Key Indicators

<table>
<thead>
<tr>
<th>Table 1 - Key Rural Health Indicators (Source: PHOF)</th>
<th>England</th>
<th>West Midlands</th>
<th>Worcs</th>
<th>Worcs vs. England</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.17 Fuel poverty - % of households that experience fuel poverty (low income, high cost method: DECC) 2013</td>
<td>10.4</td>
<td>13.9</td>
<td>11.2</td>
<td>Significantly Higher</td>
</tr>
<tr>
<td>1.18i Social isolation % of adult social care users who have as much social contact as they would like 2013/14</td>
<td>44.5</td>
<td>44.9</td>
<td>45.3</td>
<td>Similar</td>
</tr>
<tr>
<td>2.13i Active travel proxy - % physically active adults 2014</td>
<td>57%</td>
<td>-</td>
<td>59.9%</td>
<td>Better</td>
</tr>
<tr>
<td>4.10 Suicide rate DSR per 100,000 persons 2012-14</td>
<td>8.9</td>
<td>9.1</td>
<td>9.5</td>
<td>Similar</td>
</tr>
<tr>
<td>4.15iii Excess winter deaths index 3 years all ages 2010-13</td>
<td>17.4</td>
<td>17.7</td>
<td>18.6</td>
<td>Similar</td>
</tr>
</tbody>
</table>

Source: Public Health Outcomes Framework available @ [http://www.phoutcomes.info/](http://www.phoutcomes.info/)

Worcestershire Summary

Worcestershire is a predominantly rural county with some urban areas (categorized as having over 10,000 population).

According to the ONS Rural Urban Classification (RUC) 2011 (ONS/DEFRA, 2014), settlements with a population of 10,000 or more should be treated as 'urban'; all smaller settlements are to be treated as 'rural'. The density is also taken into account i.e. whether a settlement is in a 'sparse setting'.

Using these definitions the districts in Worcestershire have the following definitions:

<table>
<thead>
<tr>
<th>District</th>
<th>RUC 2011</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromsgrove</td>
<td>Urban with city and town</td>
<td>21%</td>
</tr>
<tr>
<td>Malvern Hills</td>
<td>Largely rural</td>
<td>52.4%</td>
</tr>
<tr>
<td>Redditch</td>
<td>Urban with city and town</td>
<td>3.1%</td>
</tr>
<tr>
<td>Worcester City</td>
<td>Urban with city and town</td>
<td>0.1%</td>
</tr>
<tr>
<td>Wychavon</td>
<td>Mainly rural</td>
<td>97.9%</td>
</tr>
<tr>
<td>Wyre Forest</td>
<td>Urban with significant rural</td>
<td>42.1%</td>
</tr>
</tbody>
</table>

Source: ONS Rural Urban Classification 2011
Wychavon district is classified as 'mainly rural' with the % of the population in rural areas equalling 97.9%.

In contrast, Worcester City district is classified as 'urban with city and towns' with only 0.1% of population considered to be 'rural or rural related'.

Redditch and Bromsgrove districts have the same classification as Worcester City but have different rural populations (3.1% and 21% respectively).

Malvern Hills is classified as 'largely rural' with 52.4% 'rural or rural related' population.

Wyre Forest has a different classification from the others, considered to be 'urban with significant rural'; representing 42.1% rural or rural related population.

Worcestershire has a significantly higher proportion of households in fuel poverty compared with the England; and has similar levels of social isolation, excess winter deaths and suicides. On the positive side, there are significantly better levels of physical activity in Worcestershire than the national average, at 60% of the population; this is being used as a proxy for active travel (walking and cycling instead of driving or using public transport).

**Background**

Rural areas may have specific health and wellbeing challenges frequently related to access to services e.g. high stroke mortality and social isolation. From the physical activity perspective, active transport has been found to be 65% higher amongst urban residents than rural residents (Hutchinson et al, 2014), with a resulting inequality in health and wellbeing benefits.

Previous research suggests that there are significant differences in health between urban and rural areas. For example research in Scotland established large ratios for ischaemic heart disease (IHD) and cancer amongst the remote elderly (Levin & Leyland, 2006). Analysis of cancer rates reveals lower age standardised incidence of lung cancer and higher rates of breast, prostate and colorectal cancers in rural areas (NCIN, 2011).

Much of the variance in cancer incidence rates and mortality rural areas is due to the effect of sociodemographic factors, with only 1% of rural areas being in the most deprived areas but 24% of urban areas. The incidence of some cancers is higher in less deprived areas due to higher screening uptake and lifestyle factors e.g. breast, prostate and melanoma cancers (Cancer UK website).

Social isolation and loneliness is more of an issue in rural areas (Bernard, 2013) and is of particular concern because of the ageing population in Worcestershire. Loneliness has a significant impact on health and wellbeing (SCIE, 2012) adversely affecting cardiovascular health and immune function.

There is also evidence that suicide rates are highest in remote rural areas; the risk of suicide is higher in rural areas relative to urban areas and have been rising steeply (Levin & Leyland, 2005). There is also evidence of higher rates of fuel poverty in rural areas – this has implications for health outcomes including an increased risk of excess winter deaths (Marmot Review, 2012).

**Parameters of fuel poverty**

There is a significantly higher level of fuel poverty in Worcestershire than nationally (Figure 1); this may be due to a number of factors which singly or in combination can increase the risk of individuals or families living in fuel poverty (DoH, 2010):

1. **Low income households** which choose to prioritise other essentials above fuel. These households also tend to live in the poorest quality housing with the lowest thermal efficiency.
(2) **Homes with poor energy efficiency** measured using the SAP rating (Standard Assessment Procedure for energy rating of dwellings)\(^1\). Those suffering fuel poverty tend to live in properties with a SAP of <35. Many in fuel poverty live in houses with solid walls (particularly common in rural areas) and may also be outside the mains gas network, hence relying on more expensive forms of heating and old inefficient boilers. The dominance of rurality in many parts of Worcestershire would increase the possibility of fuel poverty in the county.

**Figure 1: Fuel poverty is higher in Worcestershire**

![Figure 1: Fuel poverty is higher in Worcestershire](image)

Source: Public Health Outcomes Framework available @ [http://www.phoutcomes.info](http://www.phoutcomes.info)

(3) **Fuel costs** – those most at risk of fuel poverty are paying higher prices for fuel e.g. paying by cash or cheque (costing an estimated £100 extra per annum than paying by direct debit). Plus there has been a steep rise in fuel costs; they more than doubled for electricity (147% increase) and doubled (100% increase) for gas between 2003 and 2008.

(4) **Under occupancy** is another key factor, frequently representing older people living alone who are more likely to have lower income and live in larger houses which are more costly to heat simply due to their size. There is a higher number of older people in Worcestershire and this proportion is increasing particularly the oldest old (aged 80 and over) hence a greater number of single occupancy households is likely.

Housing is one of the key social determinants of health inequalities alongside education, employment and standard of living. Highest risks to health in housing are attached to cold, damp and mouldy conditions; according to the Marmot Review (2012) cold conditions are statistically associated with excess winter deaths (EWD). Risks to health stemming from these hazards include respiratory and asthmatic conditions, infections and chest conditions, coronary disease and stroke. Friedman (2010) estimates that costs to the NHS of poor housing total £2.5billion based on estimates of costs for GP consultations, associated treatments and hospital in and out days and referrals. There is more detail about fuel poverty in the latest *Worcestershire Public Health Annual Report* (WCC, 2015).

NICE (2015) emphasizes that health problems associated with cold homes are experienced during 'normal' winter temperatures not just when it is very cold, highlighting groups that are vulnerable including older people (65+), people with cardiovascular and respiratory conditions, people with disabilities and those with mental health conditions.

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\(^1\) On a scale from 10 to 100 – a higher SAP means better thermal efficiency
Social Isolation

Figure 2: Social isolation in Worcestershire

Intuitively it might be expected that social isolation is likely to be greater in more rural areas; there is also evidence to support this hypothesis. In Worcestershire the percentage of adult social care users happy with the social contact was significantly better at over 47% than the England average in 2010/11 and 2011/12. However, this figure has decreased in the most recent two years (Figure 2) and is now similar to the England average (around 45%).

Rural health hotspots

The latest Worcestershire Public Health Annual Report (WCC, 2015) has identified two rural wards as health hotspots; North Wyre Forest (Trimpley, Fairfield and Cookley), and Deblins Green and Madresfield (Malvern Hills). These rural health hotspots both have significantly high all-cause mortality rates and high rates of mortality from causes amenable to healthcare (i.e. deaths considered 'avoidable'). In previous years, Worcestershire health hotspots (local areas with poorer health outcomes) have been restricted to urban areas. For more detail about health hotspots please see the Worcestershire Public Health Annual Report 2014, pages 12 to 16.

Active travel

There is evidence of variance in active travel between urban and rural areas, plus social patterning i.e. associations between frequently walking or cycling short journeys and socio-demographic characteristics (Hutchinson, White and Graham, 2014). Urban residents are 64% more likely to frequently engage in active travel than rural residents; with a strong sociodemographic influence underlying this too. For example, there is greater active travel amongst people who are younger, male and on lower incomes; this is true in both urban and rural areas.

We are using the proportion of physically active adults as a proxy for active transport. The proportion of physically active adults has increased to over 60% in urban Worcester City.
district from 2012 to 2014 (Figure 3a); conversely it has decreased in rural Wychavon across the same period to below 60% (Figure 3b). Anecdotally the increase in the percentage of physically active adults in Worcester district may be a response to the opening of the Diglis Bridge which has encouraged active transport in the city.

**Figure 3a – Percentage of active adults in Worcester City district**

Source: Public Health Outcomes Framework available @ [http://www.phoutcomes.info](http://www.phoutcomes.info)

**Figure 3b – Percentage of active adults in Wychavon district**

Source: Public Health Outcomes Framework available @ [http://www.phoutcomes.info](http://www.phoutcomes.info)

**Suicide** This trend graph (Figure 4) from the Public Health Outcomes Framework (PHOF) demonstrates how the suicide rate for Worcestershire (directly standardised rate per 100,000 persons) is similar to the England rate and follows similar fluctuations. Both the
Worcestershire and England rates are showing a slight upward trend after a number of years of decrease or steady trend.

**Figure 4 – Suicide rate in Worcestershire**

Source: Public Health Outcomes Framework available @ [http://www.phoutcomes.info](http://www.phoutcomes.info)

PLEASE NOTE: there are relatively small numbers of suicides in the county so annual changes can appear large; hence three year pooled data is used to smooth out any fluctuations.

Suicide rates are nationally and locally the highest they have been since 2001; some experts believe this pattern is related to the long-lasting recession and its social impact. Hence it is important to target suicide prevention interventions in areas with high levels of sociodemographic deprivation (Samaritans, 2015).

**Excess Winter Deaths**

**Figure 5 – Excess winter deaths in Worcestershire**

Source: Public Health Outcomes Framework available @ [http://www.phoutcomes.info](http://www.phoutcomes.info)
The rate and pattern of excess winter deaths (EWD) in Worcestershire is similar to the England and West Midlands (Figure 5); there are more excess winter deaths in females than in males. Any variance in excess winter mortality is usually cold weather related, and the prevalence of influenza type illnesses, as opposed to any local conditions. More detailed analysis of EWDs is available in this JSNA briefing (WCC, 2014).

Associated documents and information:

Worcestershire Public Health Annual Report 2014 which this year focusses on health inequalities.

Other relevant briefings, needs assessments and data are available on the Worcestershire JSNA website at: http://www.worcestershire.gov.uk/info/20122/joint_strategic_needs_assessment

NICE Guideline Number NG6_2015. Excess winter deaths and illness and the health risks associated with cold homes.

Glossary

DECC = Department of Energy and Climate Change
DoH = Department of Health
EWD = Excess winter deaths
IHD = Ischaemic Heart Disease
NCIN = National Cancer Intelligence Network
ONS = Office for National Statistics
PHOF = Public Health Outcomes Framework
RUC = Rural-urban classification
SCIE = Social care institute for excellence
SMR = Standardized mortality ratio
WCC = Worcestershire County Council

References


Cancer Research UK. Available at: http://www.cancerresearchuk.org/content/cancer-incidence-statistics#heading-Five. [Accessed 06/01/2016].


DoH. 2010. How to reduce the risk of seasonal excess deaths systematically in vulnerable older people to impact at population level. London: Department of Health.


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