Housing Learning & Improvement Network

# Yorkshire & the Humber Region Extra Care Housing Regional Assessment Study:

## REPORT

Regional analysis for Extra Care Housing in the Yorkshire and Humber region. This report identifies the supply and demand for Extra Care Housing over the next 10 years, taking into account demographic changes and market influences, and sets out a number of recommendations to support the further development of Extra Care Housingwithin local housing with care economies in the region.

Prepared for the Housing Learning & Improvement Network by
**URS Corporation**

Care Services Improvement Partnership CSIP

Health and Social Care
Change Agent Team

The Health and Social Care Change Agent Team (CAT) was created by the Department of Health to improve hospital and social care associated arrangements. The Housing Learning & Improvement Network, a section of the CAT in the newly formed Care Services Improvement Partnership, is devoted to housing based models of care and support for adults.

**ACKNOWLEDGEMENT**

This report was commissioned by Jeremy Porteus, Housing Network Lead in the Change Agent Team, a part of the Care Service Improvement Partnership at the Department of Health, on behalf of the North Yorkshire Housing Learning and Improvement Network and the Yorkshire and the Humber Housing Learning and Improvement Network.

We are grateful to all those who have contributed to the report and members of the Steering Group who have given time and commitment to oversee the project. In particular, to Harry Dodgeon at East Riding Borough Council, Ram Paul at Doncaster Metropolitan Borough Council, Debbie von Majowski and Stephen Beale at North Yorkshire County Council, Ian Wright at Sheffield City Council and staff at South Sheffield PCT.

The report was prepared by Rory Brooke, Christopher Brown and Esther Howe of URS Corporation Ltd.

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## ABBREVIATIONS

| | |
|---|---|
| ADP | Approved Development Programme |
| APD | Aged Persons Dwelling |
| BME | Black and Minority Ethnic |
| CBA | Cost Benefit Appraisal |
| CSCI | Commission for Social Care Inspection |
| CSSR | Council with Social Services Responsibility |
| DETR | Department of the Environment, Transport and the Regions (now ODPM and DfT) |
| DfT | Department for Transport |
| DH | Department of Health |
| EAC | Elderly Accommodation Council |
| ECH | Extra Care Housing |
| EPD | Elderly People's Dwelling |
| GHS | General Household Survey (by ONS) |
| HA | Housing Association |
| HC | Housing Corporation |
| HIP | Housing Improvement Programme |
| JRHT | Joseph Rowntree Housing Trust |
| LA | Local Authority |
| LIFT | Local Improvement Finance Trust |
| LIN | Housing Learning and Improvement Network |
| LLTI | Limiting Long Term Illness |
| NHS | National Health Service |
| ODPM | Office of the Deputy Prime Minister |
| ONS | Office for National Statistics |
| OPD | Older Persons Dwelling |
| PCT | Primary Care Trust |
| PFI | Private Finance Initiative |
| PSSRU | Personal Social Services Research Unit |
| RAP | Referrals, Assessments and Packages of Care Return |
| RHB | Regional Housing Board |
| RHS | Regional Housing Strategy |
| RSL | Registered Social Landlord |
| RSS | Regional Spatial Strategy |
| Y&H | Yorkshire and the Humber region |

# YORKSHIRE & THE HUMBER REGION EXTRA CARE HOUSING REGIONAL ASSESSMENT STUDY - EXECUTIVE SUMMARY

**Recommendations and Expected Outcomes**

| Strategic Recommendations | Expected Outcomes |
|---|---|
| ▪ Establish a target for the Yorkshire and the Humber region of 7,000 ECH places by 2015;<br><br>▪ ECH schemes should replace a combination of residential and sheltered housing schemes over time;<br><br>▪ Growth in ECH should be made up of new builds and remodelling of existing stock;<br><br>▪ Create balanced ECH communities where residents include a mix of those people in need of 24 hour care as well as those that may need support from the neighbouring community;<br><br>▪ As a guide the mix of people should be approx 45 to 50 % who would otherwise be in residential care with the remaining from sheltered housing and other low care support environments – although this would be dependant on individual older people's need for care;<br><br>▪ Stakeholder consultation and promotion of ECH benefits to government decision makers and potential users; and<br><br>▪ Undertake further analysis on the demand, costs and non-monetary benefits of ECH and funding – particularly private sector funding. | ▪ Cost effective with potential financial savings of up to £16 million over the period to 2015 via remodelling existing housing and care stock;<br><br>▪ A change in the mix of care with ECH increasing from its current level of 1 % to 5% of the spectrum of care by 2015;<br><br>▪ Decreases in the percentage share of residential care and sheltered housing schemes over time;<br><br>▪ Increased choice for older people that enable a more independent lifestyle;<br><br>▪ Improved quality of life for residents of ECH schemes via improved health, well being and social interaction;<br><br>▪ Increased informal care from fellow ECH residents, friends and family; and<br><br>▪ Improved decision making by older people, government and providers of housing and care. |

## Chapter-by-Chapter Executive Summary

### Chapter 1 Introduction

URS was commissioned by the Department of Health's Housing Leaning Improvement Network (LIN) to undertake the development of a business case and associated strategic recommendations for Extra Care Housing (ECH) in the Yorkshire and the Humber region. The strategy and associated analysis in this report builds on the earlier URS report for the Housing LIN entitled, Extra Care Housing in Yorkshire and the Humber, Stage One: Supply and Demand Analysis (URS Stage 1 Report).

The objective of the study is to support the development of an Extra Care Housing Strategy for the Yorkshire and the Humber region. The strategy is to assist in directing the future level of ECH in Yorkshire and the Humber as part of the spectrum of housing and care services for older people.

In addition, one of the key purposes of the analysis is to promote ECH as a means of meeting older people's housing and care needs. The concept of ECH is consistent with recent policy developments, which have seen a shift away from institutional care towards models of support, which encourage independence and activity.

### Chapter 2 Background

The analysis for this study was undertaken in the context of a number of changes in the structure of initiatives, funding programmes and views considering housing needs both nationally and in the Yorkshire and the Humber Region. This section of the report sets out the background to the work, describing the region itself, reviewing the current policy and strategic context. In addition a brief review of the findings of the URS Stage 1 report are provided along with information on the concept of ECH and funding arrangements.

### Chapter 3 Methodology

A number of specific tasks were undertaken in the development of an ECH strategy. These centred on consultation with stakeholders, development of options and the generation of an appraisal framework.

URS consulted with a number of stakeholders including the Department of Health (DH), local government and health authorities within the Yorkshire and the Humber Region. In addition, private and social sector providers of housing were consulted along with older people to gather insights into the implications of ECH including older people's experiences with different types of housing as well as the potential benefits of ECH.

A range of information was collected and reviewed regarding the costs, benefits and demand for older peoples housing and care. This information was drawn from DH data, published reports and publicly available information.

A number of ECH options were also developed and fined tuned with feedback gathered via consultation with stakeholders along with research gathered via the literature review. The options developed focused on the level of ECH compared to other forms of care, the

services provided and the size of schemes. This allowed URS to undertake an economic appraisal of the options focusing on the cost of providing housing and care within the Yorkshire and the Humber. The focus of the option appraisal was on capital and operational costs in terms of the cost effectiveness of ECH.

The results of the economic appraisal allowed URS to provide strategic recommendations on the provision of ECH supported by information and findings via the literature review such as expectations for demand and how to best maximise the benefits of ECH.

**Chapter 4 A Review of the Demand for Formal Care**

Older people's aspirations and choices are increasingly at the centre of policy. These aspirations are rising with wider improvements in the standard of living, and the population of older people is also growing. The demand for various types of formal care and associated housing reflects both the changing need within the older population, and also the potential benefits of different care types.

This section examined the health and needs characteristics of people in Yorkshire and the Humber for whom ECH could be an appropriate. It also compared the characteristics of people receiving other forms of care and housing, including home care, sheltered housing, residential care and nursing care. This analysis allowed URS to estimate the potential demand for ECH in the Yorkshire and the Humber region along with the implications for care and housing services.

Based on our demand analysis we estimate that it would be appropriate to plan for around 137,000 people to be living in care and accommodation settings along with receiving home care by 2015 in the Yorkshire and the Humber region. This is in line with our assumption that the proportion of the population requiring care services will remain approximately the same as of today at approximately 15 % of people over 65. It is also important to highlight that we recognise that some older people will remain in their existing homes and therefore may demand home care supported by services such as telecare.

Utilising this key assumption of 15% of older people over 65 demanding some type of care, we estimated that ECH could increase from 1% to between 5% and 15% of the share of housing and care for older people by 2015. In terms of numbers of people, this would result in between 7,000 to 20,000 people residing in ECH by 2015. This increase could be derived from general population increases in the people over 65 but also replacing residential care and sheltered housing over time.

The demand for ECH range also set the context for subsequent stages of this report that developed growth options for ECH over time up to 2015 allowing the appraisal to be undertaken.

## Chapter 5 ECH Options of Analysis

Along with the demand for various housing and formal care service an important consideration in the development of an ECH strategy for the Yorkshire and the Humber region is that of the cost of providing housing and care services to older people via both the private and public sectors.

To examine the cost implications of the growth in ECH, a number of options were developed based on the current supply of housing and care services for older people along with the expectations for demand. This allowed the consideration of capital and operating / revenue costs and how ECH costs compare to other forms of care.

The options included a base case and a three ECH growth options:

- **Base Case:** A base case is often referred to as the do nothing approach but taking into account likely future expectations such as growth of the population. In this analysis we assumed that the current percentage share of housing and care remained the same over the analysis period (up to 2015).

- **Option 1:** ECH increases to 7,039 spaces by 2015. In this option we have assumed that ECH increases in line with population growth and replaces 16 % of residential care (3,621 spaces) and 1 % of sheltered housing (2,032 spaces) when compared to the base case;

- **Option 2:** ECH increases to 13,170 spaces by 2015. In this option we have assumed that ECH increases in line with population growth and replaces 40 % of residential care (9,054 spaces) and 2 % of sheltered housing (2,730 spaces) when compared to the base case; and

- **Option 3:** ECH increases to 20,323 spaces by 2015. In this option we have assumed that ECH increases in line with population growth and replaces 68 % of residential care (15,393 spaces) and 3.5 % of sheltered housing (3,544 spaces).

All the above options are based on the development of newly built ECH schemes over the analysis time frame compared with newly built schemes for other types of care. This was undertaken for consistency purposes. Importantly a number of other assumptions were incorporated into the options. Further information on these is outlined in Section 6 of this report.

Although Option 1 through to Option 3 assumes that ECH replaces a certain level of residential care and sheltered housing compared to the base case over time, these two types of support and care play an important role in the whole spectrum of care for older people. It is also envisaged that levels of nursing care will remain relatively static or show a modest rise, in particular to meet people with a higher level of dependency.

Given the complex nature of estimating an appropriate level and mix of care to meet a wide variety housing and care needs for older people along with their associated costs, it was thought that sensitivity analysis should be undertaken on a number of key variables.

These variables included capital and operating costs, mix of care and a combination of these variables.

**Chapter 6 Modified Economic Appraisal Base Case and Options**

Once options were finalised, information was collected and aggregated to allow the undertaking of a modified economic appraisal. We have termed this appraisal a "modified economic appraisal" as it focuses on the capital and operating costs. Therefore the costs of each option were compared since the appraisal sought to determine the cost effectiveness of the options, rather than calculate the difference between benefits and costs.

URS gathered information on the capital and operating costs of providing formal care to older people including nursing care, residential care, ECH, sheltered housing and home care. This information was sourced from a number of publicly available sources along with confidential information via the Department of Health, individual ECH schemes and associated stakeholders.

Variations in capital cost data were reported, however, on average ECH housing was estimated to have the highest capital cost per head at £86,882, followed by sheltered housing £62,554, residential care £56,256 and nursing care £44,006. The capital costs are based on new build costs for each type of care on a per head basis.

In terms of operating costs, variations were also reported. Nursing care the most intensive type of care for older people was estimated to have the highest cost per head per week at £359, followed by residential care £338, ECH £185, sheltered housing £142 and home care £73 per week. These costs appear to be consistent with the level of care – although we note that home care can be intensive, however, this figure is based on average care levels. The operating costs include the cost of provision of care and associated services such as salaries, care costs and overheads of operating different care schemes. Salaries represent the largest operating cost for all types of care.

Along with costs, URS examined the potential benefits of ECH. These included:

- Improved physical and mental health;
- Potential additional operating cost savings;
- The social environment of ECH schemes; and
- Provision of a wider community resource.

All of the above benefits are important considerations in the development of an ECH strategy.

**Chapter 7 Net Present Value and Analysis**

This section of the report compares the base case with each option enabling an estimate of the net economic benefit (cost saving) or net cost. Comparisons were undertaken using discounted cash flow techniques to determine the Net Present Value (NPV) of costs

of the base case and the options. This reflects the fact that the analysis is primarily seeking to examine the cost effectiveness of ECH replacing other forms of care overtime.

Discounted cash flow is a technique of appraising projects and policy changes based on the idea of "discounting" future costs (in the case of this analysis) to their net present values. The discount rate used for the NPV analysis was 3.5 % in line with UK Treasury guidelines. The discount rate is a real rate, as cash flows have not been adjusted to take into account inflationary price changes over time. The full cash flows over the analysis period are outlined in Appendix A with a further explanation of net present values and discounted cash flows in Appendix C of this report.

The base case NPV of costs discounted at 3.5 % was estimated at £11,460.6 million over the analysis period up until 2015. The base case NPV is lower than that of the options analysed, i.e. all options have a higher cost than the base case as outlined below:

- NPV option 1 - £11,482.9 million;
- NPV option 2 - £11,603.6 million; and
- NPV option 3 - £11,842.6 million.

The net cost of each of the options compared to the base case is outlined below[1]:

- NPV net cost option 1 - £21.9 million;
- NPV net cost option 2 - £143.0 million; and
- NPV net cost option 3 - £381.9 million.

Option 3 has the largest net cost of £381.9 million followed by option 2 with £143 million and option 1 with the lowest net cost of £21.9 million. Based on the above, Option 1 is preferred option given it has the least additional cost.

Sensitivity analysis was also undertaken on a number important variables. Sensitivity analysis can provide further insight into the development of a strategy – in this case to support the development of an ECH strategy for the Yorkshire and the Humber Region. Sensitivity analysis centred on:

- Remodelling of existing housing and care stock lowering capital costs for ECH;
- Previous research on the impact of ECH on old people suggests a more independent lifestyle further lowering the cash cost of care over the long term; and

[1] Please note this is based on our option assumptions regarding the replacement of residential care and sheltered housing. The ability for people to move into ECH would need to be assessed on an individual basis.

- The assumption that for the model of ECH to work at is best it should include a mix of people requiring no care to those that seek the availability of 24-hour care.

Combining of these factors improves the NPV of the options as follows:

- NPV net benefit option 1 - £5.4 million;
- NPV net cost option 2 - £74.6 million; and
- NPV net cost option 3 - £262.9 million.

Based on the sensitivity analysis tests, it shows that the cost effectiveness of ECH can be achieved (Option 1) with a number of practical assumptions as part of the spectrum of care for older people. Option 2 and Option 3 both remain negative after taking into account changes in key variables at negative £74.6 and £262.9 million.

In addition URS examined the issue of ECH affordability for older people. Based on our analysis some type of public sector subsidy would be needed to ensure affordability for lower income older people, whether this is in the case of upfront capital grants via the DH ECH fund or other similar public sector funding mechanisms and sources.

Although, it should be mentioned that in the future older people's incomes a likely to be higher, for example:

- Average pensioners incomes grew by over 60 % between 1979 and 1997[2];
- More recently pensioner incomes grew by 26% between 1994/95 and 2002/03[3]; and
- The purchasing power of pensioners in 25 years time will be 50 % higher than today[4].

The above income statistics combined with the fact that three quarters of older people are likely to own their own home by 2010 suggests that not only should ECH schemes be considered for older people on low incomes but also for people medium to high income levels.

With the potential for rising incomes of older people in the future it is possible that the provision of ECH schemes would be more attractive to private sector developers and those pursing mixed tenure developments. Based on the current information available much of the private sector development remains largely opportunistic but there is growing

[2] DH

[3] ONS

[4] DH

evidence that private sector developers and local authorities are beginning to work together more closely to broaden the housing and lifestyle choices available to older people.

**Chapter 8 Strategic Recommendations**

The analysis outlined in this report supports the further development and provision of ECH schemes in the Yorkshire and the Humber. Based on the evidence provided in this report ECH schemes have the potential to provide positive economic benefits in terms of cost savings in delivering housing and formal care to older people. In addition, the concept of ECH schemes can make a positive contribution to residents in terms of quality of life factors and potentially as a local community resource.

Outlined below are brief descriptions of the strategic recommendations:

***ECH Target***

Based on the options presented in this document, we recommend that Option 1 should be introduced as a target ECH level within the Yorkshire and the Humber region. Option 1 provides a balanced growth rate in ECH along with being cost effective. It was estimated under this option that by 2015 an estimated 7,000 people could be placed in ECH - an average growth rate of approximately 580 per annum.

***What should ECH replace?[5]***

ECH should aim to replace both residential and sheltered housing schemes over time in line with Option 1. Based on our analysis the target assuming new builds should be to replace 16 % of residential care and 1 % of sheltered housing when compared to the base case. This would result in approximately 50 % of people who would otherwise have been in residential care and the remaining from sheltered housing and low-level care and support.

***New Build versus Remodelling and Size***

Growth in ECH should be made up of a combination of new builds and remodelling of existing stock. Incorporating remodelling of existing stock into our analysis allows an increased number of people that would otherwise have been located in sheltered housing and less from residential care.

Based on our analysis, remodelling 15 % of existing stock into ECH, would enable ECH to replace 14.5 % of residential care and 1.5% of sheltered housing. This would result in approximately 48% of people who would otherwise have been in residential care and the remaining from sheltered housing and low support types of care.

[5] Please note this is based on our option assumptions regarding the replacement of residential care and sheltered housing. The ability for people to move into ECH would need to be assessed on an individual basis.

We also recommend the Department of Health and stakeholders investigate increasing the average number of ECH units per scheme given the potential cost savings in upfront capital and operating annual costs over time.

***Stakeholder Consultation and Promotion of ECH***

We recommend that some form of stakeholder consultation and promotion of ECH be undertaken through the evidence presented via this study. The audience should include central government, regional and local government, providers of care and potential users. The consultation and promotion should focus on:

- The presentation and promotion of a clear definition of what ECH is and what services and facilities they provide;
- The potential demand for ECH schemes; and
- The potential financial benefits / cost savings and non-monetary benefits of ECH as a part of the spectrum of care for older people.

***Focused market research and collection of data***

A lack definitive and consistent data exists regarding this important area of government policy. We recommend that future work include more in-depth analysis and associated research focusing on the following:

- Information on the needs / demand of older people in relation to care services;
- Consistent data regarding the cost of provision of ECH and to some extent other forms of care such as telecare; and
- Research quantifying the value of non – monetary benefits of older peoples care.

***Review of Funding Arrangements***

A review of sources and funding mechanisms should be undertaken taking into account possible changes to public sector funding criteria, reallocation between recurrent and capital funding programmes, avenues to increase private sector participation and greater co-ordination of local and regional funding of ECH and other inward investment streams.

# 1. INTRODUCTION

URS was commissioned by the Department of Health's Housing Leaning Improvement Network (LIN) to undertake the development of a business case and associated strategic recommendations for Extra Care Housing (ECH) in the Yorkshire and the Humber region. The strategy and associated analysis in this report builds on the earlier URS report for the Housing LIN entitled, Extra Care Housing in Yorkshire and the Humber, Stage One: Supply and Demand Analysis (URS Stage 1 Report).

One of the key purposes of the analysis is to promote ECH as a means of meeting older people's housing and care needs. The concept of ECH is consistent with recent policy developments, which have seen a shift away from institutional care towards models of support which encourage independence and activity, encouraging older people to live at home for longer or in a home environment such as ECH drawing on advances in technology and home design.

In undertaking the analysis and associated strategy development, URS undertook a series of consultations with stakeholders including the DH and other government offices, local government officials, providers of housing and care and importantly older people and potential users of ECH. It also involved the collection of a range of data on the costs and benefits of ECH along with other forms of housing and formal care for comparison purposes.

## 1.1. Objective of the Study

The objective of the study was the development of an ECH strategy for the Yorkshire and the Humber region. The strategy is to assist in directing the future level of ECH in Yorkshire and the Humber as part of the spectrum of housing and support services for older people. A preferred approach to the provision ECH was determined via:

- Utilising current and historical levels of demand and analysis of future demand for ECH in the context of other forms of care;
- Matching supply and demand to define future ECH needs;
- Literature review of the costs and benefits of ECH – both financial and non financial;
- Undertaking a series of meetings/workshops and focus-groups as appropriate to inform, involve and achieve buy-in and partnership development from key stakeholders; and
- Prepare and appraise options and put forward a preferred approach as part of an ECH strategy.

Importantly, it should be highlighted that the focus of the option appraisal was to focus on the cost side such as capital and operational costs in terms of cost effectiveness of ECH. A full cost benefit analysis would need to identify and quantify (where possible) all costs

and benefits of the options. A full cost and benefit analysis was outside the scope of the commission.

## 1.2. Outline of the Report

- Chapter 2 provides information on the background to the study, including a description of the region, a review of the policy and strategic context. In addition a brief review of the findings of the URS Stage 1 report are provided along with information on the concept of ECH and current funding arrangements.

- Chapter 3 summarises URS' approach to the development of a regional ECH strategy.

- Chapter 4 reviews the demand for care services for older people in the region, exploring the basis for an increase in the provision of ECH. The characteristics of older people which indicate potential demand for ECH are reviewed, and the benefits of ECH relative to other forms of care for older people. The demand analysis provides an indication of the potential need for ECH over time. The growth options in the following chapters fit within the framework of this demand analysis.

- Chapter 5 outlines options for future growth of the provision of ECH for older people in the Yorkshire and the Humber region based on supply and demand data. The options include a base case (the do-nothing scenario / business as usual), Option 1 (low growth), Option 2 (medium growth) and Option 3 (high growth).

- Chapter 6 outlines the economic appraisal approach along with the data and assumptions regarding the base case and the growth options.

- Chapter 7 presents the Net Present Values of the base case and options in order to assist in determining the cost effectiveness of ECH. Sensitivity analysis was also undertaken to investigate changes in key cost variables.

- Chapter 8 outlines strategic recommendations and conclusions on ECH to help inform local and regional decision-making in the Yorkshire and the Humber region.

# 2. BACKGROUND

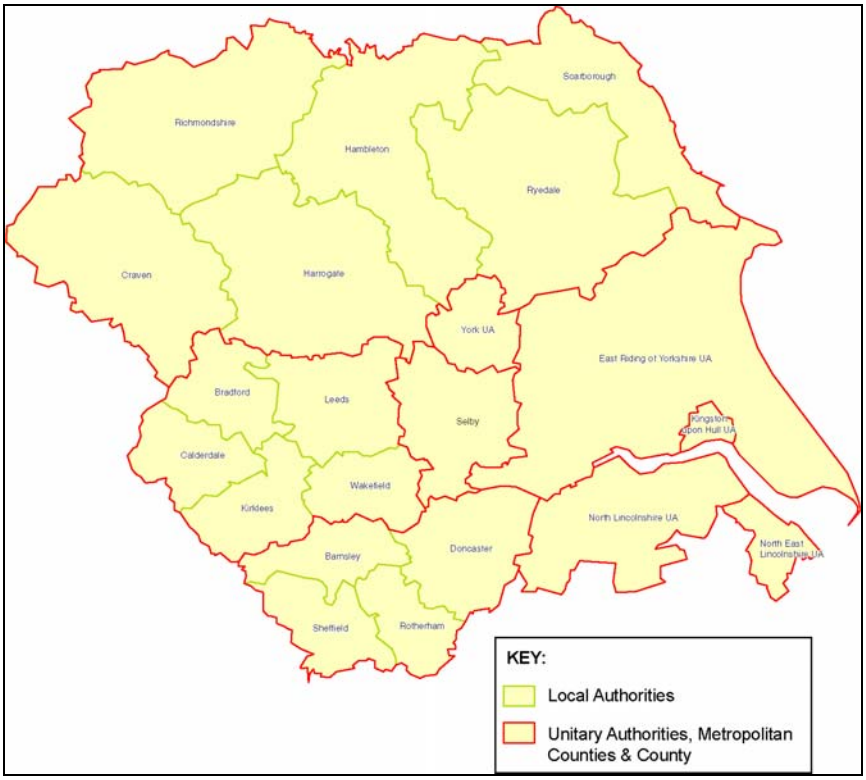
## 2.1. Background and Context

This analysis was undertaken in the context of a number of changes in the structure of initiatives, funding programmes and views considering housing needs both nationally and in the Yorkshire and the Humber Region. This chapter sets out the background to the work, describing the region itself, reviewing the current policy and strategic context. In addition a brief review of the findings of the URS Stage 1 report are provided along with information on the concept of ECH and current funding arrangements.

### 2.1.1. The Region

The local authorities and counties of the region are illustrated in Figure 2.1 below. The region is diverse in nature, with more rural areas such as North Yorkshire counterbalanced by the large urban centres such as Leeds, Sheffield, Doncaster and Bradford in the south and west, York in the centre and Hull in the east.

**Figure 2.1 Yorkshire and the Humber Region**




*Source: URS based on ONS (boundaries as at 1998)*

There are around 5 million people in Yorkshire and the Humber, of whom around 800,000 (16%) are aged 65. People over 45 make up 40% of the total population. See Figure 2.2 and Table 2.1 for details.

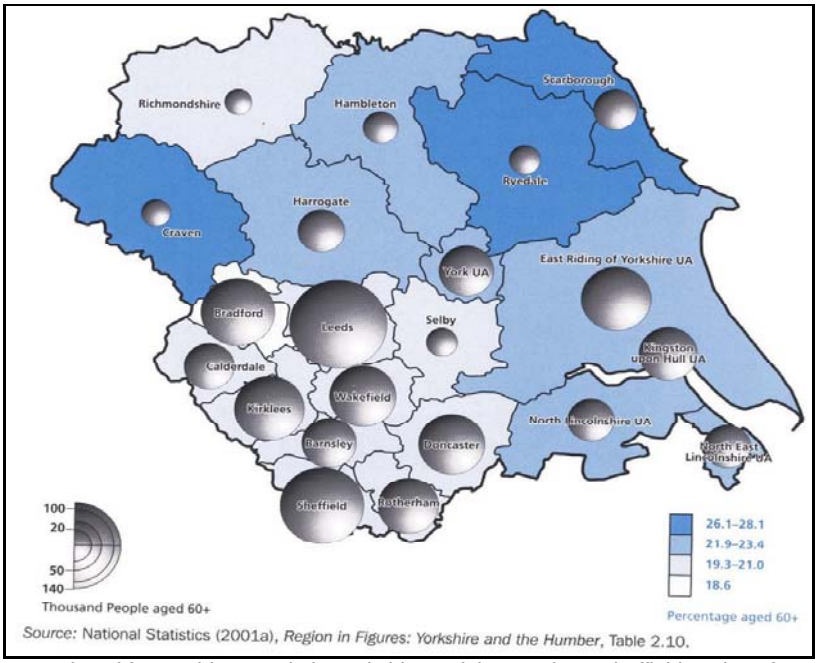
**Table 2.1 Age Structure of Y&H Total Population, 2001**

| Age | No | % | Cumulative % |
|---|---|---|---|
| 0-14 | 950,471 | 19% | 19% |
| 15-29 | 932,948 | 19% | 38% |
| 30-44 | 1,094,671 | 22% | 60% |
| 45-64 | 1,188,092 | 24% | 84% |
| >65 | 798,651 | 16% | 100% |
| **Total** | **4,964,833** | **100%** | |

*Source: ONS Census 2001*

Figure 2.2 below combines both absolute and relative concentrations of older people broken down by local authority area. In absolute terms Leeds, Sheffield, Bradford and Wakefield show the highest concentrations, in relative terms Scarborough, Ryedale and Craven.

**Figure 2.2 Concentrations of Older People in Y&H**




*Reproduced from 'Older People in Yorkshire and the Humber', Sheffield Institute for Studies on Ageing, 2002*

An additional important background consideration is the current housing tenure by older people in the region. Table 2.2 shows the tenure of pensioner households[6] in the region. Of 596,041 pensioner households in the region, the large majority own their houses (64%). Next largest is the group which rents from local authorities (23%). Only 8% rent privately or live rent free, and the other social rented sector comprises 5%.

**Table 2.2 Tenure of Pensioner Households, 2001**

| Type of Tenure | No | % |
|---|---|---|
| Owned | 379,761 | 64 |
| Rented from Council | 138,718 | 23 |
| Other Social Rented | 30,756 | 5 |
| Private Rented / Living Rent Free | 46,806 | 8 |
| **Total** | **596,041** | **100** |

*Source: ONS Census 2001*

With a large proportion older people living in their own homes, this is an important consideration in the development of an ECH strategy. As a number of older people may wish to remain at home and obtain support via home care services. An alternative option is that some older people may use the equity in their own homes to fund residing in ECH schemes either via purchase or renting.

### 2.1.2. Strategic context

In response to an ageing population in the UK, a number of policy changes and initiatives have been introduced with a particular focus on health, care and housing. In addition, policy forums have been established at a national and local level to assist in the development strategies and policies to meet the needs of older people. The information below provides further information on these recent changes.

**The shifting policy agenda for older people**

Nationally, the population is ageing and people are living longer. Social changes, in particular the fragmentation of the family unit, mean the support which older people traditionally received from their families in their homes is increasingly not available. Older people's quality of life aspirations are at the same time rising, and this is matched on the side of providers by an aspiration to improve older people's standards of living and choice.

[6] It should be noted that pensioner age is 65 and over for a man and 60 and over for a woman.

Underpinning these changes has been the drive to integrate health, housing and social care provision at every level. The benefits derived from this include a more flexible response to older people's needs, benefits of cost and practicality, and also the exchange of expertise giving rise to opportunities for innovation in service provision. The recent introduction of regulatory standards in the domiciliary care market has clarified registration arrangements for home care, domiciliary care and ECH.

**Policy Documents and Initiatives**

***National***

In January 2001, in *Quality and Choice for Older People: A Strategic Framework'* the DETR set out for the first time a vision for older people's housing and housing related support. *The National Service Framework for Older People* (DH, March 2001), an essential component of the NHS Plan, underpins the delivery of public services, including housing, health and social care services for older people. It sets the first national standards for better, fairer and more integrated services for older people. Since then, documents such as '*Preparing Older People's Strategies' (Housing Corporation/DH/OPDM, 2003 and Delivering Housing for an Aging Population: Informing Strategies and Planning Policies - HOP Dev 2005*) have been issued to guide local authorities within the new strategic arrangements for provision of Older People's Housing. The arrangements changed with the advent of *Supporting People* in 2003 (see Section 2.3.2).

In February 2004 the Deputy Prime Minister invited the three northern Regional Development Agencies to develop a plan to bridge the £29 billion output gap between the north and south of the country. *'Moving Forward: The Northern Way'* (Sept 2004) was the business plan which provides a basis for future economic strategy and investment.

In addition, at the time of this report a number of initiatives were in the process of being further developed. These included:

- A telecare initiative involving £80 million in expenditure;
- A £60 million pilot programme to support preventative measures in health, housing and social services for older people;
- A Prevention Technology Grant (DH) involving a two year, £80m initiative for local authority social services authorities (2006-2008) to work with their housing with care partnerships to support the further development of telecare;
- Partnerships for Older People Pilots (DH), a £60 million pilot programme to support preventative measures in health, housing and social services for older people; and
- The production a document entitled, *Independence, Choice and Well-being, Green Paper on Adult Social Care (DH)* recognising the importance of ECH as part of the spectrum of housing, care and support choices for older people.

### *Regional*

The Regional Housing Strategy (RHS) for Yorkshire and the Humber, formulated by the Regional Housing Board (RHB), was adopted in July 2003. A draft revision has now been issued for comment. The RHS comprehensively analyses the housing markets of the region, and lays out sub-regional partnerships as a framework for strategy and investment. The RHS, in the context of the Northern Way and other regional strategies, forms the key framework for decisions about region's housing priorities and investments.

The Regional Spatial Strategy (RSS) provides a spatial framework to inform the preparation of local development documents, local transport plans and regional and sub-regional strategies and programmes that have a bearing on land use activities. Published in 2004, it is now being revised by the Yorkshire and the Humber Assembly for delivery in September 2005. Meanwhile, Yorkshire Forward (the Regional Development Agency) is currently reviewing the Regional Economic Strategy (RES), to be endorsed by the Government in the Autumn. The RHS, RSS and RES will lock together and complement each other under '*Advancing Together'*, the Regional Assembly's strategic framework for the region.

In 2003 £500m was allocated as part of the Sustainable Communities Plan (2003) to a Market Renewal Fund, intended to carry a series of housing market Pathfinders through the first three years of their life. Transform, the South Yorkshire Pathfinder, and Gateway, the Hull and East Riding Pathfinder, will receive OPDM funding for the first three years, and after this may be top-sliced by the RHB. The Pathfinders represent huge housing capital spend and set out important strategic and investment priorities, including specific Area Development Frameworks for within the city boundaries. Major interventions are expected to be underway by 2006.

### *Local*

The RHS recommended that local authorities have Older People's Strategies in place by March 2005. Local authorities are at different stages in formulating these strategies according to local circumstances.

### Policy Forums

In addition to the internal structures of local authorities and regional agencies there are a number of forums for debating and agreeing housing strategies and needs. There are two sub-regional Learning and Improvement Networks (LINs) in the Department of Health's Change Agent Team. These were set up in 2002 and 2004 respectively to help local authorities and Primary Care Trusts (PCTs) deliver local services in response to local needs and help implement the National Service Framework for Older People. This network focuses on the housing with care choices for older people. Growing out of the national LIN have been two sub regional LINs: Yorkshire and the Humberside LIN and North Yorkshire Extra Care LIN.

At a regional level, the Regional Housing Forum acts as the 'voice of housing' for the region and brings together housing providers, consumers and their agencies involved in

housing in the region. The Forum played a major part in the formulation of the first RHS, and for its revision of the RHS it conducted research on the *'Fair Access for All'* strand of the Regional Housing Forum, which includes a piece on Older People's Needs but not specifically Extra Care Housing.

The arrangements for allocating capital funds for housing and other future inward investment have precipitated formation of sub-regional partnerships: West Yorkshire, South Yorkshire, North Yorkshire and The Humber. These partnerships, in line with these arrangements and recommendations from the Regional Housing Board, have prepared or are preparing sub-regional strategies for older people's housing. Sub-regional strategies will fit in with the RHS and form the basis for bids for funds for housing initiatives from various funding pots.

## 2.2. URS Stage 1 Study

URS was commissioned by the Department of Health in association with the Yorkshire and the Humberside and North Yorkshire Regional LIN Forums to undertake a study entitled, *Extra Care Housing in Yorkshire and the Humber, Stage One: Supply and Demand Analysis*. This analysis was part of the drive to understand the contribution that ECH can make to the housing and care needs of older people in the future.

Key components of the study included:

- The provision of a definition of ECH and how it fits within the spectrum of care for older people;
- Information on the profile of older people in the region is provided to assist in determining potential demand for ECH;
- The supply of care for older people data was collected and analysed outlining the current provision of housing and care for older people;
- Key issues in the field of older people's housing and care were identified and discussed such as secure packages of capital and revenue funding can deliver greater benefits and assist in planning in meeting older peoples needs; and
- Preliminary forecasts were developed in terms of low, medium and high growth estimates for the provision of ECH.

These findings provided a basis for the further research and analysis in the development of an ECH strategy for the Yorkshire and the Humber region as outlined in this report.

## 2.3. Understanding of ECH

ECH is one element within a range of provision housing with care and support for older people stretching from staying put services such as Home Improvement Agency (HIA) services to high dependency care Home Improvement Agencies are small, locally based not-for-profit organisations. They help homeowners and private sector tenants who are older, disabled or on low income to repair, improve, maintain or adapt their homes. They

provide people-centred, cost effective assistance, and help to tackle poor or unsuitable housing, enabling clients to remain in their own home, safe, secure, warm and independent.

ECH comprises not only a model of care with physical and support characteristics, but also a philosophical approach, the outcomes of which can be seen in an improved quality of life for older people.

In the URS Stage 1 Study discussed the definition of ECH. At a basic level, ECH is a physical model of housing with care that falls between sheltered housing and residential care. However, ECH also comprises a philosophy in which the central aspiration is improved quality of life for older people.

Based on our research the key elements of an ECH scheme are outlined below:

- Self-contained accommodation (flat or bungalow with own front door, bedroom, lounge, kitchen and bathroom);
- Geographical cluster of dwellings (accommodation grouped together with communal facilities and health and care services provided on site);
- Design features and/or technology to facilitate independence (for example, wheelchair adapted kitchen and bathroom, mobility aids, assisted bathing, alarms and other telecare);
- The availability of 24 hour care staff (administration of medicine, therapy and treatment, assistance with dementia and emergencies);
- Personal support (mobility assistance, help with tasks such as cleaning, bathing and dressing as required);
- Availability of meals;
- Communal facilities (lounge, laundry, dining area, computer/hobby room, guest room, function room, staff room, offices, etc) – particularly facilities that allow social interaction between residents; and
- A mix of residents with varying levels of care and support needs, i.e. for the ECH model to work best it should be targeted at those people not in need of 24 hour care as well as those that do need such services in order to create balanced communities in which informal care could form an important element.

## 2.4. Funding ECH

In examining the development of a strategy for the provision of ECH, it is important to keep in mind the sources and mechanisms for funding ECH developments. Although a full review of the funding was not part of our scope of work, it is important to highlight the different sources of funding along with emerging models as the approach to funding is continually evolving. Further details on how ECH is funded are found in the Housing LIN

Technical Brief No.2, Funding Extra Care Housing – see www.changeagentteam.org.gov/housing.

Outlined below are the key sources of ECH funding, although not a comprehensive, it does indicate that there exist a number of sources and that there is potential for a more streamlined approach to foster ECH developments. It is also important to note, as highlighted in the URS Stage 1 Study, that historically there exists a scarcity of public sector funds[7].

### 2.4.1. Capital Funding

Capital funds for ECH are available from the following sources:

- Department of Health ECH Fund;
- Housing Corporation's Approved Development Programme and, from 2004, the Single Pot administered by the Regional Housing Board;
- Commissioning local authorities; and
- Private developers and rental / sale income.

***Department of Health Extra Care Housing Fund***

In 2003 the DH announced a capital grant-funding programme to increase the housing with care choices of older people. The programme, initially for two years, saw partnership groups bid for part of the £87m fund including a small amount to support older people with learning disabilities. A further £60m for ECH has been announced by the DH to fund further schemes to 2008. The aim of these funds is to expand and stimulate the development of ECH in both the social housing and independent sectors, and to provide an opportunity for innovation in provision of housing for older people. DH funding is allocated via social services authorities. Appendix E provides information on the recent allocation ECH funds.

***The Regional Housing Pot***

Capital grants are also available from the Housing Corporation, the funding and regulatory body for Housing associations. Increasingly, these funds are being administered by the Regional Housing Board, as part of a "single regional pot" for housing. The Regional Housing Board allocates funds in response to bids from sub-regional partnerships. Bids must be in line with the priorities set out in the Regional Housing Strategy if they are to be successful.

[7] Scarcity of funds for ECH is reflected in the fact that various "pots" available for both capital and revenue were over-subscribed in the first rounds of bidding – page 46.

***Commissioning Local Authorities***

Capital funding is also be available to local authorities and according to local circumstances, for example, from the sale of nursing and residential homes, and the sale of housing stock. Similarly, where it is possible to develop mixed-tenure schemes, the sale of ECH to residents can contribute to the repayment of loans for capital costs. According to the DH there has recently been an increasing trend toward owner-occupier stock.

***Private Developers and Residents***

The capital for ECH may come from private developers if the ECH scheme is wholly or partly private sector. Ultimately, funds to raise repayments for capital loans may come from the sale of some or all apartments, or from rents, in the finished scheme. There are several ECH schemes planned for the region.

### 2.4.2. Revenue / Operating Funding

In terms of revenue / operating funding it is important to note that where public funding is sought, for example, from the DH and/or the Housing Corporation, capital funds will not be allocated unless revenue funding sources have been identified. These potential sources normally include:

- The Supporting People Programme;
- Income from residents (state benefits, private pensions and direct payments); and
- Relevant local housing authority, Primary Care Trust or Social Services Directorate.

***Supporting People Programme***

The Supporting People programme, part of the Sustainable Communities initiative, was implemented in all local authorities in 2003. A revenue grant is now given to local authorities, replacing a range of other revenue grants and sources, to cover housing-related support (the component of housing benefit which previously paid for certain elements of care and support). This has impacts on all older peoples housing, care and support services such as sheltered housing and HIAs.

***Residents***

Residents will themselves pay for some if not all of the services they receive in an ECH scheme. A number of public funds are available for those on low incomes. Different components of costs are often broken down by housing, service charges, support and care.

- Housing costs particularly in terms of where residents are renting can be with assistance via housing benefits. These are administered by the Department of Work and Pensions and supplement the rent of residents on low incomes (this is means tested).

- Housing-related support costs may be supplemented by Supporting People funds and again this is means-tested.

- The care services received by residents, and how much residents pay for these services, depends on the eligibility criteria and the charging policy of the local authority in question. Residents will pay for some or all of the care they receive. In addition, a number of social security benefits are available to help pay for care including Attendance Allowance, Carers Allowance and Pension Credit.

- In the future there will be greater use of direct payments and individualised budgets for older people to choose from particularly in regard to personalised services.[8]

***Local housing authority, Primary Care Trust or Social Services Directorate***

Depending on the partnership involved, revenue funds may be found from within the Local Government and other statutory bodies involved in the development ECH.

### 2.4.3. Emerging Funding Models

In recent years a number of new approaches to funding ECH have emerged, in particular drawing on private sector resources. These include partnerships between private and public sector bodies include Private Finance Initiatives, which typically involve a council entering into a long-term contract (25-30 years) with a private sector provider. The council pays for service on an annual basis over the course of the contract, retaining ownership of the stock, and the government helps meet the costs of the capital element of the contract by providing PFI credits. Examples of PFIs to fund ECH include the partnership between Kent County Council and Costain in Tenterton and Margate[9], and Hammersmith and Fulham Council[10]. Recently emerging models also include Joseph Rowntree Trust's insurance system at Hartrigg Oaks, where residents can chose a full refundable residence fee, a non-refundable residence fee, an annualised residence fee and outright purchase assisted living schemes[11].

[8] Department of Health (2005) *Green Paper – Adult Social Care: Independence, Well Being and Choice*

[9] Department of Health (2004) *Developing and Implementing Local ECH Strategies* (p 50)

[10] Riseborough and Fletcher (2004) Commissioning and Funding ECH (p8)

[11] It should be noted that the outright purchase is at the upper end of the ECH market for older people.

# 3. METHODOLOGY

A number of specific tasks were undertaken in the development of an ECH strategy. These centred on consultation with stakeholders, development of options and the generation of an appraisal framework. The approach is summarised below.

## 3.1.1. Option Development and Consultation

URS developed a number of initial options for consultation with stakeholders. Key feedback was obtained from the following:

- Three stakeholder workshops at Sheffield (Yorkshire and the Humberside Regional LIN forum), North Allerton (North Yorkshire LIN Forum) and Beverly (East Riding Council);
- Private Sector via the Association of Retirement Housing Managers; and
- Older people user group workshops.

**Stakeholder workshops**

URS presented a number of options for appraisal for consideration and feedback. This enabled URS to gather some hands on views as to the implications of ECH and what type of options should be considered as part of the strategy development.

**Private sector**

URS presented the findings of our Stage One Study and the approach to Stage Two at The Association of Retirement Housing Managers Winter Seminar. This event was attended by housing managers from the private sector and from RSLs, and thus widened the reach of the regional initiative. This event also involved presentations on other aspects of retirement housing such as telecare and policy developments, and was useful in placing the work in the context of related issues.

**User Services**

URS visited two Age Concern Day Care centres in Rotherham. Semi-structured questionnaires were used to ask older people about their housing and care experiences and their aspirations with regard to housing and care.

## 3.1.2. Research and Literature Review

A range of information was reviewed to aid in developing options for appraisal. Data on the costs and benefits of ECH and other care types was drawn from Department of Health data, published reports and publicly available data. In addition, stakeholders provided a range of information including descriptions of schemes and costs of ECH schemes. In addition, information was gathered on the potential demand for ECH along with other types of housing and care. A full description of the literature used for this study is laid out in the references section along with Appendix B.

### 3.1.3. Initial Appraisal and Options

The insights derived from stakeholder consultation and literature reviews allowed the fine-tuning of options for appraisal along with associated analysis. The options developed were based on the following key factors:

- The mix of ECH with other care forms;
- The services to be provided within an ECH scheme; and
- The size of schemes.

### 3.1.4. Modified Cost Benefit Analysis Approach

Once options were finalised, information was collected and aggregated to allow the undertaking of a preliminary economic appraisal. An economic appraisal seeks to identify all of the costs and benefits of a project, programme or policy and then value those benefits and costs using a variety of economic techniques. The objective is to provide a decision-making framework so that the financial implications of a project, programme or policy can be offset against non-financial costs and benefits.

For this appraisal, we have termed it a modified economic appraisal as it focuses on the capital and operating costs. Therefore the costs of each option were compared since the appraisal sought to determine the cost effectiveness of the options, rather than calculate the difference between revenues and costs.

### 3.1.5. Strategic Recommendations

URS developed a number of strategic recommendations based on the tasks above that focused on an ECH target level for the Yorkshire and the Humber region, new builds versus remodelling, stakeholder consultation, improved data and review of funding arrangements.

# 4. A REVIEW OF THE DEMAND FOR FORMAL CARE

## 4.1. Introduction

Older people's aspirations and choices are increasingly at the centre of policy[12]. These aspirations are rising with wider improvements in the standard of living, and the population of older people is also growing. The demand for various types of formal care and associated housing reflects both the changing need within the older population, and also the potential benefits of different care types.

The key questions this section seeks to address are:

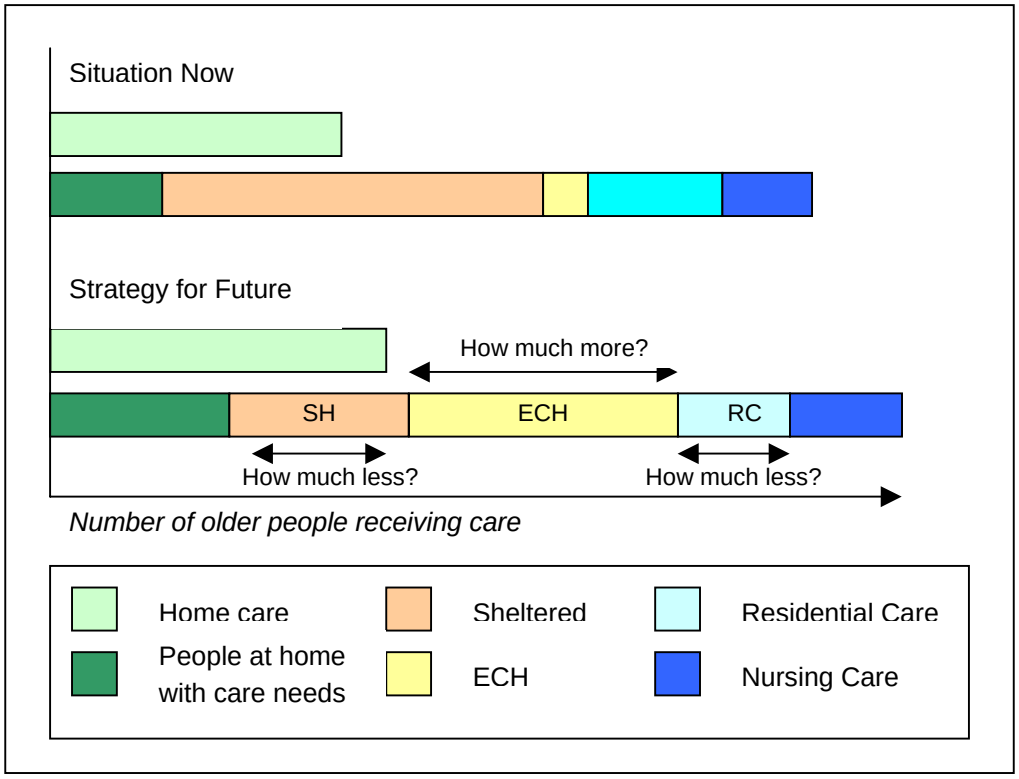
- What are the health and needs characteristics of people in Yorkshire and the Humber for whom ECH could be an appropriate form of housing and care?;
- How do these characteristics compare with the characteristics of people receiving other forms of care and housing, including home care, sheltered housing, residential care and nursing care?; and
- What is the potential demand for ECH in the Yorkshire and the Humber region and how should the balance of formal care and housing services be altered as a consequence?

These questions are usefully considered in the context of viewing ECH as part of a spectrum of care services and housing, extending from a lifestyle model to a welfare model of well being which caters for the most intense support needs[13]. This spectrum of care is represented in Figure 4.1 below.

[12] Department of Work and Pensions (2005), Opportunity Age, March 2005

[13] Joseph Rowntree Foundation, From Welfare to Well-Being

**Figure 4.1 Spectrum of Care and Housing Services Now and in the Future**




The figure above illustrates the current situation by showing that the two forms of formal care and housing that are received by the most people are home care and sheltered housing. These services do overlap as many people in sheltered housing receive some low to moderate level of home care (and some people receiving home care are in other forms of housing), however, at the time of this report official statistics were not available on the numbers of people receiving home care while residing in sheltered housing. The situation is also characterised by a very small and embryonic ECH sector.

In the future ECH could expand and as well as meeting new needs as part of this expansion could involve replacing both a proportion of residential care and sheltered housing. Sheltered housing in some cases has been difficult to let.

This section seeks to address the question of to what extent it might be appropriate to replace some of the existing residential care and sheltered housing provision with ECH. The approach taken to this analysis is a review of existing research and literature. References are given in the text and a full list of references is provided in Section 8. A review of the literature on the benefits and associated costs of ECH is given in Appendix B. The remainder of this section is structured as follows:

- The needs of older people and how these affect their choices about housing and care;

- ECH as an alternative to residential care;
- ECH as an alternative to sheltered housing;
- ECH, home care and new technology such as telecare;
- Quantifying the match between needs and services in the context of the Yorkshire and the Humber region;
- Outline of the benefits of ECH, both in general and versus other models of social and health care; and
- User group insights into care choices.

The underlying approach to this analysis is that there are crucial links between health, housing and care for older people. Identifying and exploiting these links can result in economic benefits such as improving the lives of older people, meeting their aspirations more closely and importantly widening the choices available to them.

## 4.2. The Needs of Older People

Our principal source of information on the needs of older people is the Office for National Statistics (ONS) General Household Survey (GHS). Since 1980 the ONS has periodically included a set of questions for people aged 65 and over. These covered a range of topics including health, people's ability to perform a range of domestic and self-care activities and the help they receive and the use they make of health and social services.

The survey report undertaken in 2001 highlighted a number of points in terms of personal tasks, mobility and domestic tasks that provide some insights into the needs of older people:

**Personal tasks** – 32 % of older people reported having difficulty in undertaking at least one of the following: bathing/washing, dressing, feeding, cutting toenails and/or taking medicines;

**Mobility** – 17 % reported having difficultly undertaking at least one of the following: walking down the road, getting up and down stairs, getting around the house, going to the toilet and getting in/out of bed; and

**Domestic tasks** – 31 % reported having difficultly undertaking at least one of the following: shopping, washing/drying dishes, cleaning windows, vacuum cleaning, dealing with personal affairs and gardening.

Others, such as Appleton (2002), consider that these factors can be ‘an indicator of fragility triggering access to home care services, or even a transfer to a residential or nursing home accommodation’ – especially after time in hospital following a “fall”.

More detailed information is given in Tables 4.1 to 4.3 below. These expand on indicators of ability to perform personal tasks, mobility and domestic tasks. Results are presented

for all people over 65, and to illustrate how needs increase, as people get older, results are also presented for people over 85.

Figures for those needing assistance with personal tasks are shown in Table 4.1. This shows that a relatively small proportion of older people are unable to do most personal tasks, with the exception of 'cutting toenails', which is one of the less intensive of the care needs.

**Table 4.1 Personal Tasks: Percentage unable to do tasks by themselves by age**

| Task | 65 and over (%) | 85 and over (%) |
|---|---|---|
| Bathing, showering, washing all over | 7 | 18 |
| Dressing and undressing | 3 | 8 |
| Washing face and hands | 0 | 1 |
| Feeding | 1 | 1 |
| Cutting toenails | 30 | 59 |
| At least one of the above | 31 | 61 |

*Source: Appleton 2002 p11, after Bridgewood 1998*

A higher, but still relatively small proportion of people over 65 also have problems with mobility, as illustrated in Table 4.2. This shows that between 4% and 6% of older people need at least some help with going out of doors and walking down the road or getting up and down stairs and steps. In terms of people over 85 between 12% and 22% of older people need at least some help with going out of doors and walking down the road or getting up and down stairs and steps.

**Table 4.2 Mobility: Percentage who usually manage with help and percentage who can not usually manage at all, by age**

| Task | 65 and over (%) | 85 and over (%) |
|---|---|---|
| Going out of doors and walking down the road | | |
| - Usually manages with help | 6 | 15 |
| - Cannot usually manage at all | 6 | 22 |
| Getting up and down stairs and steps | | |
| - Usually manages with help | 5 | 14 |
| - Cannot usually manage at all | 4 | 12 |

*Source: ONS, Appleton 2002 p9*

Of particular relevance here is the design of both housing and of the neighbourhoods within which older people live, as designing out barriers to mobility would clearly be significant in allowing people to stay at home into old age.

Compared with personal and mobility issues older people though are much more likely to require assistance with domestic tasks, as illustrated in Table 4.3. This shows that between 10% and 28% of older people are unable to do tasks including household shopping, jobs involving climbing, opening screw tops and using a vacuum cleaner by themselves. These proportions are much higher for people aged 85 and over.

**Table 4.3 Domestic Tasks: Percentage unable to do tasks by themselves by age**

| Task | 65 and over (%) | 85 and over (%) |
|---|---|---|
| Household shopping | 14 | 45 |
| Wash and dry dishes | 2 | 8 |
| Clean windows inside | 19 | 49 |
| Jobs involving climbing | 28 | 61 |
| Use a vacuum cleaner to clean floors | 10 | 29 |
| Wash clothing by hand | 8 | 20 |
| Open screw tops | 10 | 21 |
| Deal with personal affairs | 6 | 21 |
| At least one of the above | 34 | 71 |

*Source: Appleton 2002 p10, after Bridgewood 1998*

The provision of services by statutory authorities to assist with purely domestic tasks is now a rarity, but clearly the need is real if many older people are to maintain their independence.

A further factor to take in to account in planning for care provision is what proportion of these people needing care are receiving informal care from family/relatives or friends. The GHS also includes information on this matter, as illustrated in Table 4.4 below. Although the information is based on 1994/95 data it shows that between 75% and 85% of people needing some form of support have others around able to provide informal support. This though does not necessarily mean that the informal support is always available or satisfactory to the person in need and/or the carer.

**Table 4.4 Dependency and Receipt of Informal Care**

| Level of Dependency | % with informal support (for domestic tasks) |
|---|---|
| No dependency | 46 |
| Inability to perform one or more domestic tasks | 85 |
| Difficulty in performing one personal care task | 76 |
| Difficulty in performing two or more personal tasks | 83 |

*Source: PSSRU analysis of the General Household Survey, England 1994/1995 data, from RC p17*

Although illuminating it is difficult to draw clear conclusions from these statistics on what proportions of older people are best suited to what forms of care. Drawing upon this information we make the assumption that the proportion of people over 65 needing some form of care could range between 15% and 25%.

## 4.3. ECH and other Types of Care for Older People

An alternative way to look at the question of what is an appropriate segment of the market for ECH is to review research into other types of formal care including residential care, sheltered housing and home care in home contexts. This allows further development of the picture of what the potential market is for ECH and building upon the GHS evidence.

### 4.3.1. ECH as an Alternative to Residential Care

A key tangible benefit of ECH is the role it can play in avoiding admissions to expensive residential, nursing or hospital care. Importantly the availability ECH also widens the choice of housing and care available to older people and their carers.

A study by Stilwell and Kerslake (2003) investigated the reasons people were admitted to residential care. The work was based on a sample of 36 interviews with older people. It found that in 78% of cases, admission was precipitated by a critical event, usually hospital admission. Of 15 older people interviewed only one reported that the decision to enter residential care originated with himself. A number of factors might underpin the decision to admit an older person to residential care including:

- The requirement to find a place quickly for people in hospital and no longer in need of medical care;
- Increased responsibility placed on carers, coupled with absence of 24 hour care in the community;
- The propensity of medical professionals and housing wardens to see residential care as a natural ‘next step’ in services provision; and
- The difficulty of caring for individuals in the community where the geography is problematic and individuals’ needs are high level.

The question arising is would clients have been admitted to residential care had an alternative form of provision somewhere between residential care and sheltered housing been available?

The research found that while 6% of clients preferred residential care and 17% would not have benefited from ECH, 31% could have entered ECH at the time of admission to residential care and 36% could have entered ECH at the time of an earlier move. Results are presented in Table 4.5 below.

**Table 4.5 Proportion of Residential Care Clients who might have taken Advantage of ECH as an Alternative to Residential Care**

| Category | % |
|---|---|
| Could have entered ECH at time of admission to residential care | 31 |
| Could have entered ECH at time of earlier move | 36 |
| Preferred residential care | 6 |
| Would not have benefited from ECH | 17 |
| Insufficient information | 11 |

*Source: Stilwell and Kerslake 2003*

According to the above results, it was estimated that just over two thirds of the older people included in the survey could have benefited from the availability of ECH[14].

## 4.4. ECH as an Alternative to Sheltered Housing

A widely held view backed up by on-the-ground experience is that much existing sheltered housing is not built to acceptable modern standards, and even when it is, it is not backed up by 24 hour and respite/intermediary care services. Older people are instead relying on home care services and once a critical event has occurred, often transfer to residential or nursing care or hospital. Consequently it is commonly judged that many sheltered schemes are not well suited to an efficient and responsive care service for older people.

In addition, difficulties in letting sheltered housing are referred to in strategic documents such as Quality and Choice for Older People's Housing: A Strategic Framework (OPDM 2003) as well as in studies within Yorkshire and the Humber. Sheffield City Council's review of Sheltered housing in 2003 identified eight schemes at risk due to low demand, high levels of void properties, high turnover, location, design (bedsits) and shared facilities. Meanwhile Contact for Doncaster Metropolitan Council (2003) cites the need to find new uses for conventional sheltered housing, which has become increasingly difficult to let as a major factor in the emergence of ECH. The report proposes a reduction in the

[14] Stilwell and Kerslake 2003

amount of sheltered housing for rent in Doncaster[15]. Much of the accommodation is old, limited in design and does not meet the decent homes standard.

This suggests that it would be appropriate to convert suitable sheltered housing in to ECH with 24 hour and respite/intermediary care services, and where schemes are not suitable for updating they are in time closed and redeveloped.

## 4.5. ECH, Home Care and New Technology

New technology such as telecare will tend to allow more care services to be effectively and efficiently offered to older people living in their own homes. This effect is recognised by the Royal Commission on Long Term Care[16], and has been well documented, for example in the Department of Health's Integrating Community Services Equipment and Change Agent Team[17] – although this is dependent on work force and retention issues. Over time this could well lead to an increased proportion of older people receiving home care services rather than housing and associated care services.

This increase in home care may tend to dampen the need for ECH over time. However, the technology effect could also take place at the other end of the care spectrum where there may be an increasing number of ECH occupiers who could stay in ECH rather than to move to residential or nursing care.

On balance we assume that the impact of technology on the scope for ECH services will be neutral, but that technology will allow increased choice for older people with the effect that a larger proportion of older people to receive home care support, and a smaller proportion of older people will be referred to residential or nursing care.

## 4.6. Future Need and the Care Provision Spectrum

To conclude our review and analysis on the need/demand for care services in the Yorkshire and the Humber region we now draw together our analysis in the context of the current mix of care services in the region and the future forecast change in population of people over 65. The current numbers of people receiving formal care services in the region is presented in Table 4.6 below.

[15] Decent Home Standards (2003/04), ODPM

[16] 'With Respect to Old Age', 1999, Volume 1, pp2-3

[17] Getting Started in Telecare ICIS/Cat 2005, DH

**Table 4.6 People Receiving Types of Care and Housing, Y&H 2003**

| Type of care | Estimated number | % of population > 65 | % of care |
|---|---|---|---|
| Nursing Care | 15,743 | 2.0 | 18 |
| Residential Care | 19,691 | 2.5 | 22 |
| ECH | 1,205 | 0.2 | 1 |
| Sheltered Housing | 51,957 | 6.3 | 59 |
| **Total housing + care** | **88,596** | **11.1** | **74** |
| Home Care | 30,763 | 3.8 | 26 |
| Total | 119,359 | 15 | **100** |

*Sources: DH; EAC; HIP; CESI, URS analysis*

This shows that around 89,000 people in the region are living in accommodation designed for older people, and around 31,000 people are receiving home care in general housing. Provision of ECH is currently embryonic, and at 1,205 places only represents around 1% of all accommodation with care. It should also be noted that a number of people in sheltered housing also receive home care, however, official data was not available at the time of this report. Anecdotal evidence form older people operators in the Yorkshire and the Humber indicated that approximately 50 to 60 % of people in sheltered housing receive some home care[18].

In terms of future growth in the need / demand for care, ONS estimated that in 2001 there were around 800,000 people over 65 in the region. They project that this will increase to around 920,000 by 2015 – a 16% growth. This contrasts with a small decline in the population of people under 65.

Based on the above information outlined in this section we put forward the following assumptions on change to define what could be the spectrum of change in the provision of care services in the region by 2015:

- The proportion of the population requiring care services will remain approximately the same;
- Home Care will expand from providing services to 3.8% of the population over 65 to provide services to between 8% and 12% - this is likely to occur with or without the increase in the provision of ECH;
- The proportion of the population over 65 receiving housing with care services may decrease with improved care at home technology;

[18] Housing 21

- ECH should include residents with a spectrum of needs, including those not in immediate need of care providing a balanced community;

- ECH has the potential to expand to take up to 50 to 60 % of the existing proportion of residential care and up to 20 to 30 % of the existing proportion of sheltered housing provision (mainly through the redevelopment and refurbishment of existing current facilities); and

- The proportion of the population over 65 receiving nursing care will stay constant.

Our justification for these assumptions draws upon the analysis in this section and other relevant information. In particular:

- From survey reports such as the GHS suggesting that since 1980 there had been no overall change in the proportion of elderly people reporting their health as good, fairly good or not good in the UK. Consequently other work in this field, such as the Royal Commission, have assumed that care dependency rates stay constant over the next 50 years;

- The growth in home care is assumed as new technology will allow these services to be delivered more widely - this is reasonably consistent with the assumption made by PSSRU of a shift from residential and nursing home care to non-residential care of between 5% and 15% across the UK by 2019 along with information provided by the DH Telecare Implementation Guide[19];

- Given the information available to us it is very difficult to judge to what extent ECH could replace sheltered accommodation and residential accommodation. We put forward the bands of taking up to 20 to 30 % of the existing proportion of sheltered/very sheltered provision, and up to 50 to 60 % of the existing proportion of residential care provision as median ECH replacements levels. However, we would assume that further detailed work will be required at a local level to assess how appropriate these changes could be resulting in higher or lower levels of replacement; and

- The proportion of the population receiving nursing care is assumed to stay constant as this care is at the more intensive end of the care services spectrum and so potential for ECH or home care to replace this service is assumed to be modest.

The results of applying our assumptions to the future demand and mix of care services in Yorkshire and the Humber region are presented in Table 4.7 below.

[19] PSSRU Discussion paper no. 1980, 2003, p14 and Telecare Implementation Guide, ICIS/CAT 2005, DH

**Table 4.7 Care Provision in Y&H 2015 for Older People: A Potential Scenario**

| Type of care | ECH Low Scenario | % of care | ECH High Scenario | % of care |
|---|---|---|---|---|
| Nursing Care | 18,000 | 13 | 18,000 | 13 |
| Residential Care | 19,000 | 14 | 8000 | 6 |
| Extra Care Housing | 7,500 | 5 | 21,000 | 15 |
| Sheltered Housing | 57,000 | 42 | 54,000 | 40 |
| Total Housing and Care | 101,500 | 74 | 101,500 | 74 |
| Home Care | 35,000 | 26 | 36,000 | 26 |
| **Total** | **136,000** | **100** | **136,000** | **100** |

*Sources: DH; EAC; HIP; CESI, URS analysis*

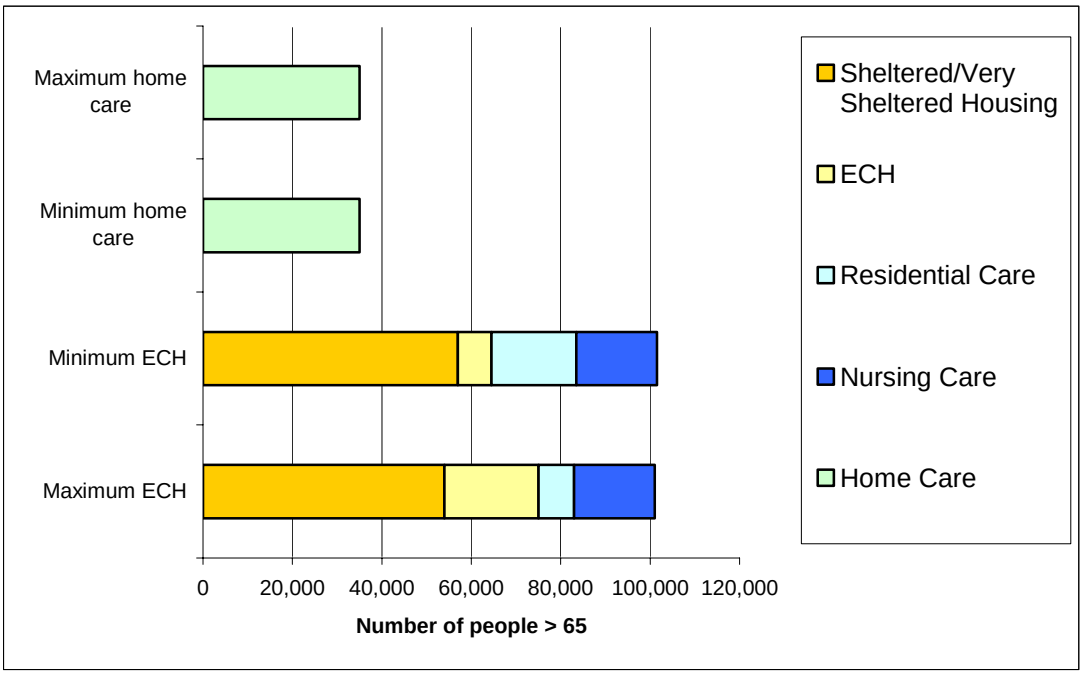
Within the context of the total population of people over 65 increasing to around 920,000 people we estimate that it would be appropriate to plan for around 136,000 people to be living in care and accommodation settings along with home care. This is in line with our assumption that proportion of the population requiring care services will remain approximately the same as of today – approximately 15 %.

The above scenario indicates that ECH could increase to 5 to 15% as a share of housing and care for older people or 7,500 to 21,000 by 2015. This is expected via general population increase but importantly replacing predominately residential care along with sheltered housing utilising a combination of private and public sector providers.

If it is assumed that it is not appropriate for ECH to replace sheltered housing and residential care on a significant scale ECH could still potentially provide around 1,400 places. This is assumes that to meet the growth in demand with the increase in the population of people over 65 to 2015 based on the current spectrum of care proportions.

The potential growth scenarios for care provision in Yorkshire and the Humber is presented graphically in Figure 4.2 below. This quantifies the conceptual framework presented in Figure 4.1 at the beginning of this section.

**Figure 4.2 Care Provision in Y&H 2015: Potential Scenario**




*Sources: DH; EAC; HIP; CESI, URS analysis*

## 4.7. Conclusions

While there exists a range of data relating to the housing and care needs of older people there is no definitive way to link this to estimating what would be the ideal future provision of the spectrum of care services. However, it is clear from the existing research that there are significant benefits to be gained by expanding the provision of ECH. In particular, this could well be a more appropriate form of care for a number of people currently living in residential care and sheltered housing. It may also be more appropriate for some people currently living in their own homes and receiving home care.

For the ECH model to work best it should be targeted at those people currently not in need of 24 hour care as well as those that do need such services in order to create balanced communities in which informal care and preventative services can form an important element.

Given the lack of definitive information on the needs / demand of older people in relation to housing with care services we recommend that future work includes more in-depth analysis and put forward recommendations in Section 7.

This analysis sets the context for subsequent stages of this report that develop a number of growth options that fit within the wider framework of this demand analysis.

# 5. ECH OPTIONS FOR ANALYSIS

## 5.1. Introduction

Along with the demand for various housing and formal care services, an important consideration in the development of an ECH strategy for the Yorkshire and the Humber is that of the cost providing housing and care services to older people.

To examine the cost implications of the growth in ECH, a number of options were developed based on the current supply of housing and care services for older people along with the expectations for demand as outlined in Section 3. This allowed the consideration of capital and operating / revenue costs and how ECH costs compare to other forms of care.

## 5.2. Purpose of ECH Options

The key purpose of developing ECH options is to assist in the identification of the most appropriate ECH development strategy for the Yorkshire and the Humber region via:

- Examining the implications of the growth of ECH and what other forms of care it could replace based on expectations for demand and stakeholder consultation;
- Allow a review of the potential costs and benefits of ECH for the Yorkshire and the Humber region; and
- Prepare and undertake a modified economic appraisal of options and put forward a preferred approach for the provision of ECH in the Yorkshire and the Humber.

## 5.3. Option Development Considerations

In developing ECH options, URS considered two important factors:

- The balance of care services within the Yorkshire and the Humber, for example,
  - how much does ECH currently represent in terms of the total spectrum of care for people over 65 years of age; and
  - what is the likely impact of the growth of ECH on other types of care.
- The type of services and facilities that could be offered by ECH schemes such as accommodation and care / health services and their cost

The key objective in considering the above was to enable the estimation at a regional level of the cost implications of delivering ECH and the impacts on the other types care for people over 65.

As alluded to earlier, in developing the options we utilised the demand and supply data of ECH as outlined in Section 3 and input from stakeholders via consultations. Key input from stakeholders is summarised below.

### 5.3.1. Stakeholder Input and Information

URS undertook a number of presentations via workshops within the Yorkshire and the Humber. The objective was to discuss with people the development of the ECH strategy, along with the collection of data and on the ground feedback regarding the following:

- Balance of care for older people;
- Types of ECH schemes; and
- Potential size of ECH developments.

***Balance of Care***

Stakeholders suggested that flexible options incorporating scenario analysis would be needed to take into account:

- The change over time of the expected increase in ECH;
- The change over time of the number of people aged over 65; and
- The implications of increased numbers of ECH schemes and the impact on the levels of other types of care and their associated costs.

In regard to the last point, information provided by stakeholders and Department of Health established that since the concept of ECH fell between that of sheltered housing and residential care that these types of housing and associated care could predominately be replaced by ECH over time. These views support the information outlined in Section 3 of this report.

***Type of ECH***

Various different types of services and facilities could be provided by ECH schemes in terms of facilities, services and personal support.

Stakeholders suggested that it would be appropriate to incorporate core services provided by ECH. It would be difficult to identify all the different services organised and their associated costs by individual schemes along with differing future expectations at a detailed level.

Based on stakeholder consultation and information collected the following representative ECH scheme was assumed. This was the basis for estimating average capital and operating costs for the economic appraisal. See Appendix D for a list of ECH schemes reviewed.

**Table 5.1 A Representative ECH Scheme**

| General | ECH Characteristics |
|---|---|
| Size | 40 to 50 units |
| Mix of units | 60% 1 bedroom, 40% 2 bedroom and mixed tenure |
| **Facilities** | |
| Apartment | Self-contained; bedroom, lounge, kitchen, bathroom. |
| | Basic furniture; wheelchair adapted, with other special adaptations (e.g. height adjustable work surfaces, wheel-under hob, wheel-in shower) and availability of telecare (e.g. alarms). |
| Communal | Lounge, laundry, restaurant, computer/hobby room, guest room, health suite/assisted bathing facilities, function room, garden, staff room, offices, staff sleepover room. |
| **Services** | |
| Accommodation | Property management (repairs, financial administration, facilities management, maintenance of buildings and grounds). |
| Health care | 24 hour health care as required, e.g. administration of medicine, therapy/treatment sessions, assistance in medical emergencies, assistance with dementia. |
| Household support | Help with household tasks as required (cleaning, laundry). |
| Personal support | Mobility assistance, help with toileting, bathing, eating and dressing, preparation of some meals, organisation of social events. |

***Number ECH Units***

It was indicated that a preference was for smaller to medium sized ECH schemes. A current representative size is approximately 40 to 50 units as outlined in the table above. URS would expect from an economy of scale perspective larger schemes would be more cost efficient both from a capital and operating cost perspective.

Limited information on larger ECH schemes was available to URS at the time of this report to enable a full investigation of the cost advantages of these schemes.

However, it also recognised that in some locations the development of smaller developments are more appropriate such as retirement villages taking into account tenant and community demand / needs.

## 5.4. Options for Modified Economic Appraisal

The information presented in section 3 along with input from stakeholders allowed the development of the following options.

### 5.4.1. The Options

***Base Case and Options***

The options consist of a base case and three ECH growth options over a time frame up to the year 2015 in line with the URS Stage 1 Study. Outlined in the table below is a brief description.

**Table 5.2 Descriptions of ECH Options**

| Option | ECH Growth Assumption | Assumptions regarding other forms of care |
|---|---|---|
| Base Case | Share of ECH is assumed to remain constant to 2015 at approximately 1 % of the housing and care provision. | Percentage share of care remains constant – nursing care 13%, residential care 17%, sheltered housing 44%, home care 26%. |
| Option 1 (Low Growth) | Share of ECH increases to 5 % (7,039) by 2015 as a percentage of the housing and care provision. | Percentage share of care falls to 14% for residential care and 42% for sheltered housing. Other forms of care remain constant. |
| Option 2 (Medium Growth) | Share of ECH increases to 10 % (13,170)) by 2015 as a percentage of the housing and care provision. | Percentage share of care falls to 10% for residential care and 41% for sheltered housing. Other forms of care remain constant. |
| Option 3 (High Growth) | Share of ECH increases to 15 % (20,323) by 2015 as a percentage of the housing and care provision. | Percentage share of care falls to 5% for residential care ands 40% for sheltered housing. Other forms of care remain constant. |

A base case is often referred to as the do nothing approach but taking into account likely future expectations, e.g. growth of the aging population.

In all options it is assumed that approximately 15 % of people over 65 require some type of care. This is based on the current estimate for the provision of care for people over 65 in the Yorkshire and the Humber along with our assumption that overall peoples needs for care have not changed over the last 20 years. The expectation is that this will also be the case up to 2015.

Population projections provided by the ONS were incorporated for the Yorkshire and the Humber region into all options to take into account the growth in people aged 65 and over. In 2003 the population over 65 was estimated to total 799,500 growing to 919,100 by 2015 an increase of 119,600. For a full outline of the projected change over time please see Appendix D for further details.

As result of the above options and key assumptions regarding the percentage of people receiving care and projected population, the following spectrum of care was projected for 2015 for the Yorkshire and the Humber region for each of the options.

**Table 5.3 People by Care Type by Option - Yorkshire and the Humber 2015**

| Option | Nursing Care | Residential Care | ECH | Sheltered Housing | Home Care | Total |
|---|---|---|---|---|---|---|
| Base Case | 18,098 | 22,639 | 1,385 | 59,729 | 35,365 | 137,210 |
| Option 1 | 18,098 | 19,128 | 7,039 | 57,712 | 35,365 | 137,210 |
| Option 2 | 18,098 | 13,581 | 13,170 | 57,000 | 35,365 | 137,210 |
| Option 3 | 18,098 | 7,243 | 20,322 | 56,185 | 35,365 | 137,210 |

*Source: ONS and URS analysis*

In the base case the current mix of care of care is assumed to remain the same as of today but increase in line with population growth.

In option 1, ECH increases to 7,039 by 2015. In this option we have assumed that ECH increases in line with population growth and replaces 16 % of residential care (3,509) and 1 % of sheltered housing (2,018) when compared to the base case.

In option 2, ECH increases to 13,170 by 2015. In this option we have assumed that ECH increases in line with population growth and replaces 40 % of residential care (9,054) and 2 % of sheltered housing (2,730) when compared to the base case.

In option 3, ECH increases to 20,322 by 2015. In this option we have assumed that ECH increases in line with population growth and replaces 68 % of residential care (15,392) and 3.5 % of sheltered housing (3,544).

In all the proposed options it is assumed that ECH schemes are based on the representative ECH scheme outlined in Table 5.1.

All the above scenarios are based on the development of newly built ECH schemes over the analysis time frame compared with newly built schemes for other types of care. This was undertaken for consistency purposes. Please note we have also provided illustrations of the options on the following page. These figures clearly illustrate the changes over time with each option, with ECH Option 1 assuming a conservative growth rate in ECH through to ECH Option 3 with a more aggressive assumption regarding the growth of ECH over time.

To provide information of the impact of remodelling existing housing and care stock into ECH schemes this was undertaken via sensitivity analysis along with other important considerations (see next section).

It should also be highlighted that limited information on larger ECH schemes, such as retirement or care villages, was available to URS at the time of this report to enable a full investigation of the cost advantages of these schemes.

**Figure 5.1 ECH Growth Option 1**

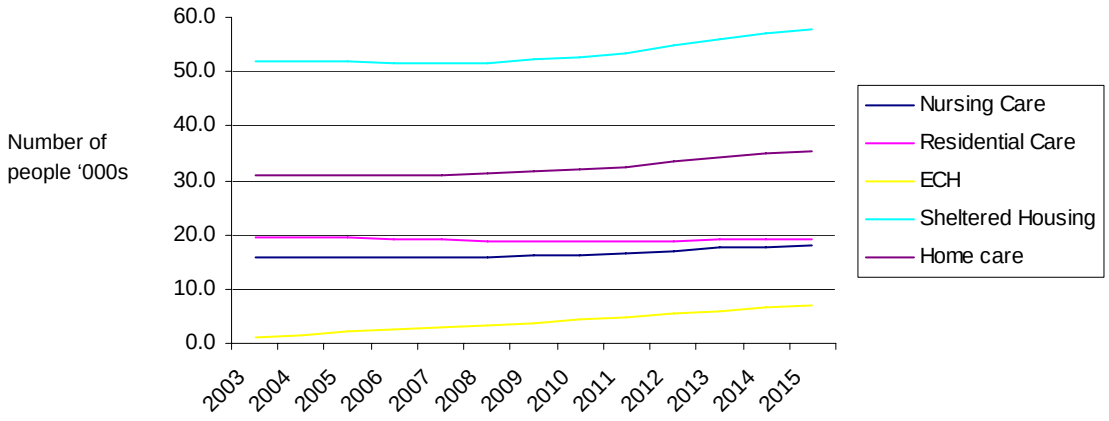



**Figure 5.2 ECH Growth Option 2**

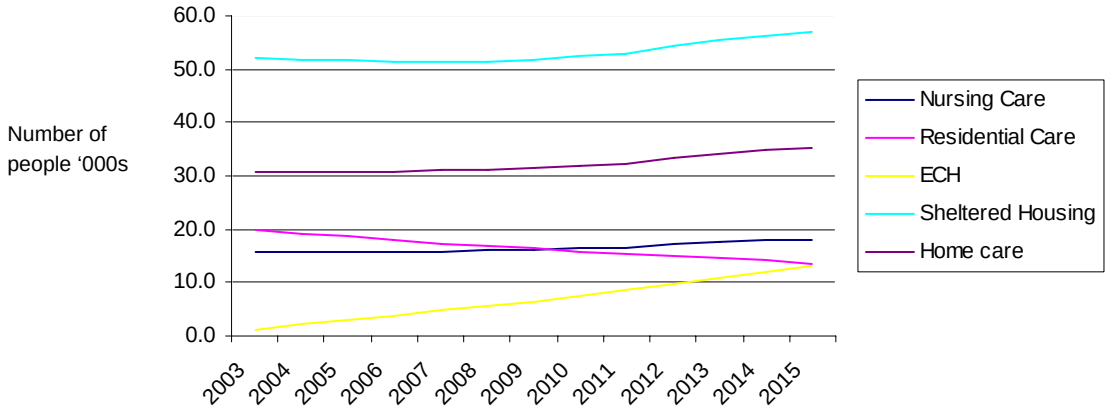
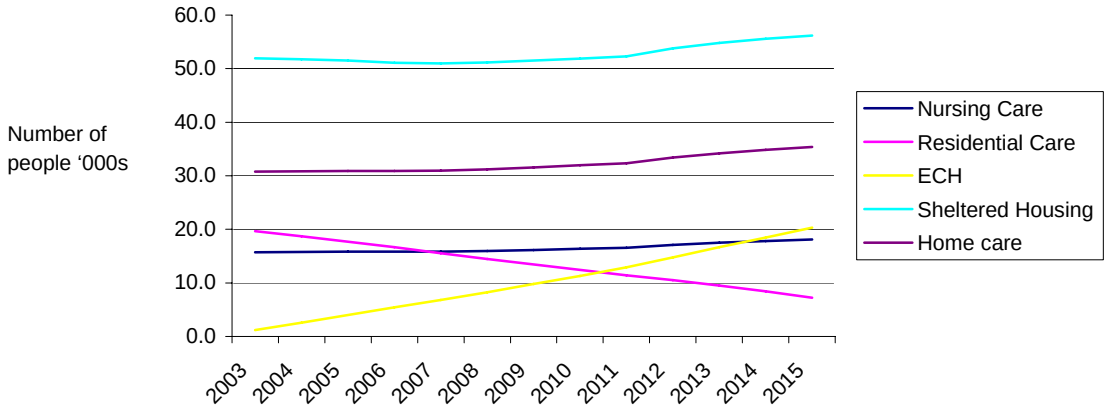



**Figure 5.3 ECH Growth Option 3**



### 5.4.2. Sensitivity Analysis

URS could not cover all the different types of "what ifs?" in terms of the above options. To overcome this problem, we undertook sensitivity and associated analysis. This is a critical part of the analysis and the following items were examined:

- Capital and operating costs;
- Changes in the mix of care and what ECH replaces; and
- A combination of the above.

In addition, we examined the issue of affordability of ECH for older people.

### 5.4.3. Why These Options?

The options allow a flexible approach in the development of an ECH strategy for the Yorkshire and the Humber region and enable the consideration of a number of parameters and variables including:

- Population growth over time (including migration);
- Existing supply of care and housing services along with the potential demand in the future;
- The types and levels of housing and care that ECH could replace in the future; and
- Capital and operating costs of different types of housing and care.

In terms of the ECH strategy development the options and associated analysis provided information on:

- Different cost levels for different types of care for people over 65 along with total cost for the Yorkshire and the Humber region;
- The cost effectiveness of ECH in terms of capital, operating and total costs; and
- Enabled sensitivity analysis allowing further investigation to assist in the development of a strategy.

# 6. MODIFIED ECONOMIC APPRAISAL BASE CASE AND OPTIONS

This section provides an introduction of the modified economic appraisal approach. It focuses on capital and operating costs for housing and care schemes. Further information on the approach is provided in Appendix C.

Estimated capital and operating cost items for different types of housing and associated care for older people are also provided. These costs were incorporated into the base case and options outlined Section 4 of this report.

It should be highlighted that the costs used are average or benchmarked data based on a review of a number of different data sources for both the Yorkshire and the Humber and nationally. Further details on data sources are outlined in Appendix D.

First year capital and operating cost items for the base case and the options are presented to provide an indication of cost for each of the forms of care on a per head basis along with cost implications for the entire region of Yorkshire and the Humber based on the total population receiving housing and care. The full analysis period cash flows for the base case and the options are outlined in Appendix A.

## 6.1. Modified Economic Appraisal

Once options were finalised, information was collected and aggregated to allow the undertaking of a modified economic appraisal. An economic appraisal seeks to identify all of the costs and benefits of a project, programme or policy and then value those benefits and costs using a variety of economic techniques. The objective is to provide a decision-making framework so that the financial implications of a project, programme or policy can be offset against non-financial costs and benefits.

We have termed this appraisal a “modified economic appraisal” as it focuses on the capital and operating costs. Therefore the costs of each option were compared since the appraisal sought to determine the cost effectiveness of the options, rather than calculate the difference between revenues and costs.

Further information on the approach is provided in Appendix C.

## 6.2. Data Sources

URS gathered information on the capital and operating costs of providing formal care to older people including nursing care, residential care, ECH, sheltered housing and home care.

This information was sourced from a number of publicly available sources along with confidential information via the Department of Health, individual ECH schemes and associated stakeholders. Where possible, URS focused on relevant data for the Yorkshire and the Humber region, however, some regional data limitations were experienced and the need for national data was utilised.

The key data sources included:

- Unit Costs of Health and Social Care, University of Kent, 2004 – this document provides a range of unit cost data information for a range of health services including nursing care, residential care, sheltered housing, sheltered housing and home care by an average per head per week;
- Various Laing and Buission publications that focus on older people's care and accommodation; and
- A number of different care providers including ECH schemes, care providers, local government information and Department of Health – most of this data was confidential and for new ECH developments.

All information gathered was aggregated and benchmarked to determine average capital and operating costs per head. Estimating the capital and operating costs of different forms of housing and care is difficult. Housing and care costs from different sources were noted as being highly variable in quality. This is particularly an issue when using cost data to compare different types of housing and care for older people.

To overcome data variability we approached the task in the following manner:

In the case of capital costs this was examined in the terms of:

*What is the average new build cost of a type of housing and care scheme per person?*

In terms of operating / revenue costs, this was examined in a similar way in terms of:

*What is the average cost per week (or per annum) per person in providing a certain type of housing and care for older people?*

It is important to note that the costs used within this economic appraisal are at a strategic regional level and therefore are average estimates. For a similar economic appraisal and costing exercise at specific local level or location, one would need to take into account specific local conditions in relation to cost. Therefore the costs presented in this analysis should not be viewed as "one size fits all" and local factors along with the scheme operator (private or public sector) need to be taken into account when undertaking a local level analysis. Furthermore, the benchmarked data consists of a combination of private and public sector provider information. Details on data sources are outlined in Appendix D.

### 6.2.1. Important Data and Analysis Assumptions

URS needed to make a number of assumptions given that this study is of a strategic nature and to ensure the economic appraisal provided an effective comparison between the base case and the options. Key assumptions that need to be highlighted are outlined below.

- **Analysis period / time frame:** 2004 to 2015 in line with the URS Stage 1 Study and as agreed with the Department of Health.

- **Capital costs and operating**: these costs were incorporated in line with projected increases in the demand for the types of care over the period from 2004 to 2015 in line with the options developed and the ONS projected population. In reality this is unlikely to occur given time lags in meeting demand, public and private sector funding processes and associated construction timeframes. However, to ensure consistency, the same approach was incorporated into the base case and the options allowing a like with like comparison between the base case and each of the options. The cost data was predominately based on historical information and to take into account the change in costs over time, an average UK inflation rate was utilised to estimate capital costs in today's value[20]. Given the lack of historical data for the ECH, cost data obtained for this type of care was for the financial years of 2004 to 2005.

- **Data inconsistencies and reliability:** the cost data was obtained from a number of sources and as mentioned earlier was highly variable in quality. However, to provide comfort we obtained benchmarked data from PSSRU, Laing and Buisson and Department of Health along with information directly related to the build and operation of ECH schemes.

- **Occupancy rate and number of older people per unit:** it was assumed that housing and care schemes had an occupancy rate of 90 % and an average number of people per unit amounted to 1.18 for residential care, ECH and sheltered housing to take into account couples. This was based on Housing Corporation occupancy targets and consultation with stakeholders and PSSRU data.

- **ECH growth rates:** The options developed are based on increasing the proportion of care provided by ECH as part of the overall spectrum of care. This was undertaken via increasing its growth by population increases overtime and replacing other types of care with ECH over time. The replacement rates predominately involved replacing ECH with residential care and to a lesser extent sheltered housing based on the research presented in Section 3 and stakeholder views.

The following section outlines that data incorporated into the base case and options for appraisal.

### 6.2.2. Capital and Operating Cost Data

The capital and operating data consists of the "cash cost" of the provision of accommodation and formal care over the period from 2004 to 2015. It excludes any costs associated with informal care such as care provided to older people via relatives and friends.

### *Capital Costs*

Estimates for average capital costs per person were calculated for nursing homes, residential homes, ECH and sheltered housing as outlined in the table below.

**Table 6.1 Average Capital Cost by Type of Care[21]**

| Level of Dependency / Support | Type of Accommodation | £ Average Capital Cost Per Head 2004/05[22] |
|---|---|---|
| High | Nursing Care | 44,006 |
| Medium to High | Residential Care | 56,256 |
| Low to Medium | Extra Care Housing | 86,882 |
| Low | Sheltered Housing | 62,554 |

*Source: various sources and URS analysis*

Variations in capital cost data were reported, however, on average ECH housing was estimated to have the highest capital cost per head at £86,882, followed by sheltered / sheltered housing £62,554, residential care £56,256 and nursing care £44,006. The capital costs are based on new build costs for each type of care on a per head basis.

It is important to highlight that in comparing the above types of accommodation for older people, a comparison can not be considered like with like given the different levels of dependency associated with each. Nursing and residential care can be normally equated to delivering high and medium levels of support, with ECH providing a mix of low and medium depending on individual needs with sheltered housing typically providing low support. It should also be noted that that the amount of space per person would also be different. Nursing and residential care schemes would have lower amounts of space per person as opposed to ECH and sheltered housing given construction design and meeting peoples needs, i.e. domiciliary care (nursing and residential care) versus individual units / flats (ECH and sheltered housing).

ECH housing costs were obtained from private sector and social housing provider estimates, the Department of Health, Yorkshire and the Humber Local Government authorities estimates, Laing and Buisson and actual cost data from recently developed ECH schemes. ECH costs were also based on the representative scheme outlined in Table 5.1.

Sheltered housing and sheltered housing costs were sourced from PSSRU and confidential DH data. Residential and Nursing care data was obtained from Laing and Buission information and PSSRU data.

[21] Please note average land costs were incorporated into the data given insufficient disaggregation of capital cost data.

[22] Please note the majority of data was sourced from public sector and social housing sources given its availability.

***Operating Cost Data***

**Table 6.2 Average Operating Cost Per Week by Type of Care**

| Level of Dependency / Support | Type of Care | £ Average Operating Cost – per week[23] |
|---|---|---|
| High | Nursing Care | 359 |
| Medium to High | Residential Care | 338 |
| Low to Medium | Extra Care Housing | 185 |
| Low | Sheltered Housing[24] | 142 |
| Low, Medium and High | Home Care[25] | 73 |

*Source: various sources and URS analysis*

Variations were reported in the average operating cost of the provision care given the nature and intensity of different housing and care services. Nursing care the most intensive type of care for older people was estimated to have the highest cost per head per week at £359, followed by residential care £338, ECH £185, sheltered housing £142 and home care £73 per week. These costs appear to be consistent with the level of care – although we note that home care can be intensive, however, this figure is based an average care levels.

Again it is important to highlight that in comparing the above types of accommodation and care for older people, a comparison can not be considered like with like given the different levels of dependency associated with each. Nursing and residential care can be equated to delivering high and medium levels of support resulting in relatively high operating costs per week. On the other hand ECH provides a mix of low to medium support and sheltered housing providing low support resulting in lower weekly operating costs.

The operating costs include the cost of provision of care and associated services such as salaries, care costs and overheads of operating different care schemes. Salaries represent the largest operating cost for all types of care of approximately 50 %.

[23] Please note the majority of data was sourced from public sector and social housing sources given its availability.

[24] Incorporated within the sheltered housing weekly costs is an estimate cost for home care and as some older people in sheltered housing also received home care. Further information can be found on page 48 of this report.

[25] Home care costs assumed for people living in the general community, i.e. not in housing schemes designed for older people. It is assumed that this is a low to medium level of home care. Further information can be found on page 48 of this report.

The sources of data were similar to that of those of capital costs. This provided comfort in terms of consistency of the data, i.e. capital costs and the cost of operating the developed scheme were linked to the same data sources.

Nursing and residential care data was sourced from PSSRU data and Laing and Buission information.

ECH data was based on information provided by established ECH schemes.

Sheltered housing costs were sourced from PSSRU data and confidential DH data. It should be noted that incorporated within the operating costs of sheltered housing are home care costs as a number of older people located within sheltered housing receive home care. According to the Department of Health there does not exist a sufficient break-up of data on the types of home care provided to these older people given the way it is collected.

To provide an indication of the type of home care received, URS contacted a number of sheltered housing operators to obtain anecdotal evidence as to level and type of care provided[26]. Based on these consultations it was found that:

- Approximately 65 % received some time of home care with the remaining receiving no home care; and
- The 65 % of residents receiving home care was made up of approximately 30 % low, 20 % medium level and 15 % high or intense home care.

Based on the above, we obtained data from the PSSRU for different types of care. It was assumed that the weighted average cost of provision of home care amounted to £76 per week per person and this was incorporated into the provision of sheltered housing.

In terms of home care, a number of people living in their own homes in the Yorkshire and the Humber region receive a variety of care packages. These care packages are categorised by PSSRU as very low, low, medium and high with an associated indicative cost of provision. According to PSSRU survey data the average type of service provision in the UK is that of low category amounting to £73 per week. This involves the following home services:

> *Visits from home care services Monday to Friday of approximately 3.5 hours per week with at least an additional hour on the weekend. In addition, cost of frozen meals and local GP visits are incorporated.*

[26] Housing 21

## 6.3. The base and options

The above data for capital and annual operating costs was incorporated into the base case and the options. Outlined below we present the first year capital and operating costs. Full details on the costs over the period are in Appendix A.

### 6.3.1. Guidance for Reviewing the Cost Data

In terms of examining the base case and options first year costs it is important to note the following for guidance. All tables in the following sections are broken down by type of housing and care, population and resultant cost.

***Capital Costs***

For capital cost estimates, we examined the change in population of older people receiving a type of housing and care, i.e. for each year over the analysis period to 2015 what is the expected change in population demanding a type of housing and care. This change could be either positive or negative for the options depending on assumptions. The table below outlines the change in population for the first year of the analysis period for the base case and each of the options.

**Table 6.3 Year 1 Change in Number of People by Type of Housing and Care**

| Type of Housing and Care | Base Case | Option 1 | Option 2 | Option 3 |
|---|---|---|---|---|
| Nursing Care | 49 | 49 | 49 | 49 |
| Residential Care | 62 | -102 | -507 | -970 |
| Extra Care Housing | 4 | 413 | 870 | 1,393 |
| Sheltered Housing | 162 | -83 | -135 | -195 |
| Home Care | 96 | 96 | 96 | 96 |
| **Total** | **373** | **373** | **373** | **373** |

*Source: ONS and URS analysis*

For Year 1 of the analysis period, the expected increase in people from the previous year demanding care services is expected to increase by 373 in the Yorkshire and the Humber region. For all options it was assumed that nursing care and home care demand would remain the same as in the base case for all options at 49 and 96 people respectively in the first year.

For the other types of care, we have reallocated the mix of care between residential care, ECH and sheltered housing based on our growth assumptions within each of the options.

For example for Option 1, we assumed that by 2015 ECH would represent 5% of care for older people. To reach that level via gradual growth, we needed to assume that in the first year that ECH would house an additional 413 people. The 413 people are assumed to come from a combination of increased population and of people who would have

otherwise resided in sheltered housing and residential care[27]. The implications of changing the mix of care therefore impacts upon capital costs.

Capital costs were aligned to meet this change in mix of housing and care for each year for each and for each option. Importantly for Option 1, Option 2 and Option 3, capital costs for residential and sheltered housing fall as it assumes that over time ECH replaces some of this housing and care over time. This can be thought of as an avoided capital expenditure and in year 1 is based on the amount that would have been spent in the base case on residential care (62 people) and sheltered housing (162 people).

***Operating Costs***

In terms of operating costs, we examined the total population over time receiving care and aligned the operating costs to the change in the population mix of care for each type of care. This was undertaken for the base case and each option taking into account associated assumptions over the analysis period to 2015.

### 6.3.2. Base case

The base case represents the business as usual case or the do nothing approach but taking into account changes in population. The table outlines the expected change in older peoples population by type of care and the implications for capital costs of providing these facilities in the first year of the analysis period.

**Table 6.4 Base Case Capital Costs**

| Type of Housing and Care | Change in Population by Type of Care | Capital Cost Year 1 £ million | Total Capital Cost to 2015 £ million[28] |
|---|---|---|---|
| Nursing Care | 49 | 2.2 | 103.6 |
| Residential Care | 62 | 3.5 | 165.7 |
| Extra Care Housing | 4 | 0.3 | 15.7 |
| Sheltered Housing | 162 | 9.9 | 475.5 |
| Home Care | 96 | - | |
| **Total** | **373** | **15.9** | **760.6** |

*Source: ONS and URS analysis*

The population over 65 receiving housing and formal care is expected to grow by 373 in the first year of the analysis period for the Yorkshire and the Humber region. To ensue

[27] 413 people made up of 62+4+162 +102+83=413

[28] Nominal cost up to 2015

that suitable housing and care can be provided it was assumed that appropriate schemes and facilities were constructed and provided. Please note these capital cost assumptions are incorporated into all options presented in this analysis.

Total capital cost for Year 1 was assumed to be £15.9 million with sheltered housing providing the bulk of costs followed by residential care, nursing care and ECH. It was assumed for this analysis that no capital costs would be involved in the provision of home care – although in reality equipment and associated resources would be required.

In addition we have provided the estimated total capital cost over the analysis period up to 2015. For the base case this amounted to £760.6 million.

The population over 65 receiving formal care was expected to be 119,732 in the first year of the analysis period. Total cost was assumed to be £1,080.7 million with residential care providing the bulk of costs followed by, sheltered housing, nursing care, home care, ECH and sheltered housing.

**Table 6.5 Base Case Operating Costs Year 1**

| Type of Housing and Care | Population Receiving Care | Cost £ million |
|---|---|---|
| Nursing Care | 15,792 | 294.8 |
| Residential Care | 19,753 | 346.9 |
| Extra Care Housing | 1,209 | 11.6 |
| Sheltered Housing | 52,119 | 310.3 |
| Home Care | 30,859 | 117.1 |
| **Total** | **119,732** | **1,080.7** |

*Source: ONS and URS analysis*

### 6.3.3. Option 1

Option 1 assumes that ECH increases to 5 % by the year 2015 from its current share of approximately 1 % via replacing residential care and sheltered housing over time, taking into account rises in the population over 65 and people moving from residential care and sheltered housing to ECH. The table outlines the expected change in older peoples population by type of care and the implications for capital costs of providing these facilities in the first year of the analysis period.

**Table 6.6 Option 1 Capital Costs**

| Type of Housing and Care | Change in Population | Year 1 Change in Cost compared to Base Case £ million | Total Capital Cost to 2015 £ million[29] |
|---|---|---|---|
| Nursing Care | 49 | 2.2 | 103.6 |
| Residential Care | -102 | -3.5 | 0 |
| Extra Care Housing | 413 | 36.7 | 486.5 |
| Sheltered Housing | -83 | -9.9 | 342.5 |
| Home Care | 96 | | |
| **Total** | **373** | **25.5** | **932.6** |

*Source: ONS and URS analysis*

Overall capital costs amount to £25.5 million with increased ECH capital costs, while residential and sheltered housing experience falls in capital costs as a result of the expectations that ECH replaces these types of housing and care over time. **Importantly, these falls in capital expenditure for residential and sheltered housing should be looked at in terms of an avoided capital expenditure.**

In addition we have provided the estimated total capital cost over the analysis period up to 2015. For Option 1 this amounted to £932.6 million. Please note capital costs associated with residential care were assumed to be zero as the assumptions in Option 1 assumed to an overall fall in the number of older people in residential care.

**Table 6.7 Option 1 Operating Costs Year 1**

| Type of Housing and Care | Population Receiving Care | Cost £ million |
|---|---|---|
| Nursing Care | 15,792 | 294.8 |
| Residential Care | 19,589 | 343.9 |
| Extra Care Housing | 1,618 | 15.5 |
| Sheltered Housing | 51,874 | 307.5 |

[29] Nominal cost up to 2015

| | | |
|---|---|---|
| Home Care | 30,859 | 117.1 |
| **Total** | **119,732** | **1,079.0** |

*Source: ONS and URS analysis*

The population over 65 receiving formal is expected to be 119,732 in the first year of the analysis period. Total costs were assumed to be £1,079.0 million with residential care providing the bulk of costs followed by sheltered housing, nursing care, home care and ECH.

### 6.3.4. Option 2

Option 2 assumes that ECH provision increases to 10 % by the year 2015 from its current share of approximately 1 % via replacing residential care and sheltered housing over time, taking into account rises in the population over 65 and people moving from residential care and sheltered housing to ECH. The table outlines the expected change in older peoples population by type of care and the implications for capital costs of providing these facilities in the first year of the analysis period.

**Table 6.8 Option 2 Capital Costs**

| Type of Housing and Care | Change in Population | Year 1 Change in Cost compared to Base Case £ million | Total Capital Cost to 2015 £ million[30] |
|---|---|---|---|
| Nursing Care | 49 | 2.2 | 103.6 |
| Residential Care | -507 | -3.5 | 0 |
| Extra Care Housing | 870 | 75.6 | 885.2 |
| Sheltered Housing | -135 | -9.9 | 312.4 |
| Home Care | 96 | | |
| **Total** | **373** | **64.4** | **1,301.5** |

*Source: ONS and URS analysis*

Overall capital costs amount to £64.4 million with increased ECH capital costs, while residential and sheltered housing experience falls in capital costs. **Please note the falls in capital expenditure for residential and sheltered housing should be looked at in terms of an avoided capital expenditure.**

In addition we have provided the estimated total capital cost over the analysis period up to 2015. For Option 2 this amounted to £1,301.5 million. Please note capital costs

[30] Nominal cost up to 2015

associated with residential care were assumed to be zero as the assumptions in Option 2 assumed an overall fall in the number of older people in residential care.

**Table 6.9 Option 2 Operating Costs Year 1**

| Type of Housing and Care | Population Receiving Care | Cost £ million |
|---|---|---|
| Nursing Care | 15,792 | 294.8 |
| Residential Care | 19,184 | 336.8 |
| Extra Care Housing | 2,075 | 19.9 |
| Sheltered Housing | 51,822 | 307.2 |
| Home Care | 30,859 | 117.1 |
| Total | 119,972 | 1,075.9 |

*Source: ONS and URS analysis*

Total costs were assumed to be £1,075.9 million with residential care providing the bulk of costs followed by sheltered housing, nursing care, home care and ECH.

### 6.3.5. Option 3

Option 3 assumes that ECH provision increases to 15 % by the year 2015 from its current share of approximately 1 % via replacing residential care and sheltered housing over time, taking into account rises in the population over 65 and people moving from residential care and sheltered housing to ECH. The table outlines the expected change in older peoples population by type of care and the implications for capital costs of providing these facilities in the first year of the analysis period.

**Table 6.10 Option 3 Capital Costs**

| Type of Housing and Care | Change in Population | Year 1 Change in Cost compared to Base Case £ million | Total Capital Cost to 2015 £ million[31] |
|---|---|---|---|
| Nursing Care | 49 | 2.2 | 103.6 |
| Residential Care | -970 | -3.5 | 0 |
| Extra Care Housing | 1,393 | 121.0 | 1,495.3 |

[31] Nominal cost up to 2015

| | | | |
|---|---|---|---|
| Sheltered Housing | -195 | -9.9 | 277.5 |
| Home Care | 96 | | |
| **Total** | **373** | **109.8** | **1,876.5** |

*Source: ONS and URS analysis*

Overall capital costs amount to £109.8 million with increased ECH capital costs, while residential and sheltered housing experience falls in capital costs. **Please note the falls in capital expenditure for residential and sheltered housing should be looked at in terms of an avoided capital expenditure.**

In addition we have provided the estimated total capital cost over the analysis period up to 2015. For Option 3 this amounted to £1,876.5 million. Please note capital costs associated with residential care were assumed to be zero as the assumptions in Option 3 assumed an overall fall in the number of older people in residential care.

In terms of operating costs, the population over 65 receiving formal was expected to be 119,732 in the first year of the analysis period. Total operating costs were assumed to be £1,072.5 million with residential care providing the bulk of costs followed by sheltered housing, nursing care, home care and ECH.

**Table 6.11 Option 3 Operating Costs Per Year**

| Type of Housing and Care | Population Receiving Care | Cost £ million |
|---|---|---|
| Nursing Care | 15,792 | 294.8 |
| Residential Care | 18,721 | 328.7 |
| Extra Care Housing | 2,598 | 24.9 |
| Sheltered Housing | 51,762 | 306.8 |
| Home Care | 30,859 | 117.1 |
| Total | 119,732 | 1,072.5 |

*Source: ONS and URS analysis*

## 6.4. Qualitative Benefits

The above sections have focused on the cost implications of ECH. In addition, to these financial factors, it is important to highlight that ECH schemes have the capacity to provide a number of benefits to residents and the broader community. Literature review of previous research outlined that the benefits centre on:

- **Quality of Life: Improved Physical and Mental Health**: for example 30% reductions in GP visits and hospital admissions, 40% thought their physical health had improved and reports that 80% improvement in their emotional well-being.

- **Potential Additional Operating Cost Savings:** for example over the long term via improved health and quality of life, demand for care and related services may fall. In addition, ECH has enables friends and family to contribute via informal care as well as other residents.

- **ECH Social Environment:** for example the value social activities along with role of ECG residents actively being involved in organising activities associated with the ECG scheme; and

- **Provision of a wider community resource:** potential benefit in rural areas especially, where clients may be isolated under existing arrangements where care is co-ordinated from a remote urban centre.

All of the above benefits are important considerations in the development of an ECH strategy.

# 7. NET PRESENT VALUES AND ANALYSIS

This section of the report compares the base case with each option enabling an estimate of the net economic benefit (cost saving) or net cost.

Comparisons are undertaken using discounted cash flow analysis to determine the Net Present Value (NPV) of costs of the base case and the options. This reflects the fact that the analysis is primarily seeking to examine the cost effectiveness of ECH replacing other forms of care overtime. Discounted cash flow is a technique of appraising projects based on the idea of "discounting" future costs (in the case of this analysis) to their net present values. The discount rate used for the NPV analysis was 3.5 % in line with UK Treasury guidelines. The discount rate is a real rate, as cash flows have not been adjusted to take into account inflationary price changes over time. The full cash flows over the analysis period are outlined in Appendix A and further explanation of net present values and discounted cash flows is provided in Appendix C.

Given the complex nature of estimating an appropriate level and mix of care to meet a wide variety housing and care needs for older people along with their associated costs, it was thought that sensitivity analysis should be undertaken on a number of key variables. These variables included capital and operating costs, mix of care and a combination of these. In addition, URS examined the implications of affordability of ECH for older people.

## 7.1. Comparison of Net Present Values

The base case NPV of costs was estimated at £11,460.6 million over the analysis period up until 2015. The base case NPV is lower than that of the options analysed, i.e. all options have a higher cost than the base case as outlined below:

- NPV option 1 (5% growth) - £11,462.1 million;
- NPV option 2 (10% growth) - £11,448.3 million; and
- NPV option 3 (15% growth) - £11,434.6 million.

### 7.1.1. Base Case

The base case net present values are outlined below in Table 7.1. The NPVs are broken down by capital and operating costs providing a total net present value cost.

The base case assumes that the percentage of share formal care by category remains the same over the analysis period but taking into account projected population growth. Capital cost NPV was estimated at £563.8 million with operating costs at £10,896.8 million providing a consolidated base case cost NPV of £11,460.6 million.

**Table 7.1 Base Case NPV**

| Cost Category | NPV £ million |
|---|---|
| Capital Costs | 563.8 |
| Operating Costs | 10.896.8 |
| Total Cost | 11,460.6 |

*Source: URS analysis*

### 7.1.2. Option 1

Option 1 NPVs are outlined below in Table 7.2 and are broken down by capital and operating costs providing a total net present value.

The option 1 assumes that ECH increases to 5 % of the share of formal care for older people by 2015 by predominately replacing residential care and sheltered housing over time. Capital cost NPV was estimated at £699.4 million with operating costs at £10,783.1 providing a consolidated option cost NPV of £11,482.5 million.

**Table 7.2 Option 1 NPV**

| Cost Category | NPV £ million |
|---|---|
| Capital Costs | 699.4 |
| Operating Costs | 10,783.1 |
| Total Cost | 11,482.5 |

*Source: URS analysis*

### 7.1.3. ECH Option 2

Option 2 NPVs are outlined below in Table 7.3 and are broken down by capital and operating costs providing a total net present value. Option 2 assumes that ECH increases to 10 % of the share of formal care for older people by 2015 by predominately replacing residential care and sheltered housing over time. Capital cost NPV was estimated at £1,011.3 million with operating costs at £10,592.2 million providing a consolidated NPV cost of £11,603.6 million.

**Table 7.3 Option 2 NPV**

| Cost Category | NPV £ million |
|---|---|
| Capital Costs | 1,011.3 |
| Operating Costs | 10,592.2 |
| Total Cost | 11,603.6 |

*Source: URS analysis*

### 7.1.4. ECH Option 3

Option 3 NPVs are outlined below in Table 7.4. The NPVs are broken down by capital and operating costs providing a total net present value. Option 3 assumes that ECH increases to 15 % of the share of formal care for older people by 2015 by predominately replacing residential care and sheltered housing over time. Capital cost NPV was estimated at £1,468.4 million with operating costs at £10,374.1 million providing a consolidated option 3 cost NPV of £11,842.6 million.

**Table 7.4 Option 3 NPV**

| Cost Category | NPV £ million |
|---|---|
| Capital Costs | 1,468.4 |
| Operating Costs | 10,374.1 |
| Total Cost | 11,842.6 |

*Source: URS analysis*

## 7.2. Summary of NPV Results

The net cost of all options compared to the base case is outlined in Table 7.5. Option 3 has the largest net cost of £382 million followed by option 2 with £143 million and option 1 with the least cost of £21.9 million. In effect, all options analysed incur a higher cost when compared to the base case. Please note we have also provided the NPVs of the capital and operating costs which when combined equal the total NPV. For example for option 1, £21.9 =-135.6 million + 113.6 million.

**Table 7.5 Summary of Net Benefit / Cost**

| Option | Total Net Benefit / Cost NPV £ million | NPV Capital Costs NPV £ million | NPV Operating Costs NPV £ million |
|---|---|---|---|
| Option 1 | **-21.9** | -135.6 | 113.6 |
| Option 2 | **-143.0** | -447.5 | 304.5 |
| Option 3 | **-382.0** | -904.6 | 522.6 |

*Source: URS analysis*

For all options higher capital costs are expected than in the base case, given that the estimated cost per head of providing ECH is £88,882, compared to that of £44,006 for nursing care, 56,256 for residential care, 62,544 for sheltered housing. This is represented by the negative NPV capital costs in table 7.5. However over time all options provides cost savings given that it was estimated that ECH scheme services per head are less expensive to provide then residential care, although higher than sheltered housing. This is represented by the positive NPV in table 7.5 outlining that all options have lower operating costs than the base case.

A critical point to highlight is that all options assume that the ECH predominately replaces residential housing and to a lesser extent sheltered housing over time. In the event that ECH replaced more sheltered housing, the net benefit or cost savings would decrease. This is tested in the sensitivity analysis section.

Based on the above, Option 1 is preferred given it has the least additional cost.

## 7.3. Sensitivity Analysis

As mentioned earlier, given the complex nature of estimating appropriate level and mix of care to meet a wide variety of care needs for older people along with their associated costs, it was thought that sensitivity analysis should be undertaken on a number important variables. Sensitivity analysis also provides further insight into the development an ECH strategy and the analysis was based on practical and realistic assumptions. Sensitivity analysis was undertaken on the following:

- Capital and operating costs;
- Changes in the mix of care and what ECH replaces; and
- A combination of the above.

In addition, URS examined the implications of affordability of ECH for older people.

### 7.3.1. Capital and Operating Costs

***Capital Costs – Remodelling Existing Stock***

In terms of capital costs, the base case and the three options assumed new housing and care schemes would be built in line with population increases. However, as, mentioned in Section 3 of this report, a number of sheltered housing schemes could be remodelled into ECH schemes. The impact of undertaking these redevelopments of existing housing and care stock is that it would reduce the upfront capital costs for developing ECH schemes.

Although limited information exists on remodelling existing stock into ECH schemes, URS did obtain information on the cost of remodelling sheltered housing via the DH[32].

Based on the information contained in the Fletcher report, remodelling costs were estimated at 40 % below that of a new build. Although in all cases it would provide a true estimate, it does provide a guide of the change in capital and upfront costs as a result of remodelling existing stock.

In terms of actually remodelling, this would be dependant on whether or not the original design and structural condition leads to the possibility of redesign[33]. To overcome this

[32] DH ECH Fact Sheet – Remodelling Costs

unknown variable of what stock could be remodelled we have assumed that over time only 15 % of sheltered housing would be remodelled enabling it to function as an ECH scheme. The result of this assumptions and sensitivity analysis is outlined below:

**Table 7.6 Capital Cost Reduction – Remodelling Existing Stock[34]**

| Option | £NPV<br><br>£ million | Original NPV estimate<br>£ million | Change<br>£ million |
|---|---|---|---|
| Option 1 | 1.0 | -21.9 | 22.9 |
| Option 2 | -94.1 | -143.0 | 48.9 |
| Option 3 | -303.5 | 381.9 | 78.4 |

*Source: URS analysis*

As expected, the NPV for each option improves with Option 1 achieving a positive NPV of £1 million. Option 2 and 3 both remain negative, however, the original estimated cost is reduced by £48.9 million and £78.4 million respectively.

***Capital Costs – Larger ECH Schemes***

This above sensitivity analysis is also relevant for larger ECH schemes achieving greater economies of scale and therefore lower capital costs. Even with slight decreases in upfront capital costs real additional benefits in terms of cost savings can be achieved. Outlined in the table below we have calculated the net benefit in the event that capital costs decreased by 10 % via larger ECH schemes.

[33] Please note consultation with some stakeholders highlighted that remodelling was not always suitable or provided value given original and existing condition.

[34] 40% reduction in capital cost assuming replacing 15% existing stock

**Table 7.7 Capital Costs Reduction – Larger ECH Schemes**

| Option | £NPV - 10 % reduction in capital costs £ million | Original NPV estimate £ million | Change £ million |
|---|---|---|---|
| Option 1 | 16.2 | -21.9 | 38.1 |
| Option 2 | -61.6 | -143.0 | 81.4 |
| Option 3 | -251.1 | -381.9 | 130.8 |

*Source: URS analysis*

As expected, the NPV of each option improves assuming a 10 % reduction in capital costs via larger ECH schemes. Option 1 NPV increases to a positive £16.2 million an increase of £38.1 million. Option 2 and 3 both remain negative at £61.6 and £251.1 million respectively.

***Operating Costs***

Previous research on ECH schemes provides evidence that the environment encourages older people to become more independent (e.g. through better designed accommodation and housing and technology) enabling individuals to undertake more household and personal care tasks.

Evidence also indicates that older peoples physical health and welling being improves with less reported heath related problems, e.g. less GP visits and hospital admissions. In addition, ECH enables the provision informal care from family, friends and other residents - this is less likely to occur in residential care.

Over the longer term with improved technology and physical health, people's reliance on care may fall as a result of residing within ECH environment. The question of what could be an appropriate decrease is difficult. Although, a decrease in costs is implied by the lower operating costs of ECH compared to residential care, it is possible that operating costs may fall further over the longer term. For example, some survey evidence suggested that 30% of sample of people reported reductions in GP visits and hospital admissions, 40% thought their physical health had improved and reports that 80% improvement in their emotional well being. To over come this unknown, we have again chosen to be conservative assumed that per annum operating costs could fall by 5 %.

Importantly, potential lower operating cost may be achieved through larger schemes achieving economies of scale and being able to provide the same services at a lower cost per person.

Utilising this assumption of a 5% reduction in operating costs provided the following results:

**Table 7.8 Operating Cost Reduction Sensitivity Analysis**

| Option | £NPV – 5% reduction in operating costs £ million | Original NPV estimate £ million | Change £ million |
|---|---|---|---|
| Option 1 | -9.7 | -21.9 | 12.2 |
| Option 2 | -116.9 | -143.0 | 26.1 |
| Option 3 | -340.1 | -381.9 | 41.8 |

*Source: URS analysis*

As expected, the NPV of each option improves, however, all options remain negative indicating an additional cost of housing and care compared to the base case.

Alternatively, to provide a view on higher costs we also undertook an analysis in the case of operating costs increasing by 5 %. This has the opposite impact of reducing the cost savings as outlined below.

**Table 7.9 Operating Cost Increase Sensitivity Analysis**

| Option | £NPV – 5% increase in operating costs £ million | Original NPV estimate £ million | Change £ million |
|---|---|---|---|
| Option 1 | -34.2 | -21.9 | -12.3 |
| Option 2 | -169.1 | -143.0 | -26.1 |
| Option 3 | -423.9 | -381.9 | -42.0 |

*Source: URS analysis*

As expected, the net cost of each of the options increases as a result of higher operating costs.

### 7.3.2. Changes in the Mix of Care

The assumptions developed in the Section 4 of this report assume that over time the majority of the growth in ECH would be as a result replacing residential care and significantly less replacement of sheltered housing. However, as indicated earlier – the concept of the ECH includes a combination of those required minimal support to those seeking the availability of 24-hour care. To test the impact of ECH replacing more sheltered housing we have undertaken the following but maintaining growth assumptions for ECH to represent 5%, 10% and 15% of the spectrum of care by 2015 for options 1, 2 and 3 respectively:

- In option 1, ECH increases to 5% of the spectrum of care by 2015 via replacing 14.5 % of residential care (3,282) and 1 % of sheltered housing (2,148) when compared to the base case;
- In option 2, ECH increases to 10% of the spectrum of care 2015 via replacing 37 % of residential care (8,375) and 2.5 % of sheltered housing (3,021); and
- In option 3, ECH increases to 15% of the spectrum of care 2015 via replacing 64 % of residential care (14,487) and 4.5 % of sheltered housing (4,067).

The cost implications of this are outlined below:

**Table 7.10 Changes in the Mix of Care Sensitivity Analysis**

| Option | £NPV<br>£ million | Original NPV estimate<br>£ million | Change<br>£ million |
|---|---|---|---|
| Option 1 | -29.2 | -21.9 | 7.3 |
| Option 2 | -147.1 | -143.0 | 4.1 |
| Option 3 | -381.0 | -381.9 | 1.0 |

*Source: URS analysis*

As outlined above, the cost effectiveness of replacing sheltered housing with ECH is sensitive with all options achieving negative NPVs, i.e. additional costs are incurred in the provision of housing and care to older people. Option 3 has the highest negative NPV of followed by Option 2 and Option 1. This is consistent with overall assumptions.

### 7.3.3. Combination

The above sensitivity analysis tested variables on an individual basis. In the following sensitivity analysis we combined the following practical assumptions and incorporated them into all options:

- 15 % of sheltered housing would be remodelled and function as ECH;
- 5 % reduction in operating costs; and
- Increasing the level of sheltered housing that would be replaced by ECH as in section 6.3.2.

The table below outlines the results.

**Table 7.11 Combination Sensitivity Analysis**

| Option | £NPV<br><br>£ million | Original NPV estimate<br>£ million | Additional Net Benefit<br>£ million |
|---|---|---|---|
| Option 1 | 5.4 | -21.9 | 27.3 |
| Option 2 | -74.6 | -143.0 | 68.4 |
| Option 3 | -262.9 | -381.9 | 119 |

*Source: URS analysis*

The combination of these factors improves the NPV of the above options. Option 1 has the highest NPV of £5.4 million followed option 2 and option 3.

The above sensitivity analysis is quite important as it incorporates practical assumptions to assist in the development of an ECH strategy due to:

- It is likely that some existing stock will be remodelled and some larger ECH developments would have lower upfront capital costs per head;
- Previous research on the impact of ECH on old people suggests and more independent lifestyle reduces the cash cost of care over the long term; and
- The assumption that for the model of ECH to work at is best it should be a balanced community including a mix of people requiring no care to those that seek the availability of 24-hour care.

Based on the above sensitivity analysis tests, it shows that under Option 1, that ECH can be a cost effective approach in delivering care and housing to older people as part of the spectrum of care for older people.

### 7.3.4. Affordability

***Capital Cost of ECH and House Prices***

In considering the costs of the provision of ECH along with comparing it to other forms of housing and care for older people it is important to consider the affordability of ECH for older people.

Based on the estimated capital cost of a represented ECH unit of £102,303[35] this compares favourable with other house prices within the Yorkshire and the Humber as outlined in the table below.

**Table 7.12 Yorkshire and the Humber House Prices and ECH Capital Costs**

| Type of Housing | Bungalow | Detached | Semi-Detached | Terraced | Flat / Maisonette (converted) | Flat / Maisonette Purpose Built | Average |
|---|---|---|---|---|---|---|---|
| Average Price £ | 138,919 | 203,197 | 102,169 | 82,411 | 117,914 | 94,600 | 117,681 |
| ECH Differential £ | **36,616** | 100,894 | -134 | -19,892 | 15,611 | **-7,703** | **15,378** |

*Source: URS analysis, ONS and various sources (2004 data)*

Although average capital costs and average house prices are not directly comparable, it does provide a tool for analysing affordability. Average house prices in the Yorkshire and the Humber region were estimated at £117,681. In terms of specific housing types the average ranged from £203,197 for detached houses to £82,411 for terraced housing.

The most relevant comparisons are the average house price, bungalow and purpose built flats / maisonette. Bungalows are defined as single storey detach dwellings and flat / maisonette as a suite of apartments built specifically for family dwellings.

The average capital cost for an ECH is £36,616 lower than of a Bungalow, £15,611 lower than a Flat Maisonette and £15,378 lower than the average price for housing in the Yorkshire and the Humber.

For a true comparison, one would need to compare average ECH sales prices with the above housing price data. However, to provide an indication (although crude), is that profit margins for an ECH developer would need to be 13 % to achieve an equivalent price for average house prices and Flat Maisonettes and 26 % for bungalow prices. This provides some indication that on average that ECH houses prices could be similar to that of the Yorkshire and the Humber region. In addition, housing in the general community would not normally have specifically designed housing and assistive technology for older people. This facilities and associated design features for older people add additional costs to ECH schemes.

A further point to note is that increasing numbers of people own their own home in the UK and this also true for older people. Home ownership amongst the older generation is

[35] This was estimated during the calculation of capital cost per head. This average cost also includes land. URS has reviewed this figure and although it appears relatively high – its is a result of benchmarked data and the implications of incorporating associated ECH facilities into the design of the ECH schemes to support older people.

increasing with two thirds of older people already homeowners. This proportion is likely to increase to three quarters by 2010[36]. It is likely that some older people / couples may wish to buy ECH units via selling their existing home. This may also provide a further source of income in the event that the sale price of their existing home exceeds that of ECH property. Based on the above comparison between average capital cost for ECH and housing prices it would suggest that this would be an attractive option for some older people.

***Older Peoples Incomes and Annual Cost of Provision***

An alternative approach to looking at affordability can be undertaken via examining older peoples incomes. Based on the information contained in the URS Stage 1 report, older people's income on average is at the lower end of the income bands as outlined in the table below. 45% of people over 65 were reported to have incomes between £5,200 and £10,399 and 32 % with incomes between £10,400 and £15, 399, i.e. over 75% of people over 65 in the Yorkshire and the Humber had incomes lower than £15,300 per annum (£294 per week).

**Table 7.13 Annual Income by Age by Household Head**

| **Income** Band | **£5,200 – 10,399** | **£10,400 – 15,399** | **£15,400 – 20,799** | **20,800 – 25,999** | **26,000 and above** | **Total** |
|---|---|---|---|---|---|---|
| 16 - 64 | 13 | 14 | 14 | 13 | 46 | 100 |
| 65 and over | 45 | 32 | 10 | 5 | 8 | 100 |

*Source: Family Resource Survey 2002/03 and URS analysis*

In addition to the above, URS obtained information from the ONS regarding pensioner's incomes to provide an indication of the average level of income per week for people over 65 for the UK and Yorkshire and the Humber. This information is outlined in the table below.

**Table 7.14 Average Weekly Income by Age by Household Head – 2003/04**

| Area / Region | Gross Income | Before Housing Cost | After Housing Cost Income |
|---|---|---|---|
| UK | 293 | 251 | 227 |
| Yorkshire and the Humber | 275 | 236 | 213 |

*Source: ONS and URS analysis*

[36] Department of Health

On average older people's income are lower than of that of the national average for people living in the Yorkshire and the Humber. Older people in the Yorkshire and the Humber have an average gross income of £275 per week with estimated £236 and £213 for before and after housing costs per week. With significant proportions of older people in low-income categories, this is a key consideration in terms of the provision of housing and care for older people, how it is funded and affordability.

To allow a simple comparison, we have contrasted average income levels after housing costs per week with average operating costs per week for ECH schemes.

Based on the analysis contained in this report, the average cost of ECH schemes per week and per head is £185. This compares to average income levels of £213 per week.

Another method for comparison is to assume a rent level and compare that to average incomes before housing. Given the degree to which rents can vary we have chosen three levels of rent for an ECH. These include £40, £60 and £80 per week as outlined below.

**Table 7.15 Annual Income by Age by Household Head – 2003/04**

| Cost Type | Low Rent (£40) | Medium (£60) | High (£80) |
|---|---|---|---|
| Rent | 40 | 60 | 80 |
| Other services / care | 185 | 185 | 185 |
| Total | 218 | 251 | 265 |

*Source: ONS and URS analysis*

Based on the above, in commercial terms some type of public sector subsidy would be needed to ensure affordability for lower income older people, whether this is in the case of upfront capital grants via the DH ECH fund or other similar public sector funding mechanisms and sources.

However, it should be mentioned that when considering the development of ECH, a range of tenures need to be considered as the above table focuses on the older people with low incomes. In the future older people's incomes a likely to be higher, for example:

- Average pensioners incomes grew by over 60 % between 1979 and 1997[37];
- More recently pensioner incomes grew by 26% between 1994/95 and 2002/03[38]; and
- The purchasing power of pensioners in 25 years time will be 50 % higher than today[39].

[37] DH

[38] ONS

The above income statistics combined with the fact that three quarters of older people are likely to own their own home by 2010 suggests that not only ECH schemes for low incomes need to be considered but also medium and high income older people.

With the potential for rising incomes of older people in the future it is possible that the provision of ECH schemes would be more attractive to commercial private sector developers given the rise in wealth of older people in the future. However, based on the current information available it is difficult to assess what the private sector may provide. Although it should be noted certain characteristics and needs of older people are likely to be common to all regardless of economic status.

[39] DH

# 8. THE WAY FORWARD – STRATEGIC RECOMMENDATIONS AND CONCLUSIONS

The analysis outlined in this report supports the further development and provision of ECH schemes in the Yorkshire and the Humber region. Based on the evidence provided in this report ECH schemes have potential to provide positive economic benefits in terms of some cost savings in delivering housing and formal care to older people. In addition, the concept of ECH schemes can make a positive contribution to residents in terms of quality of life factors and potentially as a local community resource.

This section outlines a preferred approach for the future provision ECH as part of a wider spectrum of housing and care for older people. It also outlines a number of supporting recommendations to assist in achieving the preferred approach.

In recommending a preferred approach, URS not only considered the cost implications of developing increased levels of ECH but also the potential demand for ECH from older people, the potential benefits of ECH and how to best maximise these potential benefits. In addition, the implications of other forms of care are presented along with impacts on the broader community.

Given the embryonic nature of the ECH in the UK, we could not conclusively cover all the different facets that could make up or be characteristics of ECH within the Yorkshire and the Humber region. These included factors such as economies of scale for larger ECH developments and the important concept for regional ECH schemes to not only act as housing and care facilities but also as community resource centre and offer care and personal support to older people in rural and remote areas (outreach services). Unfortunately, sufficient data was not available at the time of this report to full investigate these factors.

Another important factor that is mentioned below is that of funding ECH. The scope of this study did not include a full review of the funding options but in the light of the potential economic benefits (some cost savings) some adjustments and modifications to funding ECH should be considered.

Outlined below are a number of recommendations that centre on the following:

- ECH target level;
- What should ECH replace?;
- New builds versus remodelling?;
- The need for stakeholder consolation;
- Improved data and information on ECH and care; and
- Review of funding arrangements.

## 8.1. Strategic Recommendations

The ECH approach of including housing, care and social services for older people provides some small cost savings but more importantly deliver benefits to older people as part of the spectrum of care. However, it is critical that this is undertaken via a balanced approach and it considers the implications of other forms of housing and care for older people. The recommendations of this balanced approach are outlined below.

### 8.1.1. Recommended ECH Target

Based on the options presented in this document, we recommend that Option 1 should be introduced as a target for the level of ECH provision within the Yorkshire and the Humber region.

Key reasons include:

1. Option 1 provides a balanced growth rate in ECH along with being cost effective. It was estimated under this option that by 2015 approximately 7,000 people could be placed in ECH - an average growth rate of approximately 580 per annum. Based on our assumptions this equates to approximately 490 units per annum and this compares favourable with current new builds in the pipeline – both in construction and planned[40].

2. Option 1 has the ability to provide a balanced mix of care through remodelling existing facilities such as residential care and sheltered housing. These lower capital costs and would enable an increased proportion of sheltered housing being replaced providing a greater mix of people requiring care to be located within a scheme – an important element within the concept of ECH.

3. In terms of Option 2 and 3, both these options are estimated to provide an additional cost in the provision of care as the rate of growth did not capture enough savings generated in operating these schemes to cover the higher capital costs of constructing new build ECH schemes. In addition, within Option 3 ECH was estimated to represent 15 % of the spectrum of care - equivalent to 20,000 places and in our view may be a difficult target to achieve. The higher growth in ECH may also result in the placing of people within inappropriate housing and care schemes.

4. It is also important to consider the economic benefits of ECH in terms of improved quality of life, the social environment and ECH schemes as a wider community resource. The analysis undertaken in this report did not quantify these potential benefits but in our view they have “real” value to individuals, the community and to the broader economy. Even in the event that these benefits were worth £5 per

[40] New builds were estimated at 405 in 2003/04 with another 545 in the planning stage – URS stage 1 study.

person per week to the estimated people in ECH within Option 1 – the benefits in today's terms would equal £10 million[41].

### 8.1.2. What should ECH replace?[42]

ECH should aim to replace both residential and sheltered housing schemes over time.

A key component of a successful ECH schemes will be that residents have a mix of dependency levels and care needs. This has the advantage of residents supporting one another, providing a social atmosphere and enabling them to be involved in the activities of the scheme.

However, it should be noted that replacing sheltered housing with ECH will increase the overall cost of housing and care for older people. Based on our analysis the target assuming new builds should be to replace 16 % of residential care and 1 % of sheltered housing when compared to the base case. This would result in approximately 50 % of people who would otherwise have been in residential care and the remaining from sheltered housing and low support types of care while also providing a economic benefit in terms of cost savings in the provision of care for older people.

### 8.1.3. New Builds versus Remodelling and Size

Growth in ECH should be made up of a combination of new builds and remodelling of existing stock. Even at low rates of re-modelling there is the potential for cost savings over time[43].

Incorporating remodelling of existing stock into our analysis also allows an increased number of people that would otherwise have been located in sheltered housing and less from residential care. Based on our analysis, remodelling 15 % of existing stock into ECH, would enable ECH to replace 14.5 % of residential care and 1.5% of sheltered housing. This would result in approximately 48% of people who would otherwise have been in residential care and the remaining from sheltered housing and low support types of care.

We also recommend the Department of Health and stakeholders investigate increasing the average size of ECH units given the potential cost savings in upfront capital and operating annual costs over time. URS would have wished to undertake some sensitivity analysis of larger schemes, however, sufficient data was not unavailable at the time of this report.

[41] Discounted at 3.5%

[42] Please note this is based on our option assumptions regarding the replacement of residential care and sheltered housing. The ability for people to move into ECH would need to be assessed on an individual basis.

[43] In the case of remodelling one would also need to consider the disturbance of existing residents.

The development of ECH scheme should also be integrated into the community and enabling it to act as a community resource. This would be of particularly relevance to rural / regional ECH schemes.

### 8.1.4. Stakeholder Consultation and Promotion of ECH

During the course of consultations, research and analysis and strategy development, there was a lack of awareness of the concept of ECH and the potential benefits that these schemes could delivery to older people and the community. For example, during consultations with potential users of ECH they were unaware of its availability or the concept of ECH.

In addition, there is some confusion over the term ECH with it often being used interchangeable with sheltered housing and very sheltered housing. Although we note that this is changing.

We recommend that some form of stakeholder consultation and promotion of ECH be undertaken through the evidence presented via this study. The focus of the exercise should involve the presentation and promotion of the following:

- The presentation and promotion of a clear definition of what ECH is and what services and facilities they provide;
- The potential demand for ECH schemes;
- The potential financial benefits / cost savings of ECH as a part of the spectrum of care for older people;
- The potential non – monetary benefits of ECH in terms of quality of life and associated factors for ECH residents; and
- Benefits such as acting as a community resource or a hub for associated services.

The audience for the consultation and promotion should include:

- Central Government Departments and associated policy makers – e.g. Department of Health and Treasury;
- Regional Government and Local Govt bodies;
- Private and public sector care and health providers; and
- Potential users and the general community.

### 8.1.5. Focused market research and collection of data

In undertaking this analysis, there was a lack of definitive and consistent data regarding the following:

- Information on the needs / demand of older people in relation to care services;

- Consistent data regarding the cost of provision of ECH and to some extent other forms of care;

- Research quantifying the value of non – monetary benefits of care.

We therefore recommend that future work include more in-depth analysis and associated research focusing on the above. This would be of particularly relevance for regional and local government decision makers directly involved in the business planning and development of ECH schemes.

### 8.1.6. Review of Funding Arrangements

As mentioned earlier, a review of funding arrangements was not part of the scope of this work. However, in light of the outcome of the modified economic appraisal focusing on the cost of provision of housing and care for older people and our recommendations, a review of sources and funding mechanisms should be undertaken

More specifically, the review should focus on the following:

- The increased provision of ECH as a part of the spectrum of care would increase the upfront capital funds required to deliver appropriate housing and care to older people while operating costs would be expected to fall. What could and should be done to meet this change in providing care to older people? For example:

    What changes should be made to criteria used to assess applications for public funding concerning the provision of housing and formal care for older people?

    Should there be a reallocation of resources from re-current funding government programmes to capital investment funds or a re-allocation in terms of specific housing and care programmes?

    What avenues exist given potential savings driven by increasing ECH to further encourage private sector participation in the development of ECH?

- In addition there exist a wide range of options where capital and revenue funding is sourced. Is there approaches that could stream line this process to ensure better and more effective provision of funds to ECH developments?

- Are better ways available for partners to work together more effectively ensuring funding can be secured?

- How should affordability and funding be examined in the given the situation of low incomes for older people but taking into account higher incomes and increased homeownership in the future?

## 8.2. Impacts on Other Types of Care

The focus of the above recommendations was in regard to ECH schemes. However, an important consideration is what are the implications for other forms of care for older people.

In the event that share of ECH schemes is developed in line with the recommendation above, the impact on other forms of care is outlined in the table below.

**Table 8.1 Implications for Other Types of Care**

| Type of Care | Nursing Care | Residential Care | ECH | Sheltered Housing | Home Care | Total |
|---|---|---|---|---|---|---|
| 2003 | 15,743 | 19,691 | 1,205 | 51,957 | 30,763 | 119,359 |
| 2015 | 18,098 | 19,015 | 7,039 | 57,691 | 35,365 | 137,214 |
| change | 2,355 | -676 | 5,834 | 5,740 | 4,602 | 17,855 |

*Source: ONS and URS analysis*

Full details of the implications over time for other types of care please see Appendix B.

### 8.2.1. Nursing Care and Residential Care

In terms of nursing care, the growth in ECH is unlikely to have any significant impacts on the level of provision in the immediate future. One might expect in future years a decrease in the demand as a percentage share given the preventative benefits of ECH enabling older people to remain more independent for longer. The degree to which this would occur is difficult to estimate. In this analysis we have assumed it to remain at same percentage share of care but it will rise in line with population increases from 15,743 in 2003 to 18,098 in 2015.

In terms of residential care, the growth of ECH would impact on the percentage share of residential care. Based on the recommended target of for ECH (Option 1), the number of residential places would be expected to fall by approximately 676 by 2015. The implications for these care schemes would need to be considered, however, some would have the potential to be redeveloped into ECH schemes.

### 8.2.2. Sheltered Housing

For sheltered housing, the need for this type of housing is still significant and even in the event that ECH replaces some of its provision over time the need for sheltered housing increases by 5,740 places over the period up to 2015 based on the assumptions incorporated into Option 1.

### 8.2.3. Home Care

In terms of home care, the growth in ECH is unlikely to have a significant impact on the level of provision in the immediate future. Indeed as outlined in earlier parts of this report, home care is likely to increases irrespective of the increase in ECH. With advances in technology and home modifications older people are more likely to remain in their own

home than move to housing and care schemes. In this analysis we have assumed home care to approximately remain at same percentage share of care but it will rise in line with population increases from 30,763 to 35,365.

## 8.3. Broader Economic Impacts

With an increased provision of ECH in the Yorkshire and the Humber region a number of broader economic impacts will occur. These impacts would be felt in the short and longer term and are briefly outlined below.

Short-term economic impacts of construction of ECH developments will occur. ECH schemes have higher capital costs than other types of housing and care. Any increase in the level of ECH developments will have a positive impact on the construction and related industries in the Yorkshire and the Humber region. This type of economic activity would be potentially beneficial for regional and rural areas in terms of their economic development and regeneration plans.

Construction impacts will obviously have a short-term impact, but importantly the introduction of the ECH schemes will provide a long term impact in terms of economic activity and again could be particularly beneficial for regional / rural areas. It would also be important that in appropriate areas that these facilities act as community resource facilities and provide a range of community and outreach services to the local area.

In addition, the development of these schemes will also provide job opportunities, however, we note that in some cases labour shortages for care staff have been experienced.

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# Appendix A - Cashflows

## Appendix A Base Case Cash Flows

| Base Case | NPV | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Capital Costs** | | | | | | | | | | | | | |
| Nursing Care | 76,832,256 | 2,166,329 | 1,473,104 | -779,879 | 1,646,410 | 5,285,844 | 8,232,052 | 8,578,665 | 8,838,624 | 23,916,277 | 18,023,861 | 14,211,121 | 12,044,792 |
| Residential Care | 122,851,491 | 3,463,868 | 2,355,430 | -1,246,993 | 2,632,540 | 8,451,838 | 13,162,699 | 13,716,918 | 14,132,582 | 38,241,104 | 28,819,383 | 22,722,975 | 19,259,107 |
| Extra Care Housing | 11,610,619 | 327,368 | 222,610 | -117,853 | 248,800 | 798,778 | 1,243,999 | 1,296,378 | 1,335,662 | 3,614,143 | 2,723,702 | 2,147,534 | 1,820,166 |
| Very Sheltered Housing | 9,786,190 | 275,927 | 187,631 | -99,334 | 209,705 | 673,262 | 1,048,523 | 1,092,672 | 1,125,783 | 3,046,237 | 2,295,715 | 1,810,083 | 1,534,155 |
| Sheltered Housing | 342,766,303 | 9,664,492 | 6,571,855 | -3,479,217 | 7,345,014 | 23,581,361 | 36,725,070 | 38,271,389 | 39,431,128 | 106,695,993 | 80,408,574 | 63,399,068 | 53,734,576 |
| Home Care | | | | | | | | | | | | | |
| **SUB -TOTAL** | 563,846,860 | 15,897,985 | 10,810,630 | -5,723,275 | 12,082,469 | 38,791,083 | 60,412,343 | 62,956,020 | 64,863,779 | 175,513,754 | 132,271,235 | 104,290,781 | 88,392,796 |
| | | | | | | | | | | | | | |
| **Operational Costs** | | | | | | | | | | | | | |
| Nursing Care | 2,972,508,540 | 294,809,306 | 295,434,213 | 295,103,380 | 295,801,806 | 298,044,121 | 301,536,251 | 305,175,418 | 308,924,863 | 319,070,421 | 326,716,348 | 332,744,867 | 337,854,405 |
| Residential Care | 3,497,224,446 | 346,849,907 | 347,585,125 | 347,195,892 | 348,017,606 | 350,655,741 | 354,764,313 | 359,045,876 | 363,457,184 | 375,393,665 | 384,389,273 | 391,481,965 | 397,493,453 |
| Extra Care Housing | 117,078,043 | 11,611,639 | 11,636,252 | 11,623,222 | 11,650,731 | 11,739,049 | 11,876,593 | 12,019,929 | 12,167,608 | 12,567,210 | 12,868,360 | 13,105,805 | 13,307,054 |
| Very Sheltered Housing | 121,947,063 | 12,086,596 | 12,112,216 | 12,098,653 | 12,219,217 | 12,219,217 | 12,362,388 | 12,511,586 | 12,665,306 | 13,081,254 | 13,394,722 | 13,641,879 | 13,851,360 |
| Sheltered Housing | 3,006,897,520 | 298,219,957 | 298,852,094 | 298,517,434 | 299,223,940 | 301,492,196 | 305,024,727 | 308,705,996 | 312,498,818 | 322,761,749 | 330,496,132 | 336,594,396 | 341,763,046 |
| Home Care | 1,181,116,435 | 117,141,502 | 117,389,807 | 117,258,352 | 117,535,869 | 118,426,845 | 119,814,432 | 121,260,443 | 122,750,272 | 126,781,576 | 129,819,660 | 132,215,072 | 134,245,330 |
| SUB -TOTAL | 10,896,772,048 | 1,080,718,908 | 1,083,009,708 | 1,081,796,932 | 1,084,449,169 | 1,092,577,170 | 1,105,378,703 | 1,118,719,248 | 1,132,464,053 | 1,169,655,875 | 1,197,684,495 | 1,219,783,984 | 1,238,514,649 |
| **TOTAL NPV** | 11,460,618 | | | | | | | | | | | | |

Appendix A Option 1 Cash Flows

| OPTION 1 | NPV | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Capital Costs** | | | | | | | | | | | | | |
| Nursing Care | 76,832,256 | 2,166,329 | 1,473,104 | -779,879 | 1,646,410 | 5,285,844 | 8,232,052 | 8,578,665 | 8,838,624 | 23,916,277 | 18,023,861 | 14,211,121 | 12,044,792 |
| Residential Care | -20,135,806 | -3,463,868 | -2,355,430 | -1,246,993 | -14,204,438 | -8,739,359 | -4,564,445 | -4,397,424 | -4,378,049 | 16,572,222 | 7,306,400 | 1,303,474 | -2,216,186 |
| Extra Care Housing | 402,450,628 | 36,709,310 | 37103065.43 | 36911013.51 | 36462437.63 | 38020298.72 | 39815745.13 | 40721995.34 | 41628730.87 | 51708019.52 | 50081168.28 | 49044355.66 | 48688770.13 |
| Very Sheltered Housing | -9,965,377 | -275,927 | -187,631 | -99,334 | -209,705 | -673,262 | -1,048,523 | -1,092,672 | -1,125,783 | -3,046,237 | -2,295,715 | -1,810,083 | -1,534,155 |
| Sheltered Housing | 254,828,238 | -9,664,492 | -6,571,855 | -3,479,217 | -7,345,014 | 16713142.35 | 29843548.66 | 31251604.11 | 32262989.45 | 99284564.83 | 72637460.41 | 55392097.81 | 45547668.6 |
| Home Care | | | | | | | | | | | | | |
| SUB -TOTAL | 699,409,939 | 25,471,352 | 29,461,253.98 | 31305591.42 | 16349690.92 | 50606663.13 | 72278376.98 | 75062168.12 | 77226512.11 | 188434846.7 | 145753175.6 | 118140966 | 102530889.4 |
| | | | | | | | | | | | | | |
| **Operational Costs** | | | | | | | | | | | | | |
| Nursing Care | 2,972,508,540 | 294,809,306 | 295,434,213 | 295,103,380 | 295,801,806 | 298,044,121 | 301,536,251 | 305,175,418 | 308,924,863 | 319,070,421 | 326,716,348 | 332,744,867 | 337,854,405 |
| Residential Care | 3,229,829,343 | 343,833,428 | 341,510,836 | 338,051,487 | 333,617,749 | 330,889,868 | 329,465,134 | 328,092,533 | 326,725,980 | 331,898,791 | 334,179,392 | 334,586,255 | 333,894,501 |
| Extra Care Housing | 367,997,896 | 15,634,257 | 19,736,606 | 23,817,721 | 27,849,239 | 32,053,004 | 36,455,284 | 40,957,766 | 45,560,502 | 51,277,667 | 56,814,958 | 62,237,612 | 67,620,950 |
| Very Sheltered Housing | 11,626,382 | 8,095,596 | 4,075,530 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sheltered Housing | 3,016,168,190 | 299,421,607 | 301,271,859 | 302,160,214 | 302,195,170 | 303,802,783 | 306,673,390 | 309,679,436 | 312,782,766 | 322,332,802 | 329,319,693 | 334,647,778 | 339,028,941 |
| Home Care | 1,181,116,435 | 117,141,502 | 117,389,807 | 117,258,352 | 117,535,869 | 118,426,845 | 119,814,432 | 121,260,443 | 122,750,272 | 126,781,576 | 129,819,660 | 132,215,072 | 134,245,330 |
| SUB -TOTAL | 10,783,246,787 | 1,078,935,696 | 1,079,418,851 | 1,076,391,154 | 1,076,999,833 | 1,083,216,621 | 1,093,944,491 | 1,105,165,596 | 1,116,744,383 | 1,151,361,257 | 1,176,850,051 | 1,196,431,585 | 1,212,644,128 |
| **TOTAL NPV** | 11,482,546,727 | | | | | | | | | | | | 12,044,792 |

Appendix A Option 2 Cash Flows

| OPTION 2 | NPV | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Capital Costs** | | | | | | | | | | | | | |
| Nursing Care | 76,832,256 | 2,166,329 | 1,473,104 | -779,879 | 1,646,410 | 5,285,844 | 8,232,052 | 8,578,665 | 8,838,624 | 23,916,277 | 18,023,861 | 14,211,121 | 12,044,792 |
| Residential Care | -113,961,427 | -3,463,868 | -2,355,430 | -1,246,993 | -2,632,540 | -8,451,838 | -13,162,699 | -13,716,918 | -14,132,582 | -13,447,576 | -22,263,689 | -27,985,539 | -31,491,461 |
| Extra Care Housing | 825,959,555 | 75,623,447 | 76,550,412 | 76,517,100 | 75,908,310 | 78,552,733 | 81,809,864 | 83,645,232 | 85,496,150 | 104,026,293 | 101,615,693 | 100,089,022 | 99,709,496 |
| Very Sheltered Housing | -9,965,377 | -275,927 | -187,631 | -99,334 | -209,705 | -673,262 | -1,048,523 | -1,092,672 | -1,125,783 | -3,046,237 | -2,295,715 | -1,810,083 | -1,534,155 |
| Sheltered Housing | 232,496,161 | -9,664,492 | -6,571,855 | -3,479,217 | -7,345,014 | 13,468,665 | 26,482,069 | 27,815,752 | 28,751,558 | 95,096,673 | 68,512,305 | 51,306,154 | 41,463,641 |
| Home Care | | | | | | | | | | | | | |
| SUB -TOTAL | 1,011,361,168 | 64,385,489 | 68908600.28 | 70911678.02 | 67367461.75 | 88182140.94 | 102312762.5 | 105230058.3 | 107827968 | 206545430.6 | 163592455.6 | 135810675.9 | 120192312 |
| | | | | | | | | | | | | | |
| **Operational Costs** | | | | | | | | | | | | | |
| Nursing Care | 2,972,508,540 | 294,809,306 | 295,434,213 | 295,103,380 | 295,801,806 | 298,044,121 | 301,536,251 | 305,175,418 | 308,924,863 | 319,070,421 | 326,716,348 | 332,744,867 | 337,854,405 |
| Residential Care | 2,790,601,684 | 336,863,832 | 327,476,144 | 316,923,269 | 305,424,700 | 295,437,382 | 286,491,421 | 277,431,186 | 268,207,894 | 264,010,402 | 257,061,071 | 248,325,736 | 238,496,072 |
| Extra Care Housing | 639,149,588 | 19,936,850 | 28,400,748 | 36,860,962 | 45,253,865 | 53,939,152 | 62,984,568 | 72,232,914 | 81,685,909 | 93,187,714 | 104,422,987 | 115,489,463 | 126,513,975 |
| Very Sheltered Housing | 11,626,382 | 11,626,382 | 8,095,596 | 4,075,530 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sheltered Housing | 2,997,285,894 | 2,997,285,894 | 299,121,985 | 300,668,510 | 301,251,917 | 300,983,157 | 302,278,689 | 304,825,960 | 307,501,516 | 310,267,087 | 319,414,296 | 326,004,394 | 330,939,458 |
| Home Care | 1,181,116,435 | 1,181,116,435 | 117,141,502 | 117,389,807 | 117,258,352 | 117,535,869 | 118,426,845 | 119,814,432 | 121,260,443 | 122,750,272 | 126,781,576 | 129,819,660 | 132,215,072 |
| SUB -TOTAL | 10,592,288,524 | 10,592,288,524 | 1,075,969,071 | 1,073,444,952 | 1,067,397,879 | 1,064,999,397 | 1,068,126,189 | 1,075,652,631 | 1,083,601,477 | 1,091,836,025 | 1,122,464,408 | 1,144,024,460 | 1,159,714,596 |
| **TOTAL NPV** | 11,603.649,692 | 11,603,649,692 | | | | | | | | | | | |

Appendix A Option 3 Cash Flows

| OPTION 3 | NPV | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Capital Costs** | | | | | | | | | | | | | |
| Nursing Care | 76,832,256 | 2,166,329 | 1,473,104 | -779,879 | 1,646,410 | 5,285,844 | 8,232,052 | 8,578,665 | 8,838,624 | 23,916,277 | 18,023,861 | 14,211,121 | 12,044,792 |
| Residential Care | -125,100,923 | -3,463,868 | -2,355,430 | -1,246,993 | -2,632,540 | -8,451,838 | -13,162,699 | -13,716,918 | -14,132,582 | -38,241,104 | -28,819,383 | -22,722,975 | -19,259,107 |
| Extra Care Housing | 1,320,053,303 | 121,023,274 | 122,572,316 | 122,724,201 | 121,928,494 | 125,840,572 | 130,803,003 | 133,722,341 | 136,674,807 | 165,064,279 | 161,739,305 | 159,641,133 | 159,233,677 |
| Very Sheltered Housing | -9,786,190 | -275,927 | -187,631 | 99,334 | -209,705 | -673,262 | -1,048,523 | -1,092,672 | -1,125,783 | -3,046,237 | -2,295,715 | -1,810,083 | -1,534,155 |
| Sheltered Housing | 206,442,071 | -9,664,492 | -6,571,855 | -3,479,217 | -7,345,014 | 9,683,442 | 22,560,342 | 23,807,257 | 24,654,889 | 90,210,799 | 63,699,623 | 46,539,219 | 36,698,942 |
| Home Care | | | | | | | | | | | | | |
| SUB -TOTAL | 1,468,440,518 | 109,785,316 | 114930504.3 | 117317446.7 | 113387646 | 131684757 | 147384174.8 | 151298672.8 | 154909954.6 | 237904014.7 | 212347692.7 | 195858416 | 187184147.9 |
| | | | | | | | | | | | | | |
| **Operational Costs** | | | | | | | | | | | | | |
| Nursing Care | 2,972,508,540 | 294,809,306 | 295,434,213 | 295,103,380 | 295,801,806 | 298,044,121 | 301,536,251 | 305,175,418 | 308,924,863 | 319,070,421 | 326,716,348 | 332,744,867 | 337,854,405 |
| Residential Care | 2,278,169,415 | 328,732,636 | 311,102,336 | 292,273,681 | 272,532,809 | 254,076,149 | 236,355,422 | 218,326,281 | 199,936,794 | 184,807,281 | 167,089,696 | 147,688,464 | 127,197,905 |
| Extra Care Housing | 955,493,229 | 24,956,542 | 38,508,912 | 52,078,076 | 65,559,262 | 79,472,991 | 93,935,398 | 108,720,586 | 123,832,217 | 142,082,768 | 159,965,688 | 177,616,621 | 195,222,504 |
| Very Sheltered Housing | 11,626,382 | 8,095,596 | 4,075,530 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sheltered Housing | 2,975,256,548 | 298,772,427 | 299,964,604 | 300,192,237 | 299,569,143 | 300,500,579 | 302,670,625 | 304,960,610 | 307,332,128 | 316,009,372 | 322,136,546 | 326,613,085 | 330,143,102 |
| Home Care | 1,181,116,435 | 117,141,502 | 117,389,807 | 117,258,352 | 117,535,869 | 118,426,845 | 119,814,432 | 121,260,443 | 122,750,272 | 126,781,576 | 129,819,660 | 132,215,072 | 134,245,330 |
| SUB -TOTAL | 10,374,170,550 | 1,072,508,009 | 1,066,475,403 | 1,056,905,726 | 1,050,998,888 | 1,050,520,685 | 1,054,312,128 | 1,058,443,339 | 1,062,776,274 | 1,088,751,418 | 1,105,727,937 | 1,116,878,110 | 1,124,663,246 |
| **TOTAL NPV** | 11,842,611,068 | | | | | | | | | | | | 12,044,792 |

# Appendix B - Literature Review of the costs and benefits of Care for Older People

**Benefits**

There is extensive literature on the benefits of ECH resulting from past studies of schemes and anecdotal evidence from various stakeholders. The literature reviewed for this study is outlined below.

- Baker and Plymouth County Council Housing and Social Services Department (2002) *An Evaluation of an Extra Care Housing Scheme in Plymouth, Devon*
- Biggs, Bernard, Kingston and Nettleton (1999) *Assessing the Health Impact of Age Specific Housing*
- Biggs, Bernard, Bertram and Sim (2004) *New Lifestyles in Old Age: Health. Identity and Well-Being in Retirement Communities*
- Croucher, Pearce and Bevan (2003) *Residents' views of a Continuing Care Retirement Community*
- Helen Ogilvy Associates (2002) *'Evaluation of St Germain's Grange Executive Summary*
- Laing and Buisson (2004) *Extra Care Housing Markets* 2003/4
- Oldman (2000) *Is Enhanced SH an Effective Replacement for Residential Care for Older People?*
- Ridgeway Associates (2003) *Extra Care Housing Template for Devon*
- Spicer, North Lincolnshire Council (2004) *Cost Analysis for an Extra Care Housing Scheme in Scunthorpe*
- Stilwell and Kerslake (2003) *What makes people choose residential care, and are there alternatives?*

The key benefits of Extra Care Housing include the following points, which are explored in more benefit below. In addition, we review findings from URS' consultation with older people.

- Quality of life: improved physical and mental health
- Potential cost savings
- The ECH social environment
- Provision of a wider community resource

***Quality of Life: Improved Physical and Mental Health***

A number of studies provide evidence as to the positive impact of ECH on older people's physical and mental health. Ridgeway (2003) found for people who may have neglected themselves in their previous accommodation in the community (e.g. poor levels of nutrition and loneliness resulting in depression), once stabilised in an ECH Scheme their needs are likely to fall considerably. Such evidence leads Laing and Buisson (2004 p123) to conclude that 'while it is less expensive to build and maintain a single bedroom in a care home than to build a small flat, by maintaining and sometimes increasing independence, ECH can reduce care costs and counter higher accommodation costs.'

In Olgivy's (2002) investigations at St Germain's Grange revealed that:

- 30% of residents reported needing to see their GP less often and 30% said they needed fewer hospital admissions than previously;
- 40% thought their physical health had improved while 40% thought their had been no change and 20% reported a worsening in their condition;
- 50% were sleeping better than in their previous accommodation;
- 80% of residents reported an improvement in their emotional well-being and their level of optimism about the future;
- 100% felt safe at St Germain's Grange while 50% had felt unsafe in previous accommodation; and
- 50% felt their relationship with their family had improved.

One reason for physical improvements may be that ECH provides an environment where residents feel secure enough to move around and attempt household tasks. There is a knock-on effect as older people maintaining their independence also maintain their physical abilities, rather than having everything done for them.

A study of Broadway Gardens, an Extra Care Charitable Trust scheme in the Midlands, also measured change in the condition of residents over time by comparing the experiences of 47 residents to a control group of 97 residents in the local neighbourhood (Biggs et al. 1997). Self-identified health status and social functioning was measured, and a year later the study found that residents of Broadway gardens had succeeded in maintaining their physical, mental and social functioning compared with the deteriorating function of the control group.

Again, quality of life is not an easy factor to measure, and other studies yield mixed results. Biggs et al. (2004) found Berryhill residents have a slightly lower quality of life than their community peers, based on the Diener Satisfaction with Life scale and the CASP-19 test which measures Control, Autonomy, Self-Realisation and Pleasure (Hyde et al 2003). However, in terms of changing quality of life over time, at year 1, 51% of the core group indicated life was 'much better' since moving to the village. At years 2 and 3 the majority of residents indicated that quality of life is 'about the same' as it was a year

previously. Initially, moving to the village is seen as a change for the better after which most residents seem to remain reasonably positive. For small proportions however life worsens. Questionnaires also revealed that residents generally felt younger inside then they actually are, and thought they looked younger too.

A major factor in quality of life is the balance between social interaction and maintaining independence. Croucher et al. (2002) found in a study of resident satisfaction at Hartrigg Oaks, the Continuing Care Retirement Community in York, that the largest proportion of residents valued most highly their privacy but also having help close by. Similarly, Biggs et al. (2004) applied the CASP-19 test at Berryhill Retirement Village to find that pleasure and freedom from the unwanted interference of others were the factors which contributed most to the quality of life of residents.

***Potential Cost Savings***

The implication of improved physical and mental health is reduced care costs when older people live in ECH.

The concept of ECH is of a more flexible system of care provision than other housing with care options, because it can respond to fluctuating levels of need. This results in benefits for the user but also greater cost efficiency in provision. Personal and health care are also likely to be better co-ordinated than when they are provided separately within the community, and when an ECH acts as resource centre for a locality cost savings may be made in providing for the wider area.

In addition, informal carers provide support to ECH residents, which is not the case in residential or nursing homes. Evidence for this effect is given in Housing 21 'Key data on tenants of ECH' (2005), where it states just over half of ECH residents rely on additional informal support (p4).

**Table B.1 Residents receiving informal care in an ECH scheme, October 2004**

| Hours per week of care | % of residents |
|---|---|
| 0 to 2 | 35 |
| 3 to 9 | 14 |
| 10 to 19 | 2 |
| Over 20 | 0 |
| Total | 51 |

**Source: Housing 21, 2005**

Such informal care can be seen as an economic subsidy to the ECH scheme. Moreover, informal care may be the channel through which residents get to know each other, and through which contact with friends and family outside the scheme is maintained. In order

to create such communities, a proportion of residents will need to have few or no care and support needs. This in turn implies the provision of sufficient units to accommodate older people with all levels of frailty, and their spouses. This allows informal carers to continue caring, and couples can remain together.

Stilwell and Kerslake (2003) investigated the circumstances under which older people were admitted to residential care home, and found that 31% could have entered ECH at the time of admission and 36% could have entered ECH at the time of an earlier move. This study demonstrated that clients are often admitted to a residential home when – in the long term at least – their needs do not warrant such intensive levels of care, and as such it implies significant potential cost savings. A similar and perhaps more widely publicised issue is that of 'bed-blocking' in hospitals. As stated in the Housing Corporation's Older People Strategy 2003, 'two-thirds of all hospital patients in England are over 65'. There is potential for avoiding costly hospital admissions via treatment in an ECH scheme where 24 hour and respite/intermediary care is available. Moreover, as Ridgeway Associates (2003) pointed out in their assessment of Douro Court ECH scheme in Ivybridge, recovery is likely to be more speedy because older people are not exposed to external infections they might be exposed to in hospital, and because they are treated in the comfort of their own home and interaction with their friends and family is greater.

***ECH Social Environment***

The value of the opportunities offered by ECH schemes for activities and social interactions is also an important benefit. ECH residents are more likely to have access to social activities than when they lived in the general community, and they are surrounded by like-minded people and have opportunities to make friends. More, as noted by Stilwell and Kerslake (2003), residents play a role in organising leisure activities and contribute to decisions about service delivery and thus they become increasingly willing and able to participate in social life.

Most ECH and retirement schemes aspire to have a balance of different ages and needs, which makes the delivery of care financially sustainable. In terms of building a community and individual quality of life however, this mix is also of value. At St Germain's Grange, Olgivy (2002) noted examples of tenants capitalising on their own strengths to assist other tenants. Ridgeway Associates noted at Douro Court (2003) that low level need individuals assist those less able than themselves, organise social events, and participate in the day to day running of the scheme. Conversely, Oldman (2000) found that an important factor in high satisfaction levels of residents at a sheltered housing scheme was that not everyone they lived with was disabled. Biggs et al. (1997) summarise these points well in an earlier study when he asserts that age-specific shared living, when accompanied by a culture of peer support, has emerged as a powerful aid to morale and an anecdote to age prejudice.

The appeal of ECH lies for many older people in the opportunity to have their own front door while having support nearly if it is needed. Such communities combine the best elements of residential and neighbourhood communities. While there are security risks associated with neighbourhood living, to move into another person's household (e.g. a

family member's) is 'to lose the right to make decisions about the little and the big things in life' (Royal Commission 1999 p263). However, ECH can balance the need for autonomy with the need for companionship and interaction, improved confidence and social skills, and opportunities for making friends.

***Provision of a wider community resource***

An additional factor is that ECH schemes often have facilities that can be used by the public (though 'progressive privacy', whereby the public are only admitted at certain times, ensures residents feel secure). Thus the ECH scheme is integrated into the surrounding community rather than segregated from it, to the benefit of those on both sides. Biggs et al (2004) found that people who live outside Berryhill Retirement Village but have a stake in it were generally supportive of it, welcoming the opportunities provide by the social environment, the company of peers, the sharing of common interests and the provision of health and service facilities. ECH centres frequently act as resource hubs for larger areas, enabling more effective outreach to patients in the locality. This is of potential benefit in rural areas especially, where clients may be isolated under existing arrangements where care is co-ordinated from a remote urban centre.

**Consultation with Older People**

URS undertook primary research into the potential of ECH schemes in delivering housing and care via consulting with potential users at two Age Concern Day Care Centres in Rotherham. Semi-structured questionnaires were used to ask 20 older people about their housing with care experiences, their aspirations for the future with regard to housing and care along with their personal preferences.

The users groups yielded a number of relevant insights into older people's past and current experiences of housing with care, and their aspirations.

The following issues were highlighted during consultation:

- An important point was that most people had not heard of ECH or its availability but were positive about the concept;
- Some interviewees clearly experienced limitations in terms of personal tasks, mobility and domestic tasks. For example, 3 respondents were unable to leave the house without assistance;
- The importance of social activities was viewed as very important by interviewees and advised that it is an important factor in determining a type of suitable care;
- Interviewees indicated that they would not choose residential or nursing care unless unavoidable – as 'a last resort' – basically if one could not do the simple things to look after ones self. One older person had spent a period in a care home after being admitted to hospital. She commented that she was enjoying cooking again now she was back in a sheltered housing scheme - which she hadn't needed to do in the care home;

- For 14 interviewees who lived in their own home – said "staying at home" was very important. However, a number mentioned that some features in their home in terms of design of gas cookers and glass doors were difficult / dangerous to use indicating a role for safety features and technological aids allowing people to remain in their own homes longer; and

- Most respondents relied heavily on immediate family or friends for assistance, and many were conscious of this reliance – although they wished to maintain independency and privacy.

Therefore the key themes to come out of the consultation were preferences for remaining at home, the use of assistive technology, older people relying on informal care and the importance of social interaction. All these are key ingredients within the concept of ECH schemes.

**ECH Costs**

The data on the costs of ECH schemes was collected from the following sources.

- Department of Health (confidential information);

- Example schemes supplied by other stakeholders (ECH operators);

- PSSRU (2003/4) Unit Costs of Health and Social Care

- Fletcher, Riseborough, Humphries, Jenkins and Whittingham (1999) Citizenship and Services in Older Age: the Strategic Role of Very Sheltered Housing; and

- Laing and Buisson (2004) *Various Reports*

***Department of Health Extra Care Fund - Example Bids (confidential information)***

The DH provided cost data on a number of planned ECH schemes for Yorkshire and the Humber via applications for ECH funding. The data is confidential and unpublished. In line with application requirements, capital costs are laid out, as well as details about land and property, facilities and units.

***ECH schemes***

Examples included schemes already running and schemes planned for the future, new-build and refurbished, as well as models considered 'typical' for urban, suburban and rural areas. From this information, capital and operating cost information was used, together with descriptions of facilities and units.

***PSSRU (2003/4) Unit Costs of Health and Social Care***

This document, produced every year by the University's of Kent's Personal Social Services Research Institute, presents costs per person for a variety of service packages, including those for older people. Different elements of the package are broken down so 'users can adapt the estimated costs to suit local or specific circumstances' (p4). The document is updated annually.

***Riseborough et al. (2000) and Fletcher et al. (1999)***

A number of reports contain cost information about care schemes. Though costing ECH and other forms of housing with care is not necessarily their main aim, they are useful for historical benchmarking. *Assessing the Costs and Benefits of Specialist Living and Care Environmental for Older People* by Riseborough et al. (2000) was useful in obtaining information on costs for different types of housing and care. .

Fletcher et al. (1999) *Citizenship and Services in Older Age: the Strategic Role of Very Sheltered Housing* includes detailed costs examples of costs for very sheltered housing, with contributions from 23 authorities from different parts of England as well as from RSLs and other national bodies. This study was used in compiling the capital cost profile of Very Sheltered Housing, and in drawing comparisons between the cost of new-build and remodelled schemes.

**Laing (2004) *Calculating the Costs of Efficient Care Homes***

This document uses evidence-based benchmarks to estimate fair fees for operating an efficient care home. It is drawn upon to calculate capital and operating costs for Nursing Care and Residential Care.

# Appendix C - Economic Appraisal Approach

***What is an Economic Appraisal?***

An economic appraisal seeks to identify all of the costs and benefits of a project, programme or policy and then value those benefits and costs using a variety of economic techniques. The objectives of a CBA are to provide a decision-making framework so that the financial implications of a project, programme or policy can be offset against non-financial costs and benefits.

This is economic appraisal is a modified approach to a normal economic appraisal as it focuses on the cost implications of ECH housing. Therefore the costs of the base case and each option were compared since the analysis is seeking to determine the cost effectiveness of the options, rather than calculate the difference between revenues and costs.

***What is the Approach?***

There are four key steps involved in performing a CBA:

1. Set the base case, alternative options and parameters;

2. Identify and define all cost and benefit items;

3. Assign a monetary value where possible to the cost and benefit items identified in Step Two, and assess non-monetary cost and benefit items in a qualitative manner.

4. Aggregate the cost and benefit items to determine the NPV of the project and identify which option would produce the greatest net benefit.

*Step 1: Set the Base Case, Alternative Options and Parameters*

As outlined in section 3 of this report, we have developed 3 options and a base case for appraisal. Each of the options are to be compared to the base case.

The key parameters of the analysis include the time frame and the discount rate. The time frame for the analysis is up until 2015 as advised by the Department of Health.

In terms of discount rate, a real rate of 3.5% was used in line with UK Government guidelines.

*Step 2: Identify Costs and Benefits*

The costs and benefits of the proposed relocation of DHS, DIIRD and DOJ have been identified by:

- Meetings with the Department of Health;
- Stakeholder consultation with LIN groups etc;
- Review of literature and previous studies in relation to care costs and benefits.

The types of costs and benefits identified for different types of care include:

- Capital costs for different types of care;
- Operational costs for different types of care including staff costs, care costs, overhead costs, facilities management costs;
- The benefits of cost savings via using ECH; and
- The benefits ECH in terms of preventive bridge role, improved health, social inclusion, balanced community effect, independence.

*Step 3: Valuation of Costs and Benefits*

Two types of cost and benefit items exist - market and non-market.

Market costs and benefits: Costs and benefits that can be readily identified and valued in money terms (e.g. rent costs).

Non – Market costs and benefits: Effects which can be identified and measured in physical terms but which cannot be easily valued in money terms because of the absence of a market (e.g. environmental benefits).

Market costs and benefits can be assigned a quantitative value with reference to market information, non-market costs and benefits can be difficult to quantify, given there is no direct valuation placed on them in a market.

A range of techniques are available for valuing market and non-market costs and benefits. Methodology used in most cost benefit analyses involves:

- measuring the market based costs and benefits; and
- the use of alternate measures, where possible, to determine the value of non-market based costs and benefits.

While the market based costs and benefits are relatively straight forward, identifying non-market costs and benefits is often difficult but possible.

This appraisal focuses on the cost implications of ECH housing. Therefore the costs of the base case and each option were compared since the analysis is seeking to determine the effectiveness of the options, rather than calculate the difference between revenues and costs.

*Step 4: Aggregation of Costs and Benefits via NPV and Sensitivity Analysis*

Once costs and benefits have been valued and aggregated it is possible to determine whether there is a net benefit or a net cost as a result.

In the analysis, the NPV of costs of the base case and each preferred option were compared since the analysis is seeking to determine the cost of each option, rather than calculate the difference between revenues and costs. The analysis seeks to determine the lowest net cost means of providing a specified level of accommodation and care.

To determine the NPV of costs we utilised a discounted cash flow method. This is a standard approach to value costs or benefits that occur at different times and is based on the fact that a pound now is worth more than a pound next year. For example, suppose an individual wishes to spend pound in question. If its received next year, he or she will have the inconvenience of waiting. If alternatively the recipient intends to save, he or she could earn interest on that pound if given it now: in which case in a year's time its value will be more than one pound.

The standard approach to discount reduces a time stream of costs (or benefits) to an equivalent amount of today's pounds. The single amount is referred to the NPV. The NPV is calculated using the method of compound interest and the rate by which the NPV is calculated is known as the discount rate. Thus the discount rate is in effect an exchange rate between value today and value in the future.

# Appendix D - Key Data Assumptions

A number of assumptions underlie the analysis in this report. These are laid out below and comprise the following:

- Population growth in Yorkshire and the Humber;
- Number of people over 65 receiving care in Yorkshire and the Humber;
- Growth scenarios for ECH in Yorkshire and the Humber, which consist of the base case and three growth options;
- Assumptions used in cost benchmarking; and
- Assumptions about the core services and facilities in a 'representative' ECH scheme.

**Table D.1 Population Growth, Yorkshire and The Humber, 2004- 2015**

| Year | Total Population (000s) | Population >65 (000s) | Population >65 Provided Care (000s |
|---|---|---|---|
| 2003 | 5085.6 | 799.5 | 119.4 |
| 2004 | 5087.3 | 802 | 119.7 |
| 2005 | 5092.7 | 803.7 | 120.0 |
| 2006 | 5098.2 | 802.8 | 119.9 |
| 2007 | 5104.0 | 804.7 | 120.1 |
| 2008 | 5110.1 | 810.8 | 121.0 |
| 2009 | 5116.4 | 820.3 | 122.5 |
| 2010 | 5122.9 | 830.2 | 123.9 |
| 2011 | 5129.6 | 840.4 | 125.5 |
| 2012 | 5136.3 | 868 | 129.6 |
| 2013 | 5143.2 | 888.8 | 132.7 |
| 2014 | 5150.2 | 905.2 | 135.1 |
| 2015 | 5157.3 | 919.1 | 137.2 |

*Source: ONS Sub-Regional Population Projections (1996-based)*

**Table D.2 Estimated Number of Older People Receiving Care, Yorkshire and the Humber 2003**

| Type of Care | Data Source | Total | |
|---|---|---|---|
| | | no. | % of total pop >65 |
| Nursing Care | DH 2001 | 15,743 | 0.13 |
| Residential Care | DH 2001 | 19,691 | 0.16 |
| Extra Care Housing | Elderly Accommodation Council (2004) | 1,205 | 0.01 |
| Sheltered Housing | OPDM HIP Returns (2000) | 1,363 | 0.01 |
| Very sheltered housing | OPDM HIP Returns (2000) | 50,594 | 0.42 |
| Home Care | CSCI RAP Returns (2003) | 30,763 | 0.26 |
| **Total** | | 119,359 | 1.00 |

*Source: Various sources*

## Base Case and Growth Options for ECH in Yorkshire and the Humber

### Table D.3 Base Case

| | Nursing Care | Residential Care | ECH | Sheltered Housing | Home care | Total |
|---|---|---|---|---|---|---|
| *Year* | *People (000s)* | *People (000s)* | *People (000s)* | *People (000s)* | *People (000s)* | *People (000s)* |
| 2003 | 15.743 | 19.691 | 1.205 | 0.4353 | 0.2577 | 1.4353 |
| 2004 | 15.792 | 19.753 | 1.209 | 51.9570 | 30.763 | 171.316 |
| 2005 | 15.826 | 19.794 | 1.211 | 52.1195 | 30.859 | 171.852 |
| 2006 | 15.808 | 19.772 | 1.210 | 52.2299 | 30.925 | 172.216 |
| 2007 | 15.845 | 19.819 | 1.213 | 52.1715 | 30.890 | 172.023 |
| 2008 | 15.966 | 19.969 | 1.222 | 52.2949 | 30.963 | 172.430 |
| 2009 | 16.153 | 20.203 | 1.236 | 52.6914 | 31.198 | 173.737 |
| 2010 | 16.348 | 20.447 | 1.251 | 53.3087 | 31.563 | 175.773 |
| 2011 | 16.548 | 20.698 | 1.267 | 53.9521 | 31.944 | 177.894 |
| 2012 | 17.092 | 21.378 | 1.308 | 54.6150 | 32.337 | 180.080 |
| 2013 | 17.501 | 21.890 | 1.340 | 56.4086 | 33.399 | 185.994 |
| 2014 | 17.824 | 22.294 | 1.364 | 57.7603 | 34.199 | 190.451 |
| 2015 | 18.098 | 22.637 | 1.385 | 58.8261 | 34.830 | 193.965 |

*Source: URS Analysis*

## Base Case and Growth Options for ECH in Yorkshire and the Humber

### Table D.4 Option 1

| | Nursing Care | Residential Care | ECH | Sheltered Housing | Home care | Total |
|---|---|---|---|---|---|---|
| *Year* | *People (000s)* | *People (000s)* | *People (000s)* | *People (000s)* | *People (000s)* | *People (000s)* |
| 2003 | 22.596 | 28.262 | 1.730 | 74.574 | 44.154 | 171.316 |
| 2004 | 15.792 | 28.104 | 2.336 | 74.453 | 44.292 | 164.977 |
| 2005 | 22.715 | 27.914 | 2.949 | 74.252 | 44.386 | 172.216 |
| 2006 | 22.689 | 27.632 | 3.559 | 73.807 | 44.336 | 172.023 |
| 2007 | 22.743 | 27.269 | 4.161 | 73.816 | 44.441 | 172.430 |
| 2008 | 22.915 | 27.046 | 4.789 | 74.208 | 44.778 | 173.737 |
| 2009 | 23.184 | 26.930 | 5.447 | 74.910 | 45.303 | 175.773 |
| 2010 | 23.464 | 26.818 | 6.120 | 75.644 | 45.850 | 177.894 |
| 2011 | 23.752 | 26.706 | 6.807 | 76.402 | 46.413 | 180.080 |
| 2012 | 24.532 | 27.129 | 7.662 | 78.735 | 47.937 | 185.994 |
| 2013 | 25.120 | 27.315 | 8.489 | 80.441 | 49.086 | 190.451 |
| 2014 | 25.583 | 27.348 | 9.299 | 81.743 | 49.992 | 193.965 |
| 2015 | 25.976 | 27.292 | 10.104 | 82.813 | 50.759 | 196.944 |

*Source: URS Analysis*

Base Case and Growth Options for ECH in Yorkshire and the Humber

**Table D.5 Option 2**

| | Nursing Care | Residential Care | ECH | Sheltered Housing | Home care | Total |
|---|---|---|---|---|---|---|
| *Year* | *People (000s)* | *People (000s)* | *People (000s)* | *People (000s)* | *People (000s)* | *People (000s)* |
| 2003 | 15.743 | 19.691 | 1.205 | 51.957 | 30.763 | 119.359 |
| 2004 | 15.792 | 19.183 | 2.0754 | 51.821 | 30.859 | 119.732 |
| 2005 | 15.825 | 18.649 | 2.956 | 51.629 | 30.924 | 119.986 |
| 2006 | 15.807 | 18.048 | 3.837 | 51.268 | 30.889 | 119.852 |
| 2007 | 15.845 | 17.393 | 4.710 | 51.222 | 30.963 | 120.135 |
| 2008 | 15.965 | 16.824 | 5.615 | 51.442 | 31.197 | 121.046 |
| 2009 | 16.152 | 16.315 | 6.556 | 51.876 | 31.563 | 122.464 |
| 2010 | 16.347 | 15.799 | 7.519 | 52.331 | 31.944 | 123.942 |
| 2011 | 16.548 | 15.274 | 8.503 | 52.802 | 32.336 | 125.465 |
| 2012 | 17.091 | 15.034 | 9.700 | 54.359 | 33.398 | 129.586 |
| 2013 | 17.501 | 14.639 | 10.870 | 55.480 | 34.199 | 132.691 |
| 2014 | 17.824 | 14.141 | 12.022 | 56.320 | 34.830 | 135.139 |
| 2015 | 18.098 | 13.581 | 13.170 | 56.999 | 35.364 | 137.214 |

*Source: URS Analysis*

**Base Case and Growth Options for Yorkshire and the Humber**

**Table D.6 Option 3**

| | Nursing Care | Residential Care | ECH | Sheltered Housing | Home care | Total |
|---|---|---|---|---|---|---|
| *Year* | *People (000s)* | *People (000s)* | *People (000s)* | *People (000s)* | *People (000s)* | *People (000s)* |
| 2003 | 15.743 | 19.691 | 1.205 | 51.957 | 30.763 | 220.547 |
| 2004 | 15.792 | 18.720 | 2.597 | 51.762 | 30.859 | 221.424 |
| 2005 | 15.825 | 17.716 | 4.008 | 51.510 | 30.924 | 222.084 |
| 2006 | 15.807 | 16.644 | 5.421 | 51.087 | 30.889 | 222.027 |
| 2007 | 15.845 | 15.520 | 6.824 | 50.981 | 30.963 | 222.098 |
| 2008 | 15.965 | 14.469 | 8.273 | 51.140 | 31.197 | 223.326 |
| 2009 | 16.152 | 13.460 | 9.778 | 51.509 | 31.563 | 225.483 |
| 2010 | 16.347 | 12.433 | 11.317 | 51.899 | 31.944 | 227.741 |
| 2011 | 16.548 | 11.386 | 12.890 | 52.302 | 32.336 | 230.070 |
| 2012 | 17.091 | 10.524 | 14.790 | 53.779 | 33.398 | 237.144 |
| 2013 | 17.501 | 9.515 | 16.652 | 54.822 | 34.199 | 242.335 |
| 2014 | 17.824 | 8.410 | 18.489 | 55.584 | 34.830 | 246.307 |
| 2015 | 18.098 | 7.243 | 20.322 | 56.185 | 35.364 | 249.584 |

*Source: URS Analysis*

## Table D.7 Cost Benchmarking Assumptions

| Assumption | Value | Unit | Source of Data and Comments |
|---|---|---|---|
| Sheltered Housing Capital Costs | 59,605 | £ per person per annum | Sources: PSSRU 2004, Riseborough et al. 2000 |
| Very Sheltered Housing Capital Costs | 63,370 | £ per person per annum | Sources: Fletcher et al. 1999, PSSRU 2004 |
| ECH Capital Costs | 93,249 | £ per person per annum | Sources: Housing 21 (3 sample schemes), Sheffield City Council (3 sample schemes), Department of Health (2 sample schemes), New Leaf (sample scheme), Fletcher et al. and Riseborough 2003, Riseborough et al. 2000. |
| Residential Care Capital Costs | 52,693 | £ per person per annum | Sources: PSSRU 2004, Riseborough et al. 2000 |
| Nursing Care Capital Costs | 44,006 | £ per person per annum | Sources: Laing 2004 |
| Home Care | 73 | £ per person per annum | Sources: PSSRU 2004 |
| Sheltered Housing Operating Costs | 131 | £ per person per annum | Sources: Riseborough et al. 2000, PSSRU 2004 |
| Very Sheltered Housing (LA) Operating Costs | 151 | £ per person per annum | Sources: Riseborough et al. 2000, PSSRU 2004 |
| ECH Operating Costs | 185 | £ per person per annum | Sources: Sheffield City Council (2001), Sheffield City Council (3 sample contract packages), New Leaf (sample scheme) |
| Residential Care Operating Costs | 338 | £ per person per annum | Sources: Riseborough et al. 2000, PSSRU 2004, Laing 2004 |
| Nursing Care Operating Costs | 359 | £ per person per annum | Sources: Laing 2004 |
| Inflation Rate | 3% | % per annum | Based on RPI yearly average since 1999 (Source: ONS). |
| Average Number of people per unit | 1.3 | People per unit | Source: discussions with stakeholders, cost examples. Applied to all care forms, as there are not large variations. |
| Occupancy rate | 0.9 | People per unit | Source: discussions with stakeholders, Department of Health (2002), Netten et al. 2001, Laing and Buisson 2004, Department of Health 2000. Applied to all care forms, as there are not large variations. |
| Discount Rate | 3.5 | % | Treasury |
| Residents in Sheltered Housing receiving Home Care | 65 | % | The cost of home care was factored into the total operating cost of sheltered housing. Source: discussions with stakeholders (Housing 21, Hanover Housing) |
| Average hours of home care received per week | 8.6 | Hours per week | Source: Community Care Statistics (2003) |
| Average cost of remodelling ECH | 40 % Reduction compared to new units | Per Unit | Source: Fletcher (1999) |

*Source: URS Analysis*

### The URS Picture of a 'Representative' ECH Scheme

A number of ECH schemes were reviewed in examining the core facilities and services of an ECH scheme. The resulting 'representative picture' was used in developing the ECH options for appraisal (Chapter 4).

**Table D.8 Schemes Reviewed for the Representative ECH Scheme**

| Lead Organisation | Scheme reviewed | Information Source |
|---|---|---|
| Anchor Trust | St Germain's Grange, Redcar | Literature Review |
| Department of Health | 3 Example Bids (Confidential) | ECH Fund |
| ExtraCare Charitable Trust | Berryhill Retirement Village, Stoke-on-Trent | Literature Review |
| Guinness Trust | Douro Court, Ivybridge | Literature Review |
| Hanover Housing Association | Standard ECH model; Birch Court, Glen Parva; School Place, Corby; Eden Gardens, Bradford | Stakeholder information, Website |
| Housing 21 | Golburg, Bradford; Applegarth, Bridlington; Sycamore Close, Bainbridge | Stakeholder information |
| Joseph Rowntree Foundation | Hartrigg Oaks, York | Site visit, Literature Review |
| New Leaf Housing Association | Guildford Grange, Sheffield | Site visit, Stakeholder information |
| Sheffield City Council | Busk Meadows; Dyche Road; Five Road; Heart of Ireland; Retirement Village | Stakeholder information |

# Appendix E - Recent ECH Fund Allocations

**Successful Bidders 2005 –2006 ECH Fund**

- Blackburn with Darwen Borough Council with Housing 21 for the Mill Hill scheme providing 48 new build units of extra care housing - £3,990,260
- West Sussex County Council with Housing 21 for the Brighton Road (Hogshill House) scheme providing 50 units of new build extra care housing - £2,255,013
- Wakefield Metropolitan District Council with Hanover Housing Association for the Mill Hill scheme providing 45 units of new build extra care housing - £2,100,000
- Cheshire County Council with Chester and District Housing Trust for the Newtown Retirement Village providing 232 units in a mix of new build and remodelled extra care housing in a retirement village setting - £4,337,821
- Bradford Metropolitan Borough Council, with Methodist Homes Housing Association for the Clayton scheme providing 46 units of new build extra care housing – £2,797,044
- Hartlepool Borough Council with Joseph Rowntree Housing Trust providing 225 units of new build extra care housing in a Retirement Village setting at Middle Warren - £3,937,772 in 2005 – 2006 and a pre-allocation of £5,906,658 in 2006
- Darlington Borough Council with Hanover Housing Association for the Rosemary Court scheme providing 42 units of extra care housing a mixture of remodelling and new build - £3,047,930
- North Yorkshire County Council with Housing 21 for the Easingwold scheme providing 36 units of new build extra care housing - £1,956,236
- London Borough of Ealing with Hanover Housing Association for the Moorlands scheme providing 35 units of new build extra care housing - £2,449,977
- Derbyshire County Council with Housing 21 for the Wirksworth scheme providing 43 units, a mixture of new build and remodelled extra care housing - £2,226,800
- Rotherham Metropolitan Borough Council with Hallam Housing Society Ltd for the Queensacre scheme providing 35 units of new build extra care housing - £1,277,500

**Bids Jointly Funded with the Housing Corporation – 2006 -2006**

- Leicester City Council in partnership with Hanover Housing Association for a scheme at Wycombe Rd, Leicester to provide 57 units of new build extra care housing - £1,905,453 (Department Of Health);£1,905,455 (Housing Corporation)
- Plymouth City Council in partnership with Sarsen Housing Association for a scheme at Torridge Way, Plymouth to provide 40 units of new build extra care housing - £ 1,682,730 (Department Of Health); £1,682,730 (Housing Corporation)

- Derbyshire County Council in partnership with South Yorkshire Housing Association for the Glossop scheme to provide 45 units of new build extra care housing - £1,035,013 (Department of Health), £1,035,000 (Housing Corporation)

**Bids for Communal Upgrades**

- London Borough of Redbridge with London and Quadrant Housing Trust, with a total of 40 units – £798,771
- London Borough of Hackney with housing partner Agudas Israel, a total of 36 units – £377,912
- 1Essex County Council with Chelmer Housing Partnership, a total of 10 units – £249,000
- Walsall Metropolitan Borough Council in partnership with Accord Housing a total of 60 units – £652,531
- London Borough of Waltham Forest in partnership with London and Quadrant Housing Trust , with a total of 34 units – £507,028
- Swindon Borough Council with Sanctuary Housing Association, with a total of 41 units – £370,000
- London Borough of Hounslow with Thames Valley Charitable Housing Association, a total of 38 units – £34,618

# Appendix F - The Next Steps – Further Analysis

**Geographic Analysis**

To examine the implications of developing ECH at a local level it would be ideal to undertake an ECH geographic analysis to assist in determining appropriate locations and concentrations of ECH schemes.

The analysis could be undertaken via Geographical Information System (GIS) for the Yorkshire and the Humber region at a specified local level, e.g. Local Authority, utilising ONS data regarding the population distribution of people over 65 in the Yorkshire and the Humber.

URS has already undertaken an analysis of the distribution of people over 65 in the Yorkshire and the Humber by Local Authority area in the URS Stage 1 Study. By matching this current distribution along with population projections to a preferred strategy identified Stage 2 would assist in:

- Identifying the need or potential demand for ECH in specific areas;
- Identifying areas where “clusters” of ECH could be developed; and
- Providing a more focused indication of the potential cost and benefits of developing ECH schemes for local government decision makers.

URS would be able to provide further information on the process involved, the scope of work and more information on the outcomes of such an analysis if requested.

**Full Economic Analysis of the Costs and Benefits**

A full economic (cost-benefit) appraisal would include a sample survey of older people aimed at exploring and quantifying the benefits of extra care housing and other forms of care. This would then be contrasted with capital and revenue cost information on different forms of care. Given the complexity of issues around measuring benefits we suggest a fairly large and detailed survey would be needed, probably involving a mixture of personal interviews and focus group discussions.

A full cost benefit appraisal would provide a systematic means of setting out and analysing all of the financial, economic and social costs and benefits, providing a more informed decision-making framework that considers the net impacts on all stakeholders, both positive and negative. This work would apply the economic appraisal guidelines outlined by the Treasury in their ‘Green Book’.

**Needs and Demand Analysis**

In addition to the survey on the benefits of care we would recommend that a more in depth analysis of the demand / need to for care services be undertaken. It should be consistent a cover all types of care enabling the linking of older peoples physical and mental health to specific care and housing needs. We would recommend a combination of survey, consultation and formal forecasting analysis such as econometric analysis.

## Other Housing LIN publications available in this format:

Factsheet no.1: **Extra Care Housing - What is it?**

Factsheet no.2: **Commissioning and Funding Extra Care Housing**

Factsheet no.3: **New Provisions for Older People with Learning Disabilities**

Factsheet no.4: **Models of Extra Care Housing and Retirement Communities**

Factsheet no.5: **Assistive Technology in Extra Care Housing**

Factsheet no.6: **Design Principles for Extra Care**

Factsheet no.7: **Private Sector Provision of Extra Care Housing**

Factsheet no.8: **User Involvement in Extra Care Housing**

Factsheet no.9: **Workforce Issues in Extra Care Housing**

Factsheet no.10: **Refurbishing or remodelling sheltered housing: a checklist for developing Extra Care**

Factsheet no.11: **An Introduction to Extra Care Housing and Intermediate Care**

Factsheet no.12: **An Introduction to Extra Care Housing in Rural Areas**

Factsheet no.13: **Eco Housing: Taking Extra Care with environmentally friendly design**

Factsheet no 14: **Supporting People with Dementia in Extra Care Housing: an introduction to the issues**

Factsheet no 15: **Extra Care Housing Options for Older People with Functional Mental Health Problems**

Factsheet no 16: **Extra Care Housing Models and Older Homeless People**

Case Study Report: **Achieving Success in the Development of Extra Care Schemes for Older People**

Technical Brief no 1: **Care in Extra Care Housing**

Technical Brief no 2: **Funding Extra Care Housing**

Technical Brief no 3: **Mixed Tenure in Extra Care Housing**

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