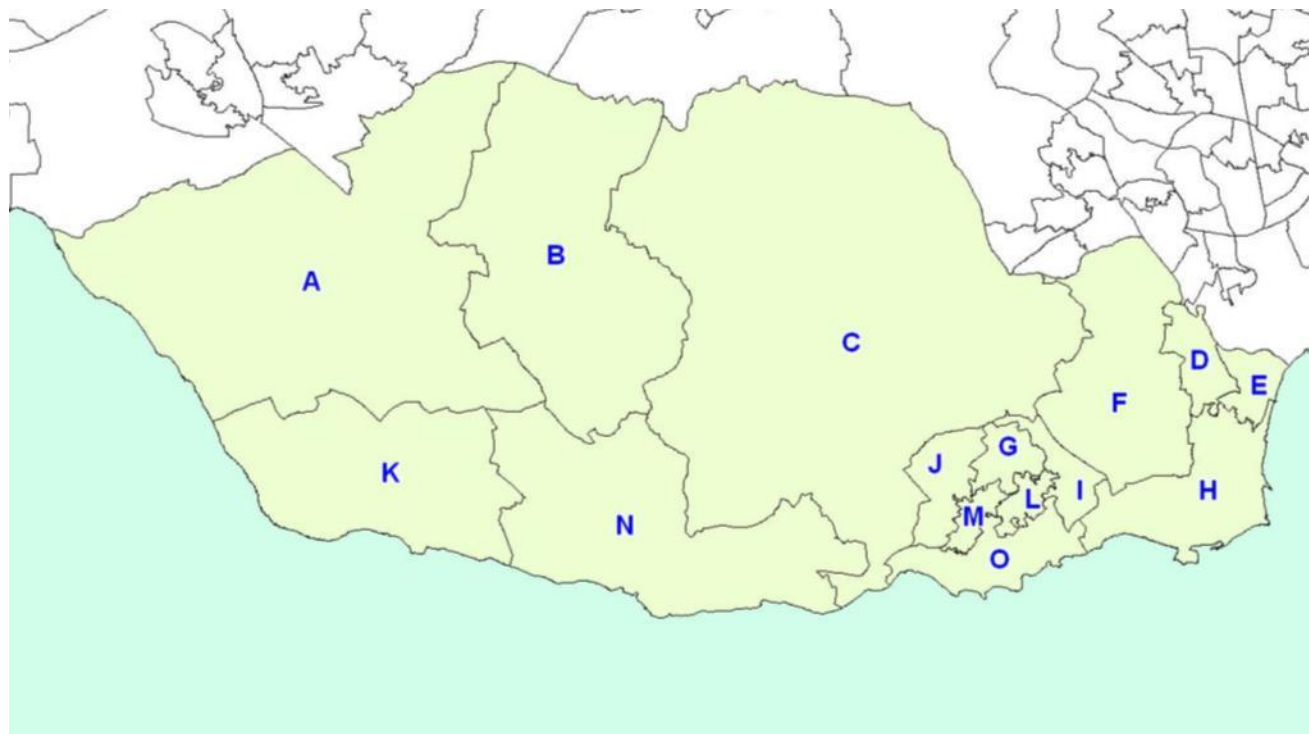
Appendix B: Glossary

| | |
|----------------------------------|---|
| Middle Super Output Areas | <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 62 MSOAs in the Cardiff and Vale University 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> |
| Age-standardised rate | <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> |
| Confidence intervals | <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> |
| Statistical significance | <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 Cardiff and Vale University Health Board area

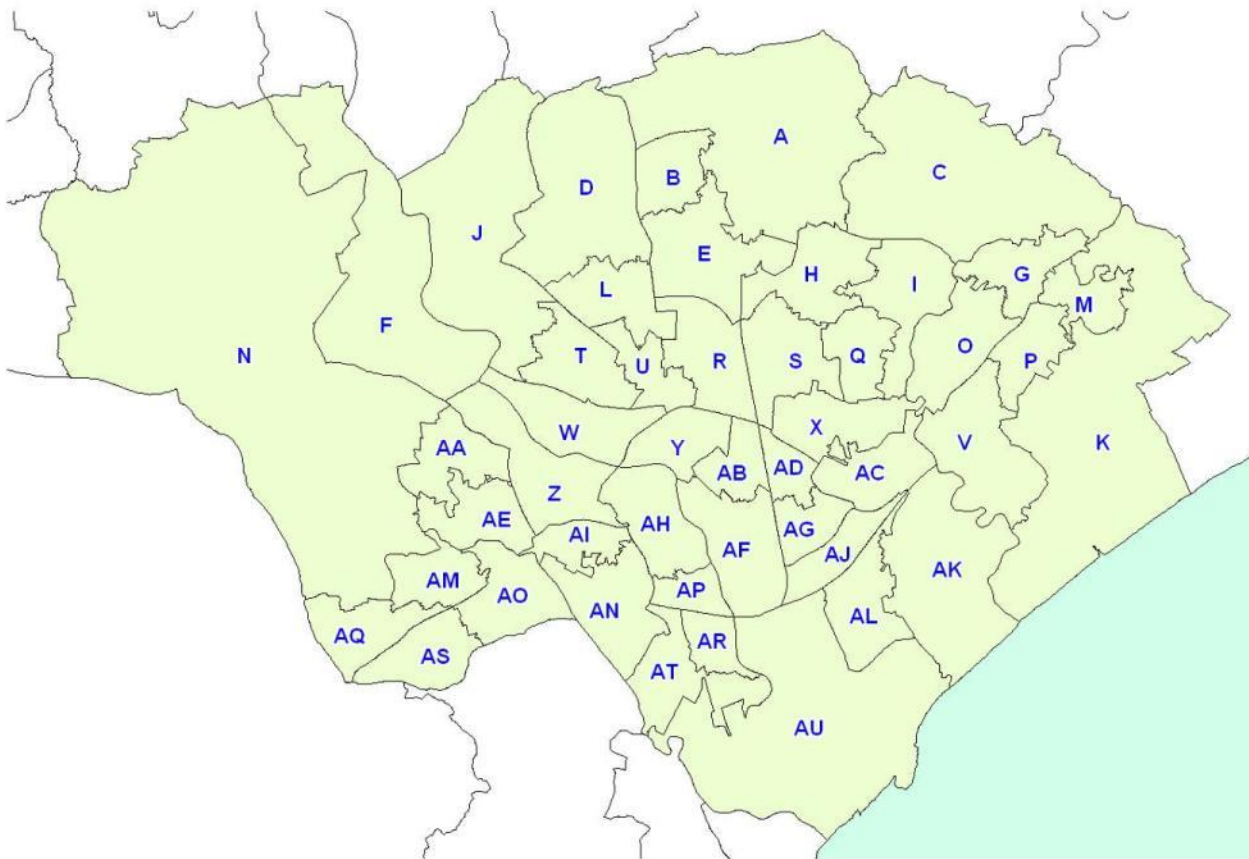
The Public Health Wales Observatory has also produced a web-based interactive map showing MSOA boundaries, with the added facility of background Ordnance Survey mapping. Follow this link: <http://www2.nphs.wales.nhs.uk/InstantAtlas/GeographyTool/atlas.html>

Vale of Glamorgan



| | |
|---|---------------------------|
| A | The Vale of Glamorgan 001 |
| B | The Vale of Glamorgan 002 |
| C | The Vale of Glamorgan 003 |
| D | The Vale of Glamorgan 004 |
| E | The Vale of Glamorgan 005 |
| F | The Vale of Glamorgan 006 |
| G | The Vale of Glamorgan 007 |
| H | The Vale of Glamorgan 008 |
| I | The Vale of Glamorgan 009 |
| J | The Vale of Glamorgan 010 |
| K | The Vale of Glamorgan 011 |
| L | The Vale of Glamorgan 012 |
| M | The Vale of Glamorgan 013 |
| N | The Vale of Glamorgan 014 |
| O | The Vale of Glamorgan 015 |

Cardiff



| | | | |
|---|-------------|----|-------------|
| A | Cardiff 001 | Y | Cardiff 025 |
| B | Cardiff 002 | Z | Cardiff 026 |
| C | Cardiff 003 | AA | Cardiff 027 |
| D | Cardiff 004 | AB | Cardiff 028 |
| E | Cardiff 005 | AC | Cardiff 029 |
| F | Cardiff 006 | AD | Cardiff 030 |
| G | Cardiff 007 | AE | Cardiff 031 |
| H | Cardiff 008 | AF | Cardiff 032 |
| I | Cardiff 009 | AG | Cardiff 033 |
| J | Cardiff 010 | AH | Cardiff 034 |
| K | Cardiff 011 | AI | Cardiff 035 |
| L | Cardiff 012 | AJ | Cardiff 036 |
| M | Cardiff 013 | AK | Cardiff 037 |
| N | Cardiff 014 | AL | Cardiff 038 |
| O | Cardiff 015 | AM | Cardiff 039 |
| P | Cardiff 016 | AN | Cardiff 040 |
| Q | Cardiff 017 | AO | Cardiff 041 |
| R | Cardiff 018 | AP | Cardiff 042 |
| S | Cardiff 019 | AQ | Cardiff 043 |
| T | Cardiff 020 | AR | Cardiff 044 |
| U | Cardiff 021 | AS | Cardiff 045 |
| V | Cardiff 022 | AT | Cardiff 046 |
| W | Cardiff 023 | AU | Cardiff 047 |
| X | Cardiff 024 | | |