Long-Term Care Expenditure for Older People, Projections to 2022 for Great Britain

Report to the Institute for Public Policy Research (IPPR)

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1. Introduction

This paper presents projections to 2022 of the numbers of disabled older people in Great Britain, the numbers of older clients of long-term care services and associated public and private expenditure. It has been prepared for the Institute for Public Policy Research (IPPR) as a contribution to their wider study for the Disability Rights Commission (DRC). The projections presented here are intended as important background to discussion about the services needed for future cohorts of older disabled people.

The paper has four sections. The second section describes the PSSRU long-term care projections model, with a focus on the parts of the model concerned with disability and informal care. In the third section, the paper describes the key projections, produced under a set of the base case assumptions. The fourth section looks at what happens when these assumptions change and is split into two parts. The first part reports on scenarios based on varying the assumptions around factors exogenous to long-term care policy, including disability and unit costs. The second part describes scenarios based on varying patterns of care, which includes two scenarios that make changes to the patterns of formal care.

2. The PSSRU long-term care financing model

The PSSRU long-term care financing programme, funded by the Department of Health, has developed a model to make projections of demand for long-term care by older people and associated expenditure, under clearly specified assumptions (Wittenberg *et al* 1998, 2001; Comas-Herrera 2003). The aim is to inform the debate about long-term care finance.

The model produces three kinds of projections: the numbers of disabled older people likely to require long-term care, the long-term care health and social services that will be required to meet demand, and the public and private expenditure on those services. Projections are made for England to 2041, but for the purposes of the study reported in this paper, the model has been adapted to make projections for Great Britain to 2022.[1]

The model is a cell-based or macrosimulation model that takes the form of a spreadsheet. It estimates: first, the numbers of older people with different levels of disability by age group, gender, household type and housing tenure[2]; second, the levels of long-term care services required; and third, total health and social services

[1] The PSSRU model makes projections for the age range 65 years and over. It is recognised that in using this model, we are implicitly accepting the chronological model of ageing as the basis of our projections. We are constrained in this choice by the availability of data.

[2] These factors have all been found to be associated with need for long-term care (Wittenberg *et al* 1998). Age, gender and disability are of-themselves drivers of need; household type is closely related to informal care and is combined with household composition in a eight-point classification; housing tenure can be regarded as a proxy for socio-economic group and is of relevance in determining funding source for residential care.

expenditure. In the fourth part of the model, total expenditure is allocated to various funding sources.

Before looking in more detail at the model, it should be stressed that ***the PSSRU model does not make forecasts about the future***. It makes projections on the basis of specific assumptions about future trends. The approach involves simulating the impact on demand of specified changes in demand drivers, such as demographic pressures, or specified changes in policy, such as an increase in support for informal carers. It does not involve forecasting future policies or future patterns of care.

Disability

Disability is a crucial driver of demand for long-term care. The section on disability in the projections model has recently been updated and expanded, using data from the 2001/2 General Household Survey (GHS). It now includes six categories of disability, ranging from no disability to inability to perform two or more activities of daily living (ADL) without help (see Box 1).

Box 1: Disability groups used in the PSSRU model

The six disability groups used in the model are as follows:

1. People able to perform ADL (personal care) tasks and IADL (domestic care) tasks without difficulty or need for help.
2. People who have difficulty performing IADL but not ADL tasks.
3. People who have difficulty bathing.
4. People with difficulty with other ADL tasks.
5. People who cannot perform at least one ADL task without help.
6. People who live in the community and cannot perform two or more ADL tasks without help, and people who are in institutional care (hospital, nursing home or residential care home).

The model estimates that there are currently nearly 2.7 million disabled older people in GB. Of these, approximately two and a quarter million live in their own homes and around 400,000 in residential care homes, nursing homes or long-stay hospitals. Just over 650,000 of those in their own homes are unable to perform at least one ADL without help. 18% of men and 21% of women aged 85 and over in their own homes fall into this category.

Sources of informal care

Receipt of informal care is an important factor affecting need for long-term care services by older people (Pickard *et al* 2000). It is important to distinguish between informal care by spouses and by children: whereas care by spouses is likely to increase in future years, care by children may decrease. A reduction in the supply of care by children may arise from such factors as the continuing expansion of women's employment, decline in co-residence of older people with their children and (beyond

2025) rising numbers of childless older people. Current research is examining the supply of informal care by children.

The model estimates that in GB there are currently nearly 2 million older people receiving informal care. Of these people receiving informal care, for about 45% care is provided by children and for about 43% it is provided by the spouse.

3. Key projections

The model makes projections based upon a number of assumptions about future trends in key factors that affect long-term care and in this section we report on the base case projections.

The base case projections are used as a point of comparison or reference case against which the effect of changes in assumptions can be investigated when they are subsequently varied in alternative scenarios. These projections take account of expected changes in factors exogenous to long-term care policy, such as demographic trends and trends in housing tenure. They hold constant factors endogenous to long-term care policy, such as patterns of care and the funding system. The key assumptions that have been used in the base case are outlined in Box 2.

BOX 2: Key assumptions used by the PSSRU model

The key assumptions of the base case of the model are:

- The number of older people by age, gender and marital status is assumed to change in line with the latest Government Actuary's Department (GAD) 2003-based central projections (GAD 2005).
- Age/gender specific disability rates, as reported in the 2001 General Household Survey (GHS), are assumed to remain unchanged over time.
- Unit costs of care are assumed to rise by 2 per cent per year in real terms (but 2% real inflation is not applied to non-staff revenue costs).
- Housing tenure changes in line with projections carried out by Hancock (2005).
- The proportions of older people receiving informal care, formal community care services, residential care services and disability benefits[3] remain constant for each sub-group by age, disability and other needs-related characteristics.
- The supply of formal care will adjust to match demand, and demand will be no more constrained by supply in the future than in 2002, the base year.
- The economy will grow in line with the latest HM Treasury projections.

The results of the base case projections are shown in Table 1. The projected changes in long-term expenditure will occur within the context of projected demographic changes. The model projects that the number of disabled older people is likely to

[3] An exception is that the rate of receipt of disability living allowance (DLA) among the oldest group is assumed to rise: the DLA scheme is not mature as the oldest group have not been eligible to receive this benefit.

increase by nearly 40% between 2002 and 2022, if age-specific disability rates remain constant. This is on the basis of the latest official population projections. Care by spouses is likely to increase significantly in future years, in view of the official marital status projections. Over the next twenty years, the model projects that spouse care is likely to become a more important source of informal care for disabled older people than care by their children.

Demand for long-term care services is projected to increase markedly, even if informal care rises in line with demand. The model projects that, to keep pace with demographic pressures over the next twenty years, residential and nursing home places would need to expand by about 40% and home care hours by nearly 40%. Resulting from the same pressures, the numbers of recipients of disability benefits (attendance allowance (AA) and the care component only of disability living allowance (DLA)) are projected to increase by just under 40%.

The model also projects that long-term care expenditure[4] will need to rise by around 110% in real terms over the next twenty years to meet demographic pressures and to allow for likely real rises in care costs. This projection is highly sensitive, as discussed below, to the projected growth in the numbers of older people, future disability rates and future real rises in care costs. Although expenditure is projected to increase, the economy is also forecast to expand. Assuming that the economy grows in line with HM Treasury projections, long-term expenditure would increase from about 1.5% of GDP in 2002 to just under 1.9% in 2022.

[4] Expenditure projections are all expressed in constant 2002/3 prices, that is, expected real but not nominal changes in care costs and benefits are incorporated. Projected expenditure on long-term care is then expressed as a percentage of expected GDP. Public expenditure does not include expenditure on disability benefits. Private (and total) expenditure implicitly covers part of disability benefit expenditure, since it includes private purchase of care and user charges funded from disability benefits.

Table 1: Projected numbers of disabled older people, service recipients and expenditure (£ billion) under base case assumptions, 2002 to 2022, Great Britain.

	2002	2012	2022	% growth 2002 to 2022
Numbers of disabled older people	2,690,000	3,080,000	3,765,000	40%
Number of recipients of informal care	1,970,000	2,260,000	2,760,000	40%
Numbers of users of local authority home help services	425,000	475,000	575,000	35%
Numbers of users of private domestic help	750,000	1,080,000	1,320,000	75%
Numbers of recipients of community nursing services	490,000	560,000	695,000	43%
Number of recipients of day care services	140,000	155,000	185,000	34%
Numbers of people in residential care homes	240,000	275,000	335,000	38%
Numbers of people in nursing homes	145,000	165,000	205,000	40%
Numbers of people in institutional care	400,000	450,000	550,000	39%
Number of recipients of disability benefits[5]	1,800,000	2,100,000	2,500,000	39%
Public long-term care expenditure (£ billion)	9.5	12.9	18.8	98%
Private[6] **long-term care expenditure (£ billion)**	5.4	8.5	12.5	133%
Total long-term care expenditure (£ billion)	14.9	21.4	31.4	110%
Total long-term care expenditure as a % of GDP	1.5%	1.6%	1.9%	

Source: PSSRU model estimates

These trends outlined here are projected to continue into the years beyond 2022. Growth of the disabled population of older people is a key driver of demand for services. The number of disabled older people is projected to continue to grow such that by 2051 there will be around 5.5m disabled older people. This is an increase of about 110% in the size of the older disabled population between 2002 and 2051. In order to meet demand, services will need to continue to expand and, even taking into account the expected expansion of the economy, expenditure for long-term care will also need to continue to rise relative to GDP beyond 2022.

4. What happens if the key assumptions change?

This section examines the model's sensitivity to changes in some of the key assumptions outlined in Box 2. The study examined the effects of changes in assumptions on two different sets of factors exogenous to long-term care policy (disability and unit costs of care) and one factor endogenous to care policy (patterns of care). All results are summarised in Appendix 1 and are presented here in terms of their effect on public and private expenditure and, where relevant, their effects on

[5] Includes attendance allowance and the care component only of disability living allowance.

[6] Includes user fees for local authority services as well as private purchase of services.

demand for informal care and formal care services and numbers of disabled older people.

Disability scenarios

A key variable in determining the future demand for and cost of long-term care services is the health of older people. The base case of the model assumes that age-specific disability rates will remain constant to 2022. There is, however, a continuing debate as to whether "future generations will live longer but more disabled lives or increasingly healthy lives", as Wiener *et al* (1994) succinctly put it (Bone *et al* 1995; Dunnell 1995). A pessimistic view is that there will be an expansion of morbidity and that the projected continued increase in life expectancy will be associated with an increase in the average number of years with disability. An optimistic view is that there will be a compression of morbidity and that the expansion of life expectancy will be associated with no increase, or even a contraction, in the average number of years with disability.

Recent evidence from the United States, where there is longitudinal data on disability, seems to indicate that there is a developing trend showing a compression of morbidity (Crimmins 2004). Bebbington and Darton (1996) found evidence that, in England and Wales, the expectation of life without severe disability (measured in terms of activities of daily living) had increased in line with life expectancy. However, the available evidence for other developed countries presents a complex pattern of recent trends in disability rates (Robine *et al* 2003)[7].

In the absence of consensus about future trends in age-specific disability rates, when making projections, it is useful to base assumptions on an approach that links future trends in disability rates with the expected rise in life expectancy. An approach on these lines was initially developed by Wiener *et al* (1994) at the Brookings Institution and was further explored in Wittenberg *et al* (2001) and Rothgang *et al* (2003). Two scenarios based on this approach have been investigated here: they are referred to as the 'Brookings' and the 'half-Brookings' scenarios.

The 'Brookings' scenario effectively assumes that, as life expectancy rises, age-specific disability rates are shifted to higher age groups, so that an increase of one year in life expectancy would result in a shift in age-specific disability of one year. The 2003-based GAD principal population projections (GAD 2005) assume that between 2002 and 2022 life expectancy at age 65 will grow by 2.9 years for men and by 2.8 years for women. In order to match this increase in life expectancy of nearly 3 years, disability rates by age are assumed under this scenario to decline to match, by 2022 those currently experienced by people 3 years younger. For example, a person aged 70 in 2022 is assumed to have roughly the same probability of being disabled of a person aged 67 years in 2002. The 'half-Brookings' scenario is a slightly less

[7] Given the available evidence about trends in disability rates for the UK and in the US, our base case scenario is undoubtedly a pessimistic scenario. There has been much discussion surrounding this point. However, in the absence of any conclusive evidence to mount a case for a trend towards compression of morbidity in the UK or in OECD nations, for the time being we have decided to retain the unchanged age-specific disability rates as the base case scenario.

optimistic scenario and assumes that as life expectancy increases by 3 years, age specific disability rates will decline to reach in 2022 those currently experienced by people 1.5 years younger.

The scenarios are summarised in Box 3 in order of increasing optimism.

Box 3: Disability scenarios

Base case	Age-specific disability rates remain unchanged (base case)
Scenario one	'Half-Brookings' scenario
Scenario two	'Brookings' scenario

Under the most optimistic scenario considered here, in which age-specific disability rates fall in line with increases in life expectancy, the numbers of disabled people are projected to increase by 23% by 2022, compared with 40% under the base case. Under the less optimistic, 'half-Brookings' scenario, in which disability rates fall at half the rate by which life expectancy increases per year, the numbers of disabled people are projected to rise by 32% by 2022. It is especially the numbers of severely disabled older people which rise more slowly under the two Brookings scenarios than under the base case.

As would be expected, both scenarios have a significant effect on projections of demand for informal care, formal care services and disability benefits. Between 2002 and 2022, demand for informal care is projected to increase by 33% under the 'half-Brookings' scenario and 25% under the 'Brookings' scenario. This compares to an increase of 40% under the base case. Residential care will have to expand by 12% by 2022 under the 'half-Brookings' scenario and by 25% under the 'Brookings' scenario to keep pace with rises in the number of disabled older people. This compares with the 38% projected increase under the base case. A similar pattern is seen for disability benefits. Under the 'Brookings' scenario, the number of recipients is projected to rise by around15%, and under the 'half-Brookings' scenario by 28%, from 2002 to 2022, in comparison with 39% under the base case.

Under the 'Brookings' scenario, long-term care public expenditure is projected to increase from £9.5 billion in 2002 to £16.4 billion in 2022 and private expenditure is projected to increase from £5.4 billion to £10.7 billion. The 'half-Brookings' scenario projects that public expenditure will increase to £17.6 billion in 2022 and private expenditure will increase to £11.6 billion in 2022. Taking into account the projected expansion of the economy, under the most optimistic scenario considered here, total expenditure, as a proportion of GDP, would rise gradually to reach 1.6% of GDP in 2022 (table 2). This is compared to the increase required under the 'half-Brookings' scenario of 1.7% of GDP in 2022 and under the base case of 1.9% of GDP by 2022. These results confirm the findings of other studies that projections of long-term care are highly sensitive to assumptions about future rates of disability among older people (Wiener *et al* 1994, Wittenberg *et al* 2001).

Table 2. Projected long-term care expenditure for older people (£ billion) under alternative assumptions about disability rates, 2002 to 2022, Great Britain.

Base case: Age specific disability rates remain unchanged				
	2002	2012	2022	Change
Public expenditure	9.5	12.9	18.8	98%
Private expenditure	5.4	8.5	12.5	133%
Total expenditure as a percentage of GDP	1.5%	1.6%	1.9%	
Scenario one: 'Half-Brookings'				
Public expenditure	9.5	12.5	17.6	85%
Private expenditure	5.4	8.1	11.6	115%
Total expenditure as a percentage of GDP	1.5%	1.6%	1.7%	
Scenario two: 'Brookings'				
Public expenditure	9.0	12.1	16.4	72.5%
Private expenditure	5.4	7.8	10.7	97.4%
Total expenditure as a percentage of GDP	1.5%	1.5%	1.6%	

Source: PSSRU model estimates

Unit costs of health and social care scenarios

Over an extended period, projections of long-term care expenditure are inevitably sensitive to assumptions about real rises in the unit costs of care, such as the cost of an hour's home care or a community nurse visit. Yet, there is inevitable uncertainty about future rises in the unit costs of care. A key driver of rises in the unit costs of care is future rises in the real wages of care staff, as long-term care services are labour-intensive. Home care and day care are clearly highly labour-intensive. Residential care is also labour intensive, with staff costs accounting for the majority of overall costs. This suggests that it would be plausible to assume that the real unit costs of care will rise broadly in line with average earnings of care staff, or perhaps by somewhat less allowing for non-staff costs (Wittenberg and Comas-Herrera 2003).

The base case of the model assumes that health care costs rise by 2% per year and that social care costs rise by 2% per year[8] in real terms. This is based on the assumption that future unit costs will rise in line with projected rises in earnings, which in turn can be expected to rise in line with the HM Treasury's long-term projection for productivity growth. Two additional scenarios are examined here. The first is a more pessimistic scenario and assumes that there will be a 0.5% greater increase in unit costs than is modelled in the base case. The second assumes that unit costs will rise by 1.5% per year in real terms, 0.5% less than the base case and is a more optimistic scenario. Modelling moderate increases and decreases in unit costs around the base case demonstrates the sensitivity of the model to changes in this variable over time.

[8] The 2% real inflation is not applied to non-staff revenue costs. These are assumed to remain constant in real terms.

The scenarios, including the base case, are set out in Box 4 below in order of increasing optimism.

Box 4: Unit costs of health and social care scenarios

Scenario one	Health and social care costs rise by 2.5% per year in real terms
Base case	Health and social care costs rise by 2% per year (base case)
Scenario two	Health and social care costs rise by 1.5% per year in real terms

Table 3 shows the results of the PSSRU model under different scenarios concerning rises in real unit costs of health and social care. In order to meet the pressures of rising unit costs, the model projects that under the most optimistic scenario public expenditure on long-term care would increase by 80% from 2002 to 2022 and private expenditure by 112%. This increase is about 20% less for both private and public expenditure than that projected under the base case. The model projects that under the most pessimistic scenario public expenditure will increase by 117% between 2002 and 2022 and private expenditure by 155%. In all scenarios, the projected rise in expenditure is accompanied by an increase in expenditure as a percentage of GDP, under current assumptions about the predicted growth of the economy.

Table 3. Projected long-term care expenditure for older people (£ billion) under alternative assumptions about rises in real unit costs, 2002 to 2022, Great Britain.

Scenario one: 2.5% rise projections				
	2002	2012	2022	Change
Public expenditure	9.5	13.6	20.7	117%
Private expenditure	5.4	8.8	13.7	155%
Total expenditure as a percentage of GDP	1.5%	1.7%	2.0%	
Base case: 2% rise projections				
Public expenditure	9.5	12.9	18.8	98%
Private expenditure	5.4	8.5	12.5	133%
Total expenditure as a percentage of GDP	1.5%	1.6%	1.9%	
Scenario two: 1.5% rise projections				
Public expenditure	9.5	12.4	17.1	80%
Private expenditure	5.4	8.1	11.5	112%
Total expenditure as a percentage of GDP	1.5%	1.5%	1.7%	

Source: PSSRU model estimates

Changes in patterns of formal care scenarios

The two scenarios reported in this section involve changes to the patterns of formal care. The first concentrates on home-based services and models the effects of increasing support to disabled older people with informal carers. The second substantially alters the pattern of formal care and models the resultant effect of shifting the balance of formal care from residential care settings to the community by introducing a ceiling to the number of care home placements beyond 2002.

Increasing support for carers scenario

As has been reported elsewhere (see Pickard *et al* 2000), the results of the PSSRU model suggest that there is likely to be an increase in spouse carers of disabled older people in the future. Such carers are themselves elderly, possibly in poor health and, as carers, many are themselves in need of support from formal services. Any increase in spouse carers, therefore, raises issues about the need for support for carers. It is current policy to increase the amount of service support received by carers (Department of Health 1999). The PSSRU has therefore developed a 'carer-blind' scenario, which looks at the implications of increasing support for carers.

The exact workings of the scenario are explained in more detail elsewhere (see for example Wittenberg *et al* 2002) and are summarised here. The scenario focuses on increasing domiciliary services to older people with substantial needs resulting from their disability (those with two or more ADL problems) who share a household with others. It gives this group the same level of services as those living alone. The change to this situation is modeled to 2022, so that the increased probability of receipt of non-residential services by people who currently receive informal care is assumed to occur gradually.

It is projected that, under this scenario, the numbers of older recipients of home care services will rise by around 55% between 2002 and 2022, compared to around 35% under the base case of the model. The projected increase in home care hours per week nearly doubles under the 'carer-blind' scenario as compared to the base case, changing from a rise of 37% between 2000 and 2022 under the base case to a rise of about 70% under the 'carer-blind' scenario. Expenditure on home care rises by over 150% between 2000 and 2022 under the 'carer-blind' scenario, compared to about 105% under the base case. Demand for day care and community meals services also rises more under the 'carer-blind' scenario than under the base case. For example, demand for day care rises by 37% between 2000 and 2022 under the 'carer-blind' scenario, compared to 34% under the base case.

Public expenditure on long-term care is projected to rise by 108% between 2000 and 2022 under the 'carer-blind' scenario, which is just over 10% more than under the base case. Private expenditure on long-term care, however, is projected to rise by 135% between 2000 and 2022 under this scenario, compared to 133% under the base case. Overall expenditure on long-term care would represent just over 1.9% of GDP in 2022 under the 'carer-blind' scenario, compared with just under 1.9% under the base case (Table 4).

Table 4. Projected long-term care expenditure for older people (£ billion), Carer-blind scenario, 2002 to 2022, Great Britain.

Scenario one: Carer-blind scenario				
	2002	2012	2022	Change
Public expenditure	9.5	13.3	19.8	108%
Private expenditure	5.4	8.5	12.7	135%
Total expenditure as a percentage of GDP	1.5%	1.7%	1.9%	
Base case: Patterns for receipt of formal care remain the same				
Public expenditure	9.5	12.9	18.8	98%
Private expenditure	5.4	8.5	12.5	133%
Total expenditure as a percentage of GDP	1.5%	1.6%	1.9%	

Source: PSSRU model estimates

Shift in the balance of care from residential care to community care scenario

Successive governments have emphasized as a policy goal the need to care for older people in the community rather than in residential settings (Secretaries of State 1989; Department of Health 1998). The NHS Plan, for example, has a policy of enabling 50,000 more older people to live independently at home through additional home care and other support (Secretary of State for Health 2000). The following scenario models such a shift from care in residential settings to care in the community by assuming that resources would effectively be channeled away from nursing home and residential care services and into community nursing and home care services.

The approach adopted here is to assume that, in order to meet the policy objective of building up home-based care, there will no increase in supply of residential or nursing home places, such that the number of care home residents cannot increase beyond the level reached in 2002. Those people who are 'diverted' from residential settings are assumed instead to require home care services and if they are 'diverted' from a nursing home also community nursing[9]. The impact on expenditure is not considered since it would depend on the intensity of home care and community nursing services provided. If the packages of home-based care have similar costs to residential care, there would be little difference in expenditure between this scenario and the base case scenario.

The number of people 'diverted' from residential and nursing care is projected to reach about 150,000 by 2022, under this scenario. The consequent rise in demand for home care and community nursing services means that under this scenario, home care services would need to increase by about 70% by 2022 to meet demand and community nursing services by about 55% by 2022. This should be compared to projected growth of 35% and 40% respectively under the base case scenario.

[9] No assumptions are made about increases in demand for community services other than community nursing and home care.

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Appendix 1: Summary of the projections

This table summarises the projections obtained by varying in turn the key base case assumptions as specified in the main report. The figures relate to the projected numbers of disabled older people and service recipients and to projected expenditure (in billions of pounds and % of GDP) in 2022, except where stated. The figures in brackets are the projected percentage increase between 2002 and 2022. Cells are left empty where the projections are unaffected by the scenario and are the same as the base case.

	Projected numbers with disability	**Projected numbers of recipients of informal care**	**Projected number of recipients of home care**	**Projected numbers of people in institutional care**	**Projected numbers of recipients of disability benefits**	**Projected total care expenditure (£billion)**	**Projected total care expenditure (% of GDP)**
2002 estimates	2,695,000	1,970,000	425,000	400,000	1,800,000	14.9	1.5
Base case projection for 2022	3,765,000 (40%)	2,760,000 (40%)	575,000 (35%)	550,000 (39%)	2,100,000 (39%)	31.4 (110%)	1.9
Disability scenarios							
Half-Brookings	3,540,000 (32%)	2,610,000 (33%)	550,000 (30%)	500,000 (26%)	2,3040,000 (28%)	29.2 (96%)	1.7
Brookings	3,315,000 (23%)	2,460,000 (25%)	525,000 (24%)	450,000 (13%)	2,100,000 (16%)	27.1 (82%)	1.6
Patterns of care scenarios							
Carer-blind			660,000 (55%)			32.5 (118%)	1.9
Shift from residential to community settings			725,000 (71%)	400,000 (0%)	n.a.	n.a.	n.a.
Unit costs scenarios							
1.5% rise in unit costs						28.6 (92%)	1.7
2.5% rise in unit costs						34.4 (131%)	2.0