End of Life Supporting Benchmark Tool

Yorkshire and the Humber

Date: June 2012

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Health Intelligence Specialist
Yorkshire and the Humber Quality Observatory
### LOG OF AMENDMENTS/UPDATES

<table>
<thead>
<tr>
<th>DEVELOPMENTS</th>
<th>DATE</th>
<th>NOTES</th>
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<td>File created</td>
<td>29/11/2011</td>
<td>Phase 1 benchmarking, future developments funnel plots for GP QOF data and PCT profiles</td>
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<td>Dec’11 - Jan’12</td>
<td>Data added</td>
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<tr>
<td>Updated with latest data</td>
<td>Feb ‘12-Apr’12</td>
<td>Altered format into 6 sections</td>
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### LOG OF FUTURE PLANS

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<tr>
<td>Hospital</td>
<td>for next release Dec 2012</td>
<td>Additional page for emergency admissions ending in death (see PCT profiles)</td>
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<tr>
<td>Area: Geography and drive times</td>
<td>for next release Dec 2012</td>
<td>Additional detail of PCT area and drive times to nearest hospital/hospice etc. Include maps showing spread of care homes and hospices across the region</td>
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<tr>
<td>Area: Capacity and resources</td>
<td>for next release Dec 2012</td>
<td>Include information on staff and bed numbers and spend</td>
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GUIDANCE NOTES FOR USING THE TOOL

PURPOSE
This benchmark tool is designed to be used alongside the End of Life Quality Report. It contains a range of additional charts not included in the main report to support further analysis that organisations may wish to undertake. In addition to this tool and the main report, a set of supporting documents have been produced for each of the 6 sections to provide more detail on the indicators used.
The tool aims to bring together data from a range of sources to get a picture of end of life care across Yorkshire and Humber.

STRUCTURE
The tool is divided into 6 main sections:
1) End of life register - Proportion of people on an end of life register and QOF points achieved
2) Place of death - split by hospital, own home, care home, hospice and other and by age group
3) Deaths in hospital - Length of stay, age and primary diagnosis
4) Cause of death - Cancer, cardiovascular disease (CVD), respiratory disease and other (any cause excluding cancer, CVD and respiratory)
5) Demographics and other - Death rates, life expectancy, deprivation, projections and prevalence of conditions
6) Area - Geography, drive times, capacity and resources

Each section begins with meta data outlining the indicators and how they are constructed and the data sources are list in the appendix. The charts and tables are numbered and referenced in the list of charts and tables. Where a chart or table needs further explanation the following symbol appears with a short note to clarify:

On each page text boxes are included to explain the context, findings and recommendations. The following symbols are used:
• Background - explains the context to the indicator
• Findings - what the charts and tables show
✓ Recommendations based on the data

INTERPRETATION
For charts which include confidence intervals, where these overlap there is no significant difference between points, where they do not overlap it is assumed that there is a significant difference between the points.

England results are coloured green and regional results red.

USING THE TOOL
The tool should be used to supplement the end of life quality report. Its aim is to help understand key issues across the region and within local areas. It does not provide definite answers but rather should be used as a starting point for investigation. It should be triangulated with other local data sources for a fuller picture of end of life within the region and a more detailed understanding of end of life in local areas.
The National End of Life Intelligence Network from which some of the data for this tool is sourced is a useful tool which includes data, atlas’s, reports, profiles and tools

UPDATES
The tool will be updated as new data becomes available (this will vary depending on indicators) and will be published 6 monthly alongside the main report. Additional updates are planned for the next release.
## WORKSHEET SECTION ONE - EOL REGISTER

<table>
<thead>
<tr>
<th>Metadata</th>
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<tbody>
<tr>
<td>EOLReg Metadata</td>
<td>EOL Register Metadata</td>
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<tr>
<td>EOLReg_1</td>
<td>Palliative Care Prevalence</td>
</tr>
<tr>
<td>EOLReg_2</td>
<td>Deaths as a Proportion of EOL Register and QOF Points</td>
</tr>
</tbody>
</table>

This first section focuses on the number of people recorded on end of life registers using the Quality Outcomes Framework (QOF) data sourced from the NHS Information Centre as well as the number of deaths reported in the primary care mortality database. The tool compares PCTs on the proportion of people included on end of life registers versus the proportion expected, as well as QOF points achieved for completing the registers and reviewing the patients every 3 months.

## WORKSHEET SECTION TWO - PLACE OF DEATH

<table>
<thead>
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<tbody>
<tr>
<td>POD Metadata</td>
<td>Place of Death Metadata</td>
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<tr>
<td>POD_1</td>
<td>Deaths in Hospital</td>
</tr>
<tr>
<td>POD_2</td>
<td>Deaths in Own Residence</td>
</tr>
<tr>
<td>POD_3</td>
<td>Deaths in Care Homes</td>
</tr>
<tr>
<td>POD_4</td>
<td>Deaths in a Hospice</td>
</tr>
<tr>
<td>POD_5</td>
<td>Comparisons of Place of Death</td>
</tr>
</tbody>
</table>

Section 2 uses Local Authority data from the NEOLCIN on place of death, as well as data from the primary care mortality database to explore place of death trend data by PCT clusters. This section specifically focuses on deaths at home, in care homes, in hospices and in acute trusts. The final part considers home and care home jointly as 'usual place of residence', and compares place of death for each PCT.

## WORKSHEET SECTION THREE - DEATHS IN HOSPITAL

<table>
<thead>
<tr>
<th>Metadata</th>
<th>Information</th>
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<tbody>
<tr>
<td>Hosp Metadata</td>
<td>Deaths in Hospital Metadata</td>
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<tr>
<td>Hosp_1</td>
<td>Length of Stay and Age</td>
</tr>
<tr>
<td>Hosp_2</td>
<td>Primary Diagnosis</td>
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</table>

The third section concentrates on deaths within hospitals, considering deaths within three time interval groups since admission (0 to 3 days, 4 to 7 days and 8 days or more) and 3 age groups (18-64, 65-84 and 85+ years). Deaths in hospital are also considered by the patients primary diagnosis grouped as Cancer, Cardiovascular Disease (CVD), Respiratory Disease or other.

## WORKSHEET SECTION FOUR - CAUSE OF DEATH

<table>
<thead>
<tr>
<th>Metadata</th>
<th>Information</th>
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</thead>
<tbody>
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<td>Cause Metadata</td>
<td>Cause of Death Metadata</td>
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<td>Cancer</td>
</tr>
<tr>
<td>Cause_2</td>
<td>Cardiovascular Disease</td>
</tr>
<tr>
<td>Cause_3</td>
<td>Respiratory Disease</td>
</tr>
<tr>
<td>Cause_4</td>
<td>Other</td>
</tr>
</tbody>
</table>

The fourth section looks at cause of death by Cancer, Cardiovascular Disease (CVD), Respiratory Disease and other using Local Authority data from NEOLCIN. For each condition the proportion of deaths is examined by age group and by place of death (hospital, own residence, care home and hospice).

## WORKSHEET SECTION FIVE - OTHER

<table>
<thead>
<tr>
<th>Metadata</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demo Metadata</td>
<td>Demographics and Other Metadata</td>
</tr>
<tr>
<td>Demo_1</td>
<td>Population proportions and death rates</td>
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<tr>
<td>Demo_2</td>
<td>Numbers and proportions of deaths</td>
</tr>
<tr>
<td>Demo_3</td>
<td>Life Expectancy and Deprivation</td>
</tr>
<tr>
<td>Demo_4</td>
<td>Death and Population Projections</td>
</tr>
<tr>
<td>Demo_5</td>
<td>Prevalence of Condition</td>
</tr>
</tbody>
</table>

The fifth section is broadly termed demographic and other data and covers a range of data items. Numbers and rates are deaths are compared by PCT for Yorkshire and Humber, and numbers of death are also split by age group and gender. Deprivation and life expectancy is also considered. This section also looks at the projected number of deaths by PCT cluster as well as the projected population increase. The final part explores the prevalence of key disease types by PCT.

## WORKSHEET SECTION SIX - AREA

<table>
<thead>
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<td>Area Metadata</td>
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<tr>
<td>Area_1</td>
<td>Geography and Drive Times</td>
</tr>
<tr>
<td>Area_2</td>
<td>Capacity and Resources</td>
</tr>
</tbody>
</table>

The final section is termed area. At present this is partially complete containing data on PCT ONS classifications and a map of the acute providers for the region. Additional data will be incorporated on the geography of PCTs including size, and maps showing hospices etc. It is anticipated that information on drive times as well as staffing levels, capacity and resources will also be examined.
## End of Life Register Metadata

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Construction</th>
<th>Source</th>
</tr>
</thead>
</table>
| Number of patients on an end of life register for 2010-11 as a proportion of GP list size expressed as a prevalence per PCT % | Numerator: Number of patients on a palliative care register in 2010-11 by PCT  
Denominator: Total number of patients on GP lists by PCT  
Calculation: Numerator/denominator expressed as a percentage | QOF data 2010-11         |
| Number of patients on an end of life register over 3 years as a proportion of GP list size expressed as a prevalence per PCT % | Numerator: Number of patients on a palliative care register across 3 years by PCT  
Denominator: Total number of patients on GP lists by PCT  
Calculation: Numerator/denominator expressed as a percentage | QOF data 2008-09, 2009-10 and 2010-11 |
| Proportion of estimated to expected number of deaths per PCT area in 2010-11 | Numerator: Proportion of patients on a palliative care register in 2010/11  
Denominator: 1% of GP list (practice list/100)  
Calculation: Numerator/denominator expressed as a percentage | QOF data 2010-11         |
| Number of people on an end of life register as a proportion of actual deaths for 2010-11 | Numerator: Number of patients on a palliative care register by PCT 2010/11  
Denominator: Number of actual deaths in 2010/11  
Calculation: Numerator/denominator expressed as a percentage | QOF data 2010-11  
Primary Care Mortality Database (PCMD) data 2010-11 |
| % of QOF points achieved for number of people on an end of life register and number reviewed every 3 months  | Numerator: Number of patients on a palliative care register  
Denominator: Sum of practices multiplied by 3 (3 is the maximum number of QOF points achieved per practice)  
Calculation: Numerator/denominator expressed as a percentage  
Numerator: Number of patients on a palliative care register and number of patients reviewed every three months by PCT  
Denominator: Sum of practices multiplied by 3 (3 is the maximum number of QOF points achieved per practice)  
Calculation: Numerator/denominator expressed as a percentage | QOF data 2010-11 |
Table 1: Prevalence of patients on an EOL register across 3 years

<table>
<thead>
<tr>
<th>PCT Code</th>
<th>PCT Name</th>
<th>Number of Patients</th>
<th>Sum of List Sizes</th>
<th>% of Sum of List</th>
<th>% of Patients recorded on EOL register</th>
<th>% of Patients in 2008-09</th>
<th>% of Patients in 2009-10</th>
<th>% of Patients in 2010-11</th>
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</thead>
<tbody>
<tr>
<td>5H8</td>
<td>NORTH YORKSHIRE &amp; YORK PCT</td>
<td>5,130</td>
<td>8,851</td>
<td>19%</td>
<td>0.23%</td>
<td>0.14%</td>
<td>0.14%</td>
<td>0.14%</td>
</tr>
<tr>
<td>5N3</td>
<td>NORTH LINCOLNSHIRE CTP</td>
<td>3,360</td>
<td>5,484</td>
<td>19%</td>
<td>0.18%</td>
<td>0.15%</td>
<td>0.15%</td>
<td>0.15%</td>
</tr>
<tr>
<td>5N4</td>
<td>SHEFFIELD PCT</td>
<td>3,400</td>
<td>5,484</td>
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<td>0.20%</td>
<td>0.18%</td>
<td>0.18%</td>
<td>0.18%</td>
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<tr>
<td>5N5</td>
<td>BARNSLEY PCT</td>
<td>4,576</td>
<td>7,846</td>
<td>19%</td>
<td>0.14%</td>
<td>0.12%</td>
<td>0.12%</td>
<td>0.12%</td>
</tr>
<tr>
<td>5NV</td>
<td>NORTH EAST LINCOLNSHIRE CTP</td>
<td>5,744</td>
<td>9,026</td>
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<tr>
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<td>0.16%</td>
<td>0.16%</td>
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<tr>
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<td>NORTH YORKSHIRE &amp; YORK PCT</td>
<td>5,484</td>
<td>8,851</td>
<td>19%</td>
<td>0.19%</td>
<td>0.17%</td>
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</tr>
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<td>NORTH YORKSHIRE &amp; YORK PCT</td>
<td>5,130</td>
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<td>19%</td>
<td>0.26%</td>
<td>0.24%</td>
<td>0.24%</td>
<td>0.24%</td>
</tr>
<tr>
<td>5N9</td>
<td>NORTH YORKSHIRE &amp; YORK PCT</td>
<td>5,130</td>
<td>8,851</td>
<td>19%</td>
<td>0.28%</td>
<td>0.26%</td>
<td>0.26%</td>
<td>0.26%</td>
</tr>
<tr>
<td>5N10</td>
<td>NORTH YORKSHIRE &amp; YORK PCT</td>
<td>5,130</td>
<td>8,851</td>
<td>19%</td>
<td>0.29%</td>
<td>0.28%</td>
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<td>8,851</td>
<td>19%</td>
<td>0.30%</td>
<td>0.29%</td>
<td>0.29%</td>
<td>0.29%</td>
</tr>
</tbody>
</table>

Table 2: Prevalence of patients on an EOL register out of 1% of expected deaths 2010/11

<table>
<thead>
<tr>
<th>PCT Code</th>
<th>PCT Name</th>
<th>Sum of List Sizes</th>
<th>% of Sum of List</th>
<th>% of Patients recorded on EOL register</th>
<th>% of Patients recorded on EOL register across 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>5H8</td>
<td>NORTH YORKSHIRE &amp; YORK PCT</td>
<td>8,851</td>
<td>19%</td>
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<td>0.14% 0.14% 0.14%</td>
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<td>NORTH LINCOLNSHIRE CTP</td>
<td>5,484</td>
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<td>0.15% 0.15% 0.15%</td>
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<td>5N4</td>
<td>SHEFFIELD PCT</td>
<td>5,484</td>
<td>19%</td>
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</tr>
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<td>BARNSLEY PCT</td>
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<td>19%</td>
<td>0.14%</td>
<td>0.12% 0.12% 0.12%</td>
</tr>
<tr>
<td>5NV</td>
<td>NORTH EAST LINCOLNSHIRE CTP</td>
<td>9,026</td>
<td>19%</td>
<td>0.17%</td>
<td>0.15% 0.15% 0.15%</td>
</tr>
<tr>
<td>5N6</td>
<td>NORTH EAST LINCOLNSHIRE CTP</td>
<td>12,166</td>
<td>19%</td>
<td>0.18%</td>
<td>0.16% 0.16% 0.16%</td>
</tr>
<tr>
<td>5N7</td>
<td>NORTH YORKSHIRE &amp; YORK PCT</td>
<td>8,851</td>
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<td>0.19%</td>
<td>0.17% 0.17% 0.17%</td>
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<td>0.30%</td>
<td>0.29% 0.29% 0.29%</td>
</tr>
</tbody>
</table>

Figure 1: Prevalence of patients on an EOL register 2010/11

Figure 2: Prevalence of patients on an EOL register across 3 years

- One of the aims of the end of life strategy is to identify all those people who should be on an end of life register. Inclusion on an end of life register is linked to better co-ordination and quality of care for patients approaching end of life.
- GP data was used to explore the prevalence of patients per PCT area on an end of life register. This data was examined both as comparative data, as trend data across 3 years and as a proportion of the 1% of patients that die each year on average.
- Generally Y&H PCTs are in line with the England average (0.17%). Only North Lincolnshire PCT appears to be significantly below average in the Y&H region (range from the highest in our region 0.28% to the lowest 0.10%).
- For all PCTs in Yorkshire and Humber except for North Lincolnshire, there has been a year on year increase in the prevalence of people on the end of life registers during 2008-09, 2009-10 and 2010-11.
- It is expected that prevalence rates for people on end of life registers should be higher given that 1% of a GP practice population is likely to die on average each year (subject to local variation). Current Y&H results are between 10-20% of the numbers of people expected to die per GP practice. Whilst we are dealing with relatively small numbers of patients and not all deaths could be anticipated in advance (i.e. meet the ‘3 trigger criteria’ for inclusion on an EOL register), it is expected that prevalence rates should be higher both regionally and nationally than current data suggests.
- Commissioners should explore data for their area at CCG or GP Practice level to identify outliers. Techniques such as quadrant charts or funnel plots could be useful in supporting this.
- GP practice profiles are available on all practices, these provide additional information and context.
- Learning can be gained from areas identified as having a higher % of people on an end of life registers, for example what did they do to identify these patients? At the other end of the scale, practices with low prevalence rates may need additional support to set up an register and identify those people in their population that would benefit from being on an end of life register.
- Commissioners should also consider comparing their data to their local population demographics to support identification of patients approaching end of life. Factors such as age, ethnicity and deprivation affect prevalence of disease and life expectancy. To take age as an example, areas with older populations may feasibly have higher numbers of people on end of life registers compared with a GP practice population with a younger average age.
Consideration should also be given to supporting care homes to develop and roll out palliative care registers.

None of the PCTs in figure 5 are achieving the 50% local ambition for the calculated average number of anticipated deaths recoded on an end of life register at present, with 28% being the closest.

All PCTs except for East Riding, are showing a higher proportion of prevalence of patients on an end of life register compared to actual deaths rather than expected deaths. This suggests that on average fewer people are dying than the expected 1% for each PCT apart from East Riding. East Riding PCT has a particularly high proportion of older people in the population compared to other PCTs which could explain why the PCT had a higher number of deaths compared to the expected ratio of 1% of GP list size.

The proportion of GP practices achieving the maximum QOF points for the completeness of the end of life register for that year). The reviews look at everyone on the end of life register and consider any changes and updates.

- Practices without a register should begin to set up a register. For those practices with registers already in place, they need to work to ensure that reviews are carried out as minimum every 3 months by multidisciplinary teams. The reviews look at everyone on the end of life register and consider any changes and updates.
- The local population and prevalence data should also be triangulated with the QOF points data on palliative care to understand the relationship between these indicators. For example, a PCT may be reporting 100% for having a complete register, but has a low prevalence per population suggesting that potentially not everyone has been identified who needs to be.
- As well as having a register in place and reviewing it through MDT at least every 3 months, the quality of the register is also important. For practices with registers in place, the next step would be to examine the quality of end of life registers in terms of accuracy, completeness, frequency of updates and to ensure consistent understanding of when a patient is placed on a register.
- Consideration should also be given to which patients have been included on end of life registers. For example, cancer patients on average make up 25% of those patients who die per GP Practice, but they account for more than 70% of those patients on an end of life register nationally. The diagnostic breakdown of patients on end of life registers needs to be assessed to help target those patient groups that have not yet been identified.
- End of life registers should be used to support advance care planning around themes such as preferred place of care and preferred place of death, DNACPR, etc. Going forward with the roll out of the electronic palliative care co-ordination system, these decisions can be shared across the health system to enable a more joined up approach to end of life.
- Consideration should also be given to supporting care homes to develop and roll out palliative care registers.

### Table 6: Proportion of QOF points achieved 2010/11

<table>
<thead>
<tr>
<th>Practice</th>
<th>Number of QOF points</th>
<th>Number of GP practices</th>
<th>% of end of life register</th>
<th>% of end of life register completed</th>
<th>% of end of life register reviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abergavenny</td>
<td>226</td>
<td>90</td>
<td>85%</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>Abergavenny</td>
<td>226</td>
<td>90</td>
<td>85%</td>
<td>90%</td>
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</tr>
<tr>
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</tr>
<tr>
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<td>85%</td>
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</table>
| % of all deaths for persons dying in a hospital for all ages, 0-64 years, 65-84 years and 85+ years | **Numerator**: Number of patients dying in hospital 2008-10 by LA  
**Denominator**: Total number of patients dying in 2008-10 by LA  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10 |
| % deaths in an acute trust by PCT cluster over 3 years | **Numerator**: Number of patients dying in over 3 years by PCT cluster  
**Denominator**: Total number of patients dying in over 3 years by PCT cluster  
**Calculation**: Numerator/denominator expressed as a percentage | Primary Care Mortality Database (PCMD) 2008-2011 |
| % of all deaths for persons dying in usual place of residence for all ages, 0-64 years, 65-84 years and 85+ years | **Numerator**: Number of patients dying in own residence 2008-10 by LA  
**Denominator**: Total number of patients dying in 2008-10 by LA  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10 |
| % deaths at home by PCT cluster over 3 years | **Numerator**: Number of patients dying in own residence over 3 years by PCT cluster  
**Denominator**: Total number of patients dying in over 3 years by PCT cluster  
**Calculation**: Numerator/denominator expressed as a percentage | Primary Care Mortality Database (PCMD) 2008-2011 |
| % of all deaths for persons dying in a care home for all ages, 0-64 years, 65-84 years and 85+ years | **Numerator**: Number of patients dying in a care home 2008-10 by LA  
**Denominator**: Total number of patients dying in 2008-10 by LA  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10 |
| % deaths in a care home by PCT cluster over 3 years | **Numerator**: Number of patients dying in a care home over 3 years by PCT cluster  
**Denominator**: Total number of patients dying in over 3 years by PCT cluster  
**Calculation**: Numerator/denominator expressed as a percentage | Primary Care Mortality Database (PCMD) 2008-2011 |
| % of all deaths for persons dying in a hospice for all ages, 0-64 years, 65-84 years and 85+ years | **Numerator**: Number of patients dying in a hospice 2008-10 by LA  
**Denominator**: Total number of patients dying in 2008-10 by LA  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10 |
| % deaths in a hospice by PCT cluster over 3 years | **Numerator**: Number of patients dying in a hospice over 3 years by PCT cluster  
**Denominator**: Total number of patients dying in over 3 years by PCT cluster  
**Calculation**: Numerator/denominator expressed as a percentage | Primary Care Mortality Database (PCMD) 2008-2011 |
| % of all deaths by place of death for all ages, 0-64 years, 65-84 years and 85+ | **Numerator**: Number of patients dying per age group by place of death 2008-10 by LA  
**Denominator**: Total number of patients dying 2008-10 by LA for all ages, 0-64, 65-84 and age 85+  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10 |
| % of deaths by place of death for 2008-11 by PCT cluster | **Numerator**: Number of patients dying per place of death 2008-11 by PCT cluster  
**Denominator**: Total number of patients dying 2008-11 by PCT cluster  
**Calculation**: Numerator/denominator expressed as a percentage | Primary Care Mortality Database (PCMD) 2008-2011 |
| % of all deaths for persons of all ages dying elsewhere | **Numerator**: Number of patients dying elsewhere 2008-10 by LA  
**Denominator**: Total number of patients dying in 2008-10 by LA  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10 |
| Proportion of deaths by place of death for 2008-11 for Yorkshire and Humber | **Numerator**: Number of patients dying place of death 2008-11 for Y&H  
**Denominator**: Total number of patients dying 2008-11 by Y&H  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10 |
Death in hospital is considered the least likely place in general that people would choose to die compared with home, hospices and care homes. Therefore ensuring that peoples preferences are met involves working to reduce the number of deaths in hospital. This improves quality of care at end of life for the patients and reduces hospital costs on unnecessary admissions.

Data on deaths in hospital was examined using data from the NEOLCIN website (originally sourced from ONS) comparing local authorities on the % of deaths recorded as been in hospital during 2008-10. The charts were split into all ages, 0-64 years, 65-84 years and 85+ to look at any differences between age groups.

Charts were also created for each PCT cluster area using data from the primary care mortality database split down into 3 years (2008/09, 2009/10 and 2010/11).

- Slightly more deaths in hospital seem occur in the 65-84 years age group, but across all age groups the regional and national position is above 50%.
- The % of patients dying in hospital based on the NEOLCIN data was similar in Yorkshire and Humber to the national position. Sheffield had significantly higher proportions of deaths in hospital than the England average (i.e. the confidence intervals did not overlap with the national position on the 'all-ages' chart). Hull and Rotherham were significantly higher across all age groups. Thirteen local authorities were significantly lower than the England average.
- Across the PCT clusters using the PCMD data all of the PCTs in South Yorkshire are above 50% but show a decreasing trend over time (apart from Doncaster).
- North Yorkshire and Bradford report the lowest % of deaths over the years (below 50%) whereas Hull remains high with over 60% dying in hospital.

It is recommended that organisations particularly those with high % of deaths in hospital explore this data in more depth to understand why this is the case. The set up of the hospital may contribute to these scores - for example some organisations have hospices bed within the hospital so these may be coded as deaths in hospital which may partially account for inflated numbers. Therefore checking coding of palliative care in hospitals and understanding local set up is also important to ensure that the data quality around end of life is high.

Data should also be examined at post code level to determine if patients from certain areas are more likely to die in hospital. This may suggest capacity issues with hospices or community support at end of life in some areas or may be related to the geography of the region (for example patients in rural areas may be harder to reach and therefore admitted to hospital rather than cared for in the community).
Deaths in own residence is considered the most likely place in general that people would choose to die compared with hospitals, care homes and hospices for example. As such the health service has a responsibility to support people to die in their own homes wherever possible, thereby improving quality of care at end of life for the patient and avoiding unnecessary hospital admissions. (Note: care homes are considered separately).

Data on deaths in usual place of residence was examined using data from the NEOLCIN website (originally sourced from ONS) comparing local authorities on % of deaths recorded as being in the usual place of residence during 2008-10. The charts were split into all ages, 0-64 years, 65-84 years and 85+ years to look at any differences between age groups.

Charts were also created for each PCT cluster area using data from the primary care mortality database split down into 3 year time periods (2008/09, 2009/10 and 2010/11).

- The % of patients dying in their own residence based on the NEOLCIN data was lower in Yorkshire and Humber compared to the national average.
- The highest proportion of deaths at home is in the 0-64 age group with the lowest in the 85+ age group.
- Across the PCT clusters the PCMD the data for PCTs generally suggests an increase in the number of deaths at home over the 3 years, particularly Barnsley, Rotherham and North East Lincolnshire.
- Exploration for preferences for place of death should be examined locally, ideally broken down by age group and collected at postcode level where possible. A large enough sample size to make the result more meaningful is recommended (i.e. to be able to detect statistically significant differences between age groups for example). The national survey indicated that deaths at home were the first choice for most people. Conducting local surveys or auditing preferences for place of death through advance care planning and the Electronic Palliative Care Co-ordination System (EPeCCS) would be useful in supporting this. Whilst death at home is generally considered the most desirable place of death based on research, this is a proxy measure for the indicator ‘did the patient die in their preferred place of death’. Therefore gathering evidence on local preferences and aiming to meet individual patients preferred choice for place of death is the key factor.
- Investigate the feasibility of those people expressing a preference to die at home to be able to do so and consider what would need to change in the service for this to happen. For example, increasing support for people approaching end of life. Can resources be directed to support this?
Deaths in a care home was also examined. In the context of this section care homes are considered separately to own residence in order to see differences between age groups in more detail. Later sections combined these categories into 'own home' as in many cases care homes are considered to be the home of the patient.

Data on deaths in care homes was examined using data from the NEOLCIN website (originally sourced from ONS) comparing local authorities on % of deaths recorded as been in a care home during 2008-10. The charts were split into all ages, 0-64 years, 65-84 years and 85 years+ to look at any differences between age groups.

Charts were also created for each PCT cluster area using data from the primary care mortality database split down into 3 years (2008/09, 2009/10 and 2010/11).

- The % of patients dying in a care home based on the NEOLCIN data was slightly higher in Yorkshire and Humberside compared to the national position, this is significantly higher across all age groups for Bassetlaw, Bradford and North East Lincolnshire and significantly lower for Calderdale and Rotherham.
- Bradford stands out as having a much higher % of deaths in care homes for the younger age group (age 0-64) compared to other PCTs and the national and regional average.
- Deaths in care homes in 0-64 years age group have the lowest proportion and therefore widest confidence intervals, with 65-84 years olds a higher proportion and 85 years+ the highest for all PCTs (ranging from 26-48%).
- Across the PCT clusters based on the PCMD the data, the pattern suggests a decrease in the number of deaths in care homes during 2009/10 followed by an increase during 2010/11.

Review the services in currently in place and identify the gaps between demand for services and availability.

Using information on the expected increases in population (particularly the elderly), the projected numbers of deaths and pre dicted changes to prevalence of diseases, consider likely future demands for services.

Consider the patient perspective as to whether the care home is a temporary respite stay or the persons home.

*NOTE: Currently numbers of deaths for Bradford are artificially high in nursing homes and low in hospices due to coding errors in source data. This will be rectified in the next update.
Deaths in a hospice were also examined. Hospices tended to rate as second to deaths at home for people’s preferences nationally, particularly in the older age groups (see local preferences for place of death report). Data on deaths in hospices was examined using data from the NEOLCIN website (originally sourced from ONS) comparing local authorities on % of deaths recorded as been in a hospice during 2008-10. The charts were split into all ages, 0-64 years, 65-84 years and 85 years to look at any differences among age groups.

- Deaths in hospices account for 5.5% of deaths in the region. The % of patients dying in a hospice based on the NEOLCIN data was slightly higher in Yorkshire and Humber compared to the national position for all age groups (except 0-64).
- The confidence intervals around the 0-64 and 85+ age groups in particular are very wide due to small numbers, therefore there is less certainty around the proportion of deaths in hospices/PCIC.
- Trend patterns in the PCT cluster charts vary within clusters and between clusters. Again this data is more volatile due to fewer numbers of patients.
- Given that the national survey indicates that people in the older age groups expressed hospice and their first choice of place of death, more should be done to support people to meet their preferred choice and to identify any potential issues in achieving this.
- Hospices could potentially increase in popularity as a place to die if their was more capacity in the regions and more was known/understood about hospice care. It is recommended that local work looks at place of death as a preferred option amongst patients and considers capacity of hospice beds against demand.
- Initially more work could be undertaken to promote the role of hospices for patients approaching end of life and this could be discussed with patients in more detail as part of advance planning and EPOCCS. In particular, for patients needing more support towards the end of life and who thus can not be cared for at home and who wish to avoid hospital, this could be a suggested alternative.
Comparisons of Place of Death

- Whilst the previous sections examined place of death separately, this section combines this data to allow comparisons between place of death by local authority and PCTs.
- Combining home and care home together as "usual place of residence" is also considered.

- Trend patterns in the PCT cluster charts vary within clusters and between clusters.
  - The place of death comparison charts for local authorities allow the proportions to be viewed by age group with hospital deaths dominating all age groups.
  - The comparative charts based on PCMD data for PCT clusters illustrates the proportional gap between usual place of residence (home and care home combined), acute trust, hospices and other. Deaths in hospices and other remains low across all PCTs, however the gap between the highest proportion (hospitals) and own residence varies between clusters.

- Even whilst making every effort to comply with the patients wish to die in their chosen place, it is not always possible to carry this out, for example the patient may be too sick to move and likely to die in transit or it would cause undue pain and discomfort. The level of support required at end of life to keep the patient as comfortable and pain free as possible may mean that death at home for example is not feasible. As such people should be given the best possible care regardless of care setting and it is recommended that care at end of life is reviewed across the different settings to point where improvements could be made.

- Mapping peoples preferences onto the geography of the region is also crucial to understand how issues such as capacity and drive times may support or hinder a persons chance for having their wishes for place of death met.
## Hospital Deaths in Adults Aged 18+ Metadata

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| Number of deaths in hospital over 3 years by length of stay               | **Numerator**: Number of patients dying in hospital in 0-3, 4-7 days and 8+ days during 2008-11 by Trust  
**Denominator**: Total number of patients dying in hospital during 2008-11 by Trust  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| % of deaths in hospital by length of stay by Trust                        | **Numerator**: Number of patients dying in hospital in 0-3, 4-7 days and 8+ days during 2008-11 by Trust  
**Denominator**: Total number of patients dying in hospital during 2008-11 by Trust  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| % of deaths in hospital by length of stay by PCT                          | **Numerator**: Number of patients dying in hospital in 0-3, 4-7 days and 8+ days during 2008-11 by PCT  
**Denominator**: Total number of patients dying in hospital during 2008-11 by PCT  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| Number of deaths in hospital over 3 years by age group                    | **Numerator**: Number of patients dying in hospital aged 18-64, 65-84 and 85+ during 2008-11 by Trust  
**Denominator**: Total number of patients dying in hospital during 2008-11 by Trust  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| % of deaths in hospital by age group by Trust                             | **Numerator**: Number of patients dying in hospital aged 18-64, 65-84 and 85+ during 2008-11 by Trust  
**Denominator**: Total number of patients dying in hospital during 2008-11 by Trust  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| % of deaths in hospital by age group by PCT                               | **Numerator**: Number of patients dying in hospital aged 18-64, 65-84 and 85+ during 2008-11 by PCT  
**Denominator**: Total number of patients dying in hospital during 2008-11 by PCT  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| Proportion of patients dying in hospital in 0-3 days, 4-7 days and 8+ days split by age group for Yorkshire and Humber | **Numerator**: Number of patients dying in hospital in 0-3 days, 4-7 days and 8+ days for each age group during 2008-11 for Y&H  
**Denominator**: Total number of patients dying in hospital during 2008-11 by Y&H  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| Proportion of patients dying in hospital aged 0-64, 65-84 and 85+ split by length of stay for Yorkshire and Humber   | **Numerator**: Number of patients dying in hospital in 0-3 days, 4-7 days and 8+ days for each age group during 2008-11 for Y&H  
**Denominator**: Total number of patients dying in hospital during 2008-11 by Y&H  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| Number of deaths in hospital over 3 years by primary diagnosis            | **Numerator**: Number of deaths in hospital over 3 years by primary diagnosis  
**Denominator**: Total number of deaths in hospital over 3 years by primary diagnosis  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| % of deaths in hospital by primary diagnosis by Trust                     | **Numerator**: Number of patients dying in hospital with a primary diagnosis of cancer, CVD, respiratory disease or other by Trust  
**Denominator**: Total number of patients dying in hospital during 2008-11 by Trust  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| % of deaths in hospital by primary diagnosis by PCT                       | **Numerator**: Number of patients dying in hospital with a primary diagnosis of cancer, CVD, respiratory disease or other by PCT  
**Denominator**: Total number of patients dying in hospital during 2008-11 by PCT  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| Proportion of deaths in hospital over 3 years with a primary diagnosis by length of stay (PCT)  | **Numerator**: Number of patients dying in hospital in 0-3 days, 4-7 days and 8+ days during 2008-11 with a primary diagnosis of cancer  
**Denominator**: Total number of patients dying in hospital during 2008-11  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| Proportion of deaths in hospital over 3 years with a primary diagnosis of CVD by length of stay (PCT)   | **Numerator**: Number of patients dying in hospital in 0-3 days, 4-7 days and 8+ days during 2008-11 with a primary diagnosis of CVD  
**Denominator**: Total number of patients dying in hospital during 2008-11  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| Proportion of deaths in hospital over 3 years with a primary diagnosis of respiratory disease by length of stay (PCT) | **Numerator**: Number of patients dying in hospital in 0-3 days, 4-7 days and 8+ days during 2008-11 with a primary diagnosis of respiratory disease  
**Denominator**: Total number of patients dying in hospital during 2008-11  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| Proportion of deaths in hospital over 3 years with a primary diagnosis of other by length of stay (PCT) | **Numerator**: Number of patients dying in hospital in 0-3 days, 4-7 days and 8+ days during 2008-11 with a primary diagnosis of other  
**Denominator**: Total number of patients dying in hospital during 2008-11  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| Proportion of patients dying in hospital with as primary diagnosis of cancer, CVD, respiratory disease or other for Yorkshire and Humber split by length of stay | **Numerator**: Number of patients dying in hospital with a primary diagnosis of cancer, CVD, respiratory disease or other for Yorkshire and Humber  
**Denominator**: Total number of patients dying in hospital by Yorkshire and Humber  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| Proportion of patients dying in hospital within 0-3 days, 4-7 days and 8+ days for Yorkshire and Humber split by primary diagnosis | **Numerator**: Number of patients dying in hospital within 0-3 days, 4-7 days and 8+ days for Yorkshire and Humber  
**Denominator**: Total number of patients dying in hospital during 2008-11 by Yorkshire and Humber  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
| Proportion of patients dying in hospital aged 0-64, 65-84 and 85+ for Yorkshire and Humber split by primary diagnosis | **Numerator**: Number of patients dying in hospital in 0-3 days, 4-7 days and 8+ days for Yorkshire and Humber  
**Denominator**: Total number of patients dying in hospital during 2008-11 by Yorkshire and Humber  
**Calculation**: Numerator/denominator expressed as a percentage          | Hospital Episode Statistics 2008-2011                                        |
Reduction in hospital admissions at end of life increases the patients chance of dying in their preferred place of death.

- Approximately 45-55% of patients who die in hospital are in hospital for more than 8 days before death and around one third are in for 0-3 days before death.
- Approximately 50% of the patients are aged 18-64 and around 30-40% are aged 85+.
- Hospital deaths where the primary diagnosis was respiratory disease account for around one third of hospital deaths and CVD 20-25% and cancer deaths between 10-25% of deaths.
- Across all PCTs the lowest proportion of deaths for cancer is within 0-3 days and the highest 8 days or more. For CVD the pattern is reversed and the highest proportion of deaths that are within 0-3 days and the lowest 8 or more days.
- For respiratory diseased the highest proportion of deaths in hospital tend to be within 4 days and the lowest 8 or more days. For CVD the pattern is reversed and the highest proportion of deaths that are within 0-3 days and the lowest 8 or more days.
- The 18-64 age group has the lowest proportion of deaths although notably this is much higher for cancer than the other primary diagnosis groups.

Unnecessary admissions are costly, not in the interest of the patient and stop the bed from being used by other patients.

- 50% of patients are aged 18-85.
- 18-64 years old account for 35-40%.
- 85+ years old account for 10-15%.
- Around one third are in for 0-3 days before death.
- Approximately 50% of deaths in hospital are in hospital for more than 8 days before death and around one third are in for 0-3 days before death.
- Hospital deaths where the primary diagnosis was respiratory disease account for around one third of hospital deaths and CVD 20-25% and cancer deaths between 10-25% of deaths.
- Across all PCTs the lowest proportion of deaths for cancer is within 0-3 days and the highest 8 days or more. For CVD the pattern is reversed and the highest proportion of deaths that are within 0-3 days and the lowest 8 or more days.
- The 18-64 age group has the lowest proportion of deaths although notably this is much higher for cancer than the other primary diagnosis groups.
Trusts and PCTs should examine their local hospital data on patients who died following admission to hospital. Comparisons between hospital sites, specialities and down to consultant teams may also be potentially be more appropriate for the patient.

Are there specific patterns around post codes of admissions? Do certain areas admit more patients? Can work be done with GPs and care homes around services available and appropriateness of referrals. Examining specific geographic areas or locations for sources of admissions (e.g. care homes) may highlight hot spots of high admissions.

Further exploration around, ethnicity, living arrangements, co-morbidities, etc should be undertaken.

Patient dying in hospital should be reviewed see whether alternative action to admission could have been undertaken.

Comparisons between hospital sites, specialities and down to consultant teams may also be valuable in understanding the admission criteria for people at end of life and identifying end of life pathways that lead to patients having a good death.

Mapping services and considering bottle necks in the system is a useful way of understanding the end of life pathway and looking for ways to streamline this.

Clear documentation through instruments such as advance care planning and the end of life coordinated documentation could help to speed up the discharge process from hospital – enabling patients to die at home.

Across the region there has been a decline in deaths in hospital in 2010-11 for all primary diagnosis except for respiratory disease.

- Trusts and PCTs should examine their local hospital data on patients who died following admission to hospital to dig deeper into the primary diagnosis of the patient. Does it tend to be patients with certain conditions that are admitted? Are there other services which may potentially be more appropriate for the patient?
- Are there specific patterns around post codes of admissions? Do certain areas admit more patients? Can work be done with GPs and care homes around services available and appropriateness of referrals. Examining specific geographic areas or locations for sources of admissions (e.g. care homes) may highlight hot spots of high admissions.
- Further exploration around, ethnicity, living arrangements, co-morbidities, etc should be undertaken.
- Patient dying in hospital should be reviewed see whether alternative action to admission could have been undertaken.
- Comparisons between hospital sites, specialities and down to consultant teams may also be valuable in understanding the admission criteria for people at end of life and identifying end of life pathways that lead to patients having a good death.
- Mapping services and considering bottle necks in the system is a useful way of understanding the end of life pathway and looking for ways to streamline this.
- Clear documentation through instruments such as advance care planning and the end of life coordinated documentation could help to speed up the discharge process from hospital – enabling patients to die at home.
## Cause of death Metadata

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Construction</th>
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| Proportion of deaths for cancer 2008-10 (all ages, 0-64, 65-84 and 85+)    | **Numerator**: Number of patients where the cause of death was cancer in 2008-10 by age group  
**Denominator**: Total number of patients dying in 2008-10 by age group  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10                              |
| Proportion of deaths for cancer 2008-10 (hospital, usual place of residence, care home, hospice) | **Numerator**: Number of patients where the cause of death was cancer in 2008-10 by place of death  
**Denominator**: Total number of patients dying in 2008-10 by place of death  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10                              |
| Proportion of deaths for CVD 2008-10 (all ages, 0-64, 65-84 and 85+)       | **Numerator**: Number of patients where the cause of death was CVD in 2008-10 by age group  
**Denominator**: Total number of patients dying in 2008-10 by age group  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10                              |
| Proportion of deaths for CVD 2008-10 (hospital, usual place of residence, care home, hospice) | **Numerator**: Number of patients where the cause of death was CVD in 2008-10 by place of death  
**Denominator**: Total number of patients dying in 2008-10 by place of death  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10                              |
| Proportion of deaths for respiratory disease 2008-10 (all ages, 064, 65-84 and 85+)   | **Numerator**: Number of patients where the cause of death was respiratory disease in 2008-10 by age group  
**Denominator**: Total number of patients dying in 2008-10 by age group  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10                              |
| Proportion of deaths for respiratory disease 2008-10 (hospital, usual place of residence, care home, hospice) | **Numerator**: Number of patients where the cause of death was respiratory disease in 2008-10 by place of death  
**Denominator**: Total number of patients dying in 2008-10 by place of death  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10                              |
| Proportion of deaths for other 2008-10 (all ages, 0-64, 65-84 and 85+)      | **Numerator**: Number of patients where the cause of death was other (not cancer, CVD or respiratory disease) in 2008-10 by age group  
**Denominator**: Total number of patients dying in 2008-10 by age group  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10                              |
| Proportion of deaths for other 2008-10 (hospital, usual place of residence, care home, hospice) | **Numerator**: Number of patients where the cause of death was other (not cancer, CVD or respiratory disease) in 2008-10 by place of death  
**Denominator**: Total number of patients dying in 2008-10 by place of death  
**Calculation**: Numerator/denominator expressed as a percentage | National End of Life Care Intelligence Network (NEOLCIN) 2008-10                              |
Whilst place of death is included in more detail elsewhere, the charts below are looking only at those deaths where the underlying cause of death is cancer during 2008-10.

- Place of death is defined as hospital, own residence, care homes and hospices. (Note: care homes is not subsumed into "usual place of residence" for these charts). Charts for "elsewhere" have been excluded due to volatile data from small numbers.
- Deaths in the patients own residence is considered the most desirable, particularly over deaths in hospital.
- The highest proportion of deaths from cancer is in hospitals (regionally 42%) followed by own residence, then hospices with a fewest in care homes.
- Regionally for cancer there are fewer deaths in hospitals and care homes and more in the persons own residence and hospices compared to deaths from any cause for all ages.
- Organisations should review the data for their own region and see how it compares to others as well as to data for place of death for all diagnosis. For patients dying in hospital particularly, organisations should work to ensure that patients with cancer approaching end of life have the opportunity to die at home if they wish.

Data on where the patient had a primary diagnosis of cancer has been examined in more detail. The charts above (figures 75 to 78) look at deaths where the patient had a primary diagnosis of cancer by PCT split by age group.

- Higher proportions of deaths are for the 0-64 and 65-84 age groups from cancer. Regionally Yorkshire and Humber has a similar proportion of deaths compared to the national position overall (this is lower on 0-64 but higher on 65-84 year age group). Barnsley, Doncaster, Rotherham and East Riding are significantly higher than the England average on deaths from cancer for all ages, Bradford, Kirklees, Craven, Harrogate and Scarborough are significantly lower.
- It is recommended that organisations, particularly those with higher proportions of cancer deaths, study their data to understand which age groups resources need to be targeted at to reduce cancer deaths and to put plans in place to support the person at end of life where required.
- Organisations should ensure data quality for coding of primary diagnosis.
Data on death where the patient had a primary diagnosis of CVD has been examined in more detail. The charts above (figures 83 to 86) look at deaths where the person had a primary diagnosis of CVD by PCT split by age group.

- Higher proportions of deaths are for older age groups from CVD. Regionally Yorkshire and Humber has a similar proportion of older age groups as the national average.
- It is recommended that organisations, particularly those with higher proportions of CVD deaths, study their data to understand which age groups resources need to be targeted at to reduce CVD deaths and to put plans in place to support the person at end of life where required.
- Organisations should ensure data quality for coding of primary diagnosis.

- Whilst place of death is included in more detail elsewhere, the charts below are looking only at those deaths where the underlying cause of death is listed as CVD during 2008-10.
- Place of death is defined as hospital, own residence, care homes and hospices. (Note: care homes is not subsumed into "usual place of residence" for these charts. Charts for "elsewhere" have been excluded due to volatile data from small numbers.
- Deaths in the patient's own residence is the most desirable, particularly over deaths in hospital.
- The highest proportion of deaths from CVD is in hospitals (regionally 58%) followed by own residence, then care homes and hospices. Regionally for people dying with an underlying cause of CVD there are similar proportion for place of death as the national average.
- Organisations should review the data for their own region and see how it compares to others as well as to data for place of death for all causes. For patients dying in hospital particularly, organisations should work to ensure that patients with CVD approaching end of life have the opportunity to die at home if they wish.
Data on death where the patient had a primary diagnosis of respiratory disease has been examined in more detail. The charts above (figures 91 to 94) look at deaths where the person had a primary diagnosis of respiratory disease by PCT split by age group.

Higher proportions of deaths are for older age groups from respiratory disease. Regionally Yorkshire and Humber has higher proportion of deaths to the national position overall (particularly for the age groups 65-84). Several local authorities have significantly higher proportions of deaths from respiratory disease that the England average for all ages, with only Sheffield and parts of North Yorkshire significantly lower.

It is recommended that organisations, particularly those with higher proportions of respiratory disease deaths, study their data to understand which age groups require resources need to be targeted at to reduce respiratory disease deaths and to put plans in place to support the person at end of life where required.

Organisations should ensure data quality for coding of primary diagnosis.

Data suggests that regionally for Yorkshire and Humber respiratory disease is a particular problem which needs to be prioritised.

Whilst place of death is included in more detail elsewhere, the charts below are looking only as those deaths where the underlying cause of death is listed as respiratory disease during 2008-10.

Place of death is defined as hospital, own residence, care homes and hospices. (Note: care homes is not subsumed into “usual place of residence” for these charts). Charts for “elsewhere” have been excluded due to volatile data from small numbers.

Deaths in the patients own residence is considered the most desirable, particularly over deaths in hospital.

The highest proportion of deaths from respiratory disease is in hospitals (regionally 65%) followed by care home, own residence with only a small proportion in hospices.

Regionally for people dying with an underlying cause of respiratory disease there is a slightly lower proportion of people dying in hospital and slightly more at home and in care homes.

Organisations should review the data for their own region and see how it compares to others as well as data for place of death for all diagnoses. The proportion of deaths in hospital from respiratory disease is very high across the region and nationally. This is potentially a key area to focus on to reduce deaths in hospital overall and to ensure that patients with respiratory disease, approaching end of life have the opportunity to die at home if they wish.
Cause of Death - Other (not Cancer, Cardiovascular or Respiratory Disease)

- Data on death where the patient had a primary diagnosis of other (i.e. not cancer, CVD or respiratory disease) has been examined in more detail. The charts above (figures 99 to 102) look at deaths where the person had a primary diagnosis of other by PCT splitby age group.

- Higher proportions of deaths are for the 0-64 and 85+ age groups from other. Regionally Yorkshire and Humber has lower proportion of deaths to the national position for all ages (this is mostly the effect of the 85+ age group). Sheffield is the only local authority with a significantly higher proportion of deaths from other compared to the England average, whilst Barnsley, Rotherham, parts of North Yorkshire and all of the Humber area are significantly lower.

- It is recommended that organisations study their data to understand which age groups resources need to be targeted at to reduce deaths and to put plans in place to support the person at end of life where required.

- Organisations should ensure data quality for coding of primary diagnosis.

- Whilst place of death is included in more detail elsewhere, the charts below are looking only at those deaths where the underlying cause of death is listed as other (i.e. not cancer, CVD or respiratory disease) during 2008-10.

- Place of death is defined as hospital, own residence, care homes and hospices. (Note: care homes is not subsumed into “usual place of residence” for these charts). Charts for “elsewhere” have been excluded due to volatile data from small numbers.

- Deaths in the patients own residence is considered the most desirable, particularly over deaths in hospital.

- The highest proportion of deaths from ‘other’ is in hospitals (regionally 56%) followed by care home, own residence with only a small proportion in hospices.

- Regionally for people dying with an underlying cause of other there is a similar proportion of people dying in hospital compared to the national position with slightly fewer in own residence and slightly more in care homes.

- Organisations should review the data for their own region and see how it compares to others as well as to data for place of death for all diagnosis.

- % of all deaths where the main cause was other 2008-10

- % of deaths aged 0-64 where the main cause was other 2008-10

- % of deaths aged 65-84 where the main cause was other 2008-10

- % of deaths aged 85+ where the main cause was other 2008-10

- % of deaths aged 65-84 where the main cause was other 2008-10

- % of deaths aged 85+ where the main cause was other 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in an own residence 2008-10

- % of all deaths for underlying cause of other for persons dying in a care home 2008-10

- % of all deaths for underlying cause of other for persons dying in a care home 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

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- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

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- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

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- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10

- % of all deaths for underlying cause of other for persons dying in a hospice 2008-10
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Construction</th>
<th>Source</th>
</tr>
</thead>
</table>
| Proportion of males and females in the population by age group | **Numerator**: Estimated number of males and females as at 2010  
**Denominator**: Estimated number of people as at 2010  
**Calculation**: Numerator/denominator expressed as a percentage | NHS Information Centre for Health and Social Care Portal - mid 2010 estimates |
| Proportion of the population by age group for PCTs | **Numerator**: Estimated number of males and females as at 2010  
**Denominator**: Estimated number of people as at 2010  
**Calculation**: Numerator/denominator expressed as a percentage | NHS Information Centre for Health and Social Care Portal - mid 2010 estimates |
| Death rates from all causes (all persons, males and females) | Directly age-standardised rates for mortality from all causes per 100,000 population | Source: DSR NHS Information Centre for Health and Social Care Indicator Portal (NCHOD) |
| Number of Deaths by PCT | Count of death per PCT for 2008-09, 2009-10 and 2010-11 | Primary Care Mortality Database (PCMD) 2008-2011 |
| Proportion of deaths by age group | **Numerator**: Number of male and female deaths in 2008-11  
**Denominator**: Total number of deaths 2008-11  
**Calculation**: Numerator/denominator expressed as a percentage | Primary Care Mortality Database (PCMD) 2008-2011 |
| Summary Hospital-level Mortality Indicator (SHMI) | Calculated summary Hospital-level Mortality Indicator (SHMI) | NHS Information Centre Mortality Data 2011 |
| Life Expectancy at birth and age 65 for males and females | Calculated life Expectancy at birth and age 65 for males and females | NHS Information Centre for Health and Social Care Indicator Portal (NCHOD) |
| Indices of deprivation 2012 | Table of indices of deprivation calculated using quintiles | NHS Information Centre for Health and Social Care Indicator Portal (NCHOD) |
| Map of Deprivation for Yorkshire and Humber | Map of Deprivation for Yorkshire and Humber | YNPPO Wessex - originally sourced from www.communities.gov.uk |
| Projected deaths to 2033 by PCT cluster | Projected deaths to 2033 by PCT cluster | 2008-based sub national populations: sub national statistics unit ONS |
| Population projections up to 2030 by Local Authority | Population projections up to 2030 by Local Authority | 2008-based sub national populations: sub national statistics unit ONS |
| Prevalence of condition (CHD, COPD, CVD, Hypertension, stroke) | Prevalence of condition (CHD, COPD, CVD, Hypertension, stroke) | Disease Prevalence Models - The Network of Public Health Observatories |
| Incidence of all cancers | Incidence of all cancers | NHS Information Centre for Health and Social Care Indicator Portal (NCHOD) |
Population proportions and death rates

Figure 107: Proportion of males and females in the population by age group

Figure 108: Proportion of the population by age group for PCTs

Examining the age structure of the population

Figure 107 shows the proportion of the population for males and females split by age for Yorkshire and Humber and England. The pattern is similar across Yorkshire and Humber and England in that the male and female split is fairly equal in the 0-64 age group, there is proportionally fewer men in the 65-85 age group and considerably fewer males in the 85+ age group.

Figure 108 compares PCT populations by age group. There are notable differences in the population make up of the PCTs, for example East Riding PCT has the lowest proportion of 0-64 years olds compared to the other PCTs (less than 80%) with the 65-84 and 85+ age groups making up over a fifth of the population (21% compared with less than 15% for Leeds and Bradford for example).

The relationship between age and end of life care is crucial. Older people are more likely to die and therefore to require planning around managing their end of life care. Therefore places such as East Riding with as older population would expect a higher proportion of deaths within their region and potentially more people on the end of life registers and in nursing homes.

Death rates from all causes

The charts below look at death rates by PCT area per 100,000 population. Looking at deaths in this way enables the number of deaths to be considered compared with the population. The split by males and females show that males have a higher death rate compared with females (see life expectancy charts). Yorkshire and Humber as a region is reporting higher death rates compared to the national average. These death rates cover all causes, so to understand the issues in more detail the death rates for specific causes would need to be examined. This data should be considered alongside data on deprivation.

Death rates from all causes by PCT per 100,000 population - All persons (2008-10)

Death rates from all causes by PCT per 100,000 population - Male (2008-10)

Death rates from all causes by PCT per 100,000 population - Female (2008-10)
Numbers and proportions of deaths

Table 11: Number of Deaths by PCT

<table>
<thead>
<tr>
<th>Region</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2011-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnsley</td>
<td>2,843</td>
<td>2,676</td>
<td>2,721</td>
</tr>
<tr>
<td>Bradford</td>
<td>4,335</td>
<td>4,124</td>
<td>4,139</td>
</tr>
<tr>
<td>Calderdale</td>
<td>1,914</td>
<td>1,842</td>
<td>1,839</td>
</tr>
<tr>
<td>Doncaster</td>
<td>2,972</td>
<td>2,882</td>
<td>2,712</td>
</tr>
<tr>
<td>East Riding</td>
<td>3,610</td>
<td>3,423</td>
<td>3,519</td>
</tr>
<tr>
<td>Hull</td>
<td>2,487</td>
<td>2,147</td>
<td>2,231</td>
</tr>
<tr>
<td>Kirklees</td>
<td>3,796</td>
<td>3,638</td>
<td>3,515</td>
</tr>
<tr>
<td>Leeds</td>
<td>6,548</td>
<td>6,188</td>
<td>6,320</td>
</tr>
<tr>
<td>North Lincs</td>
<td>1,762</td>
<td>1,564</td>
<td>1,557</td>
</tr>
<tr>
<td>North Yorkshire</td>
<td>1,669</td>
<td>1,562</td>
<td>1,510</td>
</tr>
<tr>
<td>North Yorkshire</td>
<td>7,689</td>
<td>7,518</td>
<td>7,247</td>
</tr>
<tr>
<td>Rotherham</td>
<td>2,606</td>
<td>2,500</td>
<td>2,441</td>
</tr>
<tr>
<td>Sheffield</td>
<td>4,783</td>
<td>4,855</td>
<td>4,776</td>
</tr>
<tr>
<td>Wakefield</td>
<td>3,265</td>
<td>3,000</td>
<td>3,177</td>
</tr>
<tr>
<td>Yorkshire and Humber</td>
<td>50,102</td>
<td>48,079</td>
<td>47,783</td>
</tr>
</tbody>
</table>

Source: Primary Care Mortality Database as at August 2011

Proportion of deaths by age

The charts above show the proportions of deaths by male and female for each age group. Many more females die in the 85+ age group compared to men suggesting that women live longer (as supported by the life expectancy charts). This is significant for end of life care planning as the ratio of females outliving men in old age suggests that there potentially there may be a high number of widowed females living either in care homes or in increasing need of end of life care support at home.

Summary Hospital-level Mortality Indicator

The summary hospital-level mortality indicator - or SHMI, measures two key factors: deaths that occur in hospital and also deaths that occur within 30 days of hospital discharge where the patient had stayed in hospital. SHMI considers how many deaths would be expected to occur based on the national average, taking into account patient characteristics such as age, sex, diagnosis etc. (See data bite on SHMI for more information).

Figure 113 suggests that York Teaching Trust, Hull and East Yorkshire Hospitals and Northern Lincolnshire and Goole Trust have a high SHMI ratio indicating that more deaths occurred than would be expected (the points on the chart are outside of the control limits for greater than expected). Sheffield Teaching Trust reported a lower than expected number of deaths.

This indicator has been included as many of the deaths that form part of this indicator are likely to be people approaching end of life. Where patients expressed a wish to be cared for and die at home, hospital admission may not have been appropriate. Similarly, regarding place of death, high rates for SHMI have been linked to coding of palliative care and particularly the coding related to beds. For example Hull and East Yorkshire Trust have hospice beds in the acute setting, as these are coded as ‘hospital’ for regarding place of death, high rates for SHMI have been linked to coding of palliative care and particularly the coding related to beds. For example Hull and East Yorkshire Trust have hospice beds in the acute setting, as these are coded as ‘hospital’ for place of death this could mean that deaths in hospitals appear higher and it could also potentially inflate the SHMI ratio.

Whilst only a proportion of the deaths in SHMI may be related to palliative care, it is important that organisations understand the link between SHMI and palliative care.
Life Expectancy and deprivation

The charts above show the life expectancy for each PCT by male and female at birth and also at 65 years old. The key points from the charts are the difference in life expectancy for males and females (females is currently higher). Also the difference between PCTs charts are the difference in life expectancy for males and females at birth and also at 65 years old. The key points from the charts suggests that more deprived areas tend to have a lower life expectancy compared to the least deprived areas.

Socioeconomic deprivation is a factor influencing end of life care, for example age and cause of death and even place of death - people living in the most deprived quintiles were found to me more likely to die in hospital (see report ‘Deprivation and death: variation in place and cause of death’ Feb 2012).

A more detailed analysis by postcode areas of PCTs and cause and place of death would be useful to determine the level of influence that deprivation has on end of life care.
Having an idea of the projected deaths going forward is useful for helping the health service to plan, particularly around future needs for support at end of life and place of death. Trend data per PCT has been plotted by cluster. Population projections have also been included as this will also impact on care at end of life as resources will need to be available to support people to improve as well as at end of life.

- The general pattern for Yorkshire and Humber for projected numbers of death shows a decline and then plateau over the next 10 years followed by an increase thereafter. Local differences are evident from the charts, with large increases in number of deaths predicted in 2033 for East Riding and North Yorkshire.
- All PCTs are expected to experience population increases within the next 10-20 years. Figure 124 shows the expected numbers for 2010, 2020 and 2030 as well as the predicted % increase from 2010 to 2030.

Organisations should have an understanding of the expected population increase and expected numbers of deaths within their region. Planning for end of life care is dependent on both these factors and even in areas where organisation are achieving high numbers of people dying at home for example, this may become difficult to maintain without planning for future demand on health care services.

## Death and population projections

### Projected Deaths to 2033 for Calderdale, Wakefield and Kirklees Cluster

- **Calderdale**: Bradford 22.1%, Wakefield 16.6%
- **Kirklees**: Halifax 22.7%, Holbeach 15.1%
- **Wakefield**: Morley 15.9%

### Projected Deaths to 2033 for North Yorkshire Cluster

- **Hull**: East Riding 19.5%, Kingston upon Hull 17.2%
- **Kirklees**: Wakefield 17.2%
- **Wakefield**: Wakefield 17.2%

### Projected Deaths to 2033 for Yorkshire and Humber

- **Bradford**: 22.1%
- **Hull**: 17.2%
- **Leeds**: 18.9%
- **York**: 17.5%

### Projected Deaths to 2033 for Airedale, Bradford and Leeds Cluster

- **Bradford**: 22.1%
- **Leeds**: 18.9%

### Projected Deaths to 2033 for South Yorkshire Cluster

- **Barnsley**: 14.2%
- **Bradford**: 22.1%
- **Calderdale**: 16.6%
- **Doncaster**: 6.2%
- **East Riding of Yorks**: 19.5%
- **Kingston upon Hull**: 17.2%
- **Kirklees**: 15.5%
- **Leeds**: 22.7%
- **Ne Lincs**: 4.9%
- **North Lincolnshire**: 15.1%
- **NYY**: 15.9%
- **Rotherham**: 9.5%
- **Sheffield**: 17.8%
- **Wakefield**: 12.3%

### Population projections up to 2030 by Local Authority

<table>
<thead>
<tr>
<th>Local Authority</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnsley</td>
<td></td>
<td></td>
<td>14.2%</td>
</tr>
<tr>
<td>Bradford</td>
<td>22.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calderdale</td>
<td>16.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doncaster</td>
<td>6.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Riding of Yorks</td>
<td>19.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kingston upon Hull</td>
<td>17.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kirklees</td>
<td>15.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leeds</td>
<td>22.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ne Lincs</td>
<td>4.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Lincolnshire</td>
<td>15.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NYY</td>
<td>15.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotherham</td>
<td>9.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sheffield</td>
<td>17.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wakefield</td>
<td>12.3%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: 2008-based sub national populations: sub national statistics unit ONS
The prevalence of Coronary Heart Disease (CHD) in the Yorkshire and Humber region ranges from 2.3% to 3.2%. The stroke prevalence rate for England is expected to rise from 2.5% to 2.7%.

The current COPD prevalence rate for the Yorkshire and Humber region ranges from 2.6% to 5.3%. The COPD prevalence rate for England is expected to rise from 3.6% to 3.9%.

The current CVD prevalence rate for the Yorkshire and Humber region ranges from 10.6% to 13.1%. The CVD prevalence rate for England is 11.7% (no data available for the expected prevalence).

It is recommended that organisations, particularly those with higher proportions of prevalence now, or expecting to have higher prevalence rates by 2020, should study their data in the context of end of life planning. Linking this data to information around cause of death and end of life registers would be useful for organisations in understanding where best to focus resources to support people at end of life to have good care and a good death both now and in the future.
### Area Metadata

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Construction</th>
<th>Source</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

**SECTION TO BE COMPLETED**
Geography and drive times

Table 13: PCT ONS Area Classifications

<table>
<thead>
<tr>
<th>PCT</th>
<th>ONS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnsley PCT</td>
<td>Manufacturing Towns</td>
</tr>
<tr>
<td>Bassetlaw PCT</td>
<td>Manufacturing Towns</td>
</tr>
<tr>
<td>Bradford and Airedale Teaching PCT</td>
<td>Centres with Industry</td>
</tr>
<tr>
<td>Calderdale PCT</td>
<td>Centres with Industry</td>
</tr>
<tr>
<td>Doncaster PCT</td>
<td>Manufacturing Towns</td>
</tr>
<tr>
<td>East Riding Of Yorkshire PCT</td>
<td>Prospering Smaller Towns</td>
</tr>
<tr>
<td>Hull Teaching PCT</td>
<td>Industrial Hinterlands</td>
</tr>
<tr>
<td>Kirklees PCT</td>
<td>Centres with Industry</td>
</tr>
<tr>
<td>Leeds PCT</td>
<td>Regional Centres</td>
</tr>
<tr>
<td>North East Lincolnshire Care Trust Plus</td>
<td>Manufacturing Towns</td>
</tr>
<tr>
<td>North Lincolnshire PCT</td>
<td>Manufacturing Towns</td>
</tr>
<tr>
<td>North Yorkshire and York PCT</td>
<td>Prospering Smaller Towns</td>
</tr>
<tr>
<td>Rotherham PCT</td>
<td>Manufacturing Towns</td>
</tr>
<tr>
<td>Sheffield PCT</td>
<td>Regional Centres</td>
</tr>
<tr>
<td>Wakefield District PCT</td>
<td>Manufacturing Towns</td>
</tr>
</tbody>
</table>

ONS Area Classification
The table above shows the ONS classification each PCT has been given. There are several groups nationally known as clusters which are derived from census data. The clusters each contain PCTs which are considered to have key characteristics common to the population. PCTs often compare themselves to PCTs within their ONS cluster to give a fairer comparison.

**SECTION TO BE COMPLETED**

Section to include information related to the following areas:
Geography: size of area, urban/rural
Drive times: Average ambulance drive times to hospitals/hospices, etc.
Maps: hospice locations and care homes

Rationale
The make up of an area and drive times could influence both people’s preferences for place of death and where they actually die. E.g. a patient may prefer to die in a hospice but as there no hospices within the area this is not considered. This may indicate the need for more hospices within an area?
A patient may prefer to die at home but lack of community support in rural areas may mean the patient is admitted to hospital who would prefer to die at home.
A patient could potentially have been admitted to hospital and wishes to die at home but distance to home affects the decision to discharge (i.e. the patient is not well enough to survive a 2 hour journey home)
Section to include information related to the following areas:
Hospitals: number of sites, palliative care staff, bed days ending in death
Care homes: number of care homes, number of beds, staff per resident
Hospices: number of hospices, number of beds, staff per resident
Finance and Commissioning: Total spend on hospital/hospice services per death, predicted future costs for hospital and community

Data Sources:
PCT profiles - Indicators related to care homes and spend
Workforce data - National Council for Palliative Care (Workforce survey and National Survey of Patient Activity Data), Skills for Health Workforce Functional Analysis Tool
Commissioning - National Institute for Health and Clinical Excellence (Commissioning and Benchmark Tool and Guide for Commissioners on End of Life Care report)
Finance - End of Life care modelling tools (Cohort, Y&H finance model)