

## Modelling the Cost of Care

**Work is still progressing, which could result in changes in the modelled fees at the margins.**

Included are a series of working papers showing:

*Appendix A* – the elderly residential fee calculated using the Derby Model (April 2004)

*Appendix B* – summary of the key details in the Derby Model

*Appendix C* – the financial implications of the Derby Model from April 2004

*Appendix D* – the elderly residential fee calculated using the Derby Model (October 2004)

*Appendix E* – the financial implications of the Derby Model from October 2004

### Issues

If the department sets its fees as calculated using the Derby Model, the financial implications are £466k with effect from 1 April 2004.

There are issues related to capital values and annual rate of return:

- There are elements of judgement in the assumptions used.
- We are progressing certain areas for better information.
- The non-staffing costs in the Derby Model currently include departmental and central overheads.

The modelled rates will change in October 2004 to reflect the planned national minimum wage increase from £4.50 to £4.85.

## Care Home Fee Levels – Calculation of Fair Fee for Elderly Residential Homes

### Derby Model - April 2004

#### Modelled Fee

Staffing Costs	153.80
Non-Staffing Costs	73.95
Capital	43.61
<b>Residential Care Home Fee at 1 April 2004</b>	<b>271.35</b>

The bases of the costs used to calculate the above fee are detailed below.

#### Staffing Costs

<i><b>Residential</b></i>	<i><b>Residential National Minimum Wage / L &amp; B / Care Standards</b></i>			
<i>Post Title</i>	<i>Hours</i>	<i>Rate</i>	<i>Oncosts</i>	<i>Cost</i>
Manager	1.00	12.96	30.00%	16.85
Administration	1.00	5.20	23.52%	6.42
Care assistant	16.00	4.98	23.52%	98.39
Catering, Domestic, Laundry	4.60	5.66	23.52%	32.13
				<b>153.80</b>

#### *Hours (per resident per week)*

From Laing & Buisson/Joseph Rowntree report and reflect the national care standards staffing levels.

#### *Rate*

From the Laing & Buisson/Joseph Rowntree report. Updated to reflect the national minimum wage increase in October 2003.

#### *Oncosts*

From the Laing & Buisson/Joseph Rowntree report. Updated to reflect the increase in employers NI in April 2003.

**Non-Staffing Costs**

Premises	10.84
Transport	1.71
Supplies and Services	39.52
	<u>52.07</u>
Central Maintenance	15.77
	<u>67.84</u>
Dept & Central OH - 9%	6.11
	<u><b>73.95</b></u>

Using 2002/03 out-turn uplifted by RPI; 3.19% in 2003/04 and 2.10% in 2004/05.

**Cost of Capital***Asset Value*

Using Derby City Council Homes for Older People as a base. The average home size is 38 beds. We have assumed 90% occupancy, which is in line with the Laing and Buisson model.

We have used the market valuation for the Department's own homes, as at 1 April 1998, and inflated these by RPI (Housing) to an April 2004 price base. We have also included capital expenditure that has been incurred on the homes, also inflated by RPI (Housing). We have excluded Arthur Neal from our calculations, having had no capital expenditure input since LGR.

Using the adjusted asset value with a 90% occupancy level we have calculated an average asset value/capital cost per bed. As at 1 April 2004 this value is £23,443.

*Cost of Capital*

We have calculated a blended cost of capital, using a debt:equity ratio of 60:40. This ratio is in line with the Laing & Buisson model.

We have assumed the debt rate of interest to be 7%, which is in line with the money market rate plus 2% and is also consistent with the Laing & Buisson model.

We have calculated the equity rate of return using financial market information and have based it on a risk-free rate plus an equity risk premium. The current best risk-free rate (National Savings fixed rate savings bonds) is 4.75% per year on a five-year investment and it is this that we have used. Traditionally an equity risk premium of 8% - 9% has been used. We have assumed 9%. When added together, the risk-free rate (4.75%) and the equity premium (9%), give an equity return of 13.75%.

We have then applied the debt:equity ratio of 60:40 to the debt rate of 7% and the equity rate of 13.75%. This gives a blended rate of 9.7% ( $60\% \times 7\% + 40\% \times 13.75\%$ ).

The asset value of £23,443 multiplied by the blended rate of return of 9.7% (and divided by 52 weeks) gives a cost of capital of £43.61 per resident/bed per week.

**Summary of the key details in the Derby Model**

Number of beds	38
Assumed occupancy	90%
Capital cost per bed	£23,443
Blended rate of return	9.7%
Debt rate of interest	7%
Equity return	13.75%
Cost of capital per resident week	£43.61
Non-staffing costs per resident week	£73.95
Staffing costs per resident week	£153.80

**Financial implications of the Derby Model – April 2004 Modelled Fee****Elderly Residential**

Proposed fee for 1 April 2004	£260
Modelled fee for 1 April 2004	£271
Percentage change	4.2%
FYE of financial implications (Apr '04 change)	£128,000
PYE of financial implications (Oct '04 change)	£64,000

**Very Dependent Elderly**

Proposed fee for 1 April 2004	£302
Modelled fee for 1 April 2004	£306
Percentage change	1.3%
FYE of financial implications (Apr '04 change)	£46,000
PYE of financial implications (Oct '04 change)	£23,000

**Elderly Nursing**

Proposed fee for 1 April 2004	£387
Modelled fee for 1 April 2004	£404
Percentage change	4.4%
FYE of financial implications (Apr '04 change)	£291,000
PYE of financial implications (Oct '04 change)	£146,000

## Care Home Fee Levels – Calculation of Fair Fee for Elderly Residential Homes

### Derby Model - Inclusive of the October 2004 National Minimum Wage Increase

#### Modelled Fee

Staffing Costs	159.11
Non-Staffing Costs	73.95
Capital	43.61
<b>Residential Care Home Fee at 1 April 2004</b>	<b>276.67</b>

### Financial implications of the Derby Model – Inclusive of the October 2004 National Minimum Wage Increase

#### Elderly Residential

Proposed fee for 1 October 2004	£260
Modelled fee for 1 October 2004	£277
Percentage change	6.5%
PYE of financial implications (Oct '04 change)	£98,000

#### Very Dependent Elderly

Proposed fee for 1 October 2004	£302
Modelled fee for 1 October 2004	£313
Percentage change	3.6%
PYE of financial implications (Oct '04 change)	£64,000

#### Elderly Nursing

Proposed fee for 1 October 2004	£387
Modelled fee for 1 October 2004	£410
Percentage change	5.9%
PYE of financial implications (Oct '04 change)	£197,000

