Key results for North Lincolnshire (E06000013)

Introduction

This tool has been developed by Public Health England's (PHE) Knowledge and Intelligence Teams (London and East Midlands) and provides information on the causes of death that are driving inequalities in life expectancy at local area level. Targeting the causes of death which contribute most to the life expectancy gap should have the biggest impact on reducing inequalities.

The tool provides data tables and charts showing the breakdown of the life expectancy gap in 2010-12 for two comparisons:

1. The gap between the Local Authority as a whole and England as a whole. This option is only available if the selected area has a lower life expectancy than England.
2. The gap between the most deprived quintile of the selected Local Authority and the least deprived quintile of the Local Authority. This option is available for all areas.

This document presents key results for North Lincolnshire. The tool, along with a user guide and technical document, can be downloaded from http://www.lho.org.uk/LHO_Topics/Analytic_Tools/Segment/TheSegmentTool.aspx

Interpreting the charts

Two types of chart are included below.

The scarf charts show, for each broad cause of death, the percentage contribution that it makes to the overall life expectancy gap between the areas selected. This could be between the local authority as a whole and England, or between the most deprived quintile of the local authority and the least deprived quintile of the local authority, depending on which comparison has been selected. If a cause shows a contribution of 0, this means that the cause of death does not make any contribution to the life expectancy gap.

The bar charts show, for a more detailed breakdown of causes of death, the years of life expectancy that would be gained or lost in the selected area, if it had the same mortality rates as the comparator area.

The tables show the percentage contributions and years of life gained for each cause of death. The number of deaths occurring in the area in 2010-12 are shown, and alongside, the number of excess deaths. Excess deaths are the number of 'extra' deaths that occur in the selected area because it has a higher mortality rate for that cause of death than the comparator area. If these deaths were prevented, then the contribution of that cause of death to the overall life expectancy gap would be eliminated. For some causes of death, there are no excess deaths in the selected area, and therefore no impact is made to the life expectancy gap. If this is the case the table shows a value of "..".
### Contextual information for North Lincolnshire

#### Information on inequalities in life expectancy between North Lincolnshire and England

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth in North Lincolnshire, 2010-2012</td>
<td>78.3</td>
<td>82.8</td>
</tr>
<tr>
<td>Life expectancy at birth in England, 2010-2012</td>
<td>79.2</td>
<td>83.0</td>
</tr>
<tr>
<td>Absolute gap in life expectancy between North Lincolnshire and England in years*</td>
<td>-0.9</td>
<td>-0.2</td>
</tr>
</tbody>
</table>

*A value below 0 indicates a lower life expectancy in the selected area compared to England.

#### Information on inequalities in life expectancy within North Lincolnshire

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slope index of inequality** in North Lincolnshire, 2010-2012</td>
<td>6.6</td>
<td>10.5</td>
</tr>
<tr>
<td>Life expectancy at birth in the most deprived quintile of North Lincolnshire, 2010-2012</td>
<td>74.9</td>
<td>79.2</td>
</tr>
<tr>
<td>Life expectancy at birth in the least deprived quintile of North Lincolnshire, 2010-2012</td>
<td>80.0</td>
<td>87.4</td>
</tr>
</tbody>
</table>

** Range of life expectancy in years within the area from most to least deprived.
+ Slope index of inequality is not available because numbers are too small for robust calculation

### Sources:
- Life expectancy - Office for National Statistics (ONS), life expectancy at birth for local areas in England and Wales
- Slope index of inequality - Public Health England (PHE), Public Health Outcome Framework data tool
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Between area inequalities: Life expectancy gap between North Lincolnshire as a whole and England

Chart 1: Scarf chart showing the breakdown of the life expectancy gap between North Lincolnshire as a whole and England as a whole, by broad cause of death, 2010-2012

Footnote: Circulatory diseases includes coronary heart disease and stroke. Digestive diseases includes alcohol-related conditions such as chronic liver disease and cirrhosis. External causes include deaths from injury, poisoning and suicide.

Analysis by Public Health England Knowledge and Intelligence Teams (London and East Midlands) based on ONS death registration data, and mid year population estimates.
Chart 2: Bar chart showing life expectancy years gained or lost if North Lincolnshire as a whole had the same mortality rates as England as a whole, by broad cause of death, 2010-2012

Footnote: Circulatory diseases includes coronary heart disease and stroke. Digestive diseases includes alcohol-related conditions such as chronic liver disease and cirrhosis. External causes include deaths from injury, poisoning and suicide.

Analysis by Public Health England Knowledge and Intelligence Teams (London and East Midlands) based on ONS death registration data, and mid year population estimates.
Table 1: Breakdown of the life expectancy gap between North Lincolnshire as a whole and England as a whole, by broad cause of death, 2010-2012

<table>
<thead>
<tr>
<th>Broad cause of death</th>
<th>Number of deaths in local authority</th>
<th>Number of excess deaths in local authority</th>
<th>Number of years of life expectancy gained/lost*</th>
<th>Contribution to the gap (%)</th>
<th>Number of deaths in local authority</th>
<th>Number of excess deaths in local authority</th>
<th>Number of years of life expectancy gained/lost*</th>
<th>Contribution to the gap (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circulatory</td>
<td>700</td>
<td>29</td>
<td>0.12</td>
<td>11.8</td>
<td>674</td>
<td>2</td>
<td>0.03</td>
<td>5.0</td>
</tr>
<tr>
<td>Cancer</td>
<td>803</td>
<td>85</td>
<td>0.38</td>
<td>35.9</td>
<td>594</td>
<td>-38</td>
<td>-0.15</td>
<td>..</td>
</tr>
<tr>
<td>Respiratory</td>
<td>338</td>
<td>30</td>
<td>0.19</td>
<td>18.5</td>
<td>396</td>
<td>56</td>
<td>0.31</td>
<td>56.3</td>
</tr>
<tr>
<td>Digestive</td>
<td>120</td>
<td>7</td>
<td>0.02</td>
<td>1.6</td>
<td>129</td>
<td>8</td>
<td>0.04</td>
<td>6.9</td>
</tr>
<tr>
<td>External causes</td>
<td>121</td>
<td>21</td>
<td>0.31</td>
<td>29.2</td>
<td>59</td>
<td>-4</td>
<td>0.02</td>
<td>2.7</td>
</tr>
<tr>
<td>Mental and behavioural</td>
<td>101</td>
<td>-20</td>
<td>-0.09</td>
<td>..</td>
<td>211</td>
<td>-39</td>
<td>-0.15</td>
<td>..</td>
</tr>
<tr>
<td>Other</td>
<td>222</td>
<td>7</td>
<td>0.03</td>
<td>3.0</td>
<td>326</td>
<td>27</td>
<td>0.09</td>
<td>16.7</td>
</tr>
<tr>
<td>Deaths under 28 days</td>
<td>7</td>
<td>-3</td>
<td>-0.07</td>
<td>..</td>
<td>10</td>
<td>2</td>
<td>0.07</td>
<td>12.3</td>
</tr>
<tr>
<td>Total</td>
<td>2,412</td>
<td></td>
<td></td>
<td></td>
<td>2,400</td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

* A positive figure indicates that life expectancy years would be gained if the local authority had the same mortality rate as England as a whole (i.e., the mortality rate in the local authority for the cause is higher than England as a whole). A negative figure indicates that life expectancy years would be lost if the local authority had the same mortality rate as England as a whole.

.. The calculated contribution to the gap is negative
++ The figures have not been calculated as life expectancy is higher than England

Analysis by Public Health England Knowledge and Intelligence Teams (London and East Midlands) based on ONS death registration data, and mid year population estimates.
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Chart 3: Bar chart showing life expectancy years gained or lost if North Lincolnshire as a whole had the same mortality rates as England as a whole, by detailed cause of death, 2010-2012

Analysis by Public Health England Knowledge and Intelligence Teams (London and East Midlands) based on ONS death registration data, and mid year population estimates
### Table 2: Table showing life expectancy years gained or lost if North Lincolnshire as a whole had the same mortality rates as England as a whole, by detailed cause of death, 2010-2012

<table>
<thead>
<tr>
<th>Broad cause of death</th>
<th>Detailed cause of death</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of deaths in local authority</td>
<td>Number of excess deaths in local authority</td>
</tr>
<tr>
<td>Circulatory</td>
<td>CHD</td>
<td>401</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Stroke</td>
<td>142</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Other circulatory</td>
<td>159</td>
<td>-10</td>
</tr>
<tr>
<td>Cancer</td>
<td>Lung cancer</td>
<td>220</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Other cancers</td>
<td>583</td>
<td>29</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Pneumonia</td>
<td>103</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Chronic obstructive airways disease</td>
<td>146</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Other respiratory disease</td>
<td>89</td>
<td>8</td>
</tr>
<tr>
<td>Digestive</td>
<td>Chronic liver disease including cirrhosis</td>
<td>38</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>Other digestive</td>
<td>82</td>
<td>7</td>
</tr>
<tr>
<td>External</td>
<td>Suicide</td>
<td>36</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Other external</td>
<td>86</td>
<td>17</td>
</tr>
<tr>
<td>Mental and behavioural</td>
<td>Dementia</td>
<td>101</td>
<td>-16</td>
</tr>
<tr>
<td></td>
<td>Other mental and behavioural disorders</td>
<td>1</td>
<td>-3</td>
</tr>
<tr>
<td>Other</td>
<td>Infectious and parasitic diseases</td>
<td>32</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Urinary conditions</td>
<td>35</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Ill defined conditions</td>
<td>19</td>
<td>-5</td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>28</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>107</td>
<td>-5</td>
</tr>
<tr>
<td>&lt; 28 days</td>
<td>Deaths under 28 days</td>
<td>7</td>
<td>-3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2,415</td>
<td></td>
</tr>
</tbody>
</table>

* A positive figure indicates that life expectancy years would be gained if the local authority had the same mortality rate as England as a whole (i.e. the mortality rate in the local authority for the cause is higher than England as a whole). A negative figure indicates that life expectancy years would be lost if the local authority had the same mortality rate as England as a whole.

Analysis by Public Health England Knowledge and Intelligence Teams (London and East Midlands) based on ONS death registration data, and mid year population estimates.
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Chart 4: Bar chart showing life expectancy years gained or lost if North Lincolnshire as a whole had the same mortality rates as England as a whole, alcohol specific deaths, 2010-2012

<table>
<thead>
<tr>
<th>Cause of death</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol specific</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of deaths in local authority</td>
<td>37</td>
<td>Number of deaths in local authority</td>
</tr>
<tr>
<td>Number of excess deaths in local authority</td>
<td>1</td>
<td>Number of years of life expectancy gained/lost*</td>
</tr>
<tr>
<td>Number of excess deaths in local authority</td>
<td>0.02</td>
<td>Number of years of life expectancy gained/lost*</td>
</tr>
<tr>
<td>All other causes of death</td>
<td>2,376</td>
<td>Number of excess deaths in local authority</td>
</tr>
<tr>
<td></td>
<td>156</td>
<td>Number of years of life expectancy gained/lost*</td>
</tr>
<tr>
<td></td>
<td>0.88</td>
<td>Number of years of life expectancy gained/lost*</td>
</tr>
<tr>
<td>Total</td>
<td>2,413</td>
<td>Number of years of life expectancy gained/lost*</td>
</tr>
</tbody>
</table>

Footnote: Alcohol specific includes causes of death that are wholly attributable to alcohol

Analysis by Public Health England Knowledge and Intelligence Teams (London and East Midlands) based on ONS death registration data, and mid year population estimates
Within area inequalities: Life expectancy gap between the most deprived quintile and least deprived quintile of North Lincolnshire

Chart 5: Scarf chart showing the breakdown of the life expectancy gap between North Lincolnshire most deprived quintile and North Lincolnshire least deprived quintile, by broad cause of death, 2010-2012

Footnote: Circulatory diseases include coronary heart disease and stroke. Digestive diseases include alcohol-related conditions such as chronic liver disease and cirrhosis. External causes include deaths from injury, poisoning and suicide.

Analysis by Public Health England Knowledge and Intelligence Teams (London and East Midlands) based on ONS death registration data, and mid year population estimates, and DCLG Index of Multiple Deprivation, 2010
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Chart 6: Bar chart showing life expectancy years gained or lost if North Lincolnshire most deprived quintile had the same mortality rates as North Lincolnshire least deprived quintile, by broad cause of death, 2010-2012

Male
- Cancer: 0.97
- Respiratory: 0.96
- Digestive: 0.84
- External causes: 0.51
- Mental and behavioural: 0.42
- Circulatory: 0.40
- Deaths under 28 days: 0.16
- Other: 0.13

Female
- Circulatory: 1.78
- Respiratory: 1.49
- Other: 0.87
- Mental and behavioural: 0.84
- Cancer: 0.62
- Deaths under 28 days: 0.38
- External causes: 0.28
- Digestive: 0.25

Footnote: Circulatory diseases includes coronary heart disease and stroke. Digestive diseases includes alcohol-related conditions such as chronic liver disease and cirrhosis. External causes include deaths from injury, poisoning and suicide.
Analysis by Public Health England Knowledge and Intelligence Teams (London and East Midlands) based on ONS death registration data, and mid year population estimates, and DCLG Index of Multiple Deprivation, 2010
### Table 4: Breakdown of the life expectancy gap between North Lincolnshire most deprived quintile and North Lincolnshire least deprived quintile, by broad cause of death, 2010-2012

<table>
<thead>
<tr>
<th>Broad cause of death</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of deaths in most deprived quintile</td>
<td>Number of excess deaths in most deprived quintile</td>
</tr>
<tr>
<td>Circulatory</td>
<td>102</td>
<td>15</td>
</tr>
<tr>
<td>Cancer</td>
<td>160</td>
<td>49</td>
</tr>
<tr>
<td>Respiratory</td>
<td>74</td>
<td>36</td>
</tr>
<tr>
<td>Digestive</td>
<td>37</td>
<td>24</td>
</tr>
<tr>
<td>External causes</td>
<td>41</td>
<td>15</td>
</tr>
<tr>
<td>Mental and behavioural</td>
<td>29</td>
<td>24</td>
</tr>
<tr>
<td>Other</td>
<td>49</td>
<td>15</td>
</tr>
<tr>
<td>Deaths under 28 days</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>494</td>
<td>100</td>
</tr>
</tbody>
</table>

* A positive figure indicates that life expectancy years would be gained if the most deprived quintile of the local authority had the same mortality rate as the least deprived quintile (ie the mortality rate in the most deprived quintile for the cause is higher than that of the least deprived quintile). A negative figure indicates that life expectancy years would be lost if the most deprived quintile in the local authority had the same mortality rate as the least deprived quintile.

.. The calculated contribution to the gap is negative

## The figures have not been calculated as life expectancy in the most deprived quintile is higher than life expectancy in the least deprived quintile

Analysis by Public Health England Knowledge and Intelligence Teams (London and East Midlands) based on ONS death registration data, and mid year population estimates, and DCLG Index of Multiple Deprivation, 2010
Chart 7: Bar chart showing life expectancy years gained or lost if North Lincolnshire most deprived quintile had the same mortality rates as North Lincolnshire least deprived quintile, by detailed cause of death, 2010-2012

Analysis by Public Health England Knowledge and Intelligence Teams (London and East Midlands) based on ONS death registration data, and mid year population estimates, and DCLG Index of Multiple Deprivation, 2010
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**SEGMENTING LIFE EXPECTANCY GAPS BY CAUSE OF DEATH**

Table 5: Table showing life expectancy years gained or lost if North Lincolnshire most deprived quintile had the same mortality rates as North Lincolnshire least deprived quintile, by detailed cause of death, 2010-2012

<table>
<thead>
<tr>
<th>Broad cause of death</th>
<th>Detailed cause of death</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of deaths in most deprived quintile</td>
<td>Number of excess deaths in most deprived quintile</td>
</tr>
<tr>
<td>Circulatory</td>
<td>CHD</td>
<td>67</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Stroke</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Other circulatory</td>
<td>18</td>
<td>-6</td>
</tr>
<tr>
<td>Cancer</td>
<td>Lung cancer</td>
<td>44</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Other cancers</td>
<td>116</td>
<td>30</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Pneumonia</td>
<td>16</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>Chronic obstructive airways disease</td>
<td>42</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Other respiratory disease</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>Digestive</td>
<td>Chronic liver disease including cirrhosis</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Other digestive</td>
<td>22</td>
<td>11</td>
</tr>
<tr>
<td>External</td>
<td>Suicide</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Other external</td>
<td>32</td>
<td>12</td>
</tr>
<tr>
<td>Mental and behavioural</td>
<td>Dementia</td>
<td>28</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Other mental and behavioural disorders</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>Infectious and parasitic diseases</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Urinary conditions</td>
<td>4</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>Ill defined conditions</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>22</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Deaths under 28 days</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>495</td>
<td>541</td>
</tr>
</tbody>
</table>

* A positive figure indicates that life expectancy years would be gained if the most deprived quintile of the local authority had the same mortality rate as the least deprived quintile (ie the mortality rate in the most deprived quintile for the cause is higher than that of the least deprived quintile). A negative figure indicates that life expectancy years would be lost if the most deprived quintile in the local authority had the same mortality rate as the least deprived quintile.

Analysis by Public Health England Knowledge and Intelligence Teams (London and East Midlands) based on ONS death registration data, and mid year population estimates, and DCLG Index of Multiple Deprivation, 2010
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Chart 8: Bar chart showing life expectancy years gained or lost if North Lincolnshire most deprived quintile had the same mortality rates as North Lincolnshire least deprived quintile, alcohol specific deaths, 2010-2012

Table 6: Table showing life expectancy years gained or lost if North Lincolnshire most deprived quintile had the same mortality rates as North Lincolnshire least deprived quintile, alcohol specific deaths and all other causes of death, 2010-2012

Footnote: Alcohol specific includes causes of death that are wholly attributable to alcohol

* A positive figure indicates that life expectancy years would be gained if the most deprived quintile of the local authority had the same mortality rate as the least deprived quintile (ie the mortality rate in the most deprived quintile for the cause is higher than that of the least deprived quintile). A negative figure indicates that life expectancy years would be lost if the most deprived quintile in the local authority had the same mortality rate as the least deprived quintile.

Analysis by Public Health England Knowledge and Intelligence Teams (London and East Midlands) based on ONS death registration data, and mid year population estimates, and DCLG Index of Multiple Deprivation, 2010