



Developing The Public Health Observatory For Wales
Datblygu Arsyllfa Iechyd y Cyhoedd i Gymru

Wales and its Local Health Boards

Demography Profile

Wales, covering an area of 20,779 km² with a population of approximately 2.98 million², has seven diverse local health boards (LHB). LHB boundaries describe areas whose geographical size ranges from under 500 km², Cardiff & Vale University LHB, to over 6,000 km², Betsi Cadwaladr University LHB. LHB resident populations range from 132,000 in Powys Teaching LHB to 678,500 in Betsi Cadwaladr University LHB. The more urban and post industrial southern and eastern areas of Aneurin Bevan, Cardiff & Vale University, Cwm Taf and Abertawe Bro Morgannwg University LHBs make up 60% of the population of Wales but just 17% of the area of Wales. In contrast, Powys Teaching, Betsi Cadwaladr University and Hywel Dda Local Health Boards are dominated by more rural areas.



| Key Statistics | UK | Wales |
|--|-------------------------|------------------------|
| Area size ^[1] | 244,168 km ² | 20,779 km ² |
| Total population ^[2] | 60,975,000 | 2,980,000 |
| Life expectancy at birth - males ^[3] | 77.2 years | 76.8 years |
| Life expectancy at birth - females ^[3] | 81.5 years | 81.2 years |
| Persons per km ² ^[1, 2] | 251.0 | 143.4 |
| % population from ethnic minority background (2001) ^[4] | 7.9% | 2.1% |
| Total number of births ^[5, 6] | 776,272 | 34,572 |
| Number of deaths ^[7] | 574,687 | 32,148 |

Wales' **age and sex profile** is similar to that of the UK as a whole (Fig. 1), but there are fewer people among the working ages of 25 to 49 years and more amongst those aged 55 and over. The 2001 Census reported that 2.1 percent of the population came from a black or ethnic minority background⁴, the effect of migration since this time is more difficult to quantify.

The **general fertility rate**, the number of births per 1,000 women of child bearing age, is lower in Wales than the UK (Fig. 2)⁵. However, rates are broadly similar across LHBs within Wales.

Fig 1: Population pyramid Wales and UK

Data source: Office for National Statistics, mid year estimates 2007

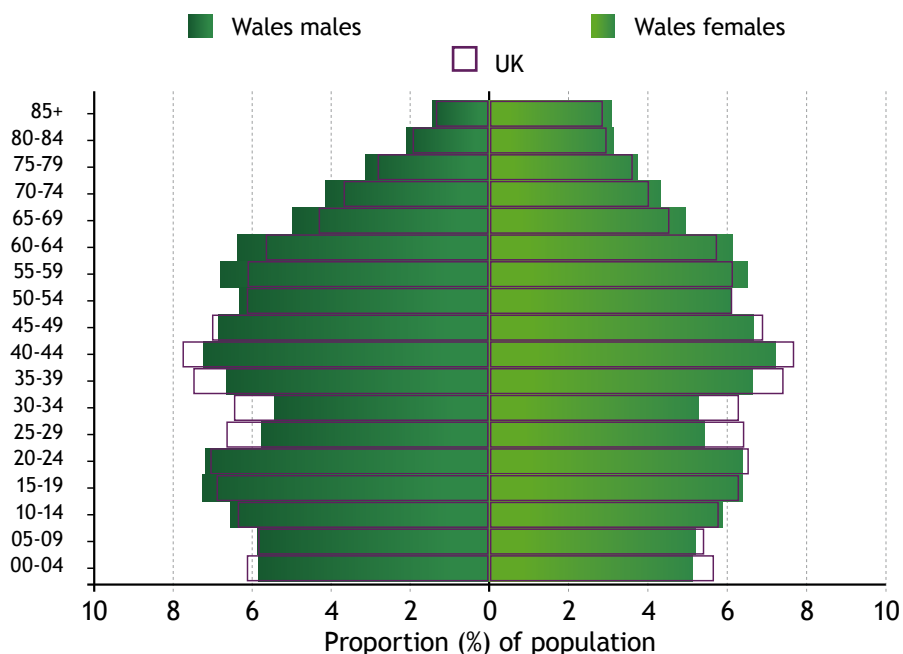
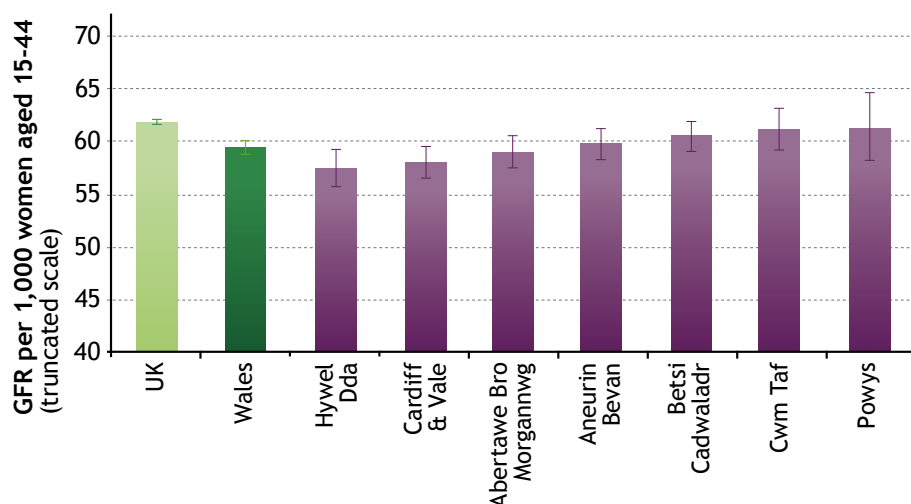


Fig 2: General Fertility Rate, LHBs, Wales and UK (2007)

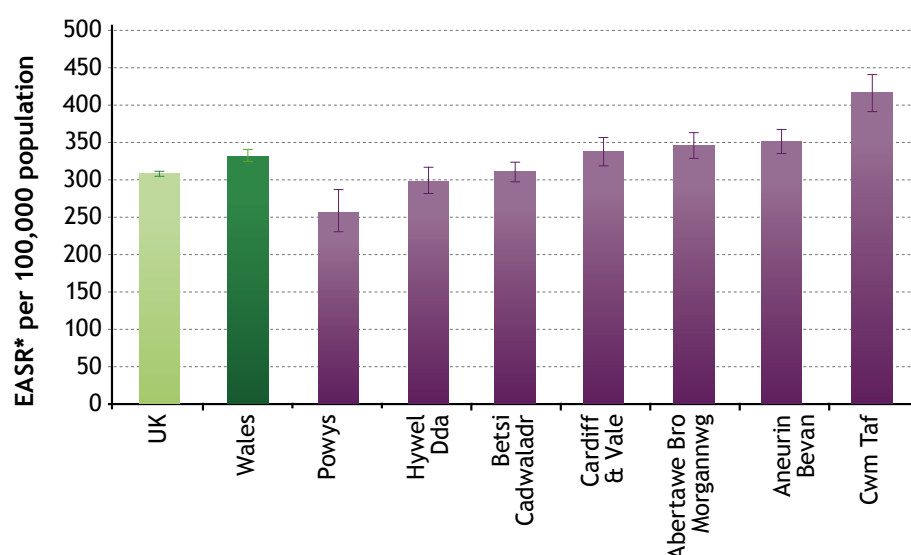
Data source: Office for National Statistics (Annual District Births Extract, mid year estimates, GRO Scotland, Northern Ireland)



Error bars represent 95% confidence intervals. These reflect how random variation might influence the rate shown. This variation is greater in smaller populations, giving rise to wider intervals (for further details see website).

Fig 3: Under 75 mortality rate, LHBs, Wales and UK (2007)

Data source: Office for National Statistics (Annual District Births Extract, mid year estimates, GRO Scotland, Northern Ireland)



*EASR: European age standardised rate. Age standardisation allows comparison of rates across populations or time periods even when the age structures in these populations/time periods are different.

- Office for National Statistics, 2007 geography.
- Office for National Statistics, 2007 mid year estimates (rounded to the nearest 100).
- Office for National Statistics, 2005-07 deaths registration and mid-year population estimates data.
- Office for National Statistics, 2001 Census.
- Office for National Statistics, GRO Scotland, GRO Northern Ireland.
- Office for National Statistics, Annual District Births Extract.
- Office for National Statistics, Key Population and Vital Statistics, Series VS no 30 2007 Data.
- Welsh Assembly Government (WIMD domains: income employment, health, education, access to service, housing, physical environment, community safety)

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The general fertility rate had been falling until 2001/2002 across Wales and the United Kingdom; however, it has been slowly rising since.

The **under 75 age standardised mortality rate** shows substantial variation across Wales (Fig. 3). The rate in Cwm Taf LHB area is 25% higher than the all-Wales rate, whereas Powys teaching LHB area has a rate 23% below the Wales rate. These differences from the Wales rate are statistically significant. The under 75 age-standardised mortality rate has fallen in all LHB areas in Wales; overall it has declined by 18% between 1998 and 2007. This fall is likely to reflect not only the activities of health services, but also improvements in living standards in the latter part of the 20th century.

The greatest causes of death in people aged under 75 in Wales are cancer, circulatory disease and respiratory disease, together accounting for 40%, 27% and 9% of approximately 11,000 deaths in 2007⁶.

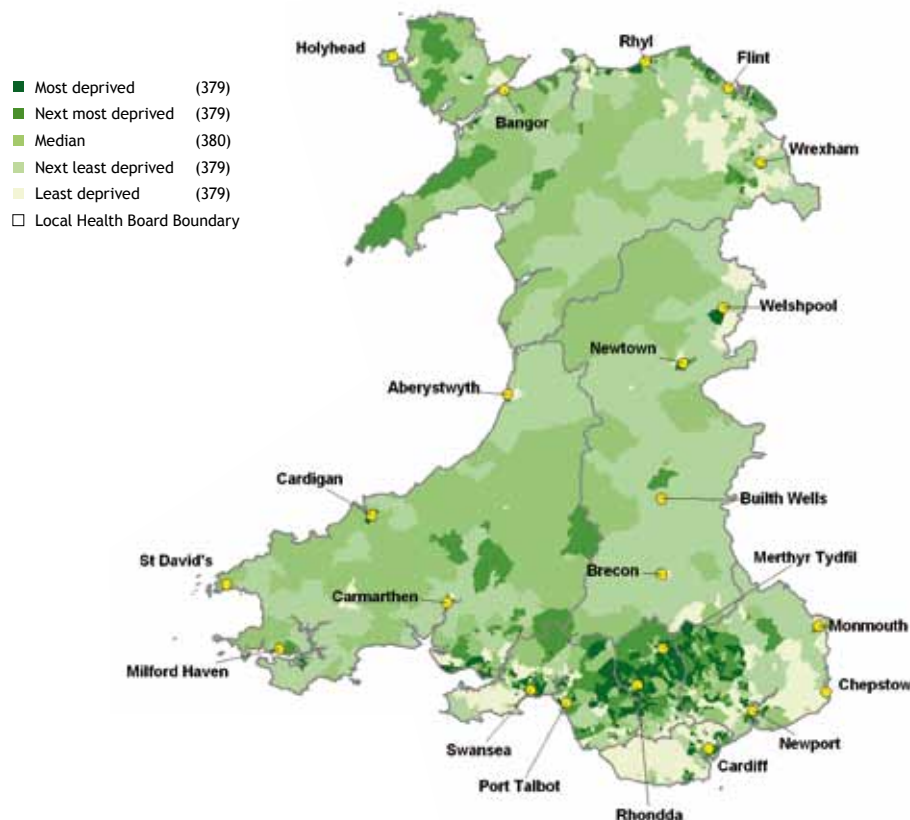
Geographically based deprivation measures can be used to show inequalities in health and suggest areas likely to most need measures to improve health and manage ill-health. **The Welsh Index of Multiple Deprivation 2008**, is produced at a small area level called Lower Super Output Area (LSOA), and is derived from a broad range of factors⁸.

In Wales the majority of the deprived areas are found in the South Wales valleys, some parts of the North Wales coast and parts of Cardiff and Swansea (Fig. 4). However, within less deprived areas there are often pockets of hidden deprivation.

> **Fig 4: Overall Welsh Index of Multiple Deprivation 2008**

Fifths of deprivation, Lower Super Output Areas.

Data source: Welsh Assembly Government

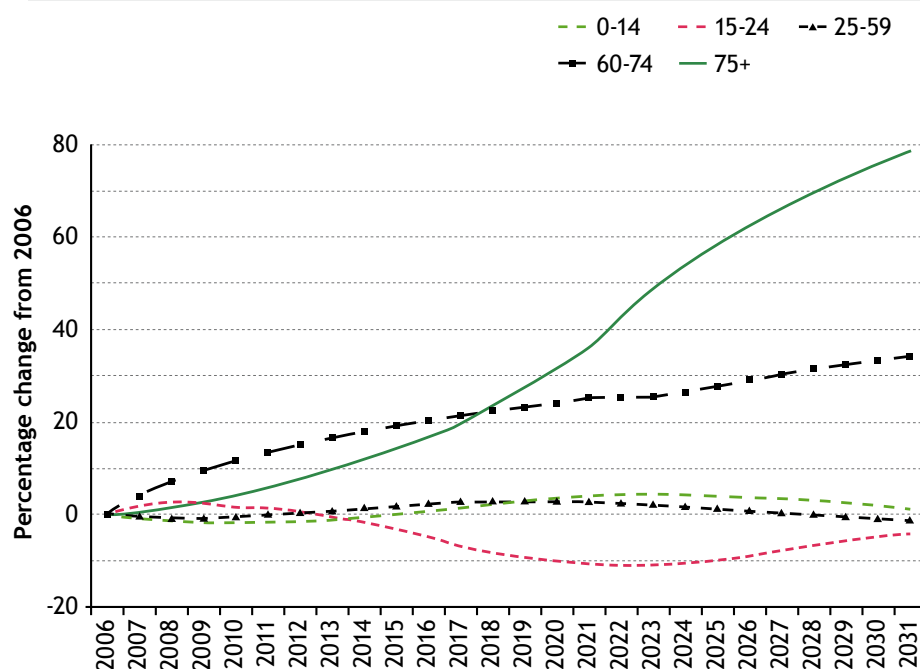


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> **Fig 5: Population projections, Wales**

Data source: Derived from LA Population Projections (2006-based)

Welsh Assembly Government



Current projections see a rise in the older population (75 years and over) of Welsh residents from 252,000 (9% of the total population) in 2006 to 452,000 (14% of the total population) in 2031 (Fig. 5). The relative increase is higher in some, more rural areas, such as Powys and lower in more urban areas, particularly Cardiff. These estimates are based on assumptions about births, deaths and migration. The increase in the number of older people is likely to cause a rise in chronic conditions such as circulatory and respiratory diseases and cancers. Meeting the needs of these individuals will be a key challenge for the local health boards. 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.

> Further Information:

More detail on the demography for Wales and its Local Health Boards to accompany this profile is available at www.wch.wales.nhs.uk. This includes information at small area level, local variations in mortality and further resources to support LHB work.

This profile presents information for use by the newly formed Local Health Boards of Wales. It has been produced as the first of a series of information products made available by the newly created Public Health Observatory for Wales, a collaboration between the Wales Centre for Health and the National Public Health Service for Wales. LHB requirements will direct future profile development.

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