rural health

A profile of **rural health** in Wales

Wales Centre for Health
Canolfan Iechyd Cymru

Authors:
Andrea Gartner, Rhys Gibbon, Neil Riley

Acknowledgements:
With thanks to the following for their help with this report: Riti Desai, Diana Greaves (Powys County Council), Rhian Huws, Gareth John (HSW), Su Mably, Joanne Menzies, Sally Taylor (HSW), Lynnette Thomas. Special thanks to Nathan Lester (NPHS), Nick Holmes (LGDU) and Julie Hopkins (LGDU) for reviewing the final draft.

Publication details:
Title: A Profile of Rural Health in Wales
Publisher: Wales Centre for Health
Date: March 2007
ISBN: 0-9545544-2-6

This publication is also available in electronic format (portable document format) on our website:
www.wch.wales.nhs.uk

Contacts:
Wales Centre for Health
14 Cathedral Road
Cardiff CF11 9LJ

Tel: 029 2022 7744
Fax: 029 2022 6749
Email: wch@wch.wales.nhs.uk
www.wch.wales.nhs.uk

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

Content

Figures and tables

Key messages

- Wales has a comparably rural environment and around 1 in 3 people in Wales live in an area classed as rural. In England around 1 in 5 people live in rural areas.
- Rural health is influenced by many determinants such as income, housing, education, access to services and deprivation in general. In this report these indicators are compared between rural and urban areas. Health outcome indicators analysed are: life expectancy, hospital admissions and mortality.
- The assumption that rural environments are inevitably 'healthier' is increasingly open to challenge, particularly as some individual rural areas have considerably poorer figures than the Welsh average, for example on income indicators.
- The health status in rural Wales is not uniform. There is a pattern for most indicators where the less populated rural areas tend to have better health outcomes and determinants of health than more populated rural areas. Urban areas, on average have poorer figures than rural areas.
- Some deprivation measures are considered to be more suitable to detect urban deprivation, such as car ownership, which is considered essential in rural areas. The Welsh Index of Multiple Deprivation 2005 (WIMD) defines rural areas in Wales as more deprived than the Townsend index, suggesting that the WIMD may be more suitable.
- The pattern for elective admissions to hospital is different to most indicators, as the rates for urban areas are similar to those for more populated rural areas, whilst the less populated rural areas have lower rates. This may be due to issues of access to hospitals.
- More complex analysis is required to understand the differences between rural and urban areas, and within rural parts of Wales.

1. Introduction

The perception of what a rural environment means for health varies. Many people think of a "rural idyll" of green countryside, fresh air and better health. However, the assumption that rural environments are inevitably 'healthier' is increasingly open to challenge. It is thought that poorer health outcomes are masked by favourable averages, as people from diverse backgrounds, income level and health need are living in close proximity. This is in stark contrast to urban areas, where people with similar characteristics and needs may be concentrated in particular areas, such as in urban deprived council estates or urban affluent areas. Figures for particular health outcomes in rural areas may be small, as the affected people may be dispersed over a wide area. Masking by favourable averages is particularly the case if data is analysed at larger area level such as local authorities. This report therefore uses small area data by Lower Super Output Area (LSOA) where available, which improves detection of smaller pockets of poor health and environmental factors thought to contribute to poor health such as low income, poor housing and access to services.

Access to healthcare services is particularly topical with recent media reports on hospital closures in rural areas, and individual case reports on problems with ambulance services. As with most statistical reports, data are presented at population group level, in this case by area type, rural or urban or by LSOA, and not for individuals. It is clear that not everyone is healthy in an area with good health averages, and not everyone living in an area with poor health averages is in poor health. Similarly, not everyone living in an area considered to have good access to health services finds it easy to access their local health services. This report cannot convey personal experience, but gives an overview of possible outcomes.

The indicators chosen in this report reflect a broader understanding of health. Dahlgren and Whitehead (1992) suggest a model that looks at wider determinants of health such as living and working conditions, which are important in understanding possible reasons for inequalities. Some of the indicators for the section on determinants of health are based on suggested measures for rural deprivation by Asthana et al. (2002) and rural poverty by Palmer (2004).

A recent report by the Commission for Rural Communities (2006) covered rural disadvantage in England, generating renewed interest in the subject. This Wales Centre for Health report aims to investigate inequalities in Wales between rural and urban areas in health outcomes and factors thought to influence health outcomes. The two approaches used are by geographically mapping data by LSOA for individual indicators to show patterns and areas of particular concern, and by comparing data for the aggregated urban, sparsely populated rural areas ("rural sparse") and less sparsely populated rural areas ("rural less sparse") to show any differences. It is not intended to single out individual areas or communities by name, but to investigate broader patterns and differences between classes and types of area.

This report is aimed at public health professionals and the interested public, and intends to use as little technical jargon as possible.

1.1 Which areas are defined as rural?

A number of different statistical classifications have been used to analyse datasets relating to the same topic. This can lead to difficulties in comparing different studies. Conclusions based on one set of classifications may not apply to another set as different geographical areas are included in a different class. There are, for example rural areas contained within the predominantly urban areas of the South Wales Valleys.

In 2004 the latest Rural and Urban Area Classification was launched, sponsored by the Office for National Statistics (ONS); Department for Environment, Food and Rural Affairs (Defra); Department for Communities and Local Government (DCLG), the Countryside Agency (CA) and National Assembly for Wales (NAfW). It has been adopted as the standard for National Statistics by the ONS, and this report will be using this new classification.

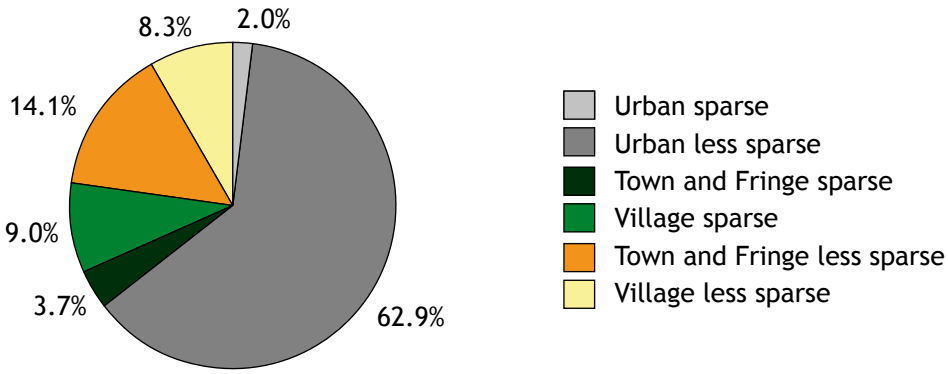
The definition and classification of urban and rural areas places its main emphasis on the type of rural settlements (i.e. settlement type such as town and fringe) and the wider geographic context of such settlements (sparsity) (Bibby & Shepherd, 2004). Settlements with more than 10,000 people are treated as urban, and all other settlements as rural (Bibby & Shepherd, 2004). Table 1 below shows the structure of the classification for LSOAs, where the rural areas are divided further into settlement types.

Table 1: Areas and population shares in Wales by Rural and Urban Area Classification 2004

	Context	Settlement type	Number of areas (LSOAs)	% population
Urban	Sparse	<= 10000 people	37	2%
	Less Sparse	> 10000 people	1201	62.9%
Rural	Sparse	Town and fringe	72	3.7%
		Village and dispersed	167	9%
	Less Sparse	Town and fringe	265	14.1%
		Village and dispersed	154	8.3%

Source: ONS

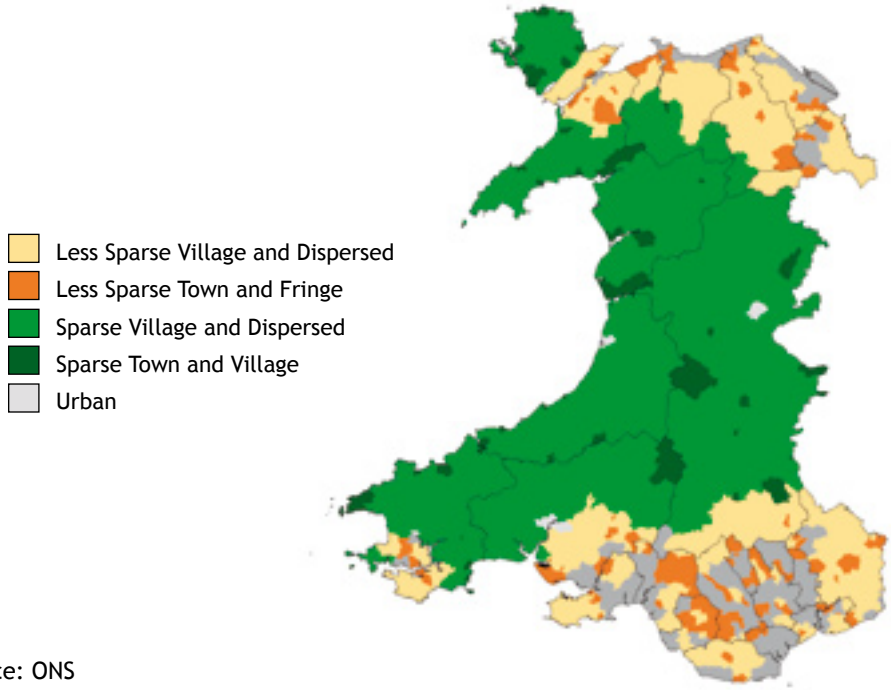
Fig. 1: Percentage of population living in areas by classification



Source: ONS

Both Table 1 and Fig. 1 describe the proportions of the population living in the six different types defined by the new classification. A total of 64.9% of the Welsh population live in urban areas, compared to 35.1% living in rural areas. The map in Fig.2 shows the geographical spread of the areas defined by the classification. The two urban classes (urban sparse and urban less sparse as shown in Fig. 2) have been combined to one urban area shown in grey. The map illustrates that the urban areas, shown in grey colour, cover only a relatively small area of Wales but they are home to 64.9% of the population. Similarly, the rural areas (shown in all colours but grey) cover the majority of the landmass of Wales and are home to 35.1% of the population. The rural sparse areas in particular, shown in two shades of green, cover a very large proportion of Wales. LSOAs have on average a population of 1500 people, and less densely populated rural LSOAs cover larger areas than densely populated rural and urban areas. See section 1.2 for details on the selection of geographical areas.

Fig. 2: LSOAs by Rural and Urban Area classification 2004



Source: ONS

It has initially been investigated, whether the data in the report should be compared by all six classes, by rural and urban, or by either settlement type or sparsity. The comparison by all classes has been done internally for some of the indicators but display of the final maps and charts in this report has been prepared by urban and rural subdivided by density, into rural sparse and rural less sparse. These three classes have been considered to have the most similar characteristics for the indicators investigated, and the wider context of a rural area was considered to be of greater importance than the settlement types, for example for hospital admission data.

1.2 Geographical areas

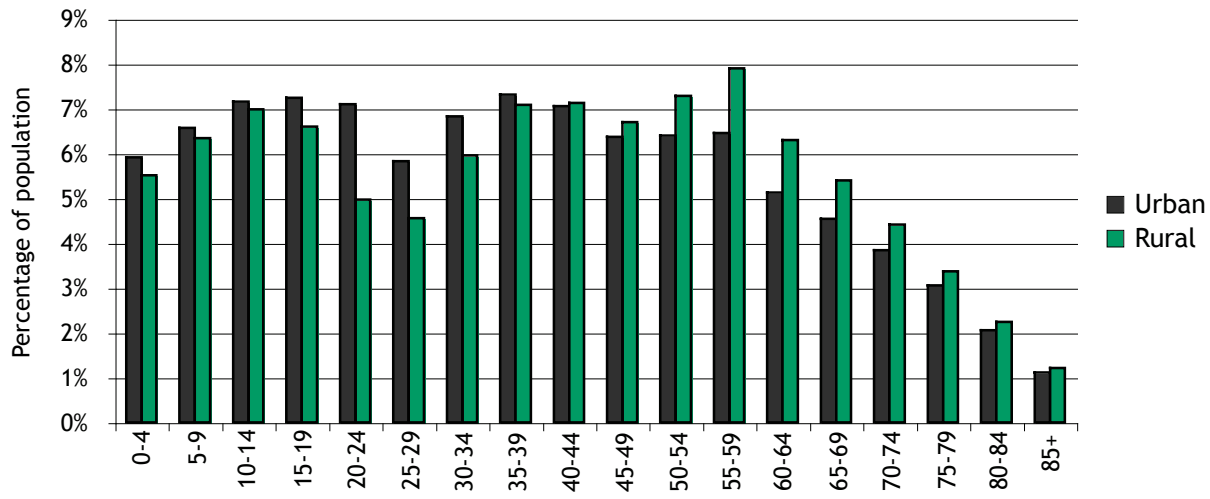
This report uses data by LSOA wherever possible, as analysis at small area level should assist in detecting pockets of poorer outcomes which at higher geographies may be lost to averages. In terms of classification as rural or urban, using LSOAs should also give more detail, as for higher geographies the dominant category would be assigned. LSOAs have the advantage of not being subjected to boundary changes over time as opposed to wards or electoral divisions, so that a comparison in time may be possible for future work using the same indicators. LSOAs have comparable population sizes of an average of 1500 people, and comparisons can be made by percentages of LSOAs falling into quintiles or deciles of for example WIMD scores. Some data, however, are not available by LSOAs or, in the case of benefit claimant data from DWP, is not available by five year age bands so that standardised claimant ratios cannot be established. Therefore raw proportions have to be displayed and compared across the classes, using appropriate caveats. The population estimates used (MYE 2003) published by the ONS are classed as experimental, but apart from proportions displayed on maps are used in aggregate form for comparisons.

LSOA boundaries have been removed for the maps and local authority boundaries added. Urban areas have been removed to show areas of particular concern in rural areas, as otherwise they would be difficult to distinguish and urban areas may dominate.

2. Demography

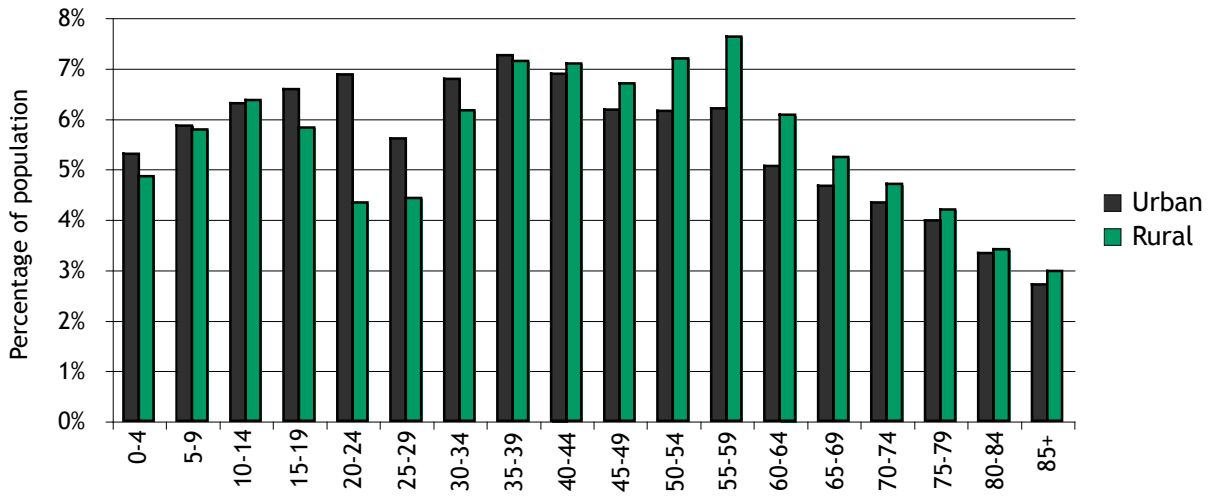
The population of the rural areas of Wales tends to be older on average than that of urban areas. The charts below (Fig. 3 and Fig. 4) show slightly higher percentages in the age groups above 45 in rural areas. More 20-29 year olds live in urban areas compared to rural, which may in part be due to young people moving to urban areas for University and employment opportunities. Many rural areas have experienced migration patterns that have led to an ageing population, and this may mean that rural healthcare practitioners need to deal with higher levels of chronic diseases such as heart disease, stroke and mental illness (BMA, 2005).

Fig. 3: Males in age groups by urban/rural



Source: ONS

Fig. 4: Females in age groups by urban/rural



Source: ONS