Measuring inequalities

Trends in mortality and life expectancy in Cardiff

This is one of 22 profiles produced for each local authority in Wales comparing outcomes and their trends in the most and least deprived areas in the local authority. A Wales profile has also been produced and contains more detailed analysis and background information.

Life expectancy in Cardiff, as in Wales in general, is increasing. However, this improvement is not experienced equally across all areas. There are in many cases substantial national and local inequality gaps between the most and least deprived areas in both life expectancy and deaths from different causes. There are also inequalities in the quality of life in terms of healthy life expectancy and disability-free life expectancy.

The Slope Index of Inequality (SII) measures the absolute gap in years of life expectancy between the most and least deprived, taking into account the pattern across all fifths of deprivation within the Local Authority. The SII shows, for example, that the gap in life expectancy in males between the most and least deprived fifth is about 13 years. When considering healthy life expectancy the gap is even greater at around 22 years.

Comparison of life expectancy, healthy life expectancy and disability-free life expectancy at birth, Cardiff 2001-05 and 2005-09

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<th>2001-05</th>
<th>2005-09</th>
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<tbody>
<tr>
<td><strong>Males</strong></td>
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<tr>
<td>Life expectancy</td>
<td>75.9</td>
<td>76.9</td>
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<tr>
<td>Healthy life expectancy</td>
<td>63.0</td>
<td>63.7</td>
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<tr>
<td>Disability-free life expectancy</td>
<td>59.2</td>
<td>59.8</td>
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<tr>
<td>Inequality gap (SII in years)</td>
<td>12.9</td>
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<td>Inequality gap (SII in years)</td>
<td>17.1</td>
<td>16.9</td>
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<tr>
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<tr>
<td><strong>Females</strong></td>
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<tr>
<td>Life expectancy</td>
<td>80.6</td>
<td>81.7</td>
</tr>
<tr>
<td>Healthy life expectancy</td>
<td>65.4</td>
<td>65.9</td>
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<tr>
<td>Disability-free life expectancy</td>
<td>62.1</td>
<td>62.5</td>
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<tr>
<td>Inequality gap (SII in years)</td>
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Mortality by cause of death

Death rates for all and specific major causes are compared between the most and least deprived using a rate ratio, thereby measuring the relative gap. The following charts show the rates for the fifths, the local authority overall and Wales. A rate ratio of two, for example, means that the rate in the most deprived fifth is twice the rate in the least deprived fifth.

European age-standardised rate (EASR) per 100,000 population

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**All-cause mortality, all ages**

**Females**

![Graph showing all-cause mortality for females across different years and deprivation levels.](image)

**Males**

![Graph showing all-cause mortality for males across different years and deprivation levels.](image)

**All-cause mortality under 75**

**Females**

![Graph showing all-cause mortality under 75 for females across different years and deprivation levels.](image)

**Males**

![Graph showing all-cause mortality under 75 for males across different years and deprivation levels.](image)

**Mortality from circulatory disease**

**Females**

![Graph showing mortality from circulatory disease for females across different years and deprivation levels.](image)

**Males**

![Graph showing mortality from circulatory disease for males across different years and deprivation levels.](image)
Mortality by cause of death (continued)

European age-standardised rate (EASR) per 100,000 population

- Most deprived within Cardiff (95% CI)
- Wales EASR
- Least deprived within Cardiff
- Cardiff overall

Mortality from respiratory disease

Females

Males

Mortality from cancer

Females

Males

Smoking-attributable mortality aged 35 and over

Females

Males

Notes and contact:
This publication consists of individual profiles for each of the 22 local authorities, a more detailed Wales profile, selected data files and a technical guide to support the profiles. These are all available on our website at [www.publichealthwalesobservatory.wales.nhs.uk/inequalities](http://www.publichealthwalesobservatory.wales.nhs.uk/inequalities). For further details please contact us on publichealthwalesobservatory@wales.nhs.uk. All analyses, charts and the map have been produced by the Public Health Wales Observatory using the following data sources: Annual District Death Extract and Mid-Year Population Estimates (Office for National Statistics), Welsh Index of Multiple Deprivation and Welsh Health Survey (Welsh Government).

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Deprivation fifths for each local authority were produced by ranking all Lower Super Output areas (LSOAs) within the local authority and grouping them into fifths, based on the Welsh Index of Multiple Deprivation (WIMD). The relationship between local and national fifths is illustrated in the chart. The position of each local authority fifth shows the range of ranks it contains relative to the Wales fifths.

Overall, it shows that Cardiff covers the whole range of the deprivation scale across Wales, particularly the extreme ends. This means that the most deprived Cardiff fifth is relatively more deprived than the most deprived Wales fifth, and similarly the least deprived fifth being relatively less deprived. The gap between the most and least deprived fifths within Cardiff in this analysis may therefore be wider compared to Wales overall.

Further details on deprivation fifths can be found in the technical guide.