Financial benefits of investment in specialist housing for vulnerable and older people

A REPORT FOR THE HOMES & COMMUNITIES AGENCY

September 2010

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Tables & Figures

Executive Summary

The Homes & Communities Agency (HCA) appointed Frontier Economics to investigate the financial benefits of capital investment in specialist housing for vulnerable and older people in England.

We were asked to consider the nine client groups shown in Table 1 below. The analysis focused specifically on capital investment and its links to financial saving for government in the areas of health and social care, crime and employment.

Table 1. Client groups

Client groups	
Older People	People with learning disabilities
Teenage Parents	Offenders and people at risk of offending
Young people at risk	Single homeless people with support needs
Young people leaving care	People with physical or sensory disabilities
People with mental health problems	

Approach

Three questions need to be answered in order to quantify the incremental costs and benefits of specialist housing compared to a situation where specialist housing is not available:

- **First: where would vulnerable and older people live in the absence of specialist housing?** We draw on a number of sources to understand where vulnerable and older people currently live, and assume they would continue to live there in the absence of specialist housing ("the counterfactual").

- **Second: how much does it cost to build specialist housing compared to alternative types of housing?** The financial benefit of specialist housing must be compared to the incremental capital cost of specialist housing above the cost under the counterfactual. We therefore calculated the capital cost of specialist housing and a number of counterfactual options, including: general needs housing, privately owned or rented housing, long-term hospital accommodation, residential and nursing care and temporary accommodation.

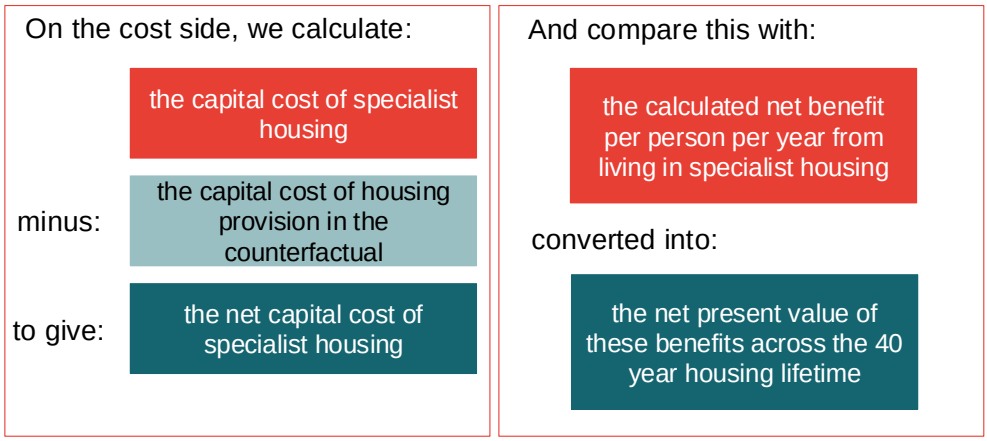
- **Third: how does the use of public services, and its associated costs, differ between individuals housed in specialist housing compared to**

other types of housing? To calculate the financial benefits of specialist housing, we estimated the reduction in the use of public services that results from the provision of specialist housing. We have focussed on key public services whose use is likely to be affected by the housing status of vulnerable and older people. This includes primary and secondary healthcare, local authority social care, criminal justice and employment.

Evidence about the existing use of public services and the likely reduction under various scenarios was drawn from a wide range of sources. They include national datasets (for example, the National Adult Social Care Intelligence Service dataset) and surveys (for example, the British Crime Survey), reports evaluating local housing programmes and academic literature.

Based on the conceptual framework outlined above, we developed a spreadsheet model that can be used to assess the net costs and benefits of capital investment in specialist housing. Figure 1 below outlines the structure of the model.

Figure 1. Outline of model



The analysis, and the results presented below, focus on capital spending. Earlier analysis was undertaken, in a separate project, about the impact of a specific revenue spending stream.[1] We have tried to use a consistent set of assumptions and information where relevant. It is not possible to completely separate out benefits that arise from capital spending and those that arise from revenue spending. This issue is discussed in detail in the main report. The results should be read as including some benefits that might arise from a combination of capital and revenue spending where particular individuals in specific settings receive support which can be attributable to both the building and to the service.

1 See: Department for Communities and Local Government's "Research into the financial benefits of the Supporting People programme, 2009"

Results

We find that investment in specialist housing results in a net benefit for all client groups except those groups relating to young people (although our analysis is likely to understate these benefits, as described below). Table 2 provides an overview of the central estimates. In keeping with best practice, the central case represents a conservative estimate of the net impact for reasons discussed fully in the main report.

Table 2. Total net benefit and net benefit per person per year (real, 2010£)

Client group	Number of vulnerable people	Total net benefit	Net benefit per person per year
Older People	12,363	£219m	£444
Teenage Parents	118	-£10m	-£2,107
Young people at risk	867	-£56m	-£1,618
Young people leaving care	60	-£5m	-£1,970
People with mental health problems	1,001	£187m	£4,671
People with learning disabilities	734	£199m	£6,764
Offenders and people at risk of offending	247	£4m	£356
Single homeless people with support needs	949	£63m	£1,655
People with physical or sensory disabilities	686	£38m	£1,386
Total	**17,025**	**£639m**	**£938**

Source: Frontier analysis

Our analysis suggests that the total benefit of specialist housing (under our central case scenario) is about £1.6bn. There is a £990m incremental cost of providing that housing, over-and-above the alternative. This suggests a net benefit of HCA investment, under our central case scenario, of about £640m.

The largest single benefit is estimated for the older people client group. There are also significant positive benefits for people with mental health problems and people with learning difficulties.

There is a range of uncertainty surrounding these central case benefits estimates, as set out in **Table 3**. We have tested the sensitivity of our results to three key drivers: the choice of housing in the counterfactual; the reduction in the use of public services in specialist housing; and the cost of providing general needs housing in the counterfactual. The low and high values below show the range of estimates when just one of these three drivers is varied[2].

[2] The scenario which leads to the high and low estimates in **Table 3** varies across client groups. Low estimates typically describe scenarios where either (i) absent specialist housing, vulnerable people would be housed in general needs accommodation; or (ii) where there is no reduction in the use of public services in specialist housing where not otherwise known. High estimates typically describe scenarios where there is a 20% reduction in the use of services; or where accommodation in the counterfactual is based on our review of the literature.

Table 3. Range of net benefits, total and per year (real, 2010£)

Client group	Total net benefit			Net benefit per person per year		
	Low		High	Low		High
Older People	-£37m	£219m	£1,756m	-£75	£444	£3,551
Teenage Parents	-£12m	-£10m	£3m	-£2,525	-£2,107	£600
Young people at risk	-£72m	-£56m	£30m	-£2,079	-£1,618	£858
Young people leaving care	-£7m	-£5m	£1m	-£2,724	-£1,970	£560
People with mental health problems	£30m	£187m	£226m	£747	£4,671	£5,643
People with learning disabilities	£27m	£199m	£224m	£914	£6,764	£7,615
Offenders and people at risk of offending	-£1m	£4m	£11m	-£129	£356	£1,149
Single homeless people with support needs	-£6m	£63m	£131m	-£153	£1,655	£3,464
People with physical or sensory disabilities	-£30m	£38m	£46m	-£1,077	£1,386	£1,673
Total	**-£107m**	**£639m**	**£2,428m**	**-£158**	**£938**	**£3,566**

Source: Frontier analysis

Our modelling estimates a negative net benefit for the young people client groups. However an accepted limitation of this analysis is that it only incorporates benefits that arise during an individual's time in specialist housing and:

- young people may achieve very large benefits over their lifetime, including after they have left specialist housing;
- for these clients, specialist housing is specifically intended to support a short-term intervention and benefits are expected to be achieved primarily after the clients move on from specialist housing.

As a result, the analysis is likely to understate the benefits of supported housing for the three young people client groups.

People with learning difficulties receive the highest net benefit per person per year from investment in specialist housing (£6,764). People with mental health problems also achieve a large net benefit (£4,671 per person per year). The net benefit per person for older people is only the fifth largest, at £444 per year, even though the total net benefit for older people is the largest for any client group. The large total net benefit reflects the fact that there are a larger number of people in the older people client group compared to other client groups.

The source of the benefits from specialist housing vary by client group. For older people, the primary benefits are in reducing reliance on health and social care services. For young people (especially those leaving care), there is a far more significant benefit in reducing their involvement with crime (both as a perpetrator and victim). For people with mental health problems, the benefits of specialist housing are primarily associated with health services, and for those with learning disabilities a reduction in the use of social care services delivers the most significant savings.

The most significant benefits are achieved where the provision of specialist housing reduces the use of institutional care. This includes residential and social care, particularly for older people (by far the largest client group) but also inpatient mental health facilities, and custodial facilities for offenders.

Implications and next steps

Our results indicate that capital spending on specialist housing through the HCA provides a clear positive net impact. These results appear to be robust to a range of sensitivity analysis, including changing the assumed level of service reduction attributable to the specialist housing. Even very conservative assumptions result in positive net impacts for all client groups except those covering younger people.

This analysis has provided results at a national level. These results may vary from area to area, which might exhibit variation in capital costs, the characteristics of particular client groups and the services they are likely to access. Further research could test this possible local variation. Finally, work could be done to bring together the earlier revenue-based analysis with this capital analysis to provide a complete overview of the impact of all spending on specialist housing.

1 Introduction

The Homes & Communities Agency (HCA) appointed Frontier Economics to model the impact of capital spending on specialist housing. The central question posed by the HCA was: what is the net impact of capital funding for specialist housing on the cost of wider public services?

In discussion with the HCA, we developed a list of specific public services and client groups to be considered as part of the analysis. We then collected and analysed the evidence relating to the cost that each client group places on wider public services. We then analysed how the cost varies depending on whether a proportion of each client group is in specialist housing or other forms of accommodation.

The evidence used to build the model and arrive at our conclusions comes from a wide range of sources. It includes a detailed literature review that encompassed evaluation evidence from a number of relevant pilot studies, data from databases and surveys and discussions with experts. We would like to thank all those involved in helping us to assemble the evidence that underpins this analysis.

There were two further outputs from this work. The approach, analysis and results were presented to the HCA Vulnerable and Older People Advisory Group. We thank them for their inputs and advice throughout the project. We have also provided a model that contains the evidence and analysis. The model is deliberately transparent and flexible. It could be adapted for future use by the HCA, local authorities or others.

1.1 Relationship to previous work

This analysis is focused specifically on the capital spending associated with specialist and alternative accommodation. There are also revenue costs, to facilitate ongoing support of vulnerable and older people, associated with different forms of accommodation.

The financial benefits of revenue costs have been considered in other reports, including the Department for Communities and Local Government's "Research into the financial benefits of the Supporting People programme, 2009". That work identified a range of benefits that were attributed to the Supporting People (SP) revenue funding programme.

Supporting People

Vulnerable and older people exhibit a variety of (sometimes complex) support needs. As a result, some individuals receive specialist housing, some receive ongoing support through the SP programme, and some individuals receive both. The purpose of all such support is to improve the well-being and outcomes of

the individuals concerned. For those individuals who receive both specialist housing and SP funded support, it is difficult to attribute any improvement in client outcomes to one intervention rather than the other.

The benefits of specialist housing estimated in this analysis are attributable to the provision of specialist housing, however the contribution of the SP programme in achieving these improved outcomes for individual clients cannot be easily excluded from the analysis.

Two possible approaches could be used to synthesise these two existing pieces of work. The first would be to collect and analyse data that records the outcomes achieved by clients, together with the SP and specialist housing support (if any) they received. This would allow a comparison of the outcomes of those who receive one form of support in the absence of the other, and the combined impact of receiving both. However, we are not aware of any data currently available that would be suitable for this analysis.

The second approach would be to combine the costs and benefits of each programme. Since the benefits that are achieved on an individual basis may not be attributable to just one form of support, comparing the combined costs with the combined (financial) benefits would allow an evaluation of the "package" of support that is provided. The estimated annual costs of specialist housing and SP assistance, for each individual, are shown below in Table 4.

Table 4. Capital costs and Supporting People revenue costs, per person

Client group	Capital costs of specialist housing per person per year[1]	Supporting People costs per person per year[2]
Older people	£2,384	£440-£1,324*
Teenage Parents	£3,069	£6,520
Young People at risk	£2,650	£6,807**
Young people leaving care	£3,385	£6,718
People with mental health problems	£3,649	£6,823
People with learning disabilities	£3,089	£11,825
Offenders and people at risk of offending	£2,555	£6,935
Single homeless people with support needs	£2,431	£4,973***
People with physical or sensory disabilities	£3,447	£2,392

1: Frontier analysis of IMS database, spread evenly over 40 years housing lifetime

2: DCLG, "Research into the financial benefits of the Supporting People programme, 2009", Appendix A

* Older people in sheltered and very sheltered accommodation

** Young people at risk in settled accommodation

*** Homeless single people in settled accommodation

Table 4 shows that for most client groups, the annual capital cost of specialist housing (spread evenly over forty years housing lifetime) is lower than the annual revenue cost of the typical Supporting People package. The only two exceptions are the costs for older people and those with physical or sensory disabilities.

It is also possible that there are trade-offs between revenue and capital funding. In particular, improvements in outcomes might be achieved through higher revenue funding or through greater capital investment. This would also imply that one significant benefit of the capital investment in specialist housing is that it reduces ongoing revenue costs.

A detailed examination of these issues is beyond the scope of this project. The results presented below should be read as providing an estimate of the net benefit of the capital investment that is a necessary (but, in some cases, not sufficient) step in generating the total recorded benefits.

1.2 Outline

This report is divided into four further sections:

- Section 2 describes our approach;
- Section 3 provides an overview of the evidence from the literature review;
- Section 4 presents the results; and
- Section 5 discusses some of the implications of those results.

There are also four annexes: the first provides a more detailed description of the client groups that have been analysed; the second describes the model inputs and assumptions in detail; the third provides extra charts illustrating the model results for individual client groups; and the fourth provides a bibliography of some of the key literature.

1.3 Acknowledgements

We have benefited from the input of many stakeholders through the course of this project. We would like to thank everyone who has helped. We are particularly grateful to:

James Berrington, Senior Strategy Manager, Homes and Communities Agency

Caroline Cormack, Head of Affordable Housing Delivery, Homes and Communities Agency

Shehla Husain, Deputy Director Housing Care and Support, Department of Communities and Local Government

Julia Murray, Senior Strategy Officer, Homes and Communities Agency

Jon Neale, Head of Market Intelligence, Homes and Communities Agency

Nick O'Shea, Head of Adults Facing Chronic Exclusion Programme, Department of Communities and Local Government

Jeremy Porteus, National Programme Lead – Housing, Putting People First Delivery Team, Department of Health

2 Approach

This section sets out the approach we haven taken to evaluate the financial costs and benefits of capital investment in specialist housing. First, we describe the scope of our work. Second, we outline the conceptual framework for our work. Finally, we discuss the model we have developed around this conceptual framework.

Throughout our approach we have deliberately used conservative assumptions whenever there has been uncertainty over appropriate values for particular parameters. Specific assumptions are discussed in detail here and in the annexes.

2.1 Scope

There are several groups of older or vulnerable people who benefit from investment in specialist housing. In our work, following discussions with the HCA, we have chosen to focus on a subset of these client groups.

The nine client groups we have looked at in detail are shown in Table 5 below. Further descriptions of each client group are included in Annexe 1.

Table 5. Client groups

Client groups	
Older People	People with learning disabilities
Teenage Parents	Offenders and people at risk of offending
Young people at risk	Single homeless people with support needs
Young people leaving care	People with physical or sensory disabilities
People with mental health problems	

2.2 Conceptual framework

The focus of this study is specialist housing provided to vulnerable and older people, defined in accordance with the Housing Corporation's Regulatory Circular 03/04.[3] In particular, specialist housing (either "supported housing" or "housing for older people") must be either purpose designed or designated for a specific client group. The primary purpose of specialist housing is to assist

[3] http://www.housingcorp.gov.uk/upload/pdf/circular0304.pdf

clients in achieving independent living, if this is possible, either in specialist housing or elsewhere.

Vulnerable and older people have a range of individual needs, which can sometimes be met with general needs housing, sometimes with additional floating support, and sometimes require specialist housing. Vulnerability, and therefore the need for specialist housing, may be temporary or may be longer-term. Specialist housing contains facilities or design features that are not present in general needs housing. This may include communal living areas, extra bedrooms for carers and visitors, enhanced access for those with mobility problems, or other aids and adaptations.

This study investigates the financial impact of capital investment in specialist housing. The aim is to quantify the incremental costs and benefits of specialist housing relative to a situation where specialist housing is not available.

Quantifying the incremental costs and benefits requires answering three questions:

- Where would vulnerable and older people live in the absence of specialist housing?
- How much does it cost to build specialist housing compared to alternative types of housing?
- How do the use of public services and the associated costs differ between specialist housing and other types of housing?

The following sections discuss each of these questions in turn.

2.2.1 The counterfactual—where would people live in the absence of specialist housing?

Housing outcomes in the absence of specialist accommodation (the counterfactual) affect incremental costs and benefits. However, identifying the correct counterfactual is not straightforward.

The counterfactual refers to a hypothetical situation in which specialist housing is not an accommodation option for older and vulnerable people. This could be observed directly if individuals needing but unable to access specialist housing had been tracked and their housing outcomes recorded. In reality, this is not observed or recorded.

There are two alternative approaches to defining a counterfactual:

- understanding where vulnerable and older people are living now (excluding those in specialist housing already); or
- data on the accommodation of relevant groups prior to entering specialist housing.

Approach

Several possible counterfactual accommodation scenarios are discussed in more detail in Section 2.3.2.

2.2.2 Capital costs

Any financial benefit of specialist housing must be compared to the *incremental* capital cost of specialist housing above the cost of alternative options. Looking at the capital costs of specialist housing in isolation would understate the benefits of specialist housing provision.

Alternative housing options include:

- general needs social housing;
- privately owned housing;
- privately rented housing;
- living at home or with family;
- a long-term hospital stay;
- residential or nursing care;
- bed and breakfast or other temporary accommodation;
- sleeping rough; or
- prison.

Capital costs associated with some housing options (e.g. prison) are high, higher even than the capital cost of new specialist housing provision. Other options (e.g. sleeping rough, living with family) have zero or minimal associated capital costs (although there are often other unseen or societal costs associated with these housing options).

We discuss further the capital costs in these alternative settings for each vulnerable client group in Section 2.3.3.

2.2.3 The use of services

The next step is to determine how capital investment in specialist housing may affect the use of services by older and vulnerable people. Throughout this report, "use of services" encompasses both direct and indirect costs to society. For the selected services, this includes both the cost of accessing services directly (e.g. health and social care), and indirect costs to society imposed by crime and other actions that might be affected by the form of accommodation.

For each client group, we have considered the impact of specialist housing on a selection of services. It is not possible to model the impact of specialist housing on all public services. We have focussed on key public services whose usage is

likely to be affected by the housing status of vulnerable and older people. This includes primary and secondary healthcare, local authority social care, the criminal justice system and employment.

There are two main transmission mechanisms through which capital investment in specialist housing may have an effect.

First, transferring a person from one setting into specialist housing may fundamentally affect the type of services they receive. For example, moving from residential care to specialist housing would result in individuals receiving a package of community-based social care services (i.e. domiciliary care) rather than a residential care package.

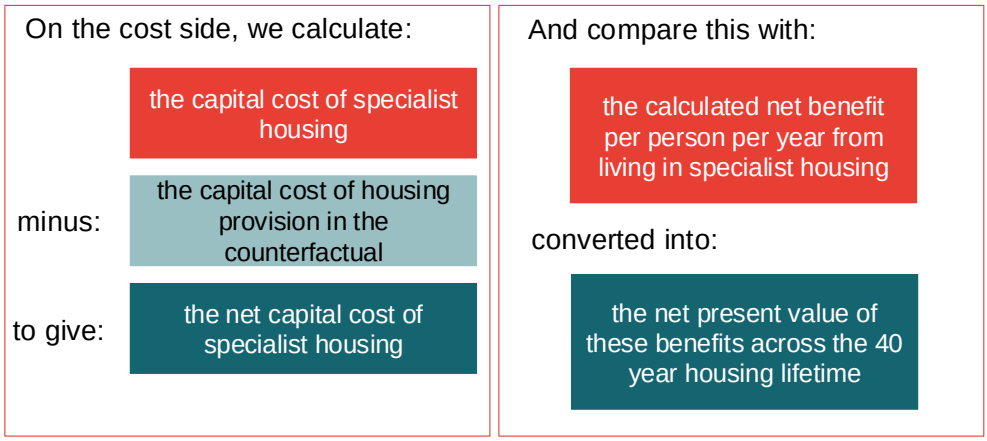
Second, living in more appropriate accommodation may lead to fewer adverse consequences and reduced (or avoided) reliance on publicly funded services. For example, older people may have fewer falls and associated hospital admissions in specialist housing compared to living in their home.

We discuss further how we have modelled the use of services in Section 2.3.4.

2.3 Model

Based on the conceptual framework discussed in Section 2.2, we have developed a spreadsheet tool that can be used to assess the net costs and benefits of capital investment in specialist housing. Figure 2 below outlines the structure of the model.

Figure 2. Outline of model



2.3.1 Discount rates and the lifetime of specialist housing

As shown in Figure 2, we report costs and benefits as discounted net present values. The capital costs of specialist housing are incurred in the first period only, whilst the benefits of investment in specialist housing are realised throughout the housing lifetime.

The results presented in Chapter 4 use a discount rate of 3.5%, as recommended in the Treasury Green Book[4]. Following discussions with the HCA, we have modelled the lifetime of specialist housing as 40 years. Both the discount rate and the housing lifetime are parameters that can be varied within the model.

2.3.2 Counterfactual housing options

It is not straightforward to predict the likely alternative housing outcomes that would be experienced by clients if specialist housing were not available. We have mitigated this uncertainty by using scenario analysis. We have modelled three counterfactual housing options.

- **Option 1** – Based on our literature review which describes where vulnerable and older people are currently living (excluding those currently in specialist housing).[5]
- **Option 2** – Based on information from the COntinuous REcording System ("CORE") on tenure prior to entering specialist housing.

4 HM Treasury: The Green Book, Appraisal and Evaluation in Central Government

5 See Section 3 for more detail.

- **Option 3** – A scenario where all those who would have entered specialist housing live in general needs social housing instead.

Each option has its limitations. Option 1 assumes that in the absence of specialist housing, accommodation patterns would mirror the remainder of the client group not in specialist housing. This ignores the possibility that the individuals who would be in specialist housing may have more complex needs than the remainder of the client group.

Looking at previous accommodation prior to entering specialist housing (Option 2) also has drawbacks. Moves to specialist housing may be prompted by concerns over inappropriate existing accommodation. If specialist housing was not an option, other accommodation options more suited to the needs of vulnerable and older people would still be considered. Simply assuming that there would be no change in previous accommodation patterns in the counterfactual may not be appropriate.

Finally, a situation where general needs housing is the only option for vulnerable or older people in the absence of specialist housing (Option 3) is unlikely. Vulnerable and older people may choose to continue living in their own homes or in alternative settings if specialist housing was not an option.

However, taken together these three counterfactuals cover a range of possible options. That range covers the likely possible alternatives for accommodation in the absence of specialist housing.

We use option 2 (based on information from the CORE database) as our central case scenario. This data is drawn from a single consistent source, and is collected for each of our client groups under consistent definitions. In section 4.2.1 we present analysis comparing our results under each of the counterfactual housing options.

2.3.3 Capital costs

When setting out capital costs, we have attempted to include all relevant capital costs for each type of housing. The approach is described below.

Capital costs of specialist housing

Capital costs of specialist housing have been provided by the HCA for the full financial years 2008-09 and 2009-10. The data has been extracted from the HCA's Investment Management System ("IMS") database.

The IMS database records the total scheme cost of all specialist housing projects approved in 2008-09 and 2009-10 which received funding from the HCA. In total, £1.7bn of capital investment in specialist housing (designed or designated for our selected client groups) is captured in the IMS database. The average proportion of this investment that is funded by the HCA is shown in Table 6:

Table 6. Average proportion of capital costs funded by the HCA

Client group	Average percentage of total scheme cost funded by the HCA
Housing for older people	41%
Teenage Parents	50%
Young People at risk	52%
Young people leaving care	61%
People with mental health problems	42%
People with learning disabilities	44%
Offenders and people at risk of offending	45%
Single homeless people with support needs	46%
People with physical or sensory disabilities	46%
Total	**43%**

Source: IMS database

Table 6 indicates that 43% of the total capital investment captured within the IMS is funded by the HCA. This varies somewhat between client groups, with as much as 61% of investment costs funded by the HCA in the case of young people leaving care.

For each scheme, the data also captures the number of units within the scheme, and the client group for which it is designed or designated. Using this information, we calculate the total scheme cost per unit of specialist housing for each vulnerable client group. The results are set out in Table 7 below.

Table 7. Capital cost of specialist housing

Client group	Number of units	Assumed number of people per unit	Total capital cost	Total capital cost per person
Older People	8,242	1.5	£1,178.9m	£95,358
Teenage Parents	118	1	£14.5m	£122,765
Young people at risk	867	1	£91.9m	£105,984
Young people leaving care	60	1	£8.1m	£135,391
People with mental health problems	1,001	1	£146.1m	£145,972
People with learning disabilities	734	1	£90.7m	£123,541
Offenders and people at risk of offending	247	1	£25.2m	£102,197
Single homeless people with support needs	949	1	£92.3m	£97,235
People with physical or sensory disabilities	686	1	£94.6m	£137,865
Total	**12,904**	**1.32**	**£1,742.3m**	**£102,337**

Source: Frontier analysis of IMS database

Approach

How many people are in each unit?

It is important to distinguish between the capital cost *per unit* of specialist housing, and the capital cost *per person* before comparing costs and benefits.

The IMS database records the number of units and the number of people these units can accommodate for each scheme. However, this number of people is not a true reflection of occupancy, as it captures the *potential capacity* of each unit rather than the number of people who would live there in practice.

Following discussions with the HCA, our model assumes occupancy of 1 person per unit in specialist housing for all vulnerable client groups listed in Table 5, apart from older people. Most specialist housing either contains one bedroom or is bedsit accommodation designed for single occupancy.

For older people we assume that each unit of specialist housing is occupied by 1.5 older people, reflecting that many older residents will live together as a couple in two bedroom units. Further evidence supporting this level of occupancy in specialist housing for older people is set out in the model. In our presentation of the results we consider how they vary for different levels of occupancy.

Capital costs of general needs housing

General needs social housing is one alternative for vulnerable and older people in the absence of specialist housing. The HCA oversees the entire National Affordable Housing Programme (NAHP), which includes both specialist housing provision and general needs housing provision.

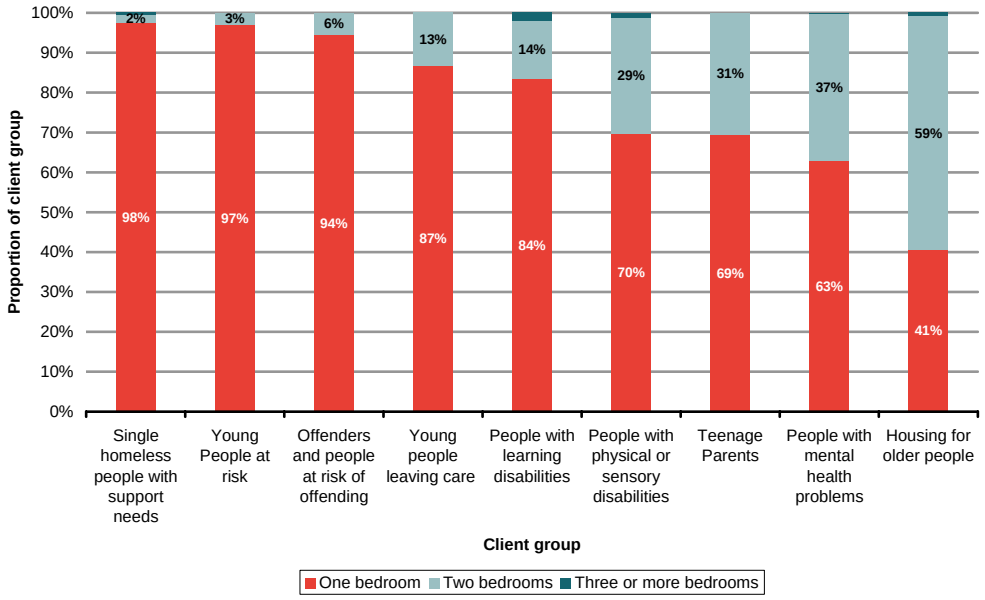
The IMS database records the capital cost of both specialist and general needs housing schemes. We have used the IMS database information to calculate the capital cost of general needs housing.

The capital cost of general needs housing should in principle not vary across client groups, as general needs housing is not designed specifically to meet the needs of different types of vulnerable or older people. However, it is reasonable to assume that the size of general needs housing will reflect to some extent the needs of vulnerable and older people.

The IMS database indicates that specialist housing designed for different client groups varies in size, even though single occupancy is typical. The majority of housing units contain one bedroom, but larger units are sometimes also provided. This is because some individuals – such as those with specific physical or sensory disabilities – require additional living space for carers and other frequent visitors.

These needs vary between client groups. For example, Figure 3 shows that older people and people with mental health problems are more likely to live in larger, two bedroom houses than single homeless people, young people at risk, or ex-offenders.

Figure 3. Number of bedrooms by client group, specialist housing



Source: Frontier analysis of IMS specialist housing database

We assume that if specialist housing were not available, and clients were instead housed in general needs units, these units would have the same number of bedrooms. Our assumed capital cost of general needs housing therefore reflects this range of sizes.

The IMS database shows that the average total scheme cost per one bedroom general needs housing unit (£117,159) is lower than for two or three bedroom units (£136,950). We use these unit costs, combined with the existing split of one and two bedroom units in specialist housing, to estimate the equivalent capital cost of general needs housing. This allows us to estimate the capital of cost per unit of general needs housing for each client group.

To calculate the capital cost per person, we adjust the weighted average capital cost per unit to reflect the fact that houses for older people tend to be occupied by more than one person, as we did when calculating the capital cost per person of specialist housing.

Table 8 shows how the weighted average capital cost per person of general needs housing varies by client group in our central case. In Section 4.2.3 we examine scenarios around these central case estimates.

Approach

Table 8. Weighted average capital cost of general needs housing

Client group	Average total scheme cost per person of general needs housing
Older People	£85,943
Teenage Parents	£123,197
Young people at risk	£117,754
Young people leaving care	£119,798
People with mental health problems	£124,509
People with learning disabilities	£120,409
Offenders and people at risk of offending	£118,254
Single homeless people with support needs	£117,637
People with physical or sensory disabilities	£123,150

Source: Frontier analysis of IMS database

Capital costs of other housing types

We have drawn on a range of published sources to obtain the capital costs per vulnerable person for other types of accommodation.

Capital costs of adapting privately owned or rented or homes, including the homes of family and friends, are relevant for some client groups. For older people and people with mental health problems, and those with learning, physical or sensory disabilities, we take the average amount paid as Disabled Facilities Grants in 2008-09 (£6,816) as a proxy for the capital costs of adapting or modifying an individual's home. For other client groups, we have not included a capital cost of living in private accommodation or with friends or family.

The capital cost of other housing options, including prisons, residential care homes and hospitals are taken from published reports. These settings tend to have high associated capital costs. For example, the capital cost per additional prison place is estimated at £152,000 per person.[6] Similarly, we estimate the capital cost per resident of local authority residential and nursing care homes at between £40,000 and £150,000, depending on the client group it contains. Our

6 Lord Carter's Review of Prisons: Securing the future - Proposals for the efficient and sustainable use of custody in England and Wales, December 2007, Table 2.1

estimates of the capital cost of residential and nursing care homes, and of long-stay hospital settings are based on information published by the Personal Social Services Research Unit on the Unit Costs of Health and Social Care.[7]

Finally, we have modelled the capital cost of sleeping rough or in temporary or bed and breakfast accommodation to be zero.

Weighting the capital costs of the alternative housing options by the likelihood of clients being accommodated in those alternatives, we establish a capital cost per person under the counterfactual scenario that specialist housing is not available. Details of this weighting are described in Annexe 2. A summary is given below in Table 9.

7 "Unit Costs of Health and Social Care, 2009", compiled by Lesley Curtis and published by the Personal Social Services Research Unit. Capital costs include buildings and oncosts, and the cost of land, equipment and other capital items.

Table 9. Capital costs per person – in specialist housing and in the counterfactual

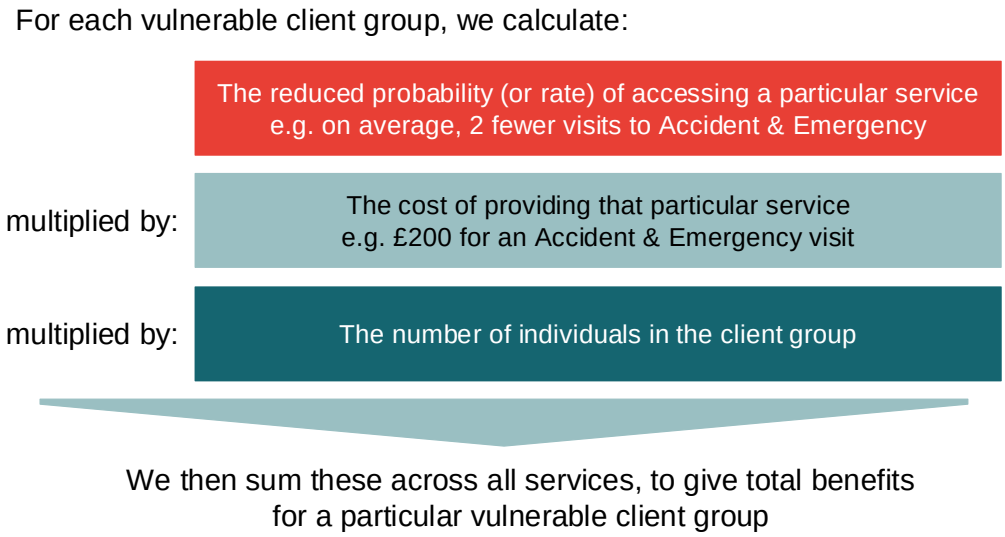
Client group	Capital cost per person in specialist housing	Capital cost per person in the counterfactual
Older People	£95,358	£47,056
Teenage Parents	£122,765	£8,943
Young people at risk	£105,984	£6,492
Young people leaving care	£135,391	£6,554
People with mental health problems	£145,972	£55,706
People with learning disabilities	£123,541	£51,568
Offenders and people at risk of offending	£102,197	£54,443
Single homeless people with support needs	£97,235	£15,289
People with physical or sensory disabilities	£137,865	£60,440

Source: Frontier analysis

2.3.4 Modelling the benefits of specialist housing

Figure 4 summarises the approach to modelling the benefit of specialist housing.

Figure 4. Modelling the benefit of specialist housing



The approach compares the financial cost to society of public services accessed by vulnerable people in specialist housing with the financial cost to society of public services in the counterfactual. Financial benefits are achieved if the provision of specialist housing leads to a reduction in the use of public services by a particular client group.

We calculate these benefits on an annual basis. For example, we compare the average number of Accident and Emergency visits each year, assuming different housing scenarios. We make two simplifying assumptions.

- We assume that specialist housing is always occupied; therefore the annual benefit from one unit of specialist housing is the relevant (i.e. client group-specific) annual reduction in use of public services, multiplied by the number of residents. This assumption leads to overestimation of the benefits of specialist housing, since these benefits would not be achieved during any period when a housing unit was unoccupied.

- We assume that clients' usage of public services is only affected during their stay in specialist housing.[8] In particular, our modelling does not account for

[8] This assumption, combined with the occupancy assumption, means that clients' "length of stay" in specialist housing has no impact on the modelling. A unit of specialist housing generates the same financial benefit each year, irrespective of how many times individual clients have moved out and been replaced.

any longer-lasting change in usage. This is a conservative assumption, which leads to an underestimation of the benefits of specialist housing.[9]

In practice, we calculate the cost of the public services accessed in each counterfactual housing type. We then weight these costs according to the split of people across the alternative housing types, to get a cost of public services for the counterfactual as a whole.

To model the cost of healthcare, we use NHS reference cost data from 2008-09 to calculate the cost per inpatient and outpatient episode. The unit cost of GP services and of acute mental health services are taken from other published reports. To understand the usage of healthcare services, we draw on a range of information, including the 2008 General Lifestyle Survey and Hospital Episode Statistics data.

In social care, the National Adult Social Care Intelligence Service provides a comprehensive dataset setting out the costs of different elements of social care for different client groups. This cost information is complemented by social services activity data reported by the NHS Information Centre for Health and Social Care.

When modelling savings from reduced crime committed or suffered by vulnerable people, we have used information from two principal sources. First, the British Crime Survey can be used to measure crime rates, split according to the type of crime. A Social Exclusion Unit report on reoffending provides further insight into the relative risk of offending by each client group. Finally, the economic and social cost of different types of crime has been measured previously by the Home Office and is used to quantify the financial cost of each type of crime.

9 Discussions with the HCA and its Vulnerable and Older People Advisory Group suggest that the benefits of specialist housing may be observed for a longer period of time. This may be particularly true for certain client groups – such as young people at risk or single homeless people with support needs – where specialist housing is commonly provided as a short-term "intervention".

3 Evidence

This section provides an overview of the evidence from the literature that has been used to inform the approach, the modelling and interpretation of the results. As noted in Section 2, other sources of evidence (particular existing government databases and surveys) are also used in the analysis. Some of the most relevant findings from these sources are also included below.

At a high level Roys et al (2009) argue that "*there is a long established, recognised relationship between poor housing and poor health*". While this analysis includes characteristics of poor housing such as ventilation, heating and general state of repair, it also captures the impact of inadequate design or adaptation leading to accidents and falls. They acknowledge that "*many studies have investigated the relationship between housing and health but, because of the number of intervening variables, it is difficult to demonstrate clear and measurable cause/effect relationships.*"

The purpose of the literature review was to inform the modelling. As such it focuses specifically on studies that provide quantitative results that contribute to the immediate objectives of this project. It is not intended to provide a comprehensive survey, particularly of the wide range of more qualitative studies and evidence. Qualitative evidence was primarily used to inform the modelling where quantitative evidence was unavailable, and as a sense-check on the results obtained.

The first part of this section provides a brief overview of key literature on the impact of specialist housing in general. The second part provides further evidence and other information for each of the client groups examined. The breadth and depth of evidence in the literature varies considerably across the client groups. For instance, there is much more evidence relating to older people than relating to young people at risk. The quality of evidence also varies across the range of inputs required for our modelling. For example, better evidence is available on the number of individuals within each client group than relating to the impact of housing on their use of particular public services.

Full details of the inputs and assumptions used to populate the model are given in Annexe 2.

3.1 Impact of specialist housing

We have searched the literature for evidence on the impact of housing on the use of public services. We found some evidence identifying the impact of specialist housing that was specific to an individual client group, and some more general literature. Below, we examine in turn the general impact that housing has on the use of health, social care, and crime services.

3.1.1 Health

The relative use of health services in specialist housing versus general needs housing used to populate our model is detailed in Annexe 2. The data used comes from a variety of sources.

- Pilot studies and evaluations of schemes in several housing associations and local areas (Bradford[10], Manchester[11], and the North East of England[12]).
- Specific articles and reports, for example on the level of reduction in falls by older people in specialist housing.[13]
- Evidence for certain groups that the provision of specialist housing would return the use of health services to levels that are either at, or are much closer to, the levels of health service use in the general population.

There is evidence that better housing has a positive impact on older people's quality of life and reliance on services. For example:

- Watson & Crouther (2005) show that following major adaptation of their homes, 89% of older people report a "major impact" on quality of life;
- Thomson et al (2001) show that home improvements are linked to improved physical and mental health and lower use of health services; and
- Poole (2001) estimates that adaptive equipment in the home reduces reported falls by as much as 60%.

3.1.2 Social care

As previously discussed, one large impact of specialist housing on the use of social care services is that it results in residential or nursing care (previously provided in homes) not being used at all. They are replaced by a package of community-based services.

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10 Baumker, Netten and Darton. (2008) "Costs and outcomes of an extra-care housing scheme in Bradford"

11 Department of Health: Supported Related Housing (2009) "Shore Green Extra Care Housing Scheme for People with Dementia."

12 Department of Health: Support Related Housing (2009) "Three Rivers Housing Association: Supported living step down"

13 Department of Health: "Lifetime Homes, Lifetime Neighbourhoods"

Evidence for the older people client group comes from Bradford's Partnership for Older People Project (POPP). Bradford's POPP provides intensive support to older people with mental health problems at risk of institutional care. The programme found:

- 26% of users were prevented from being admitted to a care home;
- a further 13% of users had hospital admission avoided or delayed; and
- a 29% reduction in homecare hours following the intervention.

At full capacity it was estimated the programme would save £550,000 each year. (Department of Health, 2009).

Other studies on the impact of specialist housing on the use of social care services (for example comparing the use of services in general needs and specialist housing) tend to be qualitative rather than quantitative. Some other sources we have used include:

- Communities and Local Government DCLG English House Condition Survey 2007: Annual Report – indicates that specialist housing may prevent or deter entry into residential care, but may not have any impact on the level of home care.
- Lansley, McCreadie & Tinker (2004) also find that up-front investment in adaptive and assistive technology is often recouped through subsequently lower care costs for older people.
- Heywood and Turner (2007) "Better Outcomes, Lower Costs" – for the mental health client group indices a reduced need for home care services in specialist housing.

3.1.3 Crime

The impact of housing on crime can be inferred from a combination of survey data and published reports. Data from the British Crime Survey shows that upgrading the security on your home can reduce the incidence of burglary. Moving from basic security (assumed for general needs housing and other forms of accommodation) to enhanced security (assumed for specialist housing) can reduce the rate of burglaries by 45%. Moving from having no or less than basic security to enhanced security can reduce the number of burglaries by more than 85%.[14]

There are fewer sources of information on the impact of housing on the incidence of violent crime. When modelling people who may end up homeless in

14 Home Office: "Crime in England and Wales 2008/2009" http://rds.homeoffice.gov.uk/rds/crimeew0809.html

the absence of specialist housing provision, a report by Crisis indicates that becoming homeless can make people 13 times more likely to be a victim of a violent crime and 6.25 times more likely to be a victim of a burglary[15].

3.2 Other evidence relating to individual client groups

The modelling also draws on a wide range of evidence specific to particular client groups. The key sources are discussed in this section, full details are provided in Annexe 2.

3.2.1 Older People

National Statistics population forecasts indicate significant growth of the older people population over the next two decades. In particular:

- the number of individuals aged 60-74 is expected to rise by 43% between 2006 and 2031, from 8.3m to 11.8m; and
- the number of individuals aged over 74 is expected to rise by 76% between 2006 and 2031, from 4.7m to 8.2m. (see also, Porteus, February 2008)

Under the NAHP 2008-11, £370m (59.8% of the allocation for specialist housing) has been allocated for accommodation for older people (HCA, 2010).

Older people typically live in privately rented or owned homes, or in social housing, if they are not accommodated in specialist housing. The CORE database indicates that, prior to entering specialist housing, around 33% of the older people client group lived in private homes, with 37% in social housing. A further 13% were living with family or friends, and 10% were housed in residential care.

Older people may need assistance with various tasks in the home. Evidence from the General Household Survey shows that:

- of those aged 65 to 74, 6% need help climbing the stairs, 5% need help bathing, 2% with dressing and 2% with bed transfers;
- of those aged 75 to 84, 12% need help climbing the stairs, 11% need help bathing, 4% with dressing and 2% with bed transfers;
- of those aged 85 or over, 30% need help climbing the stairs, 24% need help bathing, 8% with dressing and 4% with bed transfers. (Porteus, February 2008)

15 Crisis: "Living in Fear: Violence and Victimisation in the Lives of Single Homeless People", 2005

In the absence of the support that specialist housing can provide those in these age groups are much more likely to suffer falls and other accidents with their associated costs. For example:

- the Department of Health estimates that between 2008 and 2025 falls-related A&E admissions for older people will rise from 515,000 to 735,000 each year.
- the number of emergency readmissions for people aged 75+ in English hospitals in 2006-07 was 148,922, a rise of 69% since 1998-99 (NHS Information Centre quoted in National Housing Federation, 2010)
- Help the Aged have estimated that NHS expenditure on falls is around £1bn annually (Porteus, February 2008).

There is evidence from a number of local efforts to reduce the costs of older people on wider public services. For example, Brent Council faced a challenge in 2004 that many hospital discharges were being delayed because older people's homes needed to be made suitable before they could return. Support for these clients provided by Willow Housing cost around £41,000 each year, achieving savings of around £420,000 by helping clients to sustain independence and reducing reliance on hospital services (Department of Health, 2009).

There is also wider evidence about the lost benefits should older people be incapacitated due to accidents in the home. For example, five million people aged 50 or over take part in voluntary work. This age group provides around half of all unpaid care, worth £87bn each year. At least 500,000 people aged over 65 remain in the workforce in paid employment and this is likely to rise with the planned increase in the retirement age (Porteus, February 2008).

Finally, there are estimates of the demand for adaptations required to avoid injuries. For example, over 750,000 people aged 65+ need specially adapted accommodation because of a medical condition or disability (CLG, "*Housing in England 2006-07*", 2008 quoted in National Housing Federation, 2010). The number of older people is increasing over time. Particularly, the number of disabled older people is expected to double over the next 30 years (PSSRU, "Thirty-five years on: Future demand for long-term care in England", 2006 quoted in National Housing Federation, 2010).

3.2.2 Young People

Specialist housing is often used for temporary support of young people. They have a wide range of different support needs. There is probably more difference within the "teenage parents", "young people at risk" and "young people leaving care" client groups than there is between them but there is very limited quantitative evidence on the links between accommodation for this group and the demand they place on public services.

Most young people, other than those in specialist housing, live with family or friends. The CORE database suggests that prior to entering specialist housing, around 64% of teenage parents, and 54% of young people at risk or leaving care were with family or friends. Around 20% are housed in temporary accommodation including B&Bs. The remaining group include those in social housing (6% of teenage parents, 3% of other young people), in privately rented or owned homes (6% of teenage parents, 8% of other young people) and those that are sleeping rough or squatting (only 1% of teenage parents, but around 8% of other young people).

Under the NAHP 2008-11:

- £5.4m (2.2% of the allocation for vulnerable groups) has been allocated for teenage parents.
- £35.0m (14.1% of the allocation for vulnerable groups) has been allocated for young people at risk
- £4.9m (2.0% of the allocation for vulnerable groups) has been allocated for young people leaving care.

Young people who have offended experience considerable difficulties in accessing adequate accommodation, with approximately 15% in housing need. Of these the latest estimates suggest:[16]

- 26% were in bed-and-breakfast accommodation;
- 20% were staying with friends;
- 13% were "sofa-surfing"; and
- 5% were sleeping rough.

Young people leaving care are more likely to be in housing need. Around 30% of young people in housing need are individuals who have previously been in care, compared to 11.5% of all young offenders (Youth Justice Board, 2004).

Quantitative evidence[17] suggests that these client groups tend to have relatively high usage of health services. Teenage parents typically visit their GP twelve times each year, more than any other client group. Young people at risk tend to make significant use of hospital services such as A&E visits (0.7 per year), inpatient stays (0.2 per year) and outpatient visits (2 per year). Young people leaving care have similar usage, but are statistically slightly more likely to experience mental health episodes (around 0.016 per year).

16 Youth Justice Board, 2006.

17 Various sources, see Annnexe 2 for full details.

Young people are typically involved in crime, both as victims and perpetrators, more than some other client groups (though not all). Young people leaving care commit around 2.85 crimes per year, more than any other groups except those with mental health problems and single homeless people with support needs. Young people typically suffer 0.04 violent crimes and 0.03 burglaries per year.

3.2.3 People with mental health problems

Under the NAHP 2008-11, £42.9m (17.2% of the allocation for vulnerable groups) has been allocated for people with mental health problems.

A significant benefit from specialist housing for people with mental health problems is that those individuals no longer need to be diverted to (costly) out-of-area facilities.[18] Specialist housing may be intended to be relatively short-term, used either as an intervention for individuals with escalating needs or as a "step-down" option for individuals who are moving out of facilities for those with higher needs. Alternatively it can also provide permanent (sometimes shared) housing with ongoing support.

Islington PCT and Islington Adult Services jointly developed the Ponders Bridge House "step down" facility with twelve units designed to take people out of hospital and other residential settings. Short stays, focused around recovery and preparation for living independently have led to savings of around £19,000 per client per year due to avoiding institutional care (Department of Health, 2009).

Similarly, a group of organisations led by Three Rivers Housing Association in County Durham developed the St Stephens Close "step down" facility with eight self-contained flats built around a communal space. Savings of around £22,000 per client per year were achieved due to reductions in Adult Services and NHS services (CSED, February 2009).

Individuals in this client group rely on health services to a lower degree than most other client groups.[19] However, people with mental health problems do typically make around ten GP visits per year, and (unsurprisingly) experience a higher rate of mental health episodes (around 0.136 per year) than any other client group.

Social care service usage is also relatively low among people with mental health problems. Around 8% receive home care and a further 13% receive day care. Only 1% receive meals and 3% are in receipt of direct payments.

People with mental health problems are typically involved in crime, both as victims and perpetrators, more than most other client groups. They commit around 5.21 crimes per year, more than any other groups except single homeless

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18 Discussions with HCA Advisory Group members, April to May 2010.

19 Various sources, see Annnexe 2 for full details.

people with support needs. People with mental health problems typically suffer 0.11 violent crimes and 0.05 burglaries per year.

People with mental health problems, according to the CORE database, are housed in a wide range of accommodation. Of those entering specialist housing, around 30% were previously living with family and friends. A further 19% were in temporary accommodation and 17% were in hospital.

3.2.4 People with learning disabilities

Under the NAHP 2008-11, £27.3m (11.0% of the allocation for vulnerable groups) has been allocated for people with learning disabilities.

Around 985,000 people in England have a learning disability which is about 2% of the population, including around 210,000 with severe and profound learning disabilities (FPLD, May 2010).

A likely counterfactual for people with learning disabilities, in the absence of specialist housing, is residential care. Around 39,500 people with learning disabilities live in care homes and hospitals. Around 11,000 of these live "out of area" ("Valuing People", Department of Health, March 2005 quoted in FPLD, May 2010).

People living in unsuitable accommodation were more likely to have poor general health, and were more likely to be victims of crime (National Statistics and NHS Health and Social Care Information Centre, September 2005).

Redcar and Cleveland PCT identified a shortfall in supported living alternatives to residential care for adults with mild learning disabilities. They developed Hollingside, a scheme with six self-contained flats and on-site support in the day. For a net cost (after rents) of per individual of £5,820, savings of around £12,500 were achieved by eliminating the need for residential care or 24-hour supported living (Department of Health, 2009).

Coventry City Council invested £3.2m between 2006 and 2009 to develop capacity of residential care and supported living in the city. Efficiencies of £416,000 were achieved over three years through:

- reducing out-of-city placements, allowing residents to live more independently, closer to family and friends; and
- helping some individuals to move from residential care to supported living. (Department of Health, 2009)

Quantitative evidence suggests that people with learning disabilities exhibit lower usage of GP services than other client groups, but are much more likely to require hospital treatment through A&E visits (around 1.3 per year), inpatient

stays (0.3 per year) and outpatient attendances (4.1 per year, more than any other client group).[20]

Social care service usage is also relatively high among people with learning disabilities. Around 25% receive home care and a further 42% receive day care (more than any other client group). Fewer than 1% of clients receive meals, but 10% are in receipt of direct payments.

People with learning disabilities are less likely to perpetrate crimes than most other client groups. They commit around 0.33 crimes per year, fewer than any other groups except older people. People with learning disabilities are relatively likely to suffer from crime, however. They typically experience 0.11 violent crimes and 0.05 burglaries per year.

3.2.5 Offenders and people at risk of offending

Under the NAHP 2008-11, £6.5m (2.6% of the allocation for vulnerable groups) has been allocated for offenders and people at risk of offending.

The CORE database indicates that around one third of ex-offenders entering specialist housing were previously living in a prison or young offenders facility. A further third were living with family or friends. Temporary accommodation including B&Bs accounts for 14% of those entering specialist housing. Homelessness is high among this client group, with 12% previously sleeping rough or squatting.

The Social Exclusion Unit identified nine key factors that influence re-offending, which included housing. Offending rates are increased by tenancy failure and homelessness. Stable accommodation can reduce rates by over 20%. Offending rates also increase when those leaving prison are not given the appropriate level of support at home (Social Exclusion Unit, 2002).

Some of the evidence on savings is supported by pilot projects. In 1998, a group of organisations led by the Endeavour Housing Association established the Hestia Project, providing ten units of accommodation (and associated support services) for women with chaotic lifestyles including offending and anti-social behaviour. Savings of £12,000 per client per year were achieved through reduced instances of offending behaviour, fewer admissions to hospital and A&E visits, lower rates of tenancy failure and homelessness, and fewer children being taken into care (Department of Health, 2009).

Quantitative evidence suggest that offenders and people at risk of offending make less use of health services than most other client groups, although the

[20] Various sources, see Annnexe 2 for full details.

prevalence of mental health episodes (around 0.016 per person per year) is relatively high.[21]

Offenders and people at risk of offending commit on average 1.45 crimes per year and suffer 0.04 violent crimes and 0.03 burglaries per year. Ex-offenders with other needs may be classified in other groups, for example as single homeless people, or people with mental health problems. These groups are typically more involved in crime than other client groups.

3.2.6 Single homeless people with support needs

Under the NAHP 2008-11, £38.4m (15.4% of the allocation for vulnerable groups) has been allocated for single homeless people with support needs.

Homeless people typically live in a number of settings, including:[22]

- sleeping rough;
- supported hostel accommodation;
- bed and breakfasts; and
- squatting.

The CORE database indicates that before entering specialist housing, around 22% will have been squatting or sleeping rough. A further 24% are typically in temporary accommodation, and 39% living with family or friends.

Homeless people rely on support in a number of respects. For example:[23]

- support worker services (outreach workers, support at hostel or day centres);
- a range of health services (GP visits, treatment from ill health, rehabilitation from alcohol problems)
- use of the police and criminal justice system, such as in response to theft from shops, attacks leading to minor/major wounding, and perpetration of minor crimes.
- resettlement programmes.

Quantitative evidence suggests that this client group relies on health services to a greater extent than most other client groups.[24] While the number of GP visits

21 Various sources, see Annnexe 2 for full details.

22 Crisis, 2003, page 3.

23 Crisis, 2003, page 4.

24 Various sources, see Annnexe 2 for full details.

(around five each year) is relatively low (which may be due to difficulties in registering with a practice), access to hospital services is very high compared to other client groups. Additionally, the prevalence of mental health episodes (around 0.036 per person per year) is the highest of any client group other than those with mental health problems.

Single homeless people with support needs are more involved in crime, both as victims and perpetrators, than any other client group. They commit around 7.50 crimes per year, and suffer on average 0.56 violent crimes and 0.19 burglaries per year.

3.2.7 People with physical or sensory disabilities

Under the NAHP 2008-11, £37.1m (14.9% of the allocation for vulnerable groups) has been allocated to housing with care or support for people with physical or sensory disabilities.

The CORE database indicates that prior to entering specialist housing, people with physical or sensory disabilities are most likely to be accommodated in social housing (32%), privately rented or owned homes (26%) or living with family or friends (22%).

According to the Department of Health, "*for adults with physical and sensory impairments, access to the right kind of adapted and specially designed housing can make a very significant difference to the ability of someone to live independently*". (Department of Health, 2009)

Quantitative evidence suggests that this client group relies on health services to a significant extent.[25] The average number of GP visits (eight each year), access to hospital services including A&E visits (1.6 per year, more than any other client group), inpatient stays (0.4 admissions per year, again more than any other client group) and outpatient attendances (2.5 per year) are all high compared to other client groups. Additionally, the prevalence of mental health episodes (around 0.020 per person per year) is higher than most other client groups.

Usage of some social care services is low among people with physical or sensory disabilities. Around 10% receive day care and only 2% receive meals. However 25% receive home care and 16% (more than any other client group) are in receipt of direct payments.

People with physical and sensory disabilities commit around 0.33 crimes per year, fewer than any other client group except older people. People with physical and sensory disabilities typically suffer 0.11 violent crimes and 0.05 burglaries per year.

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25 Various sources, see Annnexe 2 for full details.

4 Results

This section presents the results of our modelling of the financial costs and benefits of capital investment in specialist housing for the nine vulnerable client groups set out in Table 5.

This section is divided into two parts. First, we describe the main results of our modelling work, showing how the costs and benefits of specialist housing vary across client groups. Second, we examine the key drivers of the results, and test the sensitivity of the results to changes in these drivers.

4.1 Main results

Below, we set out the results of our analysis for a central case scenario based on our best understanding of the available evidence. We present results as a total net benefit across the entire client group and then as a net benefit per person per year, by client group. We have included charts illustrating the model results for individual client groups in Annexe 3.

4.1.1 Total net benefit

Table 10 shows the total net benefit for each client group resulting from the NAHP investment in specialist housing in 2008-09 and 2009-10. Alongside, we also report the size of each client group, based on the number of people that would live in the specialist housing schemes approved by the HCA in 2008-09 and 2009-10.[26]

[26] The number of vulnerable people in each client group combines the number of units built to accommodate each group (from the IMS database), with the occupancy assumptions explained earlier in this report. In particular, this assumes that there are 1.5 people per unit in specialist housing for older people, and 1 person per unit in specialist housing for other vulnerable client groups. The sensitivity of the results to occupancy is discussed below.

Table 10. Total net benefit (real, 2010£)

Client group	Number of vulnerable people	Total net benefit
Older People	12,363	£219m
Teenage Parents	118	-£10m
Young people at risk	867	-£56m
Young people leaving care	60	-£5m
People with mental health problems	1,001	£187m
People with learning disabilities	734	£199m
Offenders and people at risk of offending	247	£4m
Single homeless people with support needs	949	£63m
People with physical or sensory disabilities	686	£38m
Total	**17,025**	**£639m**

Source: Frontier analysis

We find that investment in specialist housing results in a net benefit for all client groups (albeit to varying degrees) except those relating to young people (see discussion below).

The largest single benefit is estimated for the older people client group. This is not surprising as older people are by far the largest client group and account for 68% of the total NAHP capital investment in specialist housing schemes in 2008-09 and 2009-10. They account for 34% of the total net benefit across all groups. There are also significant positive benefits for people with mental health problems and people with learning difficulties.

Young people

There are no net financial benefits of capital investment in our model for the three groups of young people: teenage parents; young people at risk; and young people leaving care. However, a known limitation of the modelling is that it does not capture the longer-term (ongoing) benefits that young people receive after they leave specialist housing, but which could be attributed to the specialist housing intervention.

This analysis focuses on the financial benefit that young vulnerable people achieve in specialist housing compared to other types of accommodation. The

analysis focuses on the housing, rather than the individual. Once the individual leaves specialist housing we do not attribute any further benefit to the housing. This is a very conservative assumption designed to ensure the estimates to do not overstate the impact of specialist housing.

This modelling therefore understates the benefits of specialist housing for all vulnerable groups. But it may have a disproportionate affect on young people for at least two reasons.

- First, young people have many years of life remaining after they leave specialist housing. If their stay in specialist housing results in lasting benefits once they leave, then the total benefits achieved could be very large over their lifetime.

- Second, for many vulnerable young people, specialist housing is specifically intended to support a short-term intervention. In this case the benefits are *expected* to be achieved primarily after the clients move on from specialist housing. For example, a short stay in specialist housing may lead to improvements in health, reduced reliance on social care and reduced risk of involvement in crime (both as a victim and a perpetrator). Over the longer term, short stays in specialist housing may improve access to education or employment, and result in higher lifetime earnings.[27]

These long-term benefits are not quantified in our model, as the analysis is complex and beyond the scope of this work. However, qualitative evidence indicates that such benefits are highly likely. For example, Wade and Dixon (2006) studied the outcomes of young people after leaving care and found that "*supported accommodation may provide young people with an opportunity to strengthen their skills for independent living and to make a stepped transition to greater independence*". They also not that "*housing emerged as a critical area for leaving care services, one in which positive post-care interventions could (and should) make a substantial difference to young people's early housing careers and to their overall sense of well-being.*"[28] Biehal and Wade (1999) also note the close relationship between outcomes such as housing, employment, health and well-being, suggesting that "*instability in one area of young people's lives sometimes undermined positive developments in other areas… leading to a downward spiral*".[29]

If it were possible to accurately identify and quantify these benefits of providing suitable and stable accommodation, this would increase the net impact of

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27 These longer-term benefits from short stays in specialist housing might also be achieved by individuals in other client groups. Discussions with the HCA indicate that such interventions may be particularly beneficial for single homeless people with support needs and offenders and those at risk of offending.

28 Wade and Dixon (2006), page 1.

29 Biehal and Wade (1999), page 85.

specialist housing identified above. Therefore the results above should not be interpreted as a conclusion that young people receive no overall benefit from capital investment in specialist housing. However these results do shed light on the nature and timing of the benefits.

4.1.2 Net benefit per person

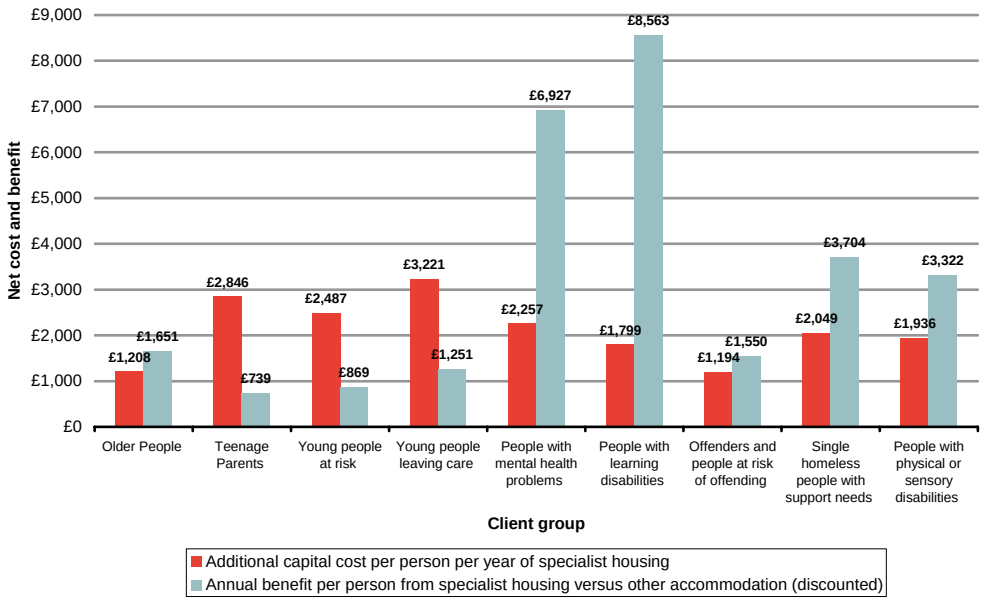
The total net benefit, identified above for each client group, is driven in large part by the relevant number of vulnerable people. In this section we present our estimated net benefit per person.

Figure 5 compares the additional capital cost of specialist housing – incremental to the capital costs associated with alternative housing options – with the benefits of specialist housing, on a per person per year basis.

Individuals from all client groups benefit from living in specialist accommodation compared to living in alternative settings. This benefit is largest for people with learning disabilities (£8,563 per year), and is also considerable for people with mental health problems (£6,927 per year).

In our central case scenario, specialist housing is more expensive than the counterfactual capital cost of alternative housing for all client groups (for details see Table 9). Specialist housing is particularly costly for young people, compared to their counterfactual housing situation. For teenage parents, the additional cost is estimated to be £2,846 per person per year of specialist housing. For young people at risk the additional cost is £2,487 per person per year. The additional cost is highest for young people leaving care, at £3,221 per person per year of specialist housing. This will be largely due to the fact that young people are often living with family and friends. The assumed capital cost of this counterfactual is zero. This effect is also one factor explaining the negative net benefit results estimated for the client groups including younger people.

Figure 5. Net costs and benefits per person per year (real, 2010£)



Source: Frontier analysis

Figure 5 illustrates that the net benefit per person per year is positive for all client groups except for young people. For these client groups, the additional capital cost per person of specialist housing outweighs the financial benefits captured within our model. This negative net benefit for young people has been discussed above.

Table 11 combines this information on the costs and benefits per person and shows that people with learning difficulties receive the highest net benefit per person per year from investment in specialist housing (£6,764, calculated by subtracting the £1,799 additional capital costs from the £8,563 benefits). People with mental health problems also achieve a large net benefit (£4,671 per person per year). Even though the total net benefit for older people is the largest for any client group, the net benefit per person for this client group is only the fifth largest, at £444 per year.

Table 11. Net benefit per person per year (real, 2010£)

Client group	Net benefit per person per year
Older People	£444
Teenage Parents	-£2,107
Young people at risk	-£1,618
Young people leaving care	-£1,970
People with mental health problems	£4,671
People with learning disabilities	£6,764
Offenders and people at risk of offending	£356
Single homeless people with support needs	£1,655
People with physical or sensory disabilities	£1,386
Total	**£938**

Source: Frontier analysis

As indicated by Figure 5, the estimated net benefit for each client group depends on both the additional capital cost associated with specialist housing and the benefits that are achieved as a result of its provision. Table 12 illustrates the main drivers of the benefits achieved for each client group. The annual benefit per person from specialist housing (before estimating this over the lifetime of the housing, or subtracting the costs) are broken down to show the relative impact on health, social care, employment, crime and other public services.

Table 12. Annual benefit per person from specialist housing compared to counterfactual accommodation

Client Group	Total	Health	Social care	Employment	Crime	Other
Older People	£2,988	£1,449	£1,488	£0	£50	£1
Teenage Parents	£1,337	£530	£337	£13	£435	£22
Young people at risk	£1,573	£318	£279	£77	£870	£28
Young people leaving care	£2,263	£494	£279	£55	£1,408	£28
People with mental health problems	£12,536	£11,751	£1,401	£3	-£646	£28
People with learning disabilities	£15,498	£4,136	£10,988	£7	£352	£14
Offenders and people at risk of offending	£2,805	£1,204	£314	£71	£1,161	£54
Single homeless people with support needs	£6,703	£3,587	£290	£85	£2,713	£28
People with physical or sensory disabilities	£6,011	£2,540	£3,125	£2	£316	£28

Source: Frontier analysis

Table 12 shows that the benefits from specialist housing vary widely by client group. For older people, the primary benefits are in reducing reliance on health and social care services. For young people (especially those leaving care), there is a far more significant benefit in reducing their involvement with crime (both as a perpetrator and victim). For people with mental health problems, the benefits of specialist housing are primarily associated with health services, and for those with learning disabilities a reduction in usage of social care services delivers the most significant savings. For other client groups the savings are more evenly spread across the categories.

The most significant benefits are achieved where the provision of specialist housing reduces the usage of institutional care. This includes residential and social care, particularly for older people (by far the largest client group) but also inpatient mental health facilities, and custodial facilities for offenders.

Employment savings are low, particularly for client groups that do not have a high proportion of people claiming Job Seeker's Allowance benefits (older

people, and people with physical or learning disabilities and mental health problems).

Finally, the reason that the crime "benefit" for people with mental health problems is a negative figure is that in the counterfactual, some people with mental health problems will be in long-stay hospitals where the level of crime committed and suffered by people with mental health problems is lower than in a specialist housing setting.

Further details of these public services, and estimated reductions in usage, are included in Annexe 2.

4.2 Key drivers

The results presented in Section 4.1 describe a central case scenario based on our best understanding of the available quantitative evidence. There are several elements of our model which can be varied. In this section, we show the effect on our results of varying three such drivers.

4.2.1 Choice of counterfactual

As described in Section 2.3.2, there are three counterfactual options that we could choose to describe housing in the absence of specialist accommodation.

- **Option 1** – Based on our review of existing reports and publications setting out where vulnerable and older people are *currently living*.
- **Option 2** – Based on information from The COntinuous REcording System ("CORE") on *previous tenure* prior to entering specialist housing.
- **Option 3** – Based on an assumption that all those who would have entered specialist housing would instead be housed in general needs social housing.

Our central case scenario takes information on previous tenure prior to entering specialist housing from the CORE database (i.e. option 2), as this data is drawn from a single consistent source, and is collected for each of our client groups under consistent definitions. Table 13 shows the effect of changing to the two alternative options on total net benefit for each client group.

Table 13. Sensitivity testing – choice of counterfactual (total net benefit, real, 2010£)

Client group	Literature review	CORE	General Needs
Older People	£1,756m	**£219m**	-£37m
Teenage Parents	-£8m	**-£10m**	£3m
Young people at risk	-£14m	**-£56m**	£30m
Young people leaving care	-£1m	**-£5m**	£1m
People with mental health problems	£157m	**£187m**	£30m
People with learning disabilities	£167m	**£199m**	£27m
Offenders and people at risk of offending	£1m	**£4m**	£11m
Single homeless people with support needs	-£1m	**£63m**	£108m
People with physical or sensory disabilities	-£30m	**£38m**	£13m
Total	£2,027m	**£639m**	£187m

Source: Frontier analysis

In the counterfactual scenario where vulnerable people would be housed exclusively in general needs accommodation, the total net benefit across all client groups is £187m. This is significantly lower than the central case counterfactual based on CORE data, under which the total net benefit is £639m. However, this comparison varies between client groups.

Net benefits are ***higher*** under the general needs counterfactual for some groups: teenage parents; young people at risk; young people leaving care; ex-offenders; and single homeless people. For these groups, general needs housing is expensive compared to the alternatives in the CORE counterfactual (living with family or friends, temporary accommodation). Incremental capital costs of specialist housing are lower and the overall net benefit of specialist housing is higher.

Net benefits are ***lower*** under the general needs counterfactual for older people and people with mental health problems, learning or physical disabilities.

The cost of nursing care, residential care, or hospital care is considerably higher than the cost of community-based health and social care in specialist housing. Avoiding this type of institutional care generates large savings in local authority social care expenditure. These savings are realised in counterfactual scenarios which include residential care homes or hospital care as an option (i.e. the

scenarios based on the literature review or the CORE data), but are not realised under the general needs counterfactual. The resulting net benefit for groups which would otherwise make use of residential or nursing care is lower under the general needs scenario. A numerical example is provided in the box below.

Impact of the counterfactual – the case of older people

Using the CORE data as the counterfactual we see a net benefit of £219m for older people. Under the general needs counterfactual, our results no longer indicate a net benefit.

Where specialist housing is not available, the CORE scenario results in:

- 10% of older people living in residential care; and
- 2% of older people would "live" in long-stay hospital or palliative care settings e.g. for end of life care.

The annual cost of maintaining an older person in residential care in our model is £18,000 per year. The comparable cost of social care in community-based settings (including general needs and specialist accommodation) is around £3,500 per year.

Under the CORE counterfactual, there is a social care benefit of around £14,500 per year for the 10% of older people who are "saved" from more expensive residential care by entering specialist housing.

Under the general needs counterfactual, the high costs of residential care are not incurred. In this scenario, the provision of specialist housing does not lead to the same significant social care "savings" described above. Instead the only savings are achieved via lower use of community-based social care services (such as home care and day care services) in specialist housing compared to general needs housing. These are estimated to sum to less than £100 per year. Consequently, the corresponding net benefits for older people are far lower in the general needs counterfactual than the CORE counterfactual.

The cost of long-term hospital care for older people is higher still. Based on information from the Personal Social Services Research Unit in 2009, the cost of keeping an older person in hospital is £226 per inpatient day[30] This equates to an annual cost of £82,500. Under the CORE counterfactual, this cost is avoided for 2% of older people. Under the general needs counterfactual, the savings made are again much smaller.

30 The costs of keeping older people in hospital are based on schedule 1.5 of "Unit Costs of Health and Social Care, 2009", compiled by Lesley Curtis and published by the Personal Social Services Research Unit. These cost include salary and oncosts of hospital nursing staff, direct medical care costs and other direct overheads associated with nursing-led inpatient units. The figure of £226 per inpatient day does not include capital costs – these are accounted for in the capital costs section of our model.

4.2.2 Reduction in use of services

An important element of our work has been to understand the effect of specialist housing provision on the use of wider public services. These public services include the health service, social care services, aspects of the criminal justice system and the benefits system.

We have drawn upon evidence from a range of published studies and reports, from local pilot programmes to national schemes, when modelling the effect of specialist housing (see a selection in Section 3). Inevitably, given the range of client groups, the range of services, and the range of alternative housing options in our model, we were unable to find evidence (relating to specific reductions in services that should be expected) in all areas.

Below, we present three scenarios we have modelled setting out the level of reduction in service use that we could expect following a move into specialist housing, ***in areas where we have not found any quantitative evidence on the likely size of the effect.*** For every client group, there was an absence of quantitative evidence on the likely reduction applicable to one or more services.

We have taken a 10% reduction in service use as a central case scenario. Our central case is therefore not the most conservative estimate we could have made. However, it is consistent with the observed reductions across other services and with our discussions with experts.

We have undertaken sensitivity analysis to evaluate the impact on total net benefits of varying this assumed reduction in services. Where quantitative evidence was available, we do not vary the reduction in services. Where quantitative evidence was not available, we tested the impact of assuming a 20% reduction in services and of assuming a 0% reduction (i.e. no change) in services when clients move into specialist housing. Our results are recorded in Table 14.

Results

Table 14. Sensitivity testing – reduction in the use of services where evidence is not available (in addition to evidenced reductions) (total net benefit, real, 2010£)

	Reduction used where specific evidence was not found[1]		
Client group	**20%**	**10%**	**0%**
Older People	£242m	**£219m**	£197m
Teenage Parents	-£8m	**-£10m**	-£12m
Young people at risk	-£40m	**-£56m**	-£72m
Young people leaving care	-£3m	**-£5m**	-£7m
People with mental health problems	£226m	**£187m**	£148m
People with learning disabilities	£224m	**£199m**	£174m
Offenders and people at risk of offending	£8m	**£4m**	-£1m
Single homeless people with support needs	£131m	**£63m**	-£6m
People with physical or sensory disabilities	£46m	**£38m**	£30m
Total	£826m	**£639m**	£451m

Source: Frontier analysis
1: where evidence is available we continue to use the reduction suggested by that evidence

There are two key points to note in Table 14. Where there is a large difference between the 20% reduction scenario and the no reduction scenario, this indicates a relative lack of evidence for the client group. This difference is significant for single homeless people and people with mental health problems.

Second, even under the most conservative scenario, where a 0% reduction in services is modelled and no savings are assumed in areas where we do not have evidence, we find an overall net benefit of specialist housing of £451m. In particular, we find a consistently large and positive net benefit for older people (£197m), people with learning disabilities (£174m) and people with mental health problems (£148m).

4.2.3 The capital cost of general needs housing

A third key driver of our results is the capital cost of alternative housing options. To establish the total net benefit of specialist housing, we compare the benefits of specialist housing to the incremental capital cost of providing that specialist

housing (i.e. the cost of the specialist housing, less the cost of the alternative housing option).

The assumed capital cost of alternative housing options (the cost of housing in the counterfactual) is therefore an important input to the model. Higher counterfactual capital costs mean that the incremental costs of specialist housing are lower, and overall net benefits of specialist housing are higher.

General needs housing provides one counterfactual housing option. Under our counterfactual housing option 2 (based on CORE data), 37% of older people would be housed in general needs accommodation in the absence of specialist housing, and 32% of clients with physical or sensory disabilities. Our results are therefore sensitive to the assumed capital cost of general needs housing. In this section we present sensitivity analysis around this assumption.

Specifically, we model three scenarios for the capital cost per person of general needs housing. The scenarios differ in their assumptions on the size of general needs housing that would be allocated to older and vulnerable people.

- **Very high cost** – Based on an average total scheme cost per person across all general needs housing
- **High cost –** Based on an average total scheme cost per person across 1 bedroom and 2/3 bedroom general needs housing, weighted according to the number of each type of unit
- **Medium cost –** Based on an average total scheme cost per person across 1 bedroom general needs housing

Our central case assumption, described in section 2.3.3, is that the size of general needs housing that would be provided would be the same as the specialist housing that is currently provided[31]. This is the high cost assumption.

The medium cost assumption assumes that all vulnerable people would be allocated one bedroom units. This results in a lower capital cost per unit. This however does not allow for the additional space required by vulnerable people (i.e. beds for carers).

The very high cost scenario assumes that vulnerable people will be randomly assigned general needs housing. The capital cost per unit in this scenario will be the same as the average capital cost per unit across all general needs housing. This gives a higher estimate of the capital cost per unit than our central case estimate.

[31] As an example, 63% of specialist housing for people with mental health problems are one bedroom units, and 37% are two bedroom units. The cost of two bedroom general needs housing (£136,950 per unit) is higher than the cost of one bedroom general needs housing (£117,159 per unit). The weighted average cost per unit of general needs housing for people with mental health problems is therefore £124,509. [£117,159 x 63%) + (£136,950 x 37%) = £124,509]

Table 15 shows how the total net benefit of specialist housing varies depending on the capital cost of general needs housing.

Table 15. Sensitivity testing – Capital cost of general needs housing (real, 2010£)

Client group	Very high cost	High cost	Medium cost
Older People	£307.7m	**£219.4m**	£183.3m
Teenage Parents	-£9.7m	**-£9.9m**	-£10.0m
Young people at risk	-£55.1m	**-£56.1m**	-£56.1m
Young people leaving care	-£4.7m	**-£4.7m**	-£4.7m
People with mental health problems	£191.0m	**£187.0m**	£186.1m
People with learning disabilities	£201.1m	**£198.6m**	£198.4m
Offenders and people at risk of offending	£3.9m	**£3.5m**	£3.5m
Single homeless people with support needs	£64.2m	**£62.8m**	£62.8m
People with physical or sensory disabilities	£45.5m	**£38.0m**	£36.7m
Total	£744.1m	**£638.6m**	£599.9m

Source: Frontier analysis

The impact of varying the capital costs of general needs housing depends in part on the extent to which each client group would be housed in general needs accommodation in the absence of specialist housing. The table above uses a counterfactual based on the CORE data. As noted above, in this counterfactual over 30% of older people and people with physical or sensory disabilities would live in general needs housing. Changes in the capital costs of general needs housing therefore have a proportionally larger impact on these groups.

Each scenario is based on average total scheme costs per person, with occupancy of 1.5 people per unit for older people and 1 person per unit for all other client groups. We have discussed with the HCA whether the assumption of 1.5 vulnerable older people per unit appropriate.

It is possible to examine the impact of varying this assumption for the older people group. If we were to model occupancy of 1 older person per unit rather than 1.5, the central case net benefit for older people of £219m would become a net cost of £115m.

On the benefits side, fewer older people now benefit from specialist housing. With occupancy of 1.5 older people per unit, 12.363 people could benefit each year from the HCA investment in specialist housing. With 1 person per unit, just 8,242 older people can benefit. The resulting net present value of the benefits over the 40 year housing lifetime falls from £817m to £544m.

With lower occupancy, fewer people can be housed in specialist housing, but the capital cost of providing specialist housing remains unchanged. In the counterfactual, the capital cost of providing housing for the lower number of people goes down. The result of these two effects is that the additional capital cost of specialist housing for older people increases from £597m to £659m.

Changing the occupancy rate for older people from 1.5 to 1 therefore eliminates any net benefit. However, the evidence still suggests that it is reasonable to assume occupancy of more than one person per unit for older people. If occupancy were 1.3 people per unit, there would once again be a net benefit for older people of £86m. With occupancy of 1.7 people per unit, benefits would increase to £353m. Occupancy would have to fall to less than 1.2 to eliminate the net benefit.

5 Implications and next steps

The results indicate that capital spending on specialist housing through the NAHP provides a clear positive net impact. That positive impact holds using conservative assumptions for both cost and benefit calculations and across a wide range of scenarios.

Underneath the aggregate figures, there is considerable variance between the different client groups and across different scenarios. That variance is further emphasised when a comparison is made between the aggregate net impact and the net impact per person per year. The older people client group is typically the client group that sees the largest total net positive impact. However, other client groups (particularly people with learning disabilities and mental health problems) see a larger positive impact per person per year.

The results appear relatively insensitive to the assumed level of service reduction attributable to the specialist housing. In areas where the existing evidence provides little guidance, even very low levels of assumed service reduction continue to indicate positive net impacts for all client groups except those covering younger people.

The analysis in this report (using the model described) does not identify a positive net impact of specialist housing for the younger people client groups. As discussed in Section 4.1.1, this may arise because we focus specifically on their time in specialist housing. We do not incorporate into the benefits calculation any improvements in outcomes for those client groups that occur after they leave specialist housing. Further research could be undertaken to quantitatively estimate the size of these longer-term benefits that could be attributed to specialist housing.

This report intentionally focussed on a selection of client groups. Further research could be carried out with a focus on other client groups, which might include people with drug or alcohol problems, rough sleepers and women at risk of domestic violence.

Locally-driven housing investment

Finally, the overall approach and the model itself can act as templates for more local decisions about housing investment. The figure presented here are necessarily at a national level. The particular balance between costs and benefits by client group may vary from area to area. They might depend, for example, on the characteristics of particular client groups and the services they are likely to access.

The key parameters in the model are likely to differ among local authorities. Things such as the costs of specialist and other forms of housing, the services accessed by those in specialist and other forms of housing, occupancy rates and

the locally available alternatives to specialist housing are likely to differ from one region or locality to another. The aggregate national results presented here may differ if the same approach were carried out at a local level. This implies that the net impact per person per year for each client group may vary in different locations around the country.

This discussion suggests a number of potential next steps. There are potentially next steps around further research and evidence collection (e.g. on occupancy rates, levels of service use, alternative forms of housing, longer term impacts for younger people). Further work could also be done to bring together the revenue analysis from the Supporting People work with this analysis of capital spending (see Section 1.1). A single, overall measure of the net impact of total (revenue and capital) spending would be very useful to inform future policy decisions.

There are also next steps associated with using this analysis and the modelling tool to support decisions. At a national level it provides an evidence-based input into decisions about the allocation of capital funding. At a local level, it provides a template that could be used to inform local prioritisation of scarce investment funds.

Finally, the work also provides the basis for a conversation with other areas of public services. To the extent that investment in specialist housing does affect spending on primary and secondary healthcare, local authority social care, criminal justice and welfare, the evidence presented in this analysis provides the basis for discussions across a range of national and local public services. It provides the basis for discussions about how the different areas of public service might jointly allocate spending to ensure it delivers the best outcomes at the least cost.

Annexe 1: Description of client groups

Table 16. Description of client groups

Client group	Description
Older People	Older people with low or medium support needs. This group is described as: ▫ people whose survival in the community is at severe risk, or who are dependent on others; ▫ people who are vulnerable and who, without support, would be at risk i.e. those who are sufficiently physically incapacitated as to be unable to cope with maintaining their home; ▫ people who need the assistance of others for support in coping with some domestic tasks.
Teenage Parents	Young single parents (aged less than 20) needing support and vulnerable young women in this age group who are pregnant.
Young people at risk	Young people aged 16 – 25 who are homeless or in insecure accommodation, and those who are unable to take care of themselves or to protect themselves from harm or exploitation.
Young people leaving care	Young people leaving Local Authority care who have been looked after for a continuous period of at least 13 weeks after the age of 14.
People with mental health problems	People who fall into any of the following categories: ▫ people with enduring but relatively low level mental health problems that interfere with their ability to cope or function on a day to day basis; ▫ people whose behaviour is a concern for their own safety or that of others; ▫ people at risk of suicide or depression or complete loss of everyday reality; ▫ people who have been diagnosed as mentally ill and who have had, or are having, specialist treatment.

People with learning disabilities	People with mild or moderate learning disabilities, as well as those with more severe learning disabilities and/or challenging behaviour, people with deficits in social functioning or adaptive behaviour. Learning disabilities are usually present from childhood.
Offenders and people at risk of offending	Offenders or people at risk of offending, who are homeless or who are having difficulties in relation to sustaining their accommodation or managing to live independently as a result of their offending behaviour.
Single homeless people with support needs	People who have been accepted as homeless and in priority need and also those who have been turned down for re-housing or have not approached the local authority and who have a range of support needs.
People with physical or sensory disabilities	People with mobility difficulties, sensory impairments (for example sight, hearing), suffering any loss or abnormality of an anatomical structure or function, or suffering from a debilitating or long-term illness, for example multiple sclerosis.

The nine "client groups" identified above relate to the predominant needs or circumstances of each individual client. These groups are "industry norms", utilised by the Department for Communities and Local Government[32], the Tenant Services Authority[33] and the Homes and Communities Agency[34].

32 See, for example, the Supporting People Quarterly Client Records and Outcomes (April - June 2010) (http://www.communities.gov.uk/publications/corporate/statistics/supportingpeopleq12010)

33 See, for example, the CORE Supported Housing Updates (https://core.tenantservicesauthority.org)

34 See, for example, http://www.homesandcommunities.co.uk/vulnerable_people

Annexe 1: Description of client groups

Annexe 2: Model inputs

There are five key areas of our model where we have combined known information and evidence-based assumptions to populate our model.

- The capital costs per person of specialist housing and alternative housing provision
- Housing provision in the counterfactual for vulnerable people in the absence of specialist housing
- The extent to which vulnerable people make use of the services in our model
- The financial costs of accessing these services
- The way in which the use of these services differs depending on the type of housing provision (i.e. specialist housing versus general needs housing).

This Annexe describes the evidence in each of these areas in more detail.

Capital costs of specialist housing

In **Table 7**, the number of vulnerable people per unit of specialist housing is one of several inputs required to determine the capital cost of specialist housing. In our discussions with the HCA, we were informed that there is typically one person living in each unit for all client groups other than older people.

For older people, we received some information on occupancy in the Lark Hill Extra Care Village, a specialist housing scheme for older people. **Table 17** shows that the average number of people per unit in this scheme was around 1.5.

Table 17. Number of people per unit – Lark Hill Extra Care Village

		Number of units	Number of people	Number of people per unit
1 bedroom properties	Single occupancy	92	92	1.0
	Couple occupancy	32	64	2.0
	Total	124	156	1.26
2 bedroom properties	Single occupancy	38	38	1.0
	Couple occupancy	80	160	2.0
	Total	118	198	1.7
All units	**Grand total**	**242**	**354**	**1.5**

Source: Lark Hill Extra Care Village occupancy data

Capital costs of general needs housing

In section 4.2.3, we test the sensitivity of our results to changes in the capital cost of general needs housing. We model three options: a medium cost option, a high cost option, and a very high cost option. All options are based on figures from the HCA's IMS database. **Table 18** shows how the capital cost of each option has been calculated.

Annexe 2: Model inputs

Table 18. Capital costs of general needs housing – Modelling sensitivities

Option	Description
Very high cost	Uses the average total scheme cost per unit across **all general needs housing** (£157,685)
High cost	Takes a **weighted average** total scheme cost per unit. Weighted by the proportion of each client group living in 1 bedroom units (costing £117,159 per unit), and in larger 2/3 bedroom units (costing £136,950 per unit).
Medium cost	Uses the average total scheme cost per unit across **one bedroom general needs housing** (£117,159)

Source: Frontier analysis of IMS database

Note: The IMS database provides data on the cost **per unit** of general needs housing. To calculate the capital cost **per person**, we divide the cost per unit in each case by the number of people per unit (i.e. 1.5 people per unit for older people, 1 person per unit for all other client groups)

Capital costs of other types of housing

The capital costs of other non-specialist accommodation used in our model are set out in **Table 19**. This describes, for each client group, and for each type of accommodation, the capital costs involved.

Table 19. Capital costs of alternative housing provision

Client group	Social housing	Private rented / owned	Living with family / friends	Hospital	Nursing home	Residential home	B&B / temporary accommodation	Sleeping rough / squatting	Prison / young offenders
Older People	£110,025	£6,816	£6,816	£61,913	£103,088	£103,088	-	-	£152,000
Teenage Parents	£123,197	-	-	£190,291	-	-	-	-	£152,000
Young people at risk	£117,754	-	-	£190,291	-	-	-	-	£152,000
Young people leaving care	£119,798	-	-	£190,291	-	-	-	-	£152,000
People with mental health problems	£124,509	£6,816	£6,816	£190,291	£42,953	£42,953	-	-	£152,000
People with learning disabilities	£120,409	£6,816	£6,816	£190,291	£95,018	£95,018	-	-	£152,000
Offenders and people at risk of offending	£118,254	-	-	£190,291	-	-	-	-	£152,000
Single homeless people with support needs	£117,637	-	-	£190,291	-	-	-	-	£152,000
People with physical or sensory disabilities	£123,150	£6,816	£6,816	£190,291	£154,762	£154,762	-	-	£152,000
Source:	IMS database	Average amount of disabled facilities grant in 2008-09: CLG housing statistics		Calculated from PSSRU: Unit costs of health and social care 2009			Assumed that capital costs are zero		Lord Carter's Review of Prisons December 2007, Table 2.1

Annexe 2: Model inputs

Counterfactual housing options

The counterfactual captures where vulnerable and older people would live in the absence of specialist housing.

We have presented the results of three counterfactual options in this report:

- Option 1 – Based upon published sources we have come across in our research
- Option 2 – Based on the previous tenure of clients entering specialist housing in 2008-09 from the CORE dataset.
- Option 3 – Assuming that all those who would have been in specialist housing would now be housed in general needs housing.

Table 20 describes the counterfactual based on our review of the available literature (Option 1) setting out where each client group is currently living, if they are not in specialist housing already. The data sources we refer to often do not use similar standard definitions when reporting the accommodation of vulnerable people. Where this is the case, we have attempted to report housing status consistently across client groups.

Table 21 sets out the counterfactual based on the CORE dataset (Option 2), which records the accommodation type of each individual within a client group prior to entering specialist housing.

Table 20. Counterfactual housing – Option 1 – Literature review

Client group	Social housing	Private rented / owned	Hospital	Living with family / friends	Nursing home	Residential home	B&B / temporary accommodation	Sleeping rough / squatting	Prison / young offenders	Sources
Older People	18%	58%	8%	0%	8%	8%	0%	0%	0%	Calculated from "Lifetime Homes, Lifetime Neighbourhoods", CLG
Teenage Parents	28%	28%	0%	44%	0%	0%	0%	0%	0%	"Sure Start Programme, Research and Evaluation Report", Dr Judy Whitmarsh
Young people at risk	57%	3%	0%	11%	0%	0%	29%	0%	0%	
Young people leaving care	49%	0%	0%	32%	0%	0%	10%	5%	5%	"Making a home, finding a job: investigating early housing and employment outcomes for young people leaving care", Wade and Dixon
People with mental health problems	40%	20%	10%	20%	0%	10%	0%	0%	0%	Inclusion Institute, University of Central Lancashire
People with learning disabilities	8%	8%	0%	55%	0%	30%	0%	0%	0%	"Valuing People Now: a new three-year strategy for people with learning disabilities", paragraph 3.18
Offenders and people at risk of offending	18%	0%	0%	42%	0%	0%	4%	0%	36%	Calculated from: "Reducing re-offending by ex-prisoners - Report by the Social Exclusion Unit"; Home Office: "Resettlement outcomes on release from prison in 2003"
Single homeless people with support needs	0%	0%	0%	92%	0%	0%	7%	1%	0%	Calculated from: Crisis: "How many how much: Single homelessness and the question of numbers and cost", 2003
People with physical or sensory disabilities	40%	59%	0%	0%	0%	1%	0%	0%	0%	Joseph Rowntree Foundation: "Housing needs of people with physical disability", 1995

Table 21. Counterfactual housing – Option 2 – CORE dataset

Client group	Social housing	Private rented / owned	Hospital	Living with family / friends	Nursing home	Residential home	B&B / temporary accommodation	Sleeping rough / squatting	Prison / young offenders
Older People	37%	33%	2%	13%	0%	10%	4%	0%	0%
Teenage Parents	6%	6%	0%	64%	0%	1%	20%	1%	0%
Young people at risk	3%	8%	0%	54%	0%	3%	22%	8%	2%
Young people leaving care	3%	8%	0%	54%	0%	3%	22%	8%	2%
People with mental health problems	12%	8%	17%	30%	0%	5%	19%	6%	3%
People with learning disabilities	9%	6%	6%	37%	0%	26%	12%	3%	1%
Offenders and people at risk of offending	4%	4%	1%	33%	0%	1%	14%	12%	31%
Single homeless people with support needs	4%	4%	2%	39%	0%	1%	24%	22%	5%
People with physical or sensory disabilities	32%	26%	3%	22%	0%	8%	9%	1%	0%

Source: CORE dataset, provided by the Tenants Services Authority

Annexe 2: Model inputs

Use of services

The public services we model fall into five categories: health; social care; crime; employment; and other. **Table 22** sets out the specific elements of each broad category that we have modelled.

Table 22. Public services modelled

Category	Specific service	Description
Health	GP visits	Number of visits per year
	A&E visits	Number of visits per year
	Inpatient stays	Number of stays per year
	Outpatient attendances	Number of attendances per year
	Acute mental health episodes	Number of episodes per year
Social care	Home care	Percentage receiving home care
	Day care	Percentage receiving day care
	Meals	Percentage receiving meals
	Direct payments	Percentage receiving direct payments
	Residential care	Percentage receiving residential care
	Nursing care	Percentage receiving nursing care
Employment	Unemployment benefits	Percentage receiving Job Seeker's Allowance
Crime	Crimes committed	Number of crimes committed per year
	Violent crimes suffered	Number of violent crimes suffered per year
	Burglaries suffered	Number of burglaries crimes suffered per year
Other	Failed tenancy	Percentage of failed tenancies

Our model estimates the reduction in the use of services in specialist housing compared to other types of accommodation. This reduction is expressed relative to the average level of service use for the client group as a whole, so a 10% reduction in the use of a service in specialist housing (e.g. seeing a GP) would appear as 0.9 in our model.

The extent to which each public service is used by the client group as a whole is shown in **Table 23** to **Table 26**.

Table 23. Use of public services by client group – Health

Health category	Older People	Teenage Parents	Young people at risk	Young people leaving care	People with mental health problems	People with learning disabilities	Offenders and people at risk of offending	Single homeless people with support needs	People with physical or sensory disabilities
Number of GP visits per year	8.0	12.0	10.0	8.0	10.0	4.5	5.0	5.0	8.0
Number of A&E visits per year	0.3	0.5	0.7	0.8	0.5	1.3	0.4	1.3	1.6
Number of hospital admissions per year	0.2	0.2	0.2	0.1	0.1	0.3	0.3	0.2	0.4
Number of outpatient attendances per year	2.1	1.8	2.0	1.6	1.6	4.1	1.3	3.2	2.5
Number of acute mental health episodes per year	0.001	0.007	0.008	0.016	0.136	0.007	0.016	0.036	0.020

Sources: NHS Hospital Episode Statistics; General Lifestyle Survey; CLG, Research into the financial benefits of the Supporting People Programme, 2009

Table 24. Use of public services by client group – Social care

Social care category	Older People	People with mental health problems	People with learning disabilities	People with physical or sensory disabilities	All other vulnerable client groups
Percentage of client group receiving home care	36%	8%	25%	25%	26%
Percentage of client group receiving day care	10%	13%	42%	10%	11%
Percentage of client group receiving meals	9%	1%	0%	2%	4%
Percentage of client group receiving direct payments	3%	3%	10%	16%	11%

Source: Calculated from NHS Information Centre: Social Services Activity - Annex A - National Tables, 2008-09

For those receiving residential and nursing care, we assume that nursing care only will be delivered in nursing care homes, and residential care will only be delivered in residential care homes. In addition, we assume that those housed in residential, nursing or hospital settings will no longer receive any community-based services.

In moving from specialist housing to residential, nursing or hospital care (i.e. the counterfactual accommodation), there is:

- a saving as it is no longer necessary to provide community-based support; and
- a cost of the residential, nursing and hospital care services now accessed.

The balance of these savings and costs determines the net impact on social care costs of moving from specialist housing to residential, nursing or hospital care.

Annexe 2: Model inputs

Table 25. Use of public services by client group – Criminal justice system

Crime category	Older People	Teenage Parents	Young people at risk	Young people leaving care	People with mental health problems	People with learning disabilities	Offenders and people at risk of offending	Single homeless people with support needs	People with physical or sensory disabilities
Average number of crimes committed per year	0.21	0.91	0.93	2.85	5.21	0.33	1.45	7.50	0.33
Number of violent crimes suffered per year	0.00	0.04	0.04	0.04	0.11	0.11	0.04	0.56	0.11
Number of burglaries suffered per year	0.01	0.03	0.03	0.03	0.05	0.05	0.03	0.19	0.05

Sources: Calculated from Home Office: Crime in England and Wales 2008/09; Reducing re-offending by ex-prisoners: Report by the Social Exclusion Unit, Chapter 2; British Crime Survey - Tables for 2008-09

Table 26. Use of public services by client group – Employment and other

Category	Older People	Teenage Parents	Young people at risk	Young people leaving care	People with mental health problems	People with learning disabilities	Offenders and people at risk of offending	Single homeless people with support needs	People with physical or sensory disabilities
Proportion receiving Job Seeker's Allowance	0.1%	4.8%	28.6%	20.5%	0.8%	2.1%	43.8%	25.0%	0.5%
Proportion experiencing tenancy failure	0.5%	8.0%	10.0%	10.0%	10.0%	5.0%	4.9%	10.0%	10.0%

Sources: Supporting People: Client Records and Outcomes data; CLG, Research into the financial benefits of the Supporting People Programme, 2009

Impact of specialist housing on the use of services

Table 27. Impact of specialist housing on use of health services

Client group	Number of GP visits	Number of A&E visits	Number of hospital admissions	Number of outpatient attendances	Number of acute mental health episodes
Older people	0.76	0.78	0.78	0.80	0.90
Teenage parents	0.75	0.66	0.80	0.80	0.85
Young people at risk	1.00	0.85	0.85	0.75	0.90
Young people leaving care	0.50	0.50	0.75	1.00	0.90
People with mental health problems	0.80	0.80	0.80	0.80	0.75
People with learning disabilities	1.00	1.00	0.90	0.85	0.90
Offenders and people at risk of offending	0.80	0.50	0.50	0.80	0.80
Single homeless people with support needs	0.80	0.50	0.55	0.80	0.75
People with physical or sensory disabilities	1.00	0.66	0.85	1.00	0.90

Source: Frontier analysis

Annexe 2: Model inputs

Cost of services

Table 28. Cost of services – Health

Health category	Cost
Cost per GP visit	£35
Cost per A&E visit	£196
Cost per inpatient episode	£1,241
Cost per outpatient attendance	£96
Cost per acute mental health episode	£7,469

Source: Calculated form PSSRU: Unit Costs of Health and Social Care, 2009; Department of Health Reference Costs 2008-09; ODPM: "Estimating the short and longer-term costs of statutory homelessness to households and service providers", 2003

Table 29. Cost of services – Social care

Social care category	Older People	People with mental health problems	People with learning disabilities	People with physical or sensory disabilities	All other vulnerable client groups
Cost per week for those receiving home care	£145	£92	£381	£163	£163
Cost per week for those receiving day care	£91	£95	£233	£179	£168
Cost per week for those receiving meals	£25	£24	£24	£24	£24
Cost per week for those receiving direct payments	£137	£77	£222	£219	£177

Source: National Adult Social Care Intelligence Service (NASCIS)

Annexe 2: Model inputs

Table 30. Cost of services – Residential, nursing, and hospital care

Client group	Cost per week in residential care	Cost per week in nursing care	Cost per week in hospital
Older People	£345	£344	£1,583
Teenage Parents	-	-	£1,338
Young people at risk	-	-	£1,338
Young people leaving care	-	-	£1,338
People with mental health problems	£583	£576	£1,338
People with learning disabilities	£1,032	£873	£1,338
Offenders and people at risk of offending	-	-	£1,338
Single homeless people with support needs	-	-	£1,338
People with physical or sensory disabilities	£732	£661	£1,338

Source: PSSRU: Unit Costs of Health and Social Care 2009; National Adult Social Care Intelligence Service (NASCIS)

Table 31. Cost of services – Crime

Crime category	Cost
Cost per crime committed	£2,879
Cost per violent crime suffered	£10,407
Cost per burglary suffered	£3,268

Source: Home Office: The economic and social costs of crime against individuals and households 2003/04

Notes: Total economic and social costs of crime include: costs in anticipation of crime (defensive expenditure and insurance); costs as a consequence of crime (physical and emotional impact, value of property, health services); and costs in response to crime (criminal justice system costs).

The calculated cost per crime committed in our model is a weighted average cost, with weights determined by the number of each type of crime recorded by the British Crime Survey in 2008-09, and with costs as reported in Home Office cost of crime reports.

Table 32. Cost of services – Employment and other costs

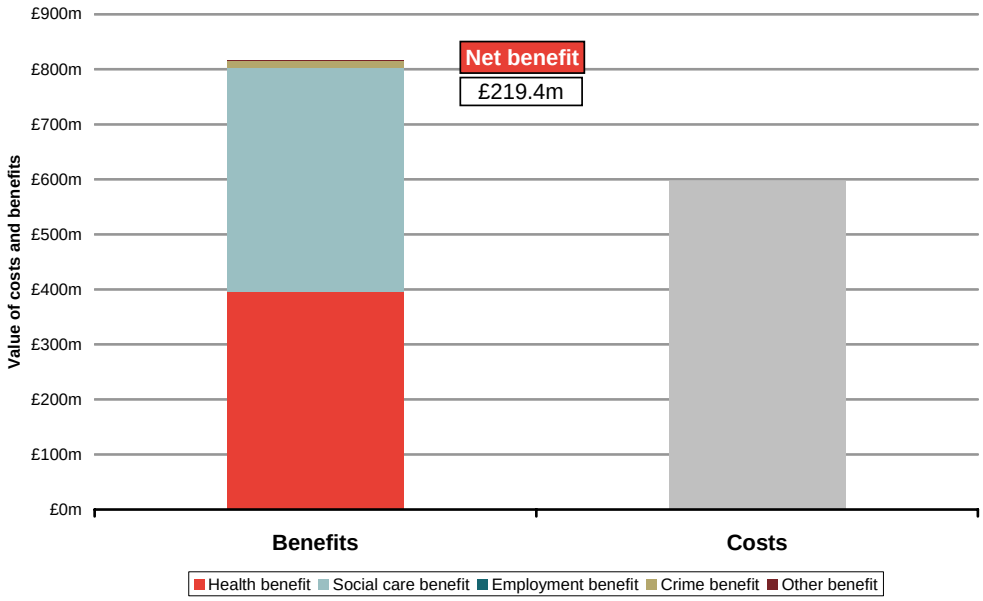
Category	Cost	Source
Job Seeker's Allowance payments	£65.45 per week if aged over 25; £51.85 per week if aged less than 25	DirectGov (www.direct.gov.uk)
Cost of failed tenancy	£2,800	Crisis: "How Many, How Much? Single homelessness and the question of numbers and cost"

Annexe 3: Model results

The following charts show the breakdown of costs and benefits for individual client groups.

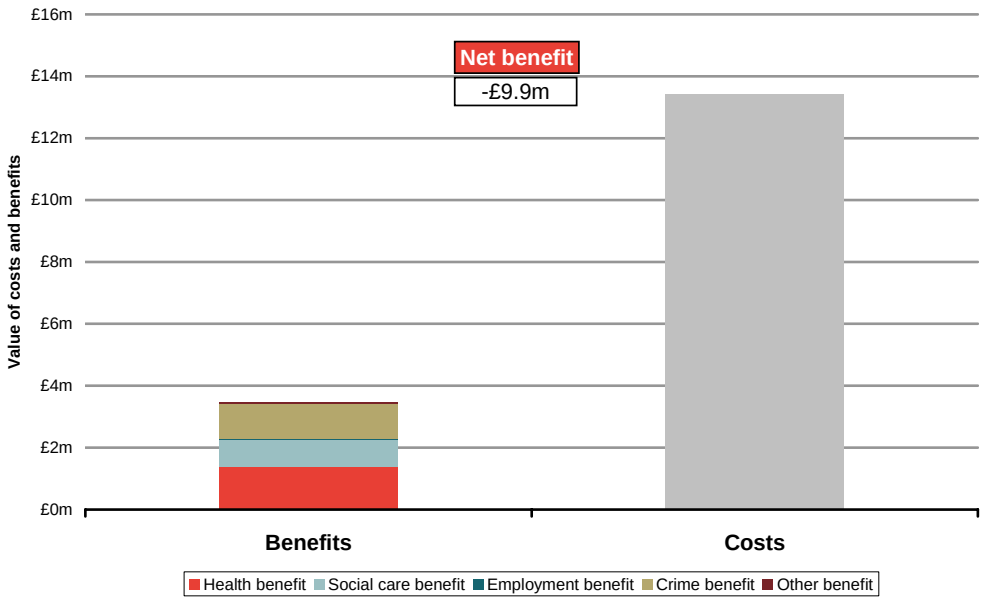
Benefits are broken down by category into health, social care, employment, crime and other benefits. On the cost side, the grey bar indicates the incremental cost of specialist housing compared to the counterfactual.

Figure 6. Costs and benefits of specialist housing – Older people



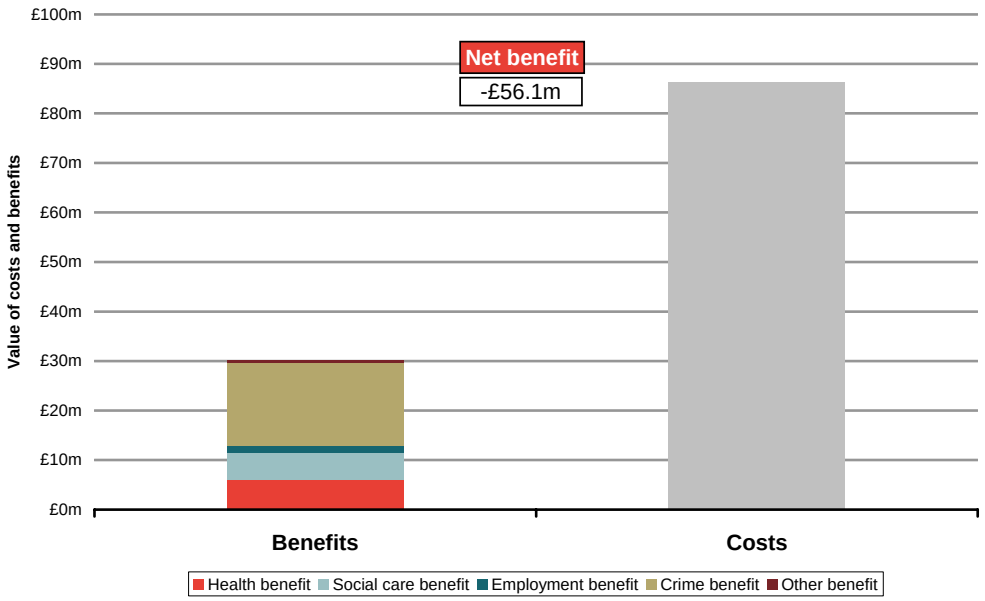
Source: Frontier analysis

Figure 7. Costs and benefits of specialist housing – Teenage parents



Source: Frontier analysis

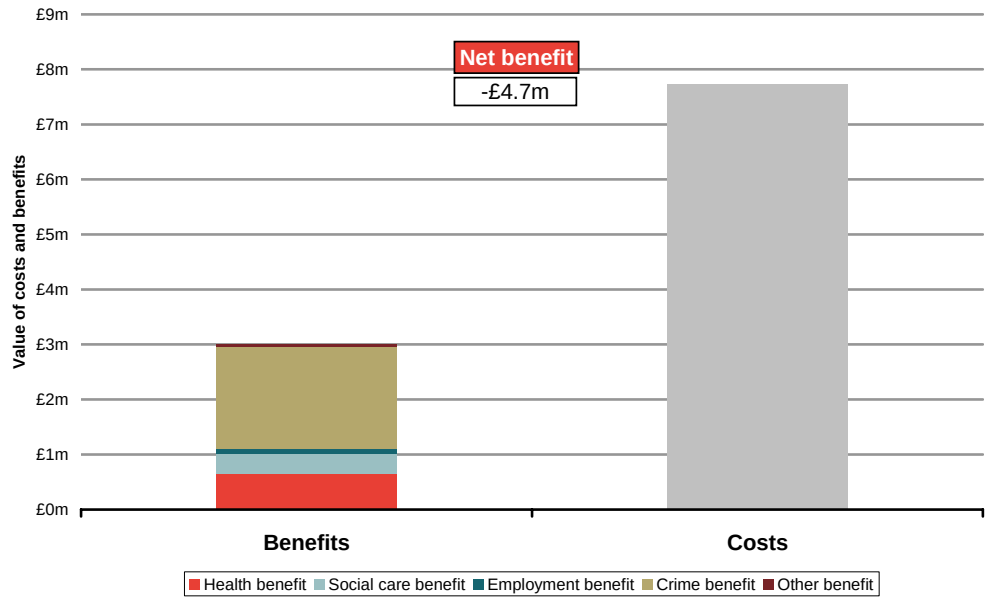
Figure 8. Costs and benefits of specialist housing – Young people at risk



Source: Frontier analysis

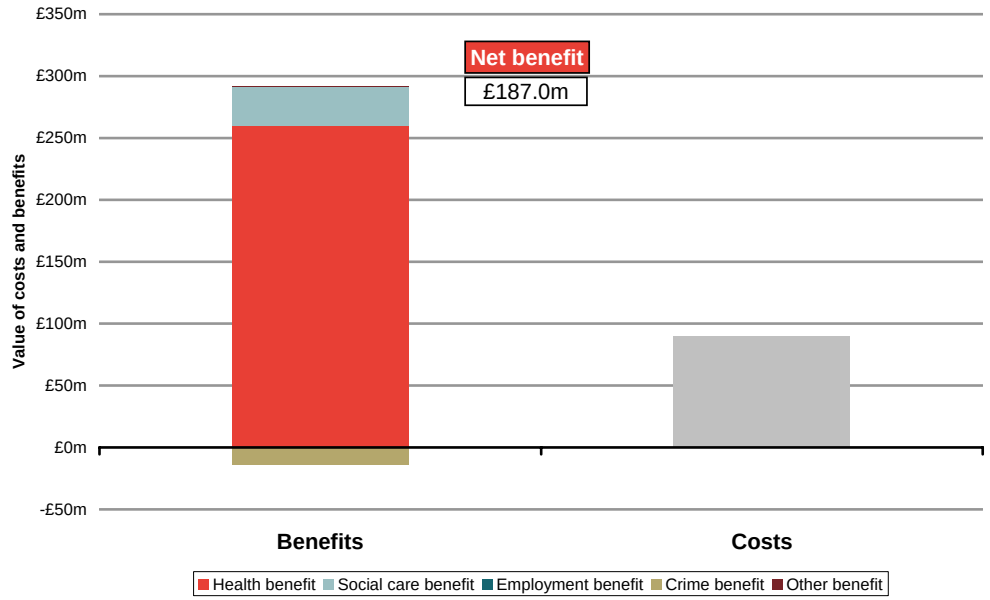
Annexe 3: Model results

Figure 9. Costs and benefits of specialist housing – Young people leaving care



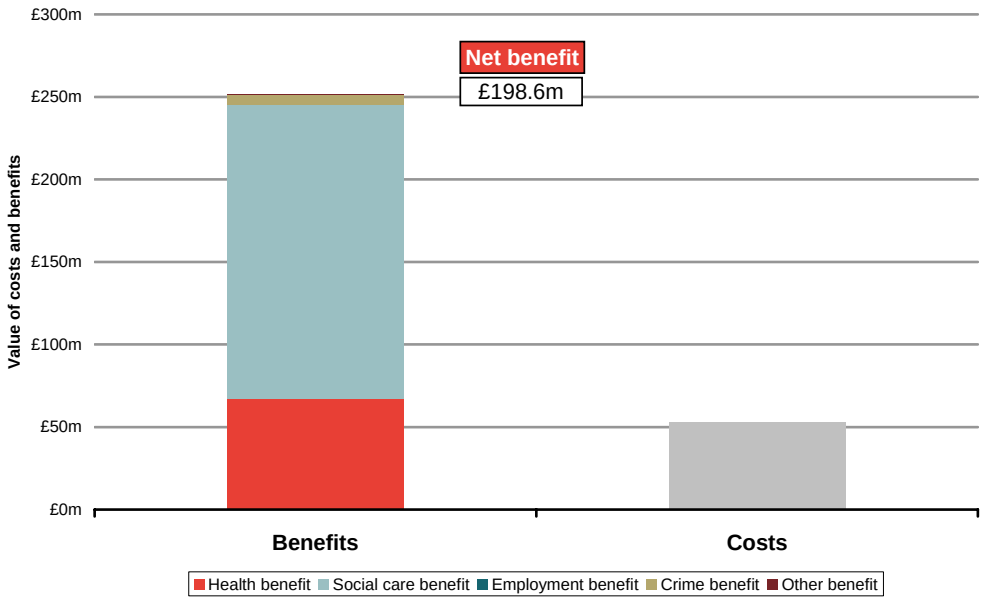
Source: Frontier analysis

Figure 10. Costs and benefits of specialist housing – People with mental health problems



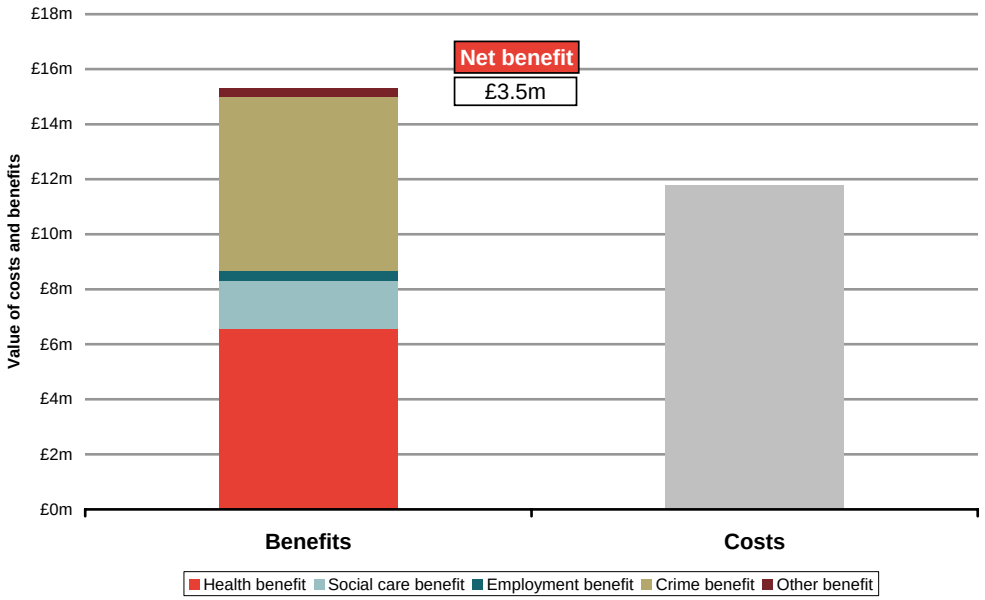
Source: Frontier analysis

Figure 11. Costs and benefits of specialist housing – People with learning disabilities



Source: Frontier analysis

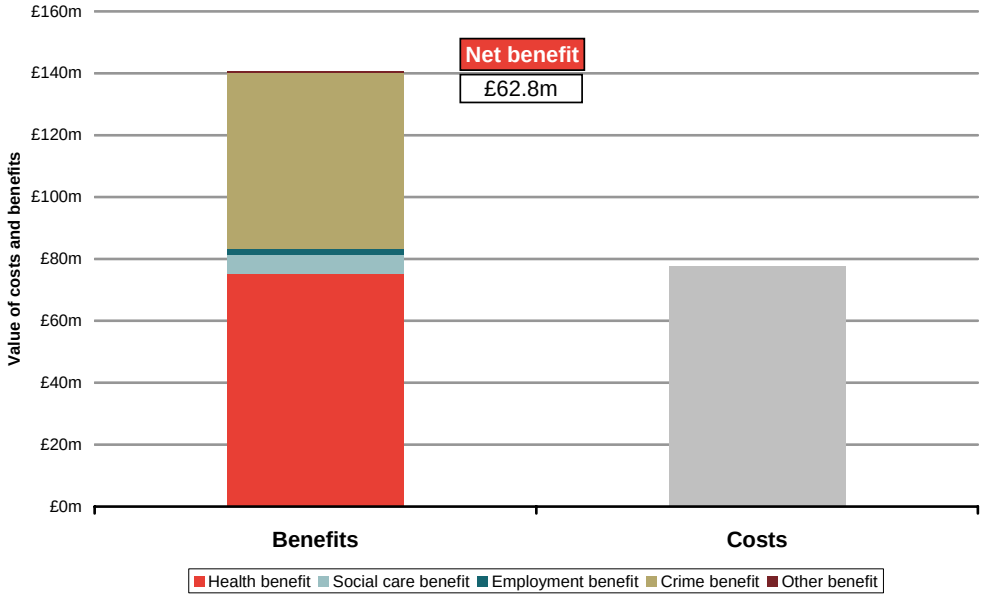
Figure 12. Costs and benefits of specialist housing – Offenders and those at risk of offending



Source: Frontier analysis

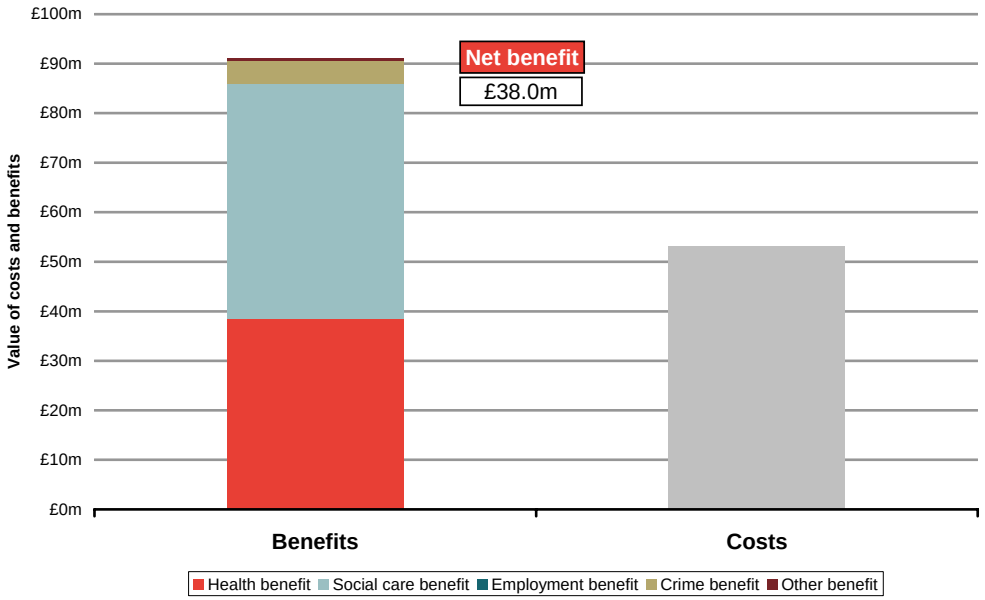
Annexe 3: Model results

Figure 13. Costs and benefits of specialist housing – Single homeless people



Source: Frontier analysis

Figure 14. Costs and benefits of specialist housing – People with physical or sensory disabilities



Source: Frontier analysis

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Annexe 4: Bibliography

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