The North East Dementia Regional Development & Implementation Group

The North East Dementia Regional Development and Implementation Group was formed in September 2008 to consider how the National Dementia Strategy could be implemented within the region as fully and as quickly as possible in the North East of England. The early work of the group has been to baseline activity, commission a demographic and service profile report and disseminate good practice. The group was established through the Department of Health in the North East Region and is supported through Year Ahead - The North East Regional Forum on Ageing. The group is made up of stakeholders including representation from people living with dementia, carers, the North East Strategic Health Authority, Local Authority, third sector and Housing

For Further Information

*Dementia North East England – A Demographic & Service Profile* report will be available via the following web address [www.dhcarenetworks.org.uk/dementia/](http://www.dhcarenetworks.org.uk/dementia/)

If you would like further information about the report or activity of the regional group please contact Debbie Smith - Older Adult Lead - Department of Health (North East) on 07769 951205.

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- Ms Louise Unsworth
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Executive Summary

**Headlines**

- 49% increase in the number of people with late on-set dementia in the North East of England: rising from 29,770 individuals in 2008 to 44,381 in 2025
- 5% increase in the numbers with early on-set dementia in the region: rising from 684 individuals in 2008 to 715 in 2025
- By 2025 50% of all people with dementia in the North East will be aged 85 years & over: increasing from 12,300 in 2008 to 21,400 in 2025
- 60% increase in the predicted numbers of people with dementia across the region requiring some form of care home provision: a predicted additional 6,000 places - given current social care policies

**Key findings of the research for the North East of England**

- The numbers with *early on-set* dementia is predicted to rise by 5% between 2008 and 2025, increasing from a round 684 people to an estimated 715 across the North East. The predicted increase at 5% is significantly lower than the national increase of 15%. This may be due in part to the skewed demographic distribution of the population of the region.
- The numbers of people with *late on-set* dementia in the North East is predicted to rise by 49% between 2008 and 2025, marginally below the national rate of 51%, with the increase of around 17,468, taking the predicted numbers for all ages to 44,381.
- All local authority districts are predicted to experience increases in the numbers of individuals with *late on-set* dementia over the period from 2008 to 2025, ranging from 66% in Northumberland and Stockton to a 27% increase in Newcastle. In absolute terms, the largest increase in people with *late on-set* dementia is predicted in County Durham (3,300), while in Hartlepool the increase is predicted to be 470 people.
- By 2025 nearly 50% of all people in the North East with dementia will be aged 85 year & over, with the numbers of males with dementia in this age group increasing by 132% on the 2008 estimates, while females in this age group will account for one-third of all people with dementia in the region.
- In 2008 it was estimated that over 90% of people with *late on-set* dementia are likely to suffer with *Alzheimer's disease, vascular dementia* or a combination of the two.
- The estimated numbers of people with the *mild* form of dementia in the North East in 2008 was 16,500, while 9,500 were classed as *moderate* and 3,700 individuals aged 65 years & over had the most *severe* form of dementia.
- 64% of people with *late on-set* dementia live in private household and the remaining 36% reside in some form of care home. An estimate of the numbers in 2008 suggests that around 10,900 people with dementia live in care homes in the North East. It is predicted that this number could rise by 6,000 by 2025 in the region, with the greatest percentage increases likely to be experienced in Northumberland (74%) and Stockton (73%), with the largest absolute increase being in County Durham of 1,300 people. The smallest predicted percentage increase is in Newcastle (32%) and in absolute terms in Hartlepool and Darlington (around 200 people).
- Overall the provision of social care in the North East of England is above the national average in terms of proportions of the population accessing services. In particular 9,320 older people reside in council supported *residential* homes in the region and 3,320 reside in *nursing care* homes. These numbers represent 2.2% for residential care and 0.8% for nursing care of the population aged 65 years & over resident in the region, compared to the national rates of 1.5% and 0.7% respectively. In all local authority districts the proportions of older people accessing *residential & nursing care* homes is above the national rate, with the highest combined rates being in Darlington (3.5%) and lowest proportions in Northumberland and North Tyneside (2.6%).
• In the North East around 33,000 individuals aged 65 years & over are in receipt of home care services, with nine of the region’s local authorities providing services to a greater proportion of the population than the national average. The provision in Newcastle is ranked second nationally, with the proportion accessing services (20.3%) being three-fold more than the national rate.

• Local authority day care services are provided to an estimated 8,500 people in the North East aged 65 years & older, with eight of the region’s local authorities exceeding the English average for the proportion of people of the age group accessing the services. Newcastle has the highest proportion of its residents accessing day care services (4.5%) that is three-fold the national average; while in Gateshead (0.8%) the proportion accessing day care services is half the national rate.

Implications for the Care Provision of Individuals with Dementia
The major challenges caused by the increasing numbers of people with dementia, both nationally and in the North East will be the impact felt on care services, in particular on how the levels of service quality can be maintained, whilst at the same time increasing the capacity to cater for the growth in numbers. The region currently has a good track record in the provision of care for people with dementia compared to other areas within England, but clearly flexible and innovative solutions are required for the future.

The social care policymakers in the North East will need to plan services for greater numbers of complex cases of dementia. The expert consensus panel advising on the Dementia UK report concluded that around one-third of cases of late on-set dementia in individuals aged 85 years & over were classed as moderate and 16% were classed a severe. It was also predicted that between 2008 and 2025 in the North East there might be an increase of 14,611 cases of dementia, of which nearly 62% will be individuals aged 85 years & over. Combining these predictions gives a scenario in which the number of individuals with complex needs increases on the 2008 levels by approximately 2,900 cases of moderate dementia and 1,450 cases of severe dementia.

The demand for places in residential & nursing care homes is predicted to increase by 60%. In 2008 the local authorities in the region collectively reported that the number of supported places in residential & nursing care homes available for all individuals aged 65 years & over to be around 12,640. Data generated for the Dementia UK report also predicted that by 2025 the number of individuals with dementia residing in residential & nursing care homes could increase from 10,900 to 16,900. Given the maintenance of current social care admissions policies within the region, this would lead to an increase in demand of an additional 6,000 places for people with dementia, three-quarters of whom would be aged 85 year & over.

Community services will also be “capacity conscious”. The alternative to institutionalisation of those people with dementia with complex needs is the provision of services in the community. However, just as the demand for residential places is predicted to increase, then the demand on existing community services is also predicted to increase with the numbers of people with late on-set dementia residing in private households likely to increase by 8,500 across the North East by 2025.
Introduction

In Spring 2009 the UK Government launched the *Living Well with Dementia: A National Dementia Strategy*, which is the 5-year plan for improving health and social care services in England for everyone with dementia and their carers. To support the implementation of this national strategy the Regional Dementia Strategy Group for the North East of England commissioned this report - *Dementia North East England – A Demographic & Service Profile* to explore further the implications for the region of the issues highlighted in *Dementia UK*, the 2007 publication for the Alzheimer’s Society produced by Kings College London and the London School of Economics.

This report for the North East draws heavily on the work undertaken for the national report and in particular focuses on chapter 3 – *Number of People with Dementia in the UK* and chapter 5 – *Mapping Social Services Provision*. A number of the data sets developed for the national report have been utilised in this regional report and have been sourced through the Projecting Adult Needs & Services Information System (PANSI) and the Projecting Older People Population Information System (POPPI) resource. In addition and where available, the North East report utilises more contemporary data on local authority service level activity sourced from The Health & Social Care Information Centre.

Data used in this report should be viewed with caution and has been included for indicative purposes only. Accurate population estimates and population projections of people with dementia are not a routinely produced national statistic. In developing the data sets to support the production of Dementia UK report, the authors of that report undertook a Delphi consensus exercise with academic experts, the majority of which had previously been involved in population based dementia research in the UK. The panel was tasked to derive “best” estimate based on available evidence, for the prevalence rates for a number of topics around the on-set of dementia. In this report for the North East of England, for example the national rates for the on-set of dementia have been applied to the official population estimates and sub-national population projections, to produce a prediction of the numbers of people with dementia in the region. In applying the national prevalence rates, no account has been made in the regional data for the affects of life expectancy, health status, lifestyle or socio-economic background, which may vary significantly across not only the North East, but also the UK as a whole. The data for the regional level statistics are the aggregation of local authorities data within the North East and therefore are also exposed to rounding errors.

*Dementia North East England – A Demographic & Service Profile* provides an illustration of the impact and challenges that the effects dementia may have on the current and future populations on the region. The data has been collated and is illustrated at the North East England government office regional level and for the twelve local authority areas in the region that are Councils with Social Services Responsibilities (CSSR). The base year of illustration used in the report is 2008 (or otherwise stated), with data for 2025 being used as the forward projection. There are three sections to this report –

- **Dementia and the Prevalence Rates within the UK Population** provides the details of the national rates for people with dementia by age and gender, severity of the condition and sub-types
- **People with Dementia in North East England** describes the predicted numbers of people with dementia once the various prevalence and proportion rates have been applied to the population estimates and projections for the region

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3. More detail of the methodology used can be found in Chapter 2 – Dementia UK p7
4. Appendix 3 contains more details on the demography and administrative geographies of the North East of England
• *Service Provision in North East England* describes the mapping of key services data relating to the support of older people with dementia.

In addition, this report contains three appendices –

• *Appendix 1 What is dementia?* taken from the Dementia UK report outlines the definition of the condition.

• *Appendix 2 Dementia sub-types* describes the four main forms of dementia discussed in the Dementia UK report.

• *About the North East of England* a brief outline to the size, demographic and geographic distribution of the population of the region.
Dementia North East England – A Demographic & Service Profile – April 2009

Section 1   Dementia and the Prevalence Rates within the UK Population

The Dementia UK report documents well the need for good quality estimates of the numbers of people with dementia, on which to base health and social policy decisions that influence the national and local service provision.

In delivering the Dementia UK report, the authors undertook a more sophisticated approach to estimating the numbers of people with dementia in the population, than had been used in previous studies. The approach taken was a detailed Delphi consensus exercise, which is a useful method for making estimates where an evidence base exists but data are incomplete, scanty or otherwise imperfect. The essence of the method is deriving quantitative estimates through the qualitative assessment of research evidence5.

The expert consensus panel was asked to addressed three main areas of interest -
- The prevalence of dementia
  - The population prevalence of early on-set dementia in the UK (onset before the age of 65)
  - The population prevalence of late on-set dementia in the UK (for those aged 65 and over)
- The relative frequency of dementia subtypes – the proportion of dementia cases that would fall into different diagnostic subtype categories.
- The severity of dementia – the proportion of dementia cases that could be considered to be mild, moderate and severe.

The findings of the Delphi consensus exercise for the prevalence rates are documented in the following sections.

1.1 Prevalence Rates for Early On-set Dementia

Early on-set dementia in this report is defined as the on-set of dementia in people under the age of 65 years. The prevalence rates (Table 1) of early on-set dementia are greatest amongst the older age groups, with rates for males being twice as big for 50-54 year group as for the 45-49, and then tripling again by 55-59 years. Prevalence rates for females increase less rapidly than for males, although for the 60-64 years age band, the rates have increased more than four-fold on the rates for the 45-49 year olds.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male (Per 100,000 population)</th>
<th>Females (Per 100,000 Population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-34 year olds</td>
<td>8.9</td>
<td>9.5</td>
</tr>
<tr>
<td>35-39 year olds</td>
<td>6.3</td>
<td>9.3</td>
</tr>
<tr>
<td>40-44 year olds</td>
<td>8.1</td>
<td>19.6</td>
</tr>
<tr>
<td>45-49 year olds</td>
<td>31.8</td>
<td>27.3</td>
</tr>
<tr>
<td>50-54 year olds</td>
<td>62.7</td>
<td>55.1</td>
</tr>
<tr>
<td>55-59 year olds</td>
<td>179.5</td>
<td>97.1</td>
</tr>
<tr>
<td>60-64 year olds</td>
<td>198.9</td>
<td>118</td>
</tr>
</tbody>
</table>

Source: PANSI – Crown Copyright 2007

5 More detail of the methodology used can be found in Chapter 2 – Dementia UK p7
1.2 Prevalence Rates for Late On-set Dementia

Late on-set dementia is defined in this report as the on-set of dementia in those aged 65 years and over. The prevalence rates amongst males aged 65 to 75 years are greater than for females, by approximately 50%. However, the rates for females increase more rapidly than males for the older age groups, with the prevalence amongst females age 85 years and older, being one-quarter greater at 25.2%. Table 2 illustrates the prevalence rates for both genders by age group.

Table 2: Late On-set Dementia Prevalence Rates for UK

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>65-69 year olds</td>
<td>1.5%</td>
<td>1%</td>
</tr>
<tr>
<td>70-74 year olds</td>
<td>3.1%</td>
<td>2.4%</td>
</tr>
<tr>
<td>75-79 year olds</td>
<td>5.1%</td>
<td>6.5%</td>
</tr>
<tr>
<td>80-84 year olds</td>
<td>10.2%</td>
<td>13.3%</td>
</tr>
<tr>
<td>85 and over</td>
<td>19.7%</td>
<td>25.2%</td>
</tr>
</tbody>
</table>

Source: POPPI – Crown Copyright 2007

1.3 Dementia Sub-type Proportions for Late On-set Diagnosis

The consensus panel conclude in their work that dementia cannot be easily and neatly categorized into discrete sub-types. Therefore after reviewing the evidence the panel proposed that the proportion of each sub-type, contained in Table 3, is a tentative estimate of the relative prominence of these different pathologies for both males and females with dementia at different ages.

Table 3: Late On-set Dementia by Sub-type in the UK

<table>
<thead>
<tr>
<th>Forms of Dementia</th>
<th>Male</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alzheimer's Disease</td>
<td>55%</td>
<td>67%</td>
</tr>
<tr>
<td>Vascular Dementia</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Vascular Dementia &amp; Alzheimer's</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Lewy Bodies</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>Frontotemporal Dementia</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Parkinson’s Dementia</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: Dementia UK

Alzheimer’s Disease is by far the most prominent diagnosed form of dementia, accounting for two-thirds of cases in males and three-quarters of cases in females (summing individual and mixed forms of the disease). Vascular Dementia is the second most common form of the dementia for both males (20%) and females (15%), while the remaining forms account for 14% in male cases and 8% in female cases.

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6 Appendix 2 contains a more detailed description of the four main sub-types of dementia
7 Section 2.3 Dementia UK p19
1.4 Proportion of Dementia Cases by Severity of Condition

The consensus panels that advised on the Dementia UK report defined the severity of dementia using a three level classification approach of *mild, moderate and severe*, which is consistent with the descriptors used by the CAMDEX and CDR severity classifications and are considered roughly equivalent across the two systems of classifications\(^8\).

Using this approach, the consensus panel were able to estimate that overall 55% of people with late on-set dementia in the UK have the mild form of the condition, 32% have the moderate form and 13% have the most severe form of the condition. However the panel did indicated that there was likely to be an age dependent factor relating to the proportions of severity type as illustrated in Table 4 and concluded that the proportion considered to have severe dementia increases with increasing age, from 6.3% for those aged 65 to 69 years to 23.3% for those aged 95 years and over\(^9\).

<table>
<thead>
<tr>
<th></th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged 65-69</td>
<td>62%</td>
<td>32%</td>
<td>6%</td>
</tr>
<tr>
<td>Aged 70-74</td>
<td>63%</td>
<td>30%</td>
<td>7%</td>
</tr>
<tr>
<td>Aged 75-79</td>
<td>57%</td>
<td>31%</td>
<td>12%</td>
</tr>
<tr>
<td>Aged 80-84</td>
<td>57%</td>
<td>32%</td>
<td>11%</td>
</tr>
<tr>
<td>Aged 85 &amp; over</td>
<td>51%</td>
<td>33%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Source: Dementia UK

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\(^8\) Section 2.3 – Dementia UK p18
\(^9\) Section 3.2 - Dementia UK p33
Section 2 People with Dementia in North East England

In the report Dementia UK, it was estimated that there were 683,600 people with dementia in the UK – 1.1% of the entire UK population. In the North East of England the estimated number of people with dementia is approximately 30,500, accounting for some 4.5% of the national total.

The actual recorded prevalence of dementia on GP registers in the region in 2008 was 12,420 or 0.5% of the population. This figure is considerably lower than the estimates in Dementia UK report, but will be illustrative of the more moderate and severe cases of the condition that require professional clinical services. However it does illustrate the gap between the known cases and the undiagnosed cases of dementia - for every two people diagnosed with dementia in the North East, there are likely to be three others unknown to the clinical services.

2.1 Early On-set Dementia

Early on-set dementia is defined as the on-set of dementia in people under the age of 65 years. In the UK this accounts for approximately 2.2% of all people with dementia. In the North East in 2008 (illustrated in Chart 1), it is estimated that 684 individuals under the age of 65 years will have dementia, with 59% (401) being male and 41% (283) being female.

The projected trends in the number of cases of early on-set dementia in the North East is expected to increase overall during the period from 2008 to 2025 by around 5%. However the increase in cases is not predicted until the latter stages of the time period, occurring around 2020 and beyond. The rate of increase in the North East of England in the predicted numbers of people with early on-set dementia is significantly less than the 15% increase predicted for the whole of England by 2025. This lower than expected increase may be due to the skewed demographic distribution of the region’s population, following over two

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50 Prediction using the 2005 based mid-year estimates produced by the Office for National Statistics – sum of early and late on-set population predictions
51 Prediction using the 2006 based mid-year estimates produced by the Office for National Statistics – sum of early and late on-set population predictions
52 Prevalence of Dementia on GP Registers - Quality & Outcomes Framework April 07 to March 08
53 Section 3.5 – Dementia UK p27
decades of outward migration from the North East region of younger working aged people in the pursuit of employment.

In 2008, residents of County Durham account for 20% (139) of the regional total of people with early-on-set dementia, with 14% (95) living in Northumberland, 11% (74) in Sunderland and around 9% living in Newcastle. Of the smaller local authorities, 4% (24-27) of the regional total resides in each of Darlington and Hartlepool.

Chart 2 illustrates the expected populations with early on-set dementia in each of the twelve local authority districts in the North East in 2008 and 2025. All but Northumberland and Middlesbrough are predicted to see increases in the numbers with early on-set dementia. However in absolute numbers, the increase in any one district is predicted to be no more than seven individuals and given the precision of the prediction process, this probably equates to no significant change.

Chart 3 illustrates the number of predicted early on-set cases of dementia when national prevalence rates are applied to region’s population projections in 2008 and indicates that for both gender groups in the North East the largest population group will be aged 50-59 years of age – estimated at 198 for males and 125 for females respectively. Numbers in this age band account for approximately 50% of males and 44% of females who have early on-set dementia in total. Furthermore 22% (62) of females with early on-set dementia are under 50-years of age, whilst only 12% (48) of males are of that age group.
As referenced earlier, the predicted increases in the number of people in the North East of England with early on-set dementia for the period up to 2025 (5%) is approximately one-third that of the national average (15%). However there are increases in the numbers for each age band and gender group, as illustrated in Chart 3, except for the 40-49 year age group for both genders, where a small decrease is numbers is predicted.

2.2 Late On-set Dementia
Late on-set dementia affects around 668,563 people in the UK aged 65 years and over, some 98% of all people with dementia. In 2008 it is estimated that there are 29,770 people living in the North East of England with late on-set dementia. Unlike the numbers for early on-set dementia in the North East, nearly twice as many females as males develop dementia over the age of 65 years, consistent with the national rates and largely due to the larger female population in those age groups. In absolute terms in 2008 it is estimated that there are 19,577 females and 10,195 males with dementia aged 65 years and over in the North East.

As illustrated in Chart 4 below, over the period to 2025 it is predicted that the number of people with late on-set dementia in the North East will increase by 49% on the 2008 levels to around 44,381 people, marginally below the national rate of increase of 51%.

The number of males over 65 years of age with late on-set dementia is predicted to increase by 71% by 2025 to 17,468 people, while the number of females will increase to 26,912 – a 38% increase.
The demographic distribution of the number, age and gender of residents of each local authority district across the North East varies considerably, impacting on the future projected numbers for each district of individuals with late on-set dementia. Chart 5 illustrates the size in variation across the region, with the local authority districts with the greatest increases being Northumberland (67%) and Stockton (66%), while the predicted increase in Newcastle is relatively small at 27%. In absolute size, the numbers in County Durham could rise by 3,300 people and Northumberland by 2,700 while in Hartlepool the (smallest) increase is predicted to be 470 people, but still equivalent to a 49% increase for the district.
Chart 6 below illustrates the population numbers for the North East of England once the national prevalence rates have been applied to the population statistics of the region. This gives a prediction of current and future numbers of individual aged 65 and over with late on-set dementia.

In 2008, 75% (7,755) of males with late on-set dementia are aged 75 years and over, while amongst females in the North East the rate is 85% (17,534 individuals). Males outnumber females in the 70-74 years age group, by approximately 150, while in later years the trend is reversed with females outnumber males, generally by a ratio of 2:1, except for the over 85’s age group, where the ratio is nearly 3:1.

By 2025 it is predicted that the numbers with late on-set dementia will increase by at least one-quarter in all age groups. For males, aged 75-79 years and 80-84 years the predicted increase in numbers exceeds 50% to 3,040 and 3,783 respectively, while the numbers aged 85 years and over is expected to more that double to 7,506 individuals (increase of 132%).

The predicted increase in the numbers of females with late on-set dementia is smaller across all age groups when compared to males, except for the 65-69 year olds where the increase is also 32%. The smallest increases of 19% and 20% are expected in the 80-84 year and 70-74 years age groups, while the largest percentage increase (46%) is in the over 85 years age group, increasing by 3,783 to 13,886 individuals – accounting for nearly one-third of all individuals in the North East with late on-set dementia.
Chart 7 illustrates that across all local authority districts in the North East – bar two, the largest age group with late on-set dementia is the 75-84 year olds. In both Newcastle and Darlington, the largest age group in the population are those aged 85 years and over.

2.3 Sub-types of Dementia
The findings of the consensus panel that advised on the proportions of cases of dementia by sub-type for the Dementia UK report are contained in Table 3 of section 1.3 of this report.

Chart 8 illustrates the estimated number of cases of dementia by sub-types for the North East of England, which were derived by the rates held in Table 3 and the population predictions for the number of individuals with late on-set dementia in the region.

The data for the North East suggests that around 63% (18,724) of the predicted 29,770 individuals with late on-set dementia are likely to have Alzheimer’s disease, 17% (4,976) are predicted to have Vascular Dementia and 10% (3,029) with both Alzheimer’s disease and Vascular Dementia. The Lewy Bodies form of the condition is predicted to account for 4% (1,199) of cases in the region, while Frontotemporal Dementia is predicted be diagnosed in 1% of individuals (400) and 2% with Parkinson’s disease - 502 cases.
Table 5 illustrates the distribution of sub-types of dementia for the numbers of individuals in each local authority district in the North East.

**Table 5: Numbers Predicted to have Late On-set Dementia by Sub-type – North East England 2008 by Local Authority**

<table>
<thead>
<tr>
<th>Local Authority</th>
<th>Alzheimer's Disease</th>
<th>Vascular Dementia</th>
<th>Vascular Dementia &amp; Alzheimer's Disease</th>
<th>Lewy Bodies</th>
<th>Frontotemporal Dementia</th>
<th>Parkinson's Dementia</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Durham</td>
<td>3,656</td>
<td>972</td>
<td>601</td>
<td>234</td>
<td>78</td>
<td>98</td>
<td>174</td>
</tr>
<tr>
<td>Northumberland</td>
<td>2,536</td>
<td>676</td>
<td>418</td>
<td>164</td>
<td>55</td>
<td>69</td>
<td>121</td>
</tr>
<tr>
<td>Newcastle</td>
<td>1,909</td>
<td>506</td>
<td>313</td>
<td>121</td>
<td>40</td>
<td>51</td>
<td>91</td>
</tr>
<tr>
<td>Sunderland</td>
<td>1,877</td>
<td>499</td>
<td>309</td>
<td>120</td>
<td>40</td>
<td>50</td>
<td>90</td>
</tr>
<tr>
<td>North Tyneside</td>
<td>1,549</td>
<td>410</td>
<td>254</td>
<td>99</td>
<td>33</td>
<td>41</td>
<td>74</td>
</tr>
<tr>
<td>Gateshead</td>
<td>1,429</td>
<td>380</td>
<td>235</td>
<td>92</td>
<td>31</td>
<td>38</td>
<td>68</td>
</tr>
<tr>
<td>South Tyneside</td>
<td>1,217</td>
<td>321</td>
<td>199</td>
<td>77</td>
<td>26</td>
<td>32</td>
<td>58</td>
</tr>
<tr>
<td>Stockton</td>
<td>1,200</td>
<td>321</td>
<td>198</td>
<td>78</td>
<td>26</td>
<td>33</td>
<td>57</td>
</tr>
<tr>
<td>Redcar &amp; Cleveland</td>
<td>1,062</td>
<td>282</td>
<td>175</td>
<td>68</td>
<td>23</td>
<td>29</td>
<td>51</td>
</tr>
<tr>
<td>Middlesbrough</td>
<td>912</td>
<td>242</td>
<td>150</td>
<td>58</td>
<td>19</td>
<td>24</td>
<td>44</td>
</tr>
<tr>
<td>Darlington</td>
<td>771</td>
<td>204</td>
<td>126</td>
<td>49</td>
<td>16</td>
<td>20</td>
<td>37</td>
</tr>
<tr>
<td>Hartlepool</td>
<td>606</td>
<td>162</td>
<td>100</td>
<td>39</td>
<td>13</td>
<td>16</td>
<td>29</td>
</tr>
</tbody>
</table>

Source: Dementia UK & POPPI

2.4 Severity of Dementia

The findings of the consensus panel advising on the proportion of cases by severity of dementia for the Dementia UK report are contained in Table 4 in section 1.4 of this report. Applying these proportions to the population figures in the North East, illustrated in Chart 9, it is possible to estimate that in 2008 there were 16,500 people in the region with late on-set dementia, with the mild form of the condition, 9,500 with the moderate form and 3,700 people with the most severe form of dementia. General practices in the North East reported in 2008 that there were 12,40015 people with diagnosed dementia on GP registers, probably including most people with the moderate and severe forms of the condition.

**Chart 9: Numbers Predicted to have Late On-set Dementia by Severity – North East England 2008 by Age Group**

Source: Using Projecting Older People Population Information System - Crown Copyright 2007

Chart 10 illustrates the numbers with late on-set dementia and their degrees of severity by local authority district of residency.

**Chart 10: Numbers Predicted with Late On-set Dementia by Severity**

North East England 2008 by Local Authority District

<table>
<thead>
<tr>
<th>Local Authority District</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Durham</td>
<td>1,866</td>
<td>727</td>
<td>0</td>
</tr>
<tr>
<td>Northumberland</td>
<td>2,237</td>
<td>505</td>
<td>0</td>
</tr>
<tr>
<td>Newcastle</td>
<td>1,675</td>
<td>379</td>
<td>1,000</td>
</tr>
<tr>
<td>Sunderland</td>
<td>1,654</td>
<td>958</td>
<td>1,060</td>
</tr>
<tr>
<td>North Tyneside</td>
<td>1,383</td>
<td>373</td>
<td>1,260</td>
</tr>
<tr>
<td>Gateshead</td>
<td>790</td>
<td>284</td>
<td>1,069</td>
</tr>
<tr>
<td>South Tyneside</td>
<td>1,069</td>
<td>241</td>
<td>1,060</td>
</tr>
<tr>
<td>Stockton</td>
<td>1,060</td>
<td>239</td>
<td>804</td>
</tr>
<tr>
<td>Redcar &amp; Cleveland</td>
<td>936</td>
<td>211</td>
<td>846</td>
</tr>
<tr>
<td>Middlesbrough</td>
<td>678</td>
<td>153</td>
<td>466</td>
</tr>
<tr>
<td>Darlington</td>
<td>309</td>
<td>121</td>
<td>534</td>
</tr>
<tr>
<td>Hartlepool</td>
<td>505</td>
<td>181</td>
<td>153</td>
</tr>
</tbody>
</table>

Source: Using Projecting Older People Population Information System - Crown Copyright 2007
2.5 Residential Status of People with Dementia

In addition to developing the estimated rates for the prevalence of dementia amongst the UK population, the consensus panel of experts advising on the Dementia UK report were also tasked with estimating the rates of people with late on-set dementia residing in [any form of institutional] care homes.

The panel concluded that the estimated rates for the proportion of residents with dementia in care homes varied with age and gender, ranging from 55.4% in males aged 70 to 74 years of age to 67.6% for females aged 95 years & over.16 Also from the evidence reviewed by the censuses panel, they concluded that the prevalence of dementia varies across the different types of institutions. The prevalence rates among all people aged 65 years & over residing in care homes for the Elderly Mentally Ill (EMI) was 80%, in nursing home was 66% and in residential care home was 50%.

Having established an estimated number of individuals with dementia residing in institutional care homes, the panel were then able to estimate the residential status of the remaining individuals. In doing so, the panel noted that nationally 64% of people aged 65 years & over with dementia reside in private households (the community), while 36% live in some form of care home.17 Further more the proportion of people with dementia living in care homes increased with age, with the proportion of the 65-74 years age group being 27%, rising to 28% for those aged 75-84, to 41% for the 85-89 year olds and 61% of those aged 90 years and over. Chart 11 illustrates the numbers of people by age group and their predicted residential status for 2008 and 2025.18

It was estimated that in 2008 around 10,900 people with late on-set dementia, live in some form of care home in the North East, with 56% (6,076) of this population being aged 85 years & over. Assuming that current policies remain in place, by 2025 the predicted demand for this type of care home accommodation is predicted to increase by 6,000 to 16,900 places, with three-quarters of the increase being from people aged 85 years & over.

16 Section 2.3 – Dementia UK p17
17 Section 3.13 – Dementia UK p34
18 These figures are calculated by applying the national proportions for residential status to the prediction populations illustrated earlier. It is assumed there is no change in the access rates to care homes.
Chart 11 illustrates that the numbers of people with dementia living in the community increases with age in a more uniform distribution than for those residing in institutional care homes. Over the period between 2008 and 2025, the predicted number of people with dementia living in the community is set to increase by 8,500 to 27,500, with those aged 85 years & over accounting for 39% of the population.

Chart 12 illustrates the distribution across the local authority districts within the North East of England for the predicted numbers with late on-set dementia requiring some form of institutionalised care in 2008 and 2025. While the numbers will be based on population size, the areas with the largest absolute demand for care places are County Durham and Northumberland and the smallest numbers will be in Darlington and Hartlepool. However in terms of percentage increases in demand, the districts of Northumberland (74%) and Stockton (73%) will experience the largest increases, while the increase in demand in Newcastle is predicted to be the least at 32%. Given this scenario of growth in numbers and assuming current policies remain in place, more than half of the local authority districts in the region are predicted to see demand for institutional care increase by over 50% of the levels in 2008.

Chart 12: Numbers with Late On-set Dementia Predicted to be Living in Some Form of Care Home
North East England 2008 & 2025 by Local Authority District
2.6 Dementia Amongst People With Learning Disabilities

The prevalence rates of individuals with Learning Disabilities in the adult population in England is estimated by the Department of Health to be between 1.89% and 2.7%\textsuperscript{19}, whilst for the under 65 age group the prevalence of Down's syndrome is 6.25\textsuperscript{20} per 10,000 of the general population and is 0.36 per 10,000 for people aged 65 and over.

Further, the prevalence of dementia in people with Down's syndrome in England is estimated to be 8.9% in people aged 45-49, 17.7% in people aged 50-54, 32.1% in people aged 55-59 and 25.6% in people aged 60 and over\textsuperscript{21}.

Consistent with the national prevalence of the population with Down's syndrome and dementia, most people with Down's in the North East have early on-set dementia with 64% aged between 55 to 64 years old and 34% being between 45 to 54 years of age (Table 6).

| Table 6: Projected numbers of individuals with Down’s syndrome and dementia North East England by Age Band |
|-------------------------------------------------|----------------|----------------|----------------|----------------|----------------|
| People aged 45-54 predicted to have Down’s syndrome and dementia | 30 | 30 | 30 | 28 | 24 |
| People aged 55-64 predicted to have Down’s syndrome and dementia | 56 | 57 | 57 | 66 | 65 |
| People aged 65 and over predicted to have Down’s syndrome and dementia | 1 | 1 | 1 | 2 | 2 |

Source: POPPI & PANSI – Department of Health – Crown Copyright 2007

The number of people with Down’s syndrome and a diagnosis of dementia is projected to remain constant over the next sixteen-years, at approximately 90 individuals per year in the North East. However, dominated by numbers for early on-set dementia, a change in age distribution occurs with 20% more individuals being diagnosed with dementia in the 55 to 64 year age band than at present, whilst fewer individuals are diagnosed in the younger age band of 45 to 54 years of age.

The numbers across the whole of the North East are small and have therefore not been illustrated here at local authority level. The largest groups worth noting are 12 to 13 individuals in County Durham and 8 to 9 in Northumberland in the 55 to 64 age group, and 6 in County Durham in the 45 to 54 age group, across the period 2008 to 2025.

\textsuperscript{19} Projecting Adult Needs & Service Information System and Projecting Older People Population Information System

\textsuperscript{20} The prevalence rate for this table is based on two studies which put the prevalence of at between 5.9 per 10,000 general population (Mantry et al) and 6.6 per 10,000 live births (the Clinical and Health Outcomes Knowledge Base). The mean of these rates, 6.25 per 10,000, has been used. Source - Projecting Adult Needs & Service Information System.

\textsuperscript{21} These prevalence rates are taken from a Dutch study by A Coppus et al entitled Dementia and mortality in persons with Down’s syndrome, and published in the Journal of Intellectual Disability Research, October 2006. The study reviewed 506 people with Down’s syndrome, aged 45 years and over, during 1999 to 2003, which represented almost all people with Down’s syndrome living in the community, as well as those living in institutions, in the south and south-west of the Netherlands.
Section 3  Service Provision in North East England

This section investigates the service provision available to people with dementia in the North East of England, building on material contained in Chapters 4 & 5 of the Dementia UK report.

People who suffer with dementia have multiple care needs that require intervention from a number of agencies from across both the health and social care systems, which in turn can be delivered by government, private or voluntary based organisations. However it is recognised that most support and care is not provided through these structured organisations but by individuals, whether unpaid family members, other unpaid caregivers or increasingly by individuals employed under direct payment or individuals budgets.

In terms of formal social care arrangements, the Dementia UK report focused specifically on three components of care provision for older people with dementia. These components being residential care provision, home care provision and day care provision and whilst the analyses contained in this section provides a good illustration of the differences in local patterns of service provision across the UK, it provides little insight into the reasons for such variations – factors that can include levels of need, local supply, levels of local deprivation, social inclusion and other socio-economic factors.

The data utilised in these analyses also relate to services provided to older people in general, as data is not specifically collected on the provision for people with dementia. The extent to which the data therefore reflects accurately the provision for people with dementia depends on the level of targeting. In the case of residential care, cognitive impairment is included as a risk factor for institutionalisation; while previous studies have indicated that 49% of users of day care services and 36% of users of home care services suffer from mild or severe congestive impairment. The likelihood is that these proportions have increased with improvements in the targeting of resources by local authorities.

Also discussed in the Dementia UK report was the provision of anti-dementia medication used in the treatment of dementia and as a measure of variation in services across local authority/PCT areas. The nationwide mapping of the availability of and spend on services of the sort generated for working age adults is not yet available for older people’s mental health services; there is an absolute lack of data in this area with which to look at service variation. Consequently, the use of a marker such as anti-dementia medication must be considered reasonable if it throws light on this neglected area.

Data on the number of prescriptions for anti-dementia medication that had been made in the year October 2005–September 2006 was obtained, which had been derived from the activity of 50% of the pharmacies in England and Wales, representing some 90% of all UK prescribing. There are limitations to the data: they record numbers of prescriptions, not the numbers of individuals receiving treatment; prescriptions may be for a short or a long period, and one individual is likely to receive many prescriptions in a year; there is also a significant variation among general practitioners for the propensity to prescribe, so results may also reflect GP variations as well as difference in the need for medication. However the use of anti-dementia medication as a marker for service provision must be considered reasonable as it throws light on a neglected area of information. In these analyses data on all four anti-
Dementia medications were added together and divided on a PCT basis by the projections of the numbers of people with dementia.

3.1 Residential & Nursing Care Homes - Services for All Aged 65 Years & Over

In 2008 it was estimated that in England 124,550 older people were supported residents in residential homes and 57,670 were in nursing care homes (Table 7), accounting for 1.5% and 0.7% respectively of the population of that age group.

In the North East of England, around 9,320 individuals are supported in residential homes and 3,320 in nursing care homes, accounting for 2.2% and 0.8% of the population respectively. A greater proportion of the age group are supported in this region, in both types of care homes, than the national proportion, with the proportion receiving residential support being more that one-and-a-half times the national rate.

Table 7: Number of Council Supported Residents in Local Authority and Independent Care Homes - North East England 31st March 2008

<table>
<thead>
<tr>
<th></th>
<th>Residential Care</th>
<th>% of population Aged 65 and over</th>
<th>Nursing Care</th>
<th>% of population Aged 65 and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>124,550</td>
<td>1.5%</td>
<td>57,670</td>
<td>0.7%</td>
</tr>
<tr>
<td>North East</td>
<td>9,320</td>
<td>2.2%</td>
<td>3,320</td>
<td>0.8%</td>
</tr>
<tr>
<td>County Durham</td>
<td>2,105</td>
<td>2.4%</td>
<td>540</td>
<td>0.6%</td>
</tr>
<tr>
<td>Northumberland</td>
<td>1,110</td>
<td>1.9%</td>
<td>410</td>
<td>0.7%</td>
</tr>
<tr>
<td>Darlington</td>
<td>440</td>
<td>2.6%</td>
<td>150</td>
<td>0.9%</td>
</tr>
<tr>
<td>Hartlepool</td>
<td>365</td>
<td>2.5%</td>
<td>70</td>
<td>0.5%</td>
</tr>
<tr>
<td>Middlesbrough</td>
<td>530</td>
<td>2.5%</td>
<td>125</td>
<td>0.6%</td>
</tr>
<tr>
<td>Redcar &amp; Cleveland</td>
<td>505</td>
<td>2.0%</td>
<td>175</td>
<td>0.7%</td>
</tr>
<tr>
<td>Stockton-on-Tees</td>
<td>625</td>
<td>2.2%</td>
<td>230</td>
<td>0.8%</td>
</tr>
<tr>
<td>Gateshead</td>
<td>720</td>
<td>2.1%</td>
<td>335</td>
<td>1.0%</td>
</tr>
<tr>
<td>Newcastle-upon-Tyne</td>
<td>820</td>
<td>2.0%</td>
<td>465</td>
<td>1.1%</td>
</tr>
<tr>
<td>North Tyneside</td>
<td>540</td>
<td>1.6%</td>
<td>340</td>
<td>1.0%</td>
</tr>
<tr>
<td>South Tyneside</td>
<td>595</td>
<td>2.2%</td>
<td>145</td>
<td>0.5%</td>
</tr>
<tr>
<td>Sunderland</td>
<td>965</td>
<td>2.1%</td>
<td>320</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

Source: Table S4 Council supported residents in Councils with Adult Social Services Responsibilities care homes and independent care homes – Health & Social Care Information Centre 2008

Across the North East the variation in the proportions of individuals aged 65 years & older being supported with provision from local authorities ranges from 2.6% in Darlington to 1.6% in North Tyneside for supported residents in residential care homes and from 1.1% in Newcastle to 0.5% in Hartlepool and South Tyneside for nursing care homes. All local authorities in the North East of England support a larger proportion of the population in residential care homes than the national average, while only four authorities exceed the national rate for nursing home provision.

In context of the whole of England, Chart 13 illustrates the distribution of the proportion of the population aged 65 & older living in the supported home (residential and nursing care combined by local authority). A fourfold difference exists in the level of provision of care homes ranging from 4.1% of the population aged 65 & over in Kingston-upon-Hull to 1.2% in Wokingham. The range in the North East is from 3.5% in Darlington to 2.6% in North Tyneside, and the proportions of the population for each local authority is above the national rate.
3.2 Community Services - Services for All Aged 65 Years & Over

The provision of Community Services covers a multitude of interventions from home care\textsuperscript{27}, day care and overnight respite (see Table 8 for more details). In 2008 across England it was estimated (Table 8) that 480,000 individuals aged 65 & over were in receipt of home care services, 131,000 of day care services and 49,000 of short-term residential care amongst other services. Around 17,000 individuals nationally aged 65 years and older also received \textit{direct payments}, which are transfers of social care funding to the individual to spend on a range of services to meet the personal need of the individual.

In the North East of England during the same period (financial year 06/07 and illustrated in Table 8) around 33,000 individuals received home care services, 8,500 were in receipt of day care services and 6,000 individuals received a \textit{meals} service. Around 1,000 individuals in the region also benefited from \textit{direct payments} of funding to purchase social care provision.

Across the local authorities in the North East of England the provision of services varies considerably\textsuperscript{28}. In County Durham more older people have access to \textit{professional support} than have \textit{home care}, while access to \textit{equipment & adaptations} are also made widely available to this population. In Sunderland and Gateshead the numbers of individuals aged 65 years and older who have \textit{day care} services is 10\% of the number who receive \textit{home care}, while in County Durham and Northumberland this figure is closer to 33\%.

Around 1,000 individuals across the region are in receipt of \textit{direct payments} with which to fund their own social care services. In Sunderland approximately 255 individuals benefit from this arrangement, accounting for one-quarter of those in the North East. The numbers in receipt of this facility from the other local authorities in the region ranges from 20 in Darlington to 95 in Hartlepool.

\textsuperscript{27} Includes home help, home care and overnight respite in client’s home

\textsuperscript{28} However not withstanding the comment in section 4 that the figures illustrates the facts about service provision but no evidence towards the rationale behind their configuration
### Table 8: Estimated Number of Clients Aged 65 & Over Receiving Community Based Services - North East England 1 April 2006 to 31 March 2007

<table>
<thead>
<tr>
<th>Councils with Social Services Responsibilities</th>
<th>Home Care</th>
<th>Day Care</th>
<th>Meals</th>
<th>Overnight respite - not clients home</th>
<th>Short-term residential - not respite</th>
<th>Direct payments</th>
<th>Professional Support</th>
<th>Equipment and adaptations</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>480,000</td>
<td>131,000</td>
<td>139,000</td>
<td>41,000</td>
<td>49,000</td>
<td>17,000</td>
<td>254,000</td>
<td>382,000</td>
<td>75,000</td>
</tr>
<tr>
<td>North East</td>
<td>33,000</td>
<td>8,500</td>
<td>6,000</td>
<td>3,900</td>
<td>3,800</td>
<td>1,000</td>
<td>15,000</td>
<td>28,000</td>
<td>3,700</td>
</tr>
<tr>
<td>County Durham</td>
<td>6,350</td>
<td>2,165</td>
<td>0</td>
<td>1,320</td>
<td>675</td>
<td>90</td>
<td>7,715</td>
<td>6,015</td>
<td>55</td>
</tr>
<tr>
<td>Northumberland</td>
<td>4,230</td>
<td>1,360</td>
<td>780</td>
<td>0</td>
<td>830</td>
<td>90</td>
<td>4,175</td>
<td>705</td>
<td>45</td>
</tr>
<tr>
<td>Darlington</td>
<td>965</td>
<td>210</td>
<td>280</td>
<td>65</td>
<td>165</td>
<td>20</td>
<td>45</td>
<td>1,125</td>
<td>60</td>
</tr>
<tr>
<td>Hartlepool</td>
<td>1,165</td>
<td>320</td>
<td>105</td>
<td>95</td>
<td>380</td>
<td>95</td>
<td>60</td>
<td>1,530</td>
<td>65</td>
</tr>
<tr>
<td>Middlesbrough</td>
<td>1,005</td>
<td>430</td>
<td>0</td>
<td>115</td>
<td>260</td>
<td>80</td>
<td>65</td>
<td>2,635</td>
<td>65</td>
</tr>
<tr>
<td>Redcar &amp; Cleveland</td>
<td>1,335</td>
<td>640</td>
<td>145</td>
<td>220</td>
<td>105</td>
<td>50</td>
<td>250</td>
<td>2,090</td>
<td>55</td>
</tr>
<tr>
<td>Stockton on Tees</td>
<td>1,885</td>
<td>340</td>
<td>0</td>
<td>135</td>
<td>135</td>
<td>80</td>
<td>20</td>
<td>3,515</td>
<td>115</td>
</tr>
<tr>
<td>Gateshead</td>
<td>2,215</td>
<td>260</td>
<td>1,495</td>
<td>330</td>
<td>50</td>
<td>30</td>
<td>245</td>
<td>2,670</td>
<td>20</td>
</tr>
<tr>
<td>Newcastle upon Tyne</td>
<td>4,105</td>
<td>915</td>
<td>715</td>
<td>515</td>
<td>235</td>
<td>70</td>
<td>2,145</td>
<td>1,400</td>
<td>0</td>
</tr>
<tr>
<td>North Tyneside</td>
<td>2,555</td>
<td>700</td>
<td>1,000</td>
<td>600</td>
<td>160</td>
<td>60</td>
<td>265</td>
<td>1,795</td>
<td>2,960</td>
</tr>
<tr>
<td>South Tyneside</td>
<td>2,400</td>
<td>615</td>
<td>180</td>
<td>0</td>
<td>190</td>
<td>35</td>
<td>0</td>
<td>1,430</td>
<td>290</td>
</tr>
<tr>
<td>Sunderland</td>
<td>5,190</td>
<td>515</td>
<td>1,275</td>
<td>500</td>
<td>560</td>
<td>255</td>
<td>330</td>
<td>2,845</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Table P21.1c Community Care Statistics 2006/7 - Health & Social Care Information Centre 2008

The following Charts 14 & 15, set the social care service provision for people aged 65 & over living in the North East in context for the whole of England. On average (median) in England over the financial year 06/07, 6.1% of individuals aged 65 years & over were in receipt of some form of home care service (Chart 14), with the variation amongst local authorities ranging 30.5% in Norfolk to 1.2% in Newham. Nine of the twelve local authorities in the region reported home care service provision available to a larger proportion of individuals aged 65 years & over than the national average, with Newcastle being ranked 2nd overall with 20.3% of the resident population accessing this type of service. The local authority in North East in which the smallest proportion of individuals access home care services is Middlesbrough, with 4.8% of the population aged 65 years & over, still four-fold more than the lowest in England.

Chart 15 illustrates the distribution of the proportion of the population aged 65 & over by local authority in receipt of day care services in England for the financial year 06/07. The variation across England is from 12% in Norfolk to 0.3% in Newham, with the average (median) proportion of the population aged 65 & over accessing services being 1.6%. In the North East, eight of the local authorities reported a higher proportion of the population accessing day care services than the national average, with Newcastle again reporting the largest proportion accessing these services. The provision in Newcastle at 4.5%, is the second largest in England and is three-fold the national average. The service provision in Gateshead for day care services was the lowest in the region, supporting 0.8% of the population aged 65 & over and was half the national average.
Chart 14: Distribution of the Proportion of Population Aged 65 & Over Receiving Home Care Services - April 2006 to March 2007 in England

- Sunderland: 11.4%
- South Tyneside: 9.9%
- Newcastle: 12.3%
- County Durham: 9.4%
- Northumberland: 7.2%
- North Tyneside: 7.5%
- Hartlepool: 7.9%
- Redcar & Cleveland: 7.2%
- Gateshead: 6.6%
- Stockton on Tees: 6.6%
- Darlington: 5.6%
- Middlesbrough: 4.8%
- Newcastle: 20.3%

Source: Community Care Statistics 2007/8 for England Table P2f.1c - NHS Health & Social Care Information Centre 2008

Chart 15: Distribution of the Proportion of Population Aged 65 & Over Receiving Day Care Services - April 2006 to March 2007 in England

- Gateshead: 0.8%
- Stockton on Tees: 1.2%
- Darlington: 1.2%
- North Tyneside: 2.1%
- Middlesbrough: 2.1%
- Hartlepool: 2.2%
- South Tyneside: 2.3%
- Northumberland: 2.3%
- County Durham: 2.2%
- Redcar & Cleveland: 2.6%
- English Median: 1.6%
- Sunderland: 1.1%
- Newcastle: 4.5%

Source: Community Care Statistics 2007/8 for England Table P2f.1c - NHS Health & Social Care Information Centre 2008
3.3 Drug Treatments for People with Dementia

Using the prescription patterns for the four anti-dementia drugs as a proxy for variation in service provision, the Dementia UK report noted the most striking finding of these analyses is the very high levels of variation between PCTs even in similar geographical and socio-demographic areas. The data for the local authorities in the North East support this analysis, with the estimated number of prescriptions per person with dementia ranging from 6.7 in Hartlepool to 1.2 in Newcastle – with the numbers of prescriptions in Hartlepool being in the top 10% of local authorities in the country and in Newcastle in the lower 20%.

Chart 16: Distribution of the Number of Prescriptions of Anti-dementia Medication October 2005 to September 2006

Chart 16 illustrates that the prescription rates in seven of the twelve local authorities in the North East are above the median for England & Wales (2.2), with rates in Gateshead (4.7) being more than twice this and in Hartlepool three-times. Conversely the rate of prescriptions per person with dementia in Newcastle is approximately half of the median value.

Aricept (donepezil hydrochloride), Exelon (rivastigmine), Reminyl (galantamine) & Ebixa (memantine)

www.alzheimers.org.uk/factsheet/407

Using the estimated numbers of people with dementia at PCT level generated for the Dementia UK report.
Appendix 1  What is Dementia?

The term ‘dementia’ is used to describe a collection of symptoms, including a decline in memory, reasoning and communication skills, and a gradual loss of skills needed to carry out daily activities. These symptoms are caused by structural and chemical changes in the brain as a result of physical diseases such as Alzheimer’s disease.

Dementia can affect people of any age, but is most common in older people. One in six people over 80 has a form of dementia and one in 14 people over 65 has a form of dementia.

Dementia is a progressive condition. This means that the symptoms become more severe over time. Understanding how this progression happens can be useful in helping someone with dementia anticipate and plan for change.

Researchers are still working to find out more about the different types of dementia, and whether any have a genetic link. It is thought that many factors, including age, genetic background, medical history and lifestyle, can combine to lead to the onset of dementia.

There are very many underlying causes. Alzheimer’s disease, which is characterised by the build up of deposits in the brain known as amyloid plaques and neurofibrillary tangles, is the commonest, accounting for one half to three-quarters of all people with the disease.

Vascular dementia is diagnosed when the brain’s blood circulation is repeatedly disrupted by strokes or other blood vessel pathology leading to significant accumulated damage to brain tissue and function. The distinction between Alzheimer’s disease and vascular dementia has been called into question, as it is common for people to develop both conditions simultaneously, particularly over the age of 80. Vascular damage may be a co-actor accelerating the onset of clinically significant symptoms in people with Alzheimer’s disease.

There are a few rare causes of dementia that may be treated effectively by timely medical or surgical intervention – these include deficiencies of thyroid hormone, vitamin B12 and folic acid. For the most part, altering the progressive course of the disorder is unfortunately not possible. However treating the symptoms of dementia and offering appropriate support services can make a significant difference to the lives of people with dementia and their caregivers.

The main risk factor for most forms of dementia is advanced age, with prevalence roughly doubling every five years over the age of 65. Onset before this age is known as young or early onset dementia, it is very unusual and, in the case of Alzheimer’s disease, often suggests a genetic cause. When early onset Alzheimer’s disease runs strongly in families then single gene mutations at one of three loci (Beta amyloid precursor protein, presenilin1 and presenilin2) account for most of these cases. For late onset Alzheimer’s disease both environmental (lifestyle) and genetic factors are important. Having a common genetic polymorphism, the apolipoprotein E (apoE) gene Q4 allele greatly increases the risk of going on to suffer from dementia; up to 25% of the population has one or two copies of this polymorphism (Saunders et al 1993, Nalbantoglu et al 1994). However, it is not uncommon for one identical twin to suffer from dementia, and the other not.
This implies a strong influence of the environment (Breitner et al 1995). Evidence from cross-sectional and case–control studies suggest associations between Alzheimer's disease and limited education (Ott et al 1995) and head injury (Mortimer et al 1991, Mayeux et al 1995), which, however, are only partly supported by longitudinal (follow-up) studies (Stern et al 1994). Depression has been shown to be a risk factor in short-term longitudinal studies, but this may be because depression is an early presenting symptom, rather than a cause of dementia (Devanand et al 1996). Recent research suggests that vascular disease and vascular risk factors predispose to Alzheimer's disease as well as to vascular dementia (Hofman et al 1997). Smoking seems to increase the risk for Alzheimer's disease as well as vascular dementia (Ott et al 1998). Long-term follow-up studies show that high blood pressure (Skoog et al 1996, Kivipelto et al 2001) and high cholesterol levels (Kivipelto et al 2001) in middle age each increase the risk of going on to develop Alzheimer's disease in later life. Reports from epidemiological studies of protective effects of certain prescribed medication such as non-steroidal anti-inflammatory drugs, anti-hypertensives and cholesterol lowering therapies, are now being investigated in randomised controlled trials.

Taken from Dementia UK – Full Report (pp 2&3)
Appendix 2  Dementia Sub-types

There are different types of dementia caused by different diseases of the brain. Because these diseases affect the brain in different ways, they produce different symptoms. Some of the most common forms of dementia are listed below.

**Alzheimer’s disease** is the most common type of dementia. It changes the chemistry and structure of the brain, causing brain cells to die.

In the early stages of Alzheimer’s, the person’s behaviours may change in very small ways. They may start forgetting things or repeating themselves more often than usual, for example. At first people often attribute these symptoms to factors such as ageing, stress or bereavement.

In the middle stages of Alzheimer’s, the person may need reminders to carry out activities of daily living such as eating, dressing or using the toilet. The person’s memory will get worse, and they may have difficulty recognising familiar people or places.

Over time, the person will become increasingly dependent on others for help. They are likely to experience severe memory loss and become increasingly frail. They may have difficulty with eating, swallowing, continence and experience loss of communication skills such as speech.

**Vascular dementia** is caused by strokes or small vessel disease which affect the supply of oxygen to the brain. Vascular dementia affects people in different ways. It can cause communication problems, stroke-like symptoms and acute confusion.

The symptoms that a person experiences as a result of a stroke depend on which part of the brain has been damaged. For example, if the damaged area is responsible for movement of a limb, paralysis may occur. If the part of the brain damaged is responsible for speech, the person may have problems communicating.

When vascular dementia is caused by a single stroke, it is called single-infarct dementia. Vascular dementia is more commonly caused by a series of small strokes. These can be so tiny that the person may not notice any symptoms or the symptoms may be only temporary. This is called multi-infarct dementia.

Vascular dementia progresses in a similar way to Alzheimer’s disease, but progression is often 'stepped' rather than gradual, declining suddenly as the person has a new stroke. Progression of vascular dementia may be slowed through the control of underlying risk factors such as blood pressure.

**Frontotemporal dementia** is a rare form of dementia affecting the front of the brain. It includes Pick’s disease and often affects people under 65. In the early stages, the memory may remain intact, while the person’s behaviours and personality change.

In the early stages of frontotemporal dementia, the person is less likely to become forgetful than in Alzheimer’s disease. Instead their behaviour can change quite dramatically. For example, they may seem more selfish or unfeeling than usual or sexually uninhibited. The later stages are very similar to Alzheimer’s disease.

**Dementia with Lewy bodies** is caused by tiny spherical protein deposits that develop inside nerve cells in the brain. These interrupt the brain’s normal functioning, affecting the person’s memory, concentration and language skills.
This type of dementia has symptoms similar to those of Parkinson’s disease, such as tremors and slowness of movement. The person may also experience hallucinations. The progression of this condition can be confusing for carers, as the person’s abilities may fluctuate.

Taken from *Dementia UK – Full Report* (pp 4&5)
Appendix 3  About the North East of England

The North East of England is the smallest of the UK government office regions and is home to a projected 2.57 million people\(^3\)\(^1\), accounting for some 5% of the national population.

In 2008, around 41% of the region’s population is aged between 30 & 64 years of age and 17% are aged 65 years & older. The left-hand portion of the charts A3.1 & A3.2 illustrate the distribution of the population in 2008 by quinary age group and by gender.

By 2025 the region’s population is projected to increase in size to 2.72 million people, an increase of 6%. The right-hand portions of charts A3.1 & A3.2 illustrate the projected numbers for each quinary age group up to aged 85 & over.

In 2025 it is projected that the proportion of the population aged between 30 & 64 years of age will increase to 44% of the population, while those aged 65 years & older will account for 22%.

In some age groups the increases in population are quite dramatic, in particular the numbers of males aged 85 years & over resident in the region is projected to more than double with an increase of 133%, while the numbers of females are projected to increase by around 53%.

The social services responsibilities within the North East of England are administered through the twelve unitary authorities, from the newly formed predominantly rural based County Durham and Northumberland local authorities, to the former Tyne Wear metropolitan county districts of Gateshead, Newcastle-upon-Tyne, North Tyneside, South Tyneside and Sunderland, and the collection of unitary districts in the south of the region, namely Darlington, Hartlepool, Middlesbrough, Redcar & Cleveland, and Stockton-on-Tees clustered together in the Tees Valley.

In 2008, two-thirds of the region’s population resided in the urban areas in Tyne Wear and Tees Valley, whilst the unitary authorities in the North East with the largest resident populations were County Durham (20%) and Northumberland (12%). The areas with the smallest resident populations in the region are Darlington and Hartlepool, both accounting for 4% of the North East’s residents (Table A3.1).

\(^3\) 2006 based Sub National Population Project for 2008 produced by the Office for National Statistics.
Table A3.1 illustrates the distribution of the predicted populations by local authority area for all ages in 2008 and 2025.

<table>
<thead>
<tr>
<th>Local Authority Areas</th>
<th>All Ages 2008</th>
<th>All Ages 2025</th>
<th>% Increase between 2008 &amp; 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Durham</td>
<td>504,700</td>
<td>543,400</td>
<td>7.7%</td>
</tr>
<tr>
<td>Northumberland</td>
<td>311,400</td>
<td>332,100</td>
<td>6.6%</td>
</tr>
<tr>
<td>Gateshead</td>
<td>190,700</td>
<td>198,300</td>
<td>4.0%</td>
</tr>
<tr>
<td>Newcastle</td>
<td>272,400</td>
<td>286,400</td>
<td>5.1%</td>
</tr>
<tr>
<td>North Tyneside</td>
<td>197,100</td>
<td>219,300</td>
<td>11.3%</td>
</tr>
<tr>
<td>South Tyneside</td>
<td>150,900</td>
<td>153,600</td>
<td>1.8%</td>
</tr>
<tr>
<td>Sunderland</td>
<td>279,700</td>
<td>278,400</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Darlington</td>
<td>100,400</td>
<td>111,900</td>
<td>11.5%</td>
</tr>
<tr>
<td>Hartlepool</td>
<td>91,800</td>
<td>99,800</td>
<td>8.7%</td>
</tr>
<tr>
<td>Middlesbrough</td>
<td>137,600</td>
<td>135,700</td>
<td>-1.4%</td>
</tr>
<tr>
<td>Redcar &amp; Cleveland</td>
<td>140,100</td>
<td>147,800</td>
<td>5.5%</td>
</tr>
<tr>
<td>Stockton</td>
<td>191,700</td>
<td>214,800</td>
<td>12.1%</td>
</tr>
<tr>
<td>North East</td>
<td>2,568,500</td>
<td>2,721,400</td>
<td>6.0%</td>
</tr>
</tbody>
</table>


The largest percentage increases in population in the North East during the period 2008 and 2025 is predicted in Stockton, Darlington and North Tyneside, with increases twice the regional average increase. Two local authority areas in the North East are projected to decrease in size marginally over the period, these being Sunderland and Middlesbrough.