Key Points:

- Of all under 75 deaths from liver disease in Barnsley, almost **four in five** are considered preventable for men and for women (78.5% and 76.7% respectively) (see Figure 1).
- Barnsley’s 2013-2015 rates per 100,000 for under 75 mortality from liver disease for men (24.9) and women (13.0) are **not significantly different** to the England averages of 23.7 and 12.5 respectively (see Figures 2 and 3).
- Barnsley’s 2013-2015 rate for men (24.9) is **37% higher** than the 2001-2003 rate of 18.2. The 2013-2015 rate for women (13.0) is only **slightly higher** than the 2002-2004 rate of 12.8 (see Figures 4 and 5).
- Within Barnsley, **Dearne Area Council** has the **highest rate** of under 75 mortality from liver disease for persons (24.3) and **Penistone Area Council** has the **lowest rate** (13.6) (see Figure 6).
- Rates in the **most deprived** and **least deprived** quintiles are **higher** than the Barnsley average (see figure 7).
- With regard to under 75 mortality from liver disease considered preventable, Barnsley’s 2013-2015 rates for men (19.5) and women (10.0) are **lower** than the England rates of 21.4 and 10.6 respectively (see Figures 8 and 9).
- Trend data show that the rate for under 75 mortality from liver disease considered preventable for men in Barnsley in 2013-2015 is **17% higher** than in 2001-2003 (16.7). In contrast, the 2013-2015 rate for women is **11% lower** than in 2002-2004 (11.3) (see Figures 10 and 11).

**Figure 1. Number of under 75 deaths from liver disease considered preventable and non preventable: men and women in Barnsley (2011-2015)**

<table>
<thead>
<tr>
<th></th>
<th>Men Total Under 75 deaths from liver disease: 79</th>
<th>Women Total Under 75 deaths from liver disease: 43</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preventable:</td>
<td>62 (78%)</td>
<td>33 (77%)</td>
</tr>
<tr>
<td>Non preventable:</td>
<td>17 (22%)</td>
<td>10 (23%)</td>
</tr>
</tbody>
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Key Points:

Men (figure 2):
- Barnsley’s 2013-2015 rate for under 75 mortality from liver disease for men (24.9 per 100,000) is slightly higher than the England rate of 23.7 but not significantly higher.
- When compared to statistical neighbours, Barnsley is ranked fourth lowest.
- The rate of 24.9 represents 79 men in Barnsley who died prematurely (under 75 years) from liver disease during the period 2013-2015.

Women (figure 3):
- Barnsley’s 2013-2015 rate for women (13.0) is similar to the England rate of 12.5.
- Barnsley is ranked second lowest when compared to statistical neighbours.
- The rate of 13.0 represents 43 women in Barnsley who died prematurely from liver disease during the period 2013-2015.

Figure 2. Under 75 mortality rate per 100,000 from liver disease for men: Barnsley, statistical neighbours and England (2013-2015)

Figure 3. Under 75 mortality rate per 100,000 from liver disease for women: Barnsley, statistical neighbours and England (2013-2015)
Key Points:

Men (figure 4):
- Rates in Barnsley have fluctuated during the period 2001-2003 to 2013-2015.
- Barnsley’s 2001-2003 rate of 18.2 per 100,000 has **increased** by 37% in 2013-2015 (24.9), and has moved from being significantly lower than the rate for England at six time points during the period, to slightly higher in 2013-2015.

Women (figure 5):
- Barnsley’s rates have fluctuated during the period 2002-2004 to 2013-2015; the 2013-2015 rate of 13.0 per 100,000 is only slightly higher than the 2002-2004 rate of 12.8
- The **gap** between Barnsley and England has **decreased slightly** over the period.

Figure 4. Under 75 mortality per 100,000 from liver disease for **men** in Barnsley and England (2001-2003 to 2013-2015)

![Figure 4](image)

Figure 5. Under 75 mortality per 100,000 from liver disease for **women** in Barnsley and England (2002-2004 to 2013-2015)

![Figure 5](image)
Key Points:

- **Dearne** Area Council has the **highest** rate of under 75 mortality from liver disease for persons (24.3) and **Penistone** Area Council has the **lowest** rate (13.6).

- None of the area council rates are significantly different to the overall 2013-2015 Barnsley rate of 18.9 per 100,000.

---

Figure 6. Under 75 mortality per 100,000 from liver disease for **persons** by Barnsley area councils (2011-2015)

Note: **due to smaller cohorts at the lower level of geography and the specific disease group, confidence intervals are large (figure 6). This could potentially lead to less reliable results.**
Key Points:

- The under 75 mortality rate per 100,000 from liver disease (persons) within the most deprived quintile (Quintile 1) is higher than the Barnsley rate, but not significantly.
- The rate in the least deprived quintile (Quintile 5) is also slightly higher than the Barnsley average.
- The lowest rate in Quintile 4 (9.5) is less than half the rates in Quintiles 1 and 5.

Figure 7. Under 75 mortality per 100,000 from liver disease for persons, by deprivation quintile in Barnsley 2011-2015

Note: due to smaller cohorts at the lower level of geography and the specific disease group, confidence intervals are large (figure 7). This could potentially lead to less reliable results.

* Please refer to the metadata (page 9) for definition of deprivation.
Under 75 mortality rate from liver disease considered preventable: Barnsley compared to statistical neighbours and England (2013-2015)

“The basic concept of preventable mortality is that deaths are considered preventable if, in the light of the understanding of the determinants of health at the time of death, all or most deaths from the underlying cause (subject to age limits if appropriate) could potentially be avoided by public health interventions in the broadest sense.” (Public Health England 2016).

Key Points:

Men (figure 8):
- Barnsley’s 2013-2015 rate for under 75 mortality from liver disease considered preventable for men (19.5 per 100,000) is lower than the England rate of 21.4 but not significantly lower.
- When compared to statistical neighbours, Barnsley’s rate is the second lowest.
- The rate of 19.5 represents 62 men in Barnsley who died prematurely (under 75 years) from liver disease considered preventable during the period 2013-2015.

Women (figure 9):
- Barnsley’s 2013-2015 rate for women (10.0) is slightly lower than the England rate of 10.6, but not significantly lower.
- Barnsley is ranked the lowest when compared to statistical neighbours.
- The rate of 10.0 represents 33 women in Barnsley who died prematurely from liver disease considered preventable during the period 2013-2015.

Figure 8. Under 75 mortality rate per 100,000 from liver disease considered preventable for men: Barnsley, statistical neighbours and England (2013-2015)

Figure 9. Under 75 mortality rate per 100,000 from liver disease considered preventable for women: Barnsley, statistical neighbours and England (2013-2015)
Under 75 mortality rate from liver disease considered preventable: Barnsley and England trend data

Key Points:

Men (figure 10):
- Rates in Barnsley have fluctuated during the period 2001-2003 to 2013-2015, and have been higher than the England rate on only one occasion (2011-2013).
- Barnsley’s 2013-2015 rate per 100,000 (19.5) is 17% higher than the 2001-2003 rate (16.7); this is similar to the national trend.

Women (figure 11):
- Barnsley’s rates have fluctuated during the period 2001-2003 to 2013-2015, and have been significantly higher than the England rates on two occasions.
- The 2013-2015 rate (10.0) is 11% lower than the 2002-2004 rate (11.3), in contrast to the national rate, which is 12% higher.

Figure 10. Under 75 mortality per 100,000 from liver disease considered preventable for men in Barnsley and England (2001-2003 to 2013-2015)

Figure 11. Under 75 mortality per 100,000 from liver disease considered preventable for women in Barnsley and England (2002-2004 to 2013-2015)
### Metadata

Table 1. Metadata for directly standardised rates for under 75 mortality from liver disease and from liver disease considered preventable.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Definition</th>
<th>Data Source</th>
<th>Numerator</th>
<th>Denominator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 75 mortality rate from liver disease</td>
<td>Age-standardised rate of mortality from liver disease in persons less than 75 years per 100,000 population.</td>
<td>Office for National Statistics: Public Health England Annual Mortality Extracts and ONS Mid Year Population Estimates.</td>
<td>Number of deaths from liver disease (classified by underlying cause of death recorded as ICD codes B15-B19, C22, I81, I85, K70-K77, T86.4) registered in the respective calendar years, in people aged under 75, aggregated into quinary age bands. Counts of deaths for years up to and including 2010 have been adjusted where needed to take account of the ICD-10 coding change introduced in 2011. Adjustments have also been made due to coding changes post 2011 for deaths prior to 2014.</td>
<td>Population-years (aggregated populations for the five years) for people of all ages, aggregated into quinary age bands.</td>
</tr>
<tr>
<td>Under 75 mortality rate from liver disease considered preventable</td>
<td>Age-standardised rate of mortality that is considered preventable from liver disease in persons less than 75 years per 100,000 population.</td>
<td>Office for National Statistics: Public Health England Annual Mortality Extracts and ONS Mid Year Population Estimates.</td>
<td>Number of deaths that are considered preventable from liver disease (classified by underlying cause of death recorded as ICD codes B17.1, B18.2, C22, K70, K73-K74 (excluding K74.3-K74.5)) registered in the respective calendar years, in people aged under 75, aggregated into quinary age bands. Counts of deaths for years up to and including 2010 have been adjusted where needed to take account of the ICD-10 coding change introduced in 2011. Adjustments have also been made due to coding changes post 2011 for deaths prior to 2014.</td>
<td>Population-years (aggregated populations for the five years) for people of all ages, aggregated into quinary age bands.</td>
</tr>
</tbody>
</table>
Deprivation:

The English Indices of Deprivation 2015 are based on 37 separate indicators, organised across seven distinct domains of deprivation which are combined, using appropriate weights, to calculate the Index of Multiple Deprivation 2015 (IMD 2015). This is an overall measure of multiple deprivation experienced by people living in an area and is calculated for each Lower layer Super Output Area (LSOA)* in England. Each LSOA in England is ranked according to its level of deprivation relative to that of other areas. Any change in rank position represents relative change only. It is possible that a district may have become less deprived in real terms since the previous Index, but more deprived relative to all other districts, or vice versa. Furthermore, a change in rank, even of several places, may not represent a large increase or decrease in the levels of deprivation (ONS, September 2015).

Barnsley is ranked 39th most deprived out of 326 local authority districts (where 1 is the most deprived) using the IMD 2015 rank of average score measure; this is a decline from IMD 2010 when Barnsley was ranked 47th most deprived.

*Lower Super Output Area (LSOA) is a small area geography with an average of 1,500 residents and 630 Households.

Notes:

- To avoid reporting of small numbers all data is aggregated into five year age bands for Area Councils and Electoral Wards. Data for Barnsley is only aggregated into three year age bands.

- The statistical neighbours used are the Chartered Institute of Public Finance and Accountancy (CIPFA) neighbours recommended by Public Health England.