# I. SERVICES

# 1. Services for older people

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## 1.1 Private sector nursing homes for older people

Using PSS EX1 2009/10<sup>1</sup> returns uprated by the PSS Pay & Prices inflator, the median cost per person for supporting older people in a nursing care home was £524 per week and the mean cost was £523 per week. Twenty-five per cent of local authorities had average gross costs of £454 or less, and for 25 per cent costs were £588 or more. The standard NHS nursing care contribution is £108.70.<sup>2</sup> When we add this to PSS expenditure, the total expected mean cost is £632 and the median cost is £633.

Costs and unit estimation	2010/2011 value	Notes
A. Fees	£719 per week	The direct unit cost of private sector nursing homes is assumed to be the fee. Where a market is fairly competitive, such as that for private sector nursing homes, it is reasonable to assume that the fee will approximate the societal cost of the service. <sup>3</sup> A weighted average fee for England reflecting the distribution of single and shared rooms was taken from the Laing & Buisson market survey. <sup>4</sup>
External services B. Community nursing C. GP services D. Other external services		No current studies indicate how external services are used by nursing home residents. See previous editions of this volume for sources of information.
E. Personal living expenses	£22.30 per week	The Department for Work and Pensions (DWP) personal allowance for people in residential care or a nursing home is £22.30. <sup>5</sup> This has been used as a proxy for personal consumption.
Short-term care		No current information is available on whether residents in short-term care are less costly than those who live full-time in a nursing home. See previous editions of this volume for sources of information.
Dependency		No current information is available on the relationship of dependency with cost. See previous editions of this volume for sources of information.
London multiplier	1.12 x A	Fees in London nursing homes were 12 per cent higher than the national average. <sup>4</sup>
Unit costs available 201	10/2011	

£719 establishment cost per permanent resident week (A); £741.30 establishment cost plus personal living expenses per permanent resident week

<sup>&</sup>lt;sup>1</sup> The Information Centre (2011) PSS EX1 2009/10, The Information Centre, Leeds.

<sup>&</sup>lt;sup>2</sup> Department of Health (2010) Advice Note on Nursing Care Bands, Department of Health, London.

<sup>&</sup>lt;sup>3</sup> Kavanagh, S., Schneider, J., Knapp, M., Beecham, J. & Netten, A. (1992) Elderly people with cognitive impairment: costing possible changes in the balance of care, PSSRU Discussion Paper 817/2, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>&</sup>lt;sup>4</sup> Laing & Buisson (2010) Care of Elderly People: UK Market Report 2010, Laing & Buisson, London.

<sup>&</sup>lt;sup>5</sup> Disability Alliance (2011) *Disability Rights Handbook, 35th Edition, April 2010-April 2011. A Guide to Benefits and Services for all Disabled People, Their Families, Carers and Advisers,* Disability Alliance, London.

## 1.2 Private sector residential care for older people

Using PSS EX1 2009/10<sup>1</sup> returns uprated by the PSS Pay & Prices inflator, the median cost per person for supporting older people in a residential care home provided by other organisations was £466 per week and the mean cost was £474 per week. The median cost for older people in own provision residential care was £939 per week and the mean cost was £844 per week. Using the Adult Social Services Expenditure Survey 2009/10,<sup>2</sup> the mean cost for the provision of private sector residential care was estimated to be £458. This has been uprated using the PSS Pay and Prices inflator.

Costs and unit estimation	2010/2011 value	Notes
A. Fees	£497 per week	The direct unit cost of private care homes is assumed to be the fee. Where a market is fairly competitive, such as that for private sector residential homes, it is reasonable to assume that the fee will approximate the societal cost of the service. A weighted average fee for England reflecting the distribution of single and shared rooms was taken from the Laing & Buisson market survey.
External service B. Community nursing C. GP services D. Other external services		No current studies indicate how external services are used by residential care home residents. See previous editions of this volume for sources of information.
E. Personal living expenses	£22.30 per week	The Department for Work and Pensions (DWP) personal allowance for people in residential care or a nursing home is £22.30.5 This has been used as a proxy for personal consumption.
Short-term care		No current information is available on whether residents in short-term care are less costly than those who live full-time in a residential care home. See previous editions of this volume for sources of information.
Dependency		No current information is available on the relationship of dependency with cost. See previous editions of this volume for sources of information.
London multiplier	1.19 x A	Fees in London residential homes were 19 per cent higher than the national average. <sup>4</sup>
Unit costs available 2	010/2011	

£497 establishment cost per permanent resident week (A); £519.30 establishment cost plus personal living expenses per permanent resident week (A and E).

<sup>2</sup> Local Government Association/Association of Directors of Adult Social Services (2010) *Report on Adults' Social Services Expenditure 2009-2010*, York Consulting, Leeds.

<sup>&</sup>lt;sup>1</sup> The Information Centre (2011) PSS EX1 2009/10, The Information Centre, Leeds.

<sup>&</sup>lt;sup>3</sup> Kavanagh, S., Schneider, J., Knapp, M., Beecham, J. & Netten, A. (1992) *Elderly people with cognitive impairment: costing possible changes in the balance of care*, PSSRU Discussion Paper 817/2, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>&</sup>lt;sup>4</sup> Laing & Buisson (2010) Care of Elderly People: UK Market Report 2010, Laing & Buisson, London.

<sup>&</sup>lt;sup>5</sup> Disability Alliance (2011) *Disability Rights Handbook, 35th Edition, April 2010-April 2011. A Guide to Benefits and Services for all Disabled People, Their Families, Carers and Advisers*, Disability Alliance, London.

## 1.3 Local authority residential care for older people

This table uses the Personal Social Services Expenditure return (PSS EX1) <sup>1</sup> for revenue costs, which have been uprated using the PSS Pay & Prices inflator.

Costs and unit	2010/2011	Notes
estimation	value	
Capital costs (A, B &		Based on the new-build and land requirements for local authority residential care
C)		establishments. These allow for 57.3 square metres per person. <sup>2</sup> Capital costs
A. Buildings and	£70 per week	have been annuitised over 60 years at a discount rate of 3.5 per cent.
oncosts		
B. Land	£11.50 per	Based on Department for Communities and Local Government statistics. <sup>3</sup> The
	week	cost of land has been annuitised at 3.5 per cent over 60 years.
C. Other capital costs.		Capital costs not relating to buildings and oncosts are included in the revenue
		costs so no additional cost has been added for items such as equipment and
		durables.
D. Revenue costs	£901 per	The median revenue cost estimate is taken from PSS EX1 2009/10 uprated using
	week	the PSS Pay & Prices Index <sup>1</sup> Capital charges relating to buildings and oncosts have
		been deducted. Twenty-five per cent of local authorities had average gross costs
		of £646 or less and 25 per cent of £1,073 or more. The mean cost was £825 per
		week.
E. Agency overheads		Social Services Management and Support Services (SSMSS) costs are included in
		PSS EX1 revenue cost figures so no additional overheads have been added.
External services		
F. Community nursing		No current studies indicate how external services are used by residential care
G. GP services		home residents. See previous editions of this volume for sources of information.
H. Other external		
services		
I. Personal living	£22.30 per	The Department for Work and Pensions (DWP) personal allowance for people in
expenses	week	residential care or a nursing home is £22.30. <sup>4</sup> This has been used as a proxy for
		personal consumption.
Use of facility by	52.18 weeks	
client	p.a.	5
Occupancy	89%	Based on information reported by Laing & Buisson. <sup>5</sup>
Short-term care		No current information is available on whether residents in short-term care are
		less costly than those who live full-time in a residential care home. See previous
		editions of this volume for sources of information.
Dependency		No current information is available on the relationship of dependency with cost.
		See previous editions of this volume for sources of information.
London multiplier	1.035 x (D to E)	Based on PSS EX1 2009/10 data. <sup>1</sup>
Unit costs available 202	10/2011	

£982.50 establishment cost per permanent resident week (includes A to E); £1,005 care package costs per permanent resident week (includes A to E and I).

 $<sup>^{\</sup>mathrm{1}}$  The Information Centre (2010) PSS EX1 2009/10, The Information Centre, Leeds.

<sup>&</sup>lt;sup>2</sup> Building Cost Information Service (2011) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>3</sup> Personal communication with the Department for Communities and Local Government, 2011.

<sup>&</sup>lt;sup>4</sup> Disability Alliance (2011) *Disability Rights Handbook, 35th Edition, April 2010-April 2011. A Guide to Benefits and Services for all Disabled People, Their Families, Carers and Advisers, Disability Alliance, London.* 

<sup>&</sup>lt;sup>5</sup> Laing & Buisson (2010) Councils set to shunt social care costs to the NHS and service users as cuts take effect, Laing & Buisson, www.laingbuisson.co.uk/LinkClick.aspx?fileticket=7NqbssCOgKA%3D&tabid=558&mid=1888.

## 1.4 Local authority day care for older people

This table uses the Personal Social Services Expenditure return (PSS EX1)<sup>1</sup> for revenue costs, which have been uprated using the PSS Pay & Prices inflator. In order to provide a cost per day care session, this table assumes that clients attend day care, on average, for three sessions per week. Inevitably, some service users will attend more often and others less often depending on individual circumstances.

Costs and unit estimation	2010/2011 value	Notes
Capital costs (A, B & C) A. Buildings and oncosts	£4.80 per session	Based on the new-build and land requirements for local authority day care facilities (which do not distinguish client group). These allow for 33.4 square metres per person. <sup>2</sup> Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent.
B. Land	£0.80 per session	Based on Department for Communities and Local Government statistics. <sup>3</sup> The cost of land has been annuitised at 3.5 per cent over 60 years.
C. Other capital costs		Capital costs not relating to buildings and oncosts are included in the revenue costs so no additional cost has been added for items such as equipment and durables.
Revenue costs  D. Salary and other revenue costs  E. Capital charges	£30 per session	The median revenue cost estimate is taken from PSS EX1 2009/10 uprated using the PSS Pay & Prices index. The median and mean costs per client per week are £90 and £94 respectively. Capital charges relating to buildings have been deducted. Assuming older people attend 3 sessions per week, the median cost per day is £30 and the mean cost is £31.
F. Agency overheads		Social Services Management and Support Services (SSMSS) costs are included in PSS EX1 revenue cost figures so no additional overheads have been added.
Use of facility by client		Assumes clients attend 3 sessions of day care per week.
Occupancy		Based on a study carried out by PSSRU on day care services for older people with dementia, the occupancy rate was 87%. <sup>5</sup>
London multiplier	1.43 x A; 2.73 x B; 1.56 x (D)	Relative London costs are drawn from the same source as the base data for each cost element.
Unit costs available 2010/	2011	
£36 per session (includes A	A to D).	

<sup>&</sup>lt;sup>1</sup> The Information Centre (2010) PSS EX1 2009/10, The Information Centre, Leeds.

<sup>&</sup>lt;sup>2</sup> Building Cost Information Service (2011) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>3</sup> Personal communication with the Department for Communities and Local Government, 2011.

 $<sup>^{4}</sup>$  The Information Centre (2011) PSS EX1 2009/10, The Information Centre, Leeds.

<sup>&</sup>lt;sup>5</sup> Reilly, S., Venables, D., Challis, D., Hughes, J. & Abendstern, M. (2004) *Day Care Services for Older People with dementia in the North West of England*, Personal Social Services Research Unit, University of Kent, Canterbury. www.pssru.ac.uk/pdf/MCpdfs/Daycare1.pdf.

## 1.5 Extra care housing for older people

This is based on an evaluation of extra care housing which followed the development of 19 new-build extra care housing schemes located across England.<sup>1</sup>

Extra care housing is primarily for older people, and the accommodation is (almost always) self-contained. Care can be delivered flexibly, usually by a team of staff on the premises for 24 hours a day. Domestic care and communal facilities are available. For more information, see the Bäumker & Netten article on page 7.

All costs have been uprated from 2008 to current prices using the appropriate inflators. The mean cost of living in extra care housing was estimated at £420 per resident per week, with a standard deviation of £190 and a range of £180 to £1,399. The median cost was £380 per resident per week.

Costs and unit estimation	2010/2011 value	Notes
A. Capital costs		Based on detailed valuations for the buildings and the land provided
		by the housing associations operating the extra care schemes. For
Building and land costs	£93 per resident per	properties constructed before 2008, capital values were obtained
	week	from the BCIS, and downrated using the All-In Tender Price Index.
		Included is the cost of land, works including site development and
		landscaping, equipment and furniture, professional fees (architects,
		design and surveyors' fees). <sup>1</sup>
B. Housing management		Information taken from the annual income and expenditure accounts
and support costs		for each individual scheme after at least one full operational year.
Housing management	£ 55 per resident	Average running costs were calculated by dividing the adjusted total
	per week	running cost by the number of units in the scheme. The cost includes
		management staff costs (salary and on-costs including national
Support costs	£ 10.30 per resident	insurance and pension contributions, and office supplies), property
	per week	maintenance and repairs, grounds maintenance and landscaping,
		cleaning of communal areas, utilities, and appropriate central
		establishment costs (excluding capital financing ).
C. Personal living expenses	£ 86 per resident	As significant variability existed in the approaches to meal provision
	per week	in the schemes, items related to catering costs were removed from
		the financial accounts and the cost of food and other consumables
		was estimated using the Family Expenditure Survey (2010) and based
		on tables 27 and 32. <sup>2</sup>
D. Health and social service		Estimates of health and social service costs were made combining
costs		resource use information reported by 465 residents, six months after
		admission, with the appropriate unit costs taken from the respective
		local authorities or, where appropriate, from national sources. <sup>3</sup>
Health services	£67 per resident per	Health care estimates ranged from £0-£656.
	week	
Social services	£107 per resident	Social care estimates ranged from £0-£641.
	week.	
Use of facility by client	52.18 weeks per	
	annum	

## Unit costs available 2010/2011

£158.30 accommodation, housing management and support costs; £244.30 accommodation, housing management, support and living expenses; £418 total cost.

<sup>&</sup>lt;sup>1</sup> Darton, R., Bäumker, T., Callaghan, L. & Netten, A. (2011). *The PSSRU Evaluation of the extra care housing Initiative: Technical Report.* Personal Social Services Research Unit, University of Kent.

<sup>&</sup>lt;sup>2</sup> Office for National Statistics (2010) Family Spending 2010 edition, Office for National Statistics, London, available at www.ons.gov.uk/ons/rel/family-spending/2010-edition/index.html

<sup>&</sup>lt;sup>3</sup> Curtis, L. (2008) *Unit Costs of Health and Social Care 2008*, Personal Social Services Research Unit, University of Kent, Canterbury.

## 1.6 Community rehabilitation unit

This table is based on a joint project between Kent County Council, Ashford Borough Council, Age Concern and Ashford Primary Care Trust (Curtis, 2005). Home Bridge provides recuperative care in seven purpose-built self-contained units for older people who need a period of recuperation following an illness, fall or where people have had increasing problems managing daily living. It provides intensive therapy and support to rebuild mobility and confidence so they can return back home. Originally estimated in 2005, costs have been uprated using the appropriate inflators.

Costs and unit estimation	2010/2011 value	Notes
A. Wages/salary and	£78,516 per year	The team comprises a scheme manager (20 %), a part time care
oncosts		manager (80 %) and support workers.
		Employers' national insurance is included plus 18 per cent of salary for
		employers' contribution to superannuation.
B. Direct overheads	£25,133 per year	This includes maintenance, running costs, repair/renewal of
Administrative costs	£4,455 per year	fixtures/fittings. Building expenses and equipment costs. Includes
Management costs	£18,487 per year	Project Manager (0.05), CART coordinator, social services team leader
		(0.08 %) and Agency fees.
C. Indirect overheads	£12,040 per year	To cover the finance function.
D. Capital:		Based on actual cost of the 7 units, a lounge (shared by sheltered
- building costs	£23,610 per year	housing) and an office and uprated using the Tender Price Index for
- land costs	£11,938 per year	Public Sector Building (non-housing). Capital costs have been
		annuitised over 60 years at a discount rate of 3.5 per cent.
Occupancy	71%	On average, 5 (5 places) units of the 7 (7 places) are occupied at any
		one time.
Case load	32 per year	The annual case load for January 2004 to January 2005 was 32 clients.
Average length of stay	33 nights	
Hours and length of	7 days a week (to	The service is available 7 days a week with support workers working
service	include weekends	10.5 hours daily (3,832 per year). The scheme manager is available
	and bank holidays)	from Monday to Friday 7 am to 3 pm and in case of emergency there is
		cover during evenings, nights and weekends via the call centre.
Patient-related hours		All clients receive an initial assessment when referred to Home Bridge
		usually at hospital. They are assessed on arrival by a community care
		manager, who continues to monitor them throughout their stay and
Typical episode	10 hours per week	discharges them at the end of their stay. 50 per cent of clients stay on
Low cost episode	7 hours per week	average 29 nights and receive 41 hours of contact with a support
High cost episode	5 hours per week	worker per week. 25 per cent of clients stay 10 days and receive an
		additional 10 hours with a support worker each week. 25 per cent of
		clients stay on average 64 days and receive 137 hours with support
		workers.
Cost of hospital	£291	Between 3-5 hours of a hospital care manager's time who prepares the
assessment and admission		discharge from hospital and arranges the referral to Home Bridge. A
to Homebridge		further 3 hours is required by the social services duty desk to make the
		admission arrangements at Home Bridge. This is based on the salary of
		a social work assistant.
Cost of discharge from	£379	This is carried out by a community care manager and takes 8.5 hours. It
Homebridge		involves 7.5 hours face-to-face contact time for liaison with patient,
Cook of Hooking Cook	5535	professionals, families and services and also 1 hour administration.
Cost of Health Services	£636	On average, 7 hours of therapy or nursing care was provided by the
provided by the		CART team.
Community Assessment		
and Rehabilitation Team		
(CART)		

Full unit costs (all activities): Per person (actual occupancy) £34,836 per year, £670 weekly (includes A to E); Per person (full occupancy) £24,883 per year, £479 weekly. Cost per episode: £2,744 (typical episode), £2,084 (low-cost episode); £5,766 (high-cost episode).

<sup>&</sup>lt;sup>1</sup> Curtis, L. (2005) The costs of recuperative care housing, in L.Curtis (ed) *Unit Costs of Health and Social Care 2005*, Personal Social Services Research Unit, University of Kent, Canterbury.

## 1.7 Intermediate care based in residential homes

This information is based on PSSRU research carried out with the Social Work and Social Care Section at the Institute of Psychiatry. It provides the costs of comparative intermediate care schemes based in residential homes. The average weekly cost per client across the four schemes is £609, and the average annual cost per client is £3,478. All costs have been uprated to present values using the appropriate PSS inflators. The National Evaluation of the Costs and Outcomes of Intermediate Care for Older People $^2$  should also be downloaded for comparative costs.

		Social care only	Social and health care	
	Scheme A provides	Scheme B is	Scheme C is a short-	Scheme D is run by the local
	a therapeutic	provided by the	stay residential home	authority in conjunction with
	programme of	local authority for	for people having	the primary care trust and
	recuperative care	people with	difficulty managing at	provides 6 weeks of support
	with 16	dementia. A fee is	home, or who have	and rehabilitation to older
	recuperative beds.	paid by the local	been recently	people who have the
	Care staff includes	authority for care	discharged from	potential to return to their
	care workers, a	staff.	hospital or are	own home after a stay in
	senior night carer		considering entry to a	hospital. Staff includes a care
	and rehabilitation		residential care home.	manager, therapists, a visiting
	workers.		A fee is paid by the	medical officer and
			local authority for	promoting independence
			care staff.	assistants.
Wages/salary	£223,151	£153,018	£105,489	£165,190
Oncosts	£47,977	£32,899	£22,680	£35,516
Employers' national				
insurance plus 14				
per cent of salary				
for employers'				
contribution to				
superannuation				
Direct overheads	£253,269	£54,398	£50,002	£28,459
Includes salaries of				
supervisory staff,				
running costs and				
supplies				
Indirect overheads				
Management fees				
(incl. premises'				
costs)	£164,365	040 710		00.000
Capital/premises	£36,269	£43,518	6476 171	£9,390
Total costs <sup>3</sup>	£725,031	£283,833	£178,171	£238,555
Caseload	196	51	64	67
Average length of	34 days	54 days	45.5 days	32 days
stay	4.5	4.0		
No. of beds	16	10	8	8
Weekly costs per				
resident	£869	£544	£427	£571
Average annual cost				
per client	£3,699	£5,565	£2,784	£3,560
Cost of typical client		04.100	00	
episode	£4,221	£4,199	£2,776	£2,614

<sup>1</sup> Baumann, M., Evans, S., Perkins, M., Curtis, L., Netten, A., Fernandez, J.L. & Huxley., P. (2007) Organisation and features of hospital, intermediate care and social services in English sites with low rates of delayed discharge, *Health & Social Care in the community*, 2007 Jul;15(4): 295-305.

<sup>3</sup> Where the fee for providing the scheme was provided, 80 % was estimated by the service provider as the amount for care staff salaries. The remainder was allocated to overheads.

<sup>&</sup>lt;sup>2</sup> Barton, P., Bryan, S., Glasby, J., Hewitt, G., Jagger, C., Kaambwa, B., Martin, G., Nancarrow, S., Parker, H., Parker, S., Regen, E. & Wilson, A. (2006) *A National Evaluation of the Costs and Outcomes of Intermediate Care for Older People. Executive Summary*, Intermediate Care National Evaluation Team (ICNET), University of Birmingham and University of Leicester.

# 2. Services for people with mental health problems

- 2.1 NHS reference costs for mental health services
- 2.2 Local authority care homes for people with mental health problems
- 2.3 Private sector residential care homes for people with mental health problems
- 2.4 Local authority social services day care for people with mental health problems
- 2.5 Private organisations providing day care for people with mental health problems
- 2.6 Cognitive behaviour therapy (CBT)
- 2.7 Counselling services in primary medical care
- 2.8 Individual placement and support
- 2.9 Deprivation of liberty safeguards in England: implementation costs
- 2.10 Mindfulness based cognitive therapy group based intervention
- 2.11 Interventions for mental health promotion and mental illness prevention

## 2.1 NHS reference costs for mental health services

We have drawn on the *NHS Trust and Primary Care Trusts combined* to report from the NHS Reference Costs of selected mental health services. All costs have been uprated to 2010/11 prices using the HCHS Pay and Prices inflators. The costs of selected mental health care services for children can be found in schema 6.1.

	Lower quartile	Upper quartile	Mean
MENTAL HEALTH SERVICES			
Inpatient attendances (cost per bed day)			
Intensive care — adult	£520	£683	£630
Acute care — adult	£287	£329	£312
Rehabilitation — adult	£229	£324	£282
Elderly	£287	£355	£319
Weighted average of all adult mental health inpatient			
bed days.	£286	£348	£321
Specialist inpatient services (cost per bed day)			
Eating disorder (adults)	£378	£503	£426
Day care facilities — (cost per day — regular attendances)			
Weighted average of all attendances (adults)	£86	£156	£126
Weighted average of all attendances (elderly)	£60	£125	£100
Outpatient attendances, consultant services (follow-up face-to-face attendance)			
Drug and alcohol services — adult	£117	£194	£157
Other services — adult	£113	£196	£164
Elderly	£100	£198	£154
Weighted average of all adult outpatient attendances	£100	£174	£143
Community setting, consultant services (face-to-face contact)			
Weighted average of all contacts	£91	£147	£132

<sup>&</sup>lt;sup>1</sup> Department of Health (2011) NHS Reference Costs 2009-2010, www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\_123459.

# 2.2 Local authority care homes for people with mental health problems

This table uses the Personal Social Services Expenditure return (PSS EX1)<sup>1</sup> for revenue costs, which have been uprated using the PSS Pay & Prices inflator.

Costs and unit estimation	2010/2011 value	Notes
Capital costs A. Buildings and oncosts	£83 per resident week	Based on the new-build and land requirements for homes for people with mental health problems. Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent. <sup>2</sup>
Revenue costs  B. Salary costs and other revenue costs	£628 per resident week	The median revenue weekly cost estimate (£628) for supporting adults in own provision residential care (includes full cost paying and preserved rights residents). Capital costs relating to buildings and land have been deducted. The mean cost per client per week is reported as being £1,096. Five councils reported costs of over £2,000 per client week, and have not been included in this estimate.
C. Agency overheads		Social Services Management and Support Services (SSMSS) costs are included in PSS EX1 revenue cost figures so no additional overheads have been added.
Other costs		The DWP personal allowance for people in residential care or a nursing home
D. Personal living expenses	£22.30 per week	is £22.30. <sup>3</sup> This has been used as a proxy for personal consumption.
E. External services		No information is available.
Use of facility by client	365.25 days per year	
Occupancy	100%	No statistics available, therefore 100 per cent occupancy assumed.
London multiplier	1.23 x (A to B)	Relative London costs are drawn from the same source as the base data for each cost element.
Unit costs available 2010/	2011	
		s (includes A to B); £733 per resident week care package costs

<sup>2</sup> Building Cost Information Service (2011) Surveys of Tender Prices, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>1</sup> The Information Centre (2010) PSS EX1 2009/10, The Information Centre, Leeds.

<sup>&</sup>lt;sup>3</sup> Disability Alliance (2011) *Disability Rights Handbook, 35th Edition, April 2010-April 2011. A Guide to Benefits and Services for all Disabled People, Their Families, Carers and Advisers, Disability Alliance, London.* 

# 2.3 Private sector residential care homes for people with mental health problems

This table uses the Personal Social Services Expenditure return (PSS EX1) <sup>1</sup> for revenue costs, which have been uprated using the PSS Pay & Prices inflator.

Costs and unit estimation	2010/2011	Notes
	value	
Capital costs		Based on the new-build and land requirements for homes for people with
A. Buildings and oncosts	£83 per	mental health problems. Capital costs have been annuitised over 60 years at
	resident week	a discount rate of 3.5 per cent. <sup>2</sup>
Revenue costs		The median revenue weekly cost estimate for supporting adults in own
B. Salary and other	£590 per	provision residential care (includes full cost paying and preserved rights
revenue costs	resident week	residents. Capital charges relating to building and oncosts have been
		deducted. The mean cost per client per week is £595.
C. Agency overheads		Social Services Management and Support Services (SSMSS) costs are included
		in PSS EX1 revenue cost figures so no additional overheads have been added.
Other costs		
D. Personal living	£22.30 per	The DWP allowance is used as a proxy for personal consumption. <sup>3</sup>
expenses	week	
E. Service use		No information available on service use.
Use of facility by client	365.25 days	
	per year	
Occupancy	100%	No statistics available, therefore 100 per cent occupancy assumed.
London multiplier	1.46 x (A to B)	Relative London costs are drawn from the same source as the base data for
		each cost element.
Unit costs available 2010/2	011	
£673 per resident week esta	ablishment costs	(includes A to B); £695 per resident week care package costs (includes A to D).

<sup>2</sup> Building Cost Information Service (2011) Surveys of Tender Prices, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

 $<sup>^{\</sup>rm 1}$  The Information Centre (2010) PSS EX1 2009/10, The Information Centre, Leeds.

<sup>&</sup>lt;sup>3</sup> Disability Alliance (2010) *Disability Rights Handbook, 34th Edition, April 2009-April 2010. A Guide to Benefits and Services for all Disabled People, Their Families, Carers and Advisers, Disability Alliance, London.* 

# 2.4 Local authority social services day care for people with mental health problems

This table uses the Personal Social Services Expenditure return (PSS EX1)<sup>1</sup> for revenue costs, which have been uprated using the PSS Pay & Prices inflator. The median cost per client week was £100 and the mean cost per client week was £89 Councils reporting costs of more than £500 per client week have been excluded from these estimates. In order to provide a cost per day care session, it is assumed that clients attend day care on average for three sessions per week as this is recommended as part of a total recovery programme.<sup>2</sup>

Costs and unit estimation	2010/2011 value	Notes
Capital costs  A. Buildings and oncosts	£4.10 per	Based on the new-build and land requirements for day care facilities (which do not distinguish by client group). These allow for 33.4 square metres per
A. Bullulligs and Officosts	session	person. <sup>3</sup> Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent.
B. Land	£0.70 per session	Based on information provided by the Department for Communities and Local Government, 2010. Land costs have been discounted at 3.5 per cent over 60 years.
C. Other capital		Capital costs not relating to buildings and oncosts are included in the revenue costs so no additional cost has been added for other items such as equipment and durables.
D. Revenue costs	£29 per session	This is the median cost per session (£29) for own provision day care for people with mental health problems. Capital charges relating to buildings have been deducted. The mean cost per client session is £26.
E. Agency overheads		Social Services Management and Support Services (SSMSS) costs are included in PSS EX1 revenue cost figures so no additional overheads have been added.
Occupancy	87%	Based on a study carried out by PSSRU. <sup>5</sup>
London multiplier	1.40 x A;	
	2.70 x B; 1.10 x D	Relative London costs are drawn from the same source as the base data.
Unit costs available 2010/20	11	
£34 per user session (includes	s A to D).	

<sup>&</sup>lt;sup>1</sup> The Information Centre (2010) PSS EX1 2009/10, The Information Centre, Leeds.

<sup>&</sup>lt;sup>2</sup> Salford City Council (2011) Mental Health, Salford City Council, www.salford.gov.uk/mentalhealth.htm.

<sup>&</sup>lt;sup>3</sup> Building Cost Information Service (2011) Surveys of Tender Prices, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>4</sup> Personal communication with the Department for Communities and Local Government, 2011.

<sup>&</sup>lt;sup>5</sup> Reilly, S., Venebles, D., Challis, D., Hughes, J. & Abendstern, M. (2004) *Day Care Services for Older People with dementia in the North West of England,* Personal Social Services Research Unit, University of Kent, Canterbury. www.pssru.ac.uk/pdf/MCpdfs/Daycare1.pdf.

## 2.5 Private sector day care for people with mental health problems

This table uses the Personal Social Services Expenditure return (PSS EX1) <sup>1</sup> for revenue costs, which have been uprated using the PSS Pay & Prices inflator. The median cost per client week is £77, and the mean cost is £76. In order to provide a cost per day care session, it is assumed that clients attend day care on average for three sessions per week as this is recommended as part of a total recovery programme. <sup>2</sup> Five councils reporting average costs of either more than £500 per client week or less than £2 per client week have been excluded.

Costs and unit estimation	2010/2011 value	Notes
Capital costs		Based on the new- build and land requirements for day care facilities,
A. Buildings and oncosts	£4.10 per	which do not distinguish by client group. These allow for 33.4 square
	session	metres per person. <sup>3</sup> Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent.
B. Land	£0.70 per	Based on information provided by the Department for Communities and
	session	Local Government, 2010. Land costs have been discounted at 3.5 per cent over 60 years.
C. Other capital		Capital costs not relating to buildings are included in the revenue costs so
		no additional cost has been added for other items such as equipment and durables.
D. Revenue costs	£22 por	The median cost per session for day care (£22) provided by other
D. Revenue costs	£22 per session	organisations. Capital charges relating to buildings have been deducted.
	30331011	The mean cost per client session is also £22.
		Social Services Management and Support Services (SSMSS) costs are
E. Agency overheads		included in PSS EX1 revenue cost figures so no additional overheads have been added.
Occupancy	87%	Based on study carried out by PSSRU. <sup>5</sup>
London multiplier	1.40 x A;	
	2.70 x B	
	0.98 x D	Median revenue costs were lower in London. <sup>1</sup>
Unit costs available 2010/20	11	
£27 per user session (includes	A to E).	

 $<sup>^{\</sup>rm 1}$  The Information Centre (2010) PSS EX1 2009/10, The Information Centre, Leeds.

<sup>&</sup>lt;sup>2</sup> Salford City Council (2011) *Mental Health,* Salford City Council, www.salford.gov.uk/mentalhealth.htm.

<sup>&</sup>lt;sup>3</sup> Building Cost Information Service (2011) Surveys of Tender Prices, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>4</sup> Personal communication with the Department for Communities and Local Government, 2011.

<sup>&</sup>lt;sup>5</sup> Reilly, S., Venebles, D., Challis, D., Hughes, J., Abendstern, M. (2004) *Day Care Services for Older People with dementia in the North West of England*, Personal Social Services Research Unit, University of Kent, Canterbury. www.pssru.ac.uk/pdf/MCpdfs/Daycare1.pdf.

## 2.6 Cognitive behaviour therapy (CBT)

This table is based on costs estimated for a randomised controlled trial of interventions for adolescents with depression. The setting was two Child and Mental Health Services (CAMHS) teams in secondary care where CBT was delivered.<sup>1</sup>

Costs and unit	2010/2011	Notes
estimation	value	
A. Wages/salary	£42,667 per year	Based on full-time equivalent basic salary of the January-March 2011 NHS Staff Earnings estimates <sup>2</sup> for a specialty doctor (midpoint), clinical
	,	psychologist (band 7 median) and mental health nurse (band 5 median). An
		average has been taken of these salaries.
B. Oncosts	£10,703 per	Employers' national insurance is included plus 14 per cent of salary for
	year	employers' contribution to superannuation.
C. Qualifications		No information available.
D. Overheads		Taken from NHS (England) Summarised Accounts. <sup>3</sup> See preface for more information.
Management,	£10,140 per	Management and other non-care staff costs were 19.1 per cent of direct care
administrative and	year	salary costs and included administration and estates staff.
estates staff		
		Non-staff costs were 41.6 per cent of direct care salary costs. They include
Non-staff	£22,415 per	costs to the provider for office, travel/transport and telephone, education
	year	and training, supplies and services (clinical and general), as well as utilities
		such as water, gas and electricity.
E. Ongoing training		Information not available for all care staff.
F. Capital overheads	£3,315 per	Based on the new-build and land requirements of an NHS office and shared
	year	facilities, capital costs have been annuitised over 60 years at a discount rate
		of 3.5 per cent. <sup>4,5</sup> Based on the assumption that there is one office per team.
Working time	42 weeks	Includes 29 days annual leave and 8 statutory leave days. Assumes 6
	per year,	study/training days and 12 days sickness leave. 6 Weighted to reflect team
	37.5 hours	composition. Based on a total of 1549 hours per year.
	per week	
Ratio of direct to	1:1	Fifty per cent of time is spent on face-to-face contact and 50 per cent on
indirect time on face-to-		other activities.
face contact		
Length of contact	55 minutes	Average duration of CBT session.
Unit costs available 2010,		
£58 per hour; £115 per ho	ur face-to-face	contact; £106 cost of CBT session.

<sup>&</sup>lt;sup>1</sup> Goodyer, I.M., Harrington, R., Breen, S., Dubicka, B., Leech, A., Rothwell, J., White, L., Ford, C., Kelvin, R., Wilkinson, P., Barrett, B., Byford, S. & Roberts, C. (2007) A randomised controlled trial of SSRIs with and without cognitive behavioural therapy in adolescents with major depression, *British Medical Journal*, doi: 10.1136/bmj.39224.494340.55.

<sup>&</sup>lt;sup>2</sup> The Information Centre (2011) *NHS Staff Earnings Estimates June 2011*, The Information Centre, Leeds.

<sup>&</sup>lt;sup>3</sup> The Audit Commission (2010) NHS (England) (2010) Summarised Accounts 2009-2010, NHS, London.

<sup>&</sup>lt;sup>4</sup> Personal communication with the Department for Communities and Local Government, 2010.

<sup>&</sup>lt;sup>5</sup> Building Cost Information Service (2011) Surveys of Tender Prices, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>6</sup> The Information Centre (2011) *Results of the NHS Sickness Absence Survey 2010*, NHS Employers, London.

## 2.7 Counselling services in primary medical care

Counselling and psychotherapy are umbrella terms that cover a range of talking therapies. They are delivered by trained practitioners who work with people over a short or long term to help them bring about effective change or enhance their wellbeing (British Association for Counselling and Psychotherapy, 2011).<sup>1</sup>

Costs and unit estimation	2010/2011 value	Notes
A. Wages/salary	£37,500 per year	Based on the median full-time equivalent basic salary for Agenda for Change Band 7 of the January-March 2011 NHS Staff Earnings estimates. See section V for information on mean salaries.
B. Salary oncosts	£9,318 per year	Employers' national insurance is included plus 14 per cent of salary for employers' contribution to superannuation.
C. Overheads  Management,	£8,942 per	Taken from NHS (England) Summarised Accounts. <sup>3</sup> See preface for more information.
administrative and estates staff	year	Management and other non-care staff costs were 19.1 per cent of direct care salary costs and included administration and estates staff.
Non-staff	£19,476 per year	Non-staff costs were 41.6 per cent of direct care salary costs. They include costs to the provider for office, travel/transport and telephone, education and training, supplies and services (clinical and general), as well as utilities such as water, gas and electricity.
D. Capital overheads	£3,453 per year	Based on new-build and land requirements for a practice nurse non-treatment space. Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent. <sup>4</sup>
E. Travel		No information available.
Ratio of direct to indirect time on client contact	1:0.30	A study of nine practices found that, on average, each session lasted 55 minutes and the mean number of sessions was 7 (median 6). Seventy-seven per cent of the time was spent on face-to-face contact, and 23 per cent of the time on other work.
Consultations	55 minutes	Average length of surgery consultation. <sup>4</sup>
Working time	42 weeks per year 37.5 hours per week	Each practice in the study employed counsellors for between 6 and 49 hours per week. Based on working hours of 1535 hours per year. <sup>4</sup>
Unit costs available 2010/	2011	
£51 per hour (includes A to	D); £66 per hou	of client contact (A to D); £60 per consultation.

<sup>&</sup>lt;sup>1</sup> British Association for Counselling and Psychotherapy (2011) BACP definition of Counselling, BACP. www.bacp.co.uk/.

<sup>&</sup>lt;sup>2</sup> The Information Centre (2011) *NHS Staff Earnings Estimates June 2011*, The Information Centre, Leeds.

<sup>&</sup>lt;sup>3</sup> The Audit Commission (2010) *NHS (England) (2010) Summarised Accounts 2009-2010*, NHS, London.

<sup>&</sup>lt;sup>4</sup> Personal communication with the Department for Communities and Local Government, 2011.

<sup>&</sup>lt;sup>5</sup> Simpson, S., Corney, R., Fitzgerald, P. & Beecham, J. (2000) A Randomised Controlled Trial to Evaluate the Efficacy and Cost-Effectiveness of Counselling with Patients with Chronic Depression, Report to the NHS Health Technology Assessment Programme, Vol. 4, No. 36.

## 2.8 Individual placement and support

## Provided by Justine Schneider and Sheila Durie

#### **Description of IPS**

People with severe mental health problems face particular barriers to employment, both in relation to their impairments<sup>1</sup> and as a result of stigma and prejudice.<sup>2</sup> To overcome these, an approach known as Individual Placement and Support (IPS) has been developed<sup>3</sup> and has strong evidence to support it.<sup>4,5</sup> There are 25 criteria for 'fidelity' of IPS to the standards of best practice. The management ratio and the caseload sizes used here are within the bounds of 'good to exemplary' scores; most of the other fidelity criteria have little or no direct impact on service costs. Caseload capacity is determined both by size, and by turnover. There is evidence from the US that each place on a caseload serves about 1.8 clients over a year so a caseload of 20 has a throughput of 38 individuals per year on average. Although caseload size is used here to estimate a range of unit costs for IPS, turnover has not been factored in because it is likely to vary according to the skills of the post-holder.

#### **Necessary conditions for IPS to operate**

Successful operation of IPS requires work-oriented mental health services, through cross-sector engagement and partnership working. The specialist skills of IPS staff and managers provide direct interventions with service users and employers to place people in work and support them as required. Responsibility for the maintenance of work-oriented mental health is shared more widely across professionals in the field.

#### Variations in the costs presented

The IPS approach requires employment specialists to be integrated into the mental health team. However there is a wide range of levels at which the specialists are currently appointed. Therefore in Table 2.8.1, we offer costs for four grades of staff, two with professional qualifications (e.g. psychology, occupational therapy) and two with no particular qualifications. These different levels of pay, combined with a range of caseload sizes, yield a range of unit costs, as shown in Table 2.8.2. To the salary costs are added the usual overheads, plus a cost for a team leader, who according to IPS wisdom should not supervise more than 10 staff and should be available to provide practical support. A small marketing budget is included here, but annual costs for training were not available. We were advised by experienced IPS services that no other costs are commonly incurred. The unit cost per year shown in Table 2.8.2 ranges from £1,798 to £7,124, depending on caseload size and salary level of the worker. This does not take account of turnover in clients who are unlikely to remain in the service for a full year.

## Comparative costs of day care

Unit costs of IPS may be compared to the costs of private sector day care. In Table 2.5 of this volume, the cost of private sector day care was £54 (£27 per session) outside of London. Table 2.8.3 shows the number of day care sessions at this cost which would correspond to each level of IPS costs from Table 2.8.2. This ranges from 34 sessions – less than one day per week, to 131 sessions, or just under three days per week. Whereas day care is often allocated in perpetuity, IPS is geared to finding a person paid work, and therefore the amount consumed by a given individual is likely to decrease over time. Moreover, there is some evidence that those individuals who attain work gain self-esteem<sup>6</sup> and reduce their reliance on mental health services, though not necessarily on benefits.<sup>7</sup>

<sup>&</sup>lt;sup>1</sup> McGurk, S. & Mueser, K. (2004) Cognitive functioning, symptoms and work in supported employment; A review and heuristic model, *Schizophrenia Research*, 70, 147-174.

<sup>&</sup>lt;sup>2</sup> Thornicroft, G. (2006) Shunned: Discrimination Against People With Mental Illness, Oxford University Press, Oxford.

<sup>&</sup>lt;sup>3</sup> Department of Health (2006) Vocational Services for People with Severe Mental Health Problems: Commissioning Guidance, CSIP for Department of Work and Pensions and Department of Health.

<sup>&</sup>lt;sup>4</sup> Bond, G.R., Drake, R.E. & Becker, D.R. (2008) An update on randomized controlled trials of evidence based supported employment, *Psychiatric Rehabilitation Journal*, 31, 280-289.

<sup>&</sup>lt;sup>5</sup> Burns, T., Catty, J., Becker, T., Drake, R., Fioritti, A., Knapp, M., Lauber, C., Rossler, W., Tomov, T., van Busschbach, J., White, S. & Wiersma, D. (2007) The effectiveness of supported employment for people with severe mental illness: a randomised controlled trial, *The Lancet*, 370, 1146-1152.

<sup>&</sup>lt;sup>6</sup> Sesami Research and Practice Partnership (2007) The SESAMI evaluation of employment support in the UK: Background and baseline data, *Journal of Mental Health*, 16, 3, 375-388.

<sup>&</sup>lt;sup>7</sup> Schneider, J., Boyce, M., Johnson, R., Secker, J., Grove, B. & Floyd, M. (2009) Impact of supported employment on service costs and income of people, *Journal of Mental Health*, 18, 6, 533-542.

# 2.8.1 Cost components

	Unqualified	Unqualified	Qualified	Qualified
	Band 3	Band 4	Band 5	Band 6
Salary	£17,600	£20,200	£22,700	£30,500
Salary oncosts	£3,985	£4,682	£5,352	£7,442
Overheads – staff	£4,123	£4,752	£5,358	£7,247
Overheads – other	£8,979	£10,351	£11,670	£15,784
Capital	£2,240	£2,240	£2,240	£2,240
Team leader	£7,016	£7,016	£7,016	£7,016
Marketing budget	£1,015	£1,015	£1,015	£1,015
Total	£44,958	£50,256	£55,350	£71,244

# 2.8.2 Unit costs per person per year

	Unqualified	Unqualified	Qualified	Qualified
Caseload size	Band 3	Band 4	Band 5	Band 6
10 people	£4,496	£5,026	£5,535	£7,124
15 people	£2,997	£3,350	£3,690	£4,750
20 people	£2,248	£2,513	£2,768	£3,562
25 people	£1,798	£2,010	£2,214	£2,850

# 2.8.3 Equivalent cost in day care days

	Unqualified	Unqualified	Qualified	Qualified
Caseload size	Band 3	Band 4	Band 5	Band 6
10 people	£107	£120	£132	£170
15 people	£71	£80	£88	£113
20 people	£54	£60	£66	£85
25 people	£43	£48	£53	£68

## 2.9 Deprivation of liberty safeguards in England: implementation costs

In 2009, the government provided additional funding of £10 million for local authorities and £2.2 million for the National Health Service (NHS) for the implementation of deprivation of liberty safeguards (DoLS), which was fully implemented on 1 April 2009 in England and Wales. This amends a breach of the European Convention on Human Rights and provides for the lawful deprivation of liberty of those people who lack the capacity to consent to arrangements made for their care or treatment in either hospitals or care homes, but who need to be deprived of liberty in their own best interests, to protect them from harm.

In 2009, a study was carried out to estimate the costs likely to be incurred with the implementation of the DoLS in England, and data on resource utilisation were collected from professionals conducting the six formal assessments required. These are: age assessment, mental health assessment, mental capacity assessment, best-interest assessment, eligibility assessment and no refusal assessment, the latter of which establishes whether authorisation of deprivation of liberty would conflict with other authorities (for example power of attorney) for decision making for that individual.

A total of 40 interviews were planned to include professionals conducting the six DoLS assessments, the secretarial staff in DoLS offices and the independent mental capacity advocates. Each professional provided the average time taken for an individual DoLS assessment or for combined assessments, when more than one of the six DoLS assessments were conducted together. Average travelling time and distance were also provided. Total assessment time for each individual (including travelling time) was multiplied by the unit cost for that professional and a travelling allowance.

The average cost for a single DoLS assessment across the five DoLS offices was £1,277. The standard deviation around the estimated cost of a single DoLS assessment was £393, and the 95 per cent confidence interval was £506 to £2,048. All costs have been uprated to 2010/2011 prices using the appropriate inflators.

#### Costs for a single deprivation of liberty safeguards (DoLS) assessment.

All assessments include travel time	DoLS office 1	DoLS office 2	DoLS office 3	DoLS office 4	DoLS office 5	Average of the five offices
Assessments by mental health assessor	£468	£213	£545	£270	£232	£346
Assessments by best-interest assessor	£657	£395	£277	£961	£536	£565
Secretarial costs	£306	£171	£121	£552	£290	£288
Independent mental capacity advocates assessments	£106	£81	£57	£56	£69	£74
Court protection costs	£40	£40	£40	£40	£40	£40
Total costs	£1,577	£900	£1,040	£1,879	£1,167	£1,313

<sup>&</sup>lt;sup>1</sup> Shah, A., Pennington, M., Heginbotham, C. & Donaldson, C. (2011) Deprivation of Liberty Safeguards in England: Implementation costs, *The British Journal of Psychiatry (2011)*, 199,232-238, doi: 10.1192/bjp.bp.110.089474..

## 2.10 Mindfulness based cognitive therapy - group based intervention

Mindfulness-based cognitive therapy is a manualised, group-based skills training programme designed to enable patients to learn skills that prevent the recurrence of depression. It is derived from mindfulness-based stress reduction, a programme with proven efficacy in ameliorating distress in people suffering chronic disease.

In order to provide the unit costs of this service, we have drawn on information provided by Kuyken et al. (2008)<sup>1</sup> which was based on data from three mindfulness-based cognitive therapy therapists who took part in the study. There were 12 individuals in each group.

Costs and unit estimation	Unit cost 2010/2011	Notes
A.Wages/salary	£37,600 per year	Based on the mean basic salary for Agenda for Change Band 7 of the January-March 2011 NHS Staff Earnings estimates for qualified Allied Health Professionals. See section V for further information on median salaries.
B.Salary oncosts	£9,345 per year	Employers' national insurance is included plus 14 per cent of salary for employers' contribution to superannuation.
C. Qualifications		No information available
D. Overheads		Taken from NHS (England) Summarised Accounts. <sup>3</sup> See preface for more information.
Management, administration and estates staff	£8,920 per year	Management and other non-care staff costs were 19.1 per cent of direct care salary costs and included administration and estates staff.
Non-staff	£19,717 per year	Non-staff costs were 41.6 per cent of direct care salary costs. They include costs to the provider for office, travel/transport and telephone, education and training, supplies and services (clinical and general), as well as utilities such as water, gas and electricity.
E. Capital overheads	£2,256 per year	Based on the new-build requirements of NHS facilities, but adjusted to reflect shared use of both treatment and non-treatment space. <sup>4,5</sup>
Working time	41.3 weeks per annum 37.5 hours per week	Includes 29 days annual leave and 8 days statutory leave. Assumes 5 study/training days and 12 days sickness leave. Unit costs based on 1549 per annum.
Face-to-face time	1:0.67	Based on data from the three MBCT therapists who took part in the study.
Length of sessions	2 hours	Therapy sessions lasted two hours.
Unit costs available 2010/203		
£50 per hour, £84 per direct of	contact hour, £168 pe	er session, £14 per service user.

<sup>&</sup>lt;sup>1</sup> Kuyken, W., Byford, S., Taylor, R.S., Watkins, E., Holden, E., White, K., Barrett, B., Byng, R., Evans, A., Mullan, E. & Teasdale, J.D. (2008) Mindfulness-based cognitive therapy to prevent relapse in recurrent depression, *Journal of Consulting and Clinical Psychology*, 76, 966-978.

<sup>&</sup>lt;sup>2</sup> The Information Centre (2010) NHS Staff Earnings June 2011, The Information Centre, Leeds.

<sup>&</sup>lt;sup>3</sup> National Audit Office (2010) NHS (England) Summarised Accounts 2009-2010, The Stationery Office, London.

<sup>&</sup>lt;sup>4</sup> Building Cost Information Service (2011) *Surveys of Tender Prices*, March, Royal Institute of Chartered Surveyors, London.

<sup>&</sup>lt;sup>5</sup> Personal communication with the Department for Communities and Local Government, 2011.

<sup>&</sup>lt;sup>6</sup> NHS Employers (2005) *Agenda for Change, NHS Terms and Conditions of Service Handbook*, NHS Employers, London.

<sup>&</sup>lt;sup>7</sup> The Information Centre (2011) *Sickness Absence Rates in the NHS: October-December 2010*, NHS Employers, London.

## 2.11 Interventions for mental health promotion and mental illness prevention

Information has been drawn from Knapp et al. (2011)<sup>1</sup> and provides a summary of the key findings of a study exploring the economic case for mental health promotion and prevention, based on a detailed analysis of costs and benefits for fifteen different interventions.

The full report can be downloaded at:

www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\_126085

#### Health visiting and reducing post natal depression

**Context:** Moderate-to-severe post natal depression affects around one in eight women in the early months following childbirth. The National Institute for Health and Clinical Excellence (NICE) recommends the screening of post-natal depression as part of routine care, and the use of psychosocial interventions and psychological therapy for women depending on the severity of depressive symptoms.

**Intervention:** Health visitors are well placed to identify mothers suffering from post natal depression and to provide preventative screening and early interventions. A number of UK trials of health visitor interventions have found positive effects: women were more likely to recover fully after three months; targeted ante-natal intervention with high-risk groups was shown to reduce the average time mothers spent in a depressed state; and a combination of screening and psychologically informed sessions with health visitors was clinically effective 6 and 12 months after childbirth.

**Cost:** The biggest direct costs of the intervention were associated with training (estimated at £1,400 per health visitor), plus the additional time spent by health visitors providing screening and counselling for mothers.

#### Parenting interventions for the prevention of persistent conduct disorders

**Context:** Conduct disorders are the most common childhood psychiatric disorders, with a UK prevalence of 4.9 per cent for children aged 5-10 years. The condition leads to adulthood antisocial personality disorder in about 50 per cent of cases, and is associated with a wide range of adverse long-term outcomes, particularly delinquency and criminality. The costs to society are high, with average potential savings from early intervention previously estimated at £150,000 per case.

**Intervention:** Parenting programmes can be targeted at parents of children with, or at risk of, developing conduct disorder, and are designed to improve parenting styles and parent-child relationships. Reviews have found parent training to have positive effects on children's behaviour, and that benefits remain one year later. Longer-term studies show sustained effects but lack control groups; cost-effectiveness data are limited, but in one trial, health and social services costs were found to reduce over time.

**Cost:** The median cost of an 8-12 week group-based parenting programme is estimated at £952 per family, while that of individual interventions is £2,078. Assuming 80 per cent of people receive group-based interventions and 20 per cent individual interventions, in line with NICE guidance, the average cost of the intervention can be estimated at £1,177 per family.

#### School-based social and emotional learning programmes to prevent conduct problems in childhood.

**Context:** Conduct problems in childhood cover a range of oppositional or anti-social forms of behaviour, such as disobedience, lying, fighting and stealing, and are associated with a range of poor outcomes, including increased risk of criminal activity, fewer school qualifications, parenthood at a young age, unemployment, divorce or separation, substance abuse, and psychiatric disorders, many of which lead to increased costs across several agencies.

**Intervention:** School-based Social and Emotional Learning (SEL) programmes help children and young people to recognise and manage emotions, and to set and achieve positive goals. International evidence shows that SEL participants demonstrate significantly improved social and emotional skills, attitudes, behaviour and academic performance.

<sup>&</sup>lt;sup>1</sup> Knapp, M., McDaid, D. & Parsonage, M. (2011) *Mental health promotion and mental illness prevention: The economic case*, Department of Health, London. www2.lse.ac.uk/LSEHealthAndSocialCare/pdf/MHPP%20The%20Economic%20Case.pdf

**Cost:** The costs of a representative intervention, including teacher training, programme co-ordinator and materials, were estimated at £132 per child per year (2009 prices).

### School-based interventions to reduce bullying

**Context:** Being bullied at school has adverse effects on both psychological well-being and educational attainment. There is evidence from longitudinal data that this has a negative long-term impact on employability and earnings; on average, lifetime earnings of a victim of bullying are reduced by around £50,000. According to an Ofsted survey, <sup>2</sup> 39 per cent of children reported being bullied in the previous 12 months.

**Intervention:** Anti-bullying programmes show mixed results. One high-quality evaluation of a school-based anti-bullying intervention found a 21-22 per cent reduction in the proportion of children victimised.

**Cost:** Information is limited on the cost of anti-bullying programmes, but one study estimates this at £15.50 per pupil per year (2009 prices).

#### Early detection for psychosis

**Context:** It is estimated that each year in England more than 15,000 people exhibit early symptoms before the onset of full psychosis. Progression of the disease is associated with higher costs to public services (including health, social care and criminal justice), lost employment, and greatly diminished quality of life for the individual and their family.

**Intervention:** Early detection services aim to identify the early symptoms of psychosis, reduce the risk of transition to full psychosis, and shorten the duration of untreated psychosis for those who develop it. Such services include cognitive behavioural therapy, psychotropic medication, and contact with psychiatrists. This contrasts with treatment as usual which typically consists of GP and counsellor contacts.

**Cost:** One year of an early detection intervention has been estimated to cost £2,948 per patient, compared with £743 for standard care (2009 prices).

#### Early intervention for psychosis

**Context:** Psychosis related to schizophrenia is associated with higher costs to public services (including health, social care and criminal justice), lost employment, and greatly diminished quality of life for the individual with the illness and their family.

**Intervention:** Early intervention teams aim to reduce relapse and readmission rates for patients who have suffered a first episode of psychosis, and to improve their chances of returning to employment, education or training, and more generally their future quality of life. This intervention involves a multidisciplinary team that could include a range of professionals (psychiatrists, psychologists, occupational therapists, community support workers, social workers, vocational workers).

**Cost:** The annual direct cost per patient of this type of service, plus other community psychiatric services and inpatient care, has been estimated at £10,927 at 2008/2009 prices. The first year of the early intervention team's input is estimated to cost £2,282 per patient.

#### Screening and brief intervention in primary care for alcohol misuse

**Context:** It is estimated that 6.6 million adults in England currently consume alcohol at hazardous levels, and 2.3 million at harmful levels.

**Intervention:** An inexpensive intervention in primary care combines universal screening by GPs of all patients, followed by a 5-minute advice session for those who screen positive.

Cost: The total cost of the intervention averaged over all those screened was £17.40 at 2009/2010 prices.

<sup>&</sup>lt;sup>2</sup> Ofsted (2008) *Children on bullying*, Ofsted. www.ofsted.gov.uk/resources/children-bullying.

#### Workplace screening for depression and anxiety disorders

**Context:** Labour Force Survey data suggest that 11.4 million working days were lost in Britain in 2008/09 due to work-related stress, depression or anxiety. This equates to 27.3 days lost per affected worker.

**Intervention:** Workplace-based enhanced depression care consists of employees completing a screening questionnaire, followed by care management for those found to be suffering from, or at risk of developing, depression and/or anxiety disorders. Those at risk of depression or anxiety disorders are offered a course of cognitive behavioural therapy (CBT) delivered in six sessions over 12 weeks.

**Cost:** It is estimated that £30.90 (at 2009 prices) covers the cost of facilitating the completion of the screening questionnaire, follow-up assessment to confirm depression, and care management costs. For those identified as being at risk, the cost of six sessions of face-to-face CBT is £240.

### Promoting well-being in the workplace

**Context:** Deteriorating well-being in the workplace is potentially costly for businesses as it may increase absenteeism and presenteeism (lost productivity while at work), and in the longer term potentially leads to premature withdrawal from the labour market.

**Intervention:** There are a wide range of approaches: flexible working arrangements; career progression opportunities; ergonomics and environment; stress audits; and improved recognition of risk factors for poor mental health by line managers. A multi-component health promotion intervention consists of personalised health and well-being information and advice; a health risk appraisal questionnaire; access to a tailored health improvement web portal; wellness literature, and seminars and workshops focused on identified wellness issues.

Cost: The cost of a multi-component intervention is estimated at £80 per employee per year (2009 prices).

#### **Debt and mental health**

**Context:** Only about half of all people with debt problems seek advice, and without intervention almost two-thirds of people with unmanageable debt problems will still face such problems 12 months later. Research has demonstrated a link between debt and mental health. On average, the lost employment costs of each case of poor mental health are £11,432 per annum, while the annual costs of health and social service use are £1,508.

**Intervention:** Current evidence suggests that there is potential for debt advice interventions to alleviate financial debt, and hence reduce mental health problems resulting from debt. For the general population, contact with face-to-face advice services is associated with a 5 per cent likelihood of debt becoming manageable, while telephone services achieve 47 per cent .

**Cost:** The costs of this type of intervention vary significantly, depending on whether it is through face-to-face, telephone or internet-based services. The Department for Business, Innovation and Skills suggests expenditure of £250 per client for face-face-debt advice; telephone and internet-based services are cheaper (2009 prices).

## Population-level suicide awareness training and intervention

**Context:** The economic impacts of suicide are profound, although comparatively few studies have sought to quantify these costs. This is in part because a proportion of individuals who survive suicide attempts are likely to make further attempts, in some cases fatal.

**Intervention:** There is evidence that suicide prevention education for GPs can have an impact as a population-level intervention to prevent suicide. With greater identification of those at risk, individuals can receive cognitive behavioural therapy (CBT), followed by ongoing pharmaceutical and psychological support to help manage underlying depressive disorders.

**Cost:** A course of CBT in the first year is around £400 per person. Further ongoing pharmaceutical and psychological therapy is estimated to cost £1,182 a year. The cost of suicide prevention training for GPs, based on the Applied Suicide Intervention Skills Training (ASIST) course, is £200.

### Bridge safety measures for suicide prevention

Context: Jumping from height accounts for around 3 per cent of completed suicides.

**Intervention and Cost:** Following the installation of a safety barrier in 1998, at a cost of £300,000 (in 2009 prices), the number of suicides reduced from an average of 8.2 per annum in the five years before the barrier, to 4 per annum in the five years after it was installed.

#### Collaborative care for depression in individuals with Type II diabetes

**Context:** Depression is commonly associated with chronic physical health problems. US data indicate that 13 per cent of all new cases of Type II diabetes will also have clinical depression. These patterns are important as evidence shows that comorbid depression exacerbates the complications and adverse consequences of diabetes, in part because patients may more poorly manage their diabetes. This has substantial economic consequences.

**Intervention:** 'Collaborative care', including GP advice and care, the use of antidepressants and cognitive behavioural therapy (CBT) for some patients, can be delivered in a primary care setting to individuals with co-morbid diabetes.

Cost: It is estimated that the total cost of six months of collaborative care is £682, compared with £346 for usual care.

#### Tackling medically unexplained symptoms

**Context:** Somatoform conditions present physical symptoms for which there is no identifiable physical cause. These medically unexplained symptoms are thought to be triggered or exacerbated by mental and emotional factors, such as psychosocial stress, depression or anxiety. The financial costs to public services and society are considerable.

**Intervention:** Cognitive behavioural therapy (CBT) has been found to be an effective intervention for tackling somatoform conditions and their underlying psychological causes.

**Cost:** A course of CBT may last for 10 sessions at £40 per session. Costs associated with the need to raise the awareness of GPs to the potential role of CBT treatment for somatoform conditions, either through e-learning or face-to-face training, are also included.

#### Befriending of older adults

**Context:** Befriending initiatives, often delivered by volunteers, provide an 'upstream' intervention that is potentially of value both to the person being befriended and the 'befriender'.

**Intervention:** The intervention is not usually structured and nor does it have formally-defined goals. Instead, an informal, natural relationship develops between the participants, who will usually have been matched for interests and preferences. This relationship facilitates improved mental health, reduced loneliness and greater social inclusion.

**Cost:** The contact is generally for an hour per week or fortnight. The cost to public services of 12 hours of befriending contact is estimated at £85, based on the lower end of the cost range for befriending interventions.

# 3. Services for people who misuse drugs or alcohol

- 3.1 Residential rehabilitation for people who misuse drugs or alcohol
- 3.2 Inpatient detoxification for people who misuse drugs or alcohol
- 3.3 Specialist prescribing
- 3.4 Alcohol health worker, Accident & Emergency Department

### Services for people who misuse drugs or alcohol

Statistics produced by the National Drug Treatment Monitoring System (NDTMS), presented in the National Treatment Agency's (NTA) Annual Report 2008/09, revealed the prevalence of people who misuse drugs or alcohol.

The information presented in Tables 3.1 to 3.3 was provided by the National Treatment Agency<sup>2</sup> and present the unit costs of three principle treatment interventions: (a) residential rehabilitation, (b) inpatient detoxification and (c) specialist prescribing. These interventions are described fully in *Business Definition for Adult Drug Treatment Providers* (National Treatment Agency, 2010).<sup>3</sup>

National average costs for the interventions were calculated. These excluded instances where the provider data fell in the top and bottom 5 per cent of unit costs for service users in treatment **OR** days in treatment, and the top and bottom 10 per cent of unit costs for service users in treatment **AND** days in treatment.

<sup>&</sup>lt;sup>1</sup> National Treatment Agency for Substance Misuse (2009) *Annual Report, 2008/09.* www.nta.nhs.uk/uploads/nta\_annual\_report\_08-09\_2.pdf, Accessed 14 September 2010.

<sup>&</sup>lt;sup>2</sup> Personal communication with the National Treatment Agency (2010).

<sup>&</sup>lt;sup>3</sup> National Treatment Agency for Substance Misuse (2010) *NDTMS Dataset G, Definition, Business Definition for Adult Drug Treatment Providers*. www.nta.nhs.uk/uploads/yptreatmentbusinessdefinitionv7.05.pdf, Accessed 14 September 2010.

## 3.1 Residential rehabilitation for people who misuse drugs or alcohol

Residential rehabilitation consists of a range of treatment delivery models or programmes to address drug and alcohol misuse, including abstinence orientated drug interventions within the context of residential accommodation. Other examples include inpatient treatment for the pharmacological management of substance misuse, and therapeutic residential services designed to address adolescent substance misuse. Of the 210,815 individuals receiving structured drug treatment in 2008/09, <sup>1</sup>4,711 were in residential rehabilitation. The real figure is likely to be higher as only about two-thirds of residential providers sent data to the National Drug Treatment Monitoring System in 2008/09.

Information has been drawn from a sample of 34 residential rehabilitation programmes to produce a unit cost per resident week of £647 at 2010/2011 prices uprated from 2007/08. The Gross Domestic Product (GDP) index has been used, as suggested by the NTA. It was not possible to provide details of costs for this service due to the method of data collection.

<sup>&</sup>lt;sup>1</sup> National Treatment Agency for Substance Misuse (2009) *Annual Report, 2008/09*. www.nta.nhs.uk/uploads/nta\_annual\_report\_08-09\_2.pdf, Accessed 14 September 2010.

## 3.2 Inpatient detoxification for people who misuse drugs or alcohol

An Inpatient Unit (IPU) provides care to service users with substance-related problems (medical, psychological or social) that are so severe that they require medical, psychiatric and psychological care. The key feature of an IPU is the provision of these services with 24-hour cover, 7 days per week, from a multidisciplinary clinical team who have had specialist training in managing addictive behaviours.

Treatment in an inpatient setting may involve one or more of the following interventions: (a) assessment, (b) stabilisation and (c) assisted withdrawal (detoxification). A combination of all three may be provided, or one followed by another.

The three main settings for inpatient treatment are: (a) general hospital psychiatric units, (b) specialist drug misuse inpatient units in hospitals and (c) residential rehabilitation units (usually as a precursor to the rehabilitation programme). See *Business Definition for Adult Drug Treatment Providers*<sup>1</sup> for more detailed information on this intervention.

Based on information provided by the National Treatment Agency in 2010, the average cost for inpatient detoxification (NHS and voluntary organisations) is £147 per patient day, which is equivalent to £1,029 per patient week. All costs have been uprated to 2010/11 prices using the Gross Domestic Product (GDP) index, as suggested by NTA.

Costs and unit estimation	2010/2011 value	Notes		
A. Direct pay	£86 per patient day	Salaries plus oncosts for care staff.		
B. Direct overheads	£15 per patient day	Includes drugs, pharmacy and dispensing costs. Also includes other treatment materials, toxicology and drug testing, medical supplies, rent and rates, staff travel, training, service user travel costs, volunteer expenses, contingency management, office costs specifically attributed to the provision of the service, non-pay administration (for example, telephones and information technology).		
C. Indirect costs and overheads	£46 per patient day	Includes capital charges, capital on refurbishment, property and buildings, housekeeping, catering, porterage, transport, waste disposal, security, finance, human resources, personnel, communications and corporate charges.		
Unit costs available 2010/2011				
£147 per patient day or £1,029 per patient week				

<sup>&</sup>lt;sup>1</sup> National Treatment Agency for Substance Misuse (2010) NDTMS Dataset G, Definition, Business Definition for Adult Drug Treatment Providers, www.nta.nhs.uk/uploads/yptreatmentbusinessdefinitionv7.05.pdf.

## 3.3 Specialist prescribing

Specialist prescribing is community prescribing for drug misuse in a specialist drug service setting, normally staffed by a multidisciplinary substance misuse team. Specialist prescribing interventions normally include comprehensive assessments of drug treatment need and the provision of a full range of prescribing treatments in the context of care-planned drug treatment. The specialist team should also provide or provide access to, a range of other care-planned healthcare interventions including psychosocial interventions, a wide range of harm reduction interventions, Blood Borne Virus (BBV) prevention and vaccination, and abstinence-oriented interventions.

The teams include specialist doctors who are usually consultant addiction psychiatrists 'with a Certificate of Completion of Training (CCT) in psychiatry, with endorsement in substance misuse working exclusively to provide a full range of services to substance misusers'. See Business Definition for Adult Drug Treatment Providers for more detailed information on this intervention.

Based on information provided by the National Treatment Agency, the average cost for specialist prescribing is £51 per patient week. All costs have been uprated from 2007/08 using the Gross Domestic Product (GDP) index, as suggested by the NTA.

Using reference costs 2009/2010,<sup>3</sup> the mean cost per client contact in a NHS and PCT combined drugs and alcohol mental health team was £137 per face-to-face contact and £47 per non face-to-face contact. These costs have been uprated using the Hospital and Community Health Services (HCHS) inflator.

Costs and unit estimation	2010/2011 value	Notes		
A. Direct pay	£25 per patient week	Salaries plus oncosts for care staff.		
B. Direct overheads	£17 per patient week	Includes drugs, pharmacy and dispensing costs. Also includes other treatment materials, toxicology and drug testing, medical supplies, rent and rates, staff travel, training, service user travel costs, volunteer expenses, contingency management, office costs specifically attributed to the provision of the service, non-pay administration (for example, telephones and information technology).		
C. Indirect costs and overheads	£9 per patient week	Includes capital charges, capital on refurbishment, property and buildings, housekeeping, catering, porterage, transport, waste disposal, security, finance, human resources, personnel, communications and corporate charges.		
Unit costs available 2010/2011				
£51 per patient week				

www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\_123459.

<sup>&</sup>lt;sup>1</sup> National Treatment Agency for Substance Misuse (2010) NDTMS Dataset G, Definition, Business Definition for Adult Drug Treatment Providers, www.nta.nhs.uk/uploads/yptreatment business definition v7.05.pdf.

<sup>&</sup>lt;sup>2</sup> Personal communication with the National Treatment Agency (2010).

<sup>&</sup>lt;sup>3</sup> Department of Health (2011) NHS Reference Costs 2009-2010,

#### 3.4 Alcohol health worker, Accident & Emergency

Alcohol health workers (AHWs) are experienced mental health nurses who have undertaken specific training in counselling people who misuse alcohol. AHWs interact with people in a non-confrontational and patient-centred way and during an assessment may offer feedback about safe levels of drinking and suggest a range of strategies aimed at reducing levels of consumption.

Information for this table is based on a study carried out by the Centre for the Economics of Mental Health at the Institute of Psychiatry, London.<sup>1</sup>

Costs and unit estimation	2010/2011 value	Notes
A. Wages/salary	£32,600 per year	Based on the median full-time equivalent basic salary for Agenda for Change Band 6 of the January-March 2011 NHS Staff Earnings estimates. Median full-time equivalent total earnings which include basic salary plus hours-related pay, overtime, occupation payments, location payments, and other payments such as redundancy pay or payment of notice periods were £34,300. <sup>2</sup> See section V for further information on mean salaries.
B. Salary oncosts	£8,005 per year	Employers' national insurance contribution is included plus 14 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£9,356 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). Current cost information has been provided by the Department of Health and the Higher Education Funding Council for England (HEFCE). See the preface for more information on qualifications and also schema 7.4 for details. It has been assumed that this health worker requires the same qualifications as a staff nurse/ward manager.
D. Overheads		Taken from NHS (England) Summarised Accounts. 5 See preface for more information.
Management, administration and estates Staff	£7,756 per year	Management and other non-care staff costs were 19.1 per cent of direct care salary costs and included administration and estates staff.
Non-staff	£16,892 per year	Non-staff costs were 41.6 per cent of direct care salary costs. They include costs to the provider for office, travel/transport and telephone, education and training, supplies and services (clinical and general), as well as utilities such as water, gas and electricity.
E. Capital overheads	£2,256 per year	Based on the new-build and land requirements of NHS facilities, but adjusted to reflect shared office space for administration, and recreational and changing facilities. <sup>6,7</sup> Treatment space has not been included.
Working time	41.3 weeks per annum 37.5 hours per week	Includes 29 days annual leave and 8 days statutory leave. Sassumes 5 study/ training days and 12 days sickness leave. Unit costs based on 1549 working hours.
Ratio of direct to indirect time on: clinic contacts	1:0.22	Based on a survey of AHWs in a London A&E department, 182 per cent of time is spent on face-to-face contact and 18 per cent on onward referral.
Length of contact	55 minutes	Per clinic contact. Based on survey of AHWs in London A&E department. 1
Unit costs available 2010/2011		
£44 (£50 ) per hour; £54 (£61)	· • • • • • • • • • • • • • • • • • • •	

<sup>&</sup>lt;sup>1</sup> Barrett, B., Byford, S., Crawford, M.J., Patton, R., Drummond, C., Henry, J.A. & Touquet, R. (2006) Cost-effectiveness of screening and referral to an alcohol health worker in alcohol misusing patients attending an accident and emergency department: a decision-making approach, *Drug and Alcohol Dependence*, Jan 4; 81(1): 47-54. Epub 2005 Jul 11.

<sup>&</sup>lt;sup>2</sup> The Information Centre (2011) NHS Staff Earnings Estimates June 2011, The Information Centre, Leeds.

<sup>&</sup>lt;sup>3</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a Ready Reckoner for Staff Costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>&</sup>lt;sup>4</sup> Personal communication with the Department of Health and the Higher Education Funding Council for England (HEFCE) (2011).

<sup>&</sup>lt;sup>5</sup>The Audit Commission (2010) NHS (England) (2010) Summarised Accounts 2009-2010, NHS, London.

<sup>&</sup>lt;sup>6</sup> Personal communication with the Department for Communities and Local Government, 2011.

<sup>&</sup>lt;sup>7</sup> Building Cost Information Service (2011) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>8</sup> NHS Employers (2005) *Agenda for Change: NHS Terms and Conditions of Service Handbook,* NHS Employers, London.

<sup>&</sup>lt;sup>9</sup> The Information Centre (2011) Results of the NHS Sickness Absence Survey 2010, NHS Employers, London.

# 4. Services for people with learning disabilities

- 4.1 Group homes for people with learning disabilities
- 4.2 Fully staffed living settings
- 4.3 Semi-independent living settings
- 4.4 Local authority day care for people with learning disabilities

#### 4.1 Group homes for people with learning disabilities

The costs of group homes are based on the results of a study funded by the Wellcome Trust and conducted by Felce and colleagues in 2005. The sample comprises residents living in fully-staffed and semi-independent living settings (53 service users). These costs have been uprated using the appropriate inflators. See *Deinstitutionalisation and Community Living: outcomes and costs* (Mansell et al. 2007, chapter 3), which provides further details on service provision for people with learning disabilities.<sup>2,3</sup>

Costs and unit estimation	2010/2011 value	Notes
A. Capital costs	£73 per week	Capital costs for buildings and land were calculated using market valuations of property. Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent. <sup>1</sup>
Revenue costs		
B. Staffing (direct and non-direct staffing)	£728 per week	Calculated using facility-specific accounts information. <sup>1</sup>
C. On-site administration	£22 per week	
D. Agency overheads	£128 per week	
Other costs	·	
E. Personal living expenses for items such as food, utilities, personal care and leisure	£251 per week	This cost has been based on the allowances received by a sample of residents living in fully-staffed and semi-independent living settings. It includes a Lower Disability Allowance (care component), Employment and Support Allowance 25 plus, Job Seekers Allowance (income based) and Housing Benefit as well as the Personal Allowances for a single person (25 plus) and Housing Benefit (premium single). <sup>4</sup>
External services		
F. Hospital	£10 per week	Client-specific service use was recorded using the Client
G. Community	£19 per week	Service Receipt Inventory (CSRI) <sup>5</sup> with 35 residents in group
H. Day services	£210 per week	homes interviewed. <sup>1</sup>
Use of facility by client	52.18 weeks per annum	
Multiplier for level of disability	Higher levels of ability: 0.82 x (B to H)	The sample of service users used to derive the schema were of mild to moderate intellectual disability and therefore relate to those with higher levels of ability (ABS>145).
	Lower levels of ability:	For lower levels of ability a multiplier of 1.60 could be applied
	1.60 x (B to H)	(lower levels of ability: 1.60 x (B to H).
Unit costs available 2010/2011		
£951 establishment cost per reside	ent week (includes A to D)	, £1,441 care package costs (includes A to H).

<sup>1</sup> Felce, D., Perry, J., Romeo, R., Robertson, J., Meek, A., Emerson, E. & Knapp, M. (2008) Outcomes and costs of community living semi-independent living and fully staffed group homes, *American Journal on Mental Retardation*, 113, 2, 87-101.

<sup>&</sup>lt;sup>2</sup> Mansell, J., Knapp, M., Beadle-Brown, J. & Beecham, J. (2007) *Deinstitutionalisation and community living: outcomes and costs: report of a European study. Volume 2: Main Report*, Tizard Centre, University of Kent, Canterbury.

<sup>&</sup>lt;sup>3</sup> Mansell, J., Knapp, M., Beadle-Brown, J. & Beecham, J. (2007) *Deinstitutionalisation and community living: outcomes and costs: report of a European study, Country Report: United Kingdom*, Tizard Centre, University of Kent, Canterbury.

<sup>&</sup>lt;sup>4</sup> Department for Work and Pensions (2011) Benefits uprating, http://gmwrag.files.wordpress.com/2010/12/benefit\_rates\_2011\_2012.pdf.

<sup>&</sup>lt;sup>5</sup> Beecham, J. & Knapp, M. (1992) Costing psychiatric interventions, in G. Thornicroft, C. Brewin & J. Wing (eds) *Measuring Mental Health Needs*, Oxford University Press, Oxford.

### 4.2 Fully-staffed living settings

The costs of fully-staffed living settings are based on the results of a study funded by the Wellcome Trust and conducted by Felce and colleagues in 2005.<sup>1</sup> All costs have been uprated using the appropriate inflators. See *Deinstitutionalisation and Community Living: outcomes and costs* (Mansell et al. 2007, chapter 3), which provides further details on service provision for people with learning disabilities.<sup>2,3</sup>

Costs and unit	2010/2011 value	Notes
estimation		
A. Capital costs	£81 per week	Capital costs for buildings and land were calculated using market valuations of property. Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent.
Revenue costs  B. Staffing (direct and non-direct staffing)	£964 per week	Calculated using facility-specific accounts information. 1
C. On-site administration	£30 per week	
D. Agency overheads	£156 per week	
Other costs E. Personal living expenses for items such as food, utilities, personal care and leisure	£251 per week	This cost has been based on the allowances received by a sample of residents living in fully-staffed and semi-independent living settings. It includes a Lower Disability Allowance (care component), Employment and Support Allowance 25 plus, Job Seekers Allowance (income based) and Housing Benefit as well as the Personal Allowances for a single person (25 plus) and Housing Benefit (premium single). <sup>4</sup>
External services		
F. Hospital G. Community H. Day services	£8 per week £18 per week £241 per week	Client-specific service use was recorded using the Client Service Receipt Inventory (CSRI), <sup>5</sup> with 35 residents in fully -staffed living settings interviewed. Costs for day services were estimated using accounts information, where available. <sup>1</sup> Unit costs for all other services were taken from this volume.
Use of facility by client	52.18 weeks per annum	
Multiplier for level of disability	Higher levels of ability: 0.82 x (B to H) Lower levels of ability: 1.60 x (B to H)	Clients were grouped according to scores on the Adaptive Behaviour Scale (ABS). Scores between zero and 145 were grouped as less able; scores higher than 145 were grouped as more able (145 was selected to allow relatively even distribution between groups.) All participants in the study were mild to moderate intellectual disability.
Unit costs available 20:	10/2011	
£1,231 establishment c	osts per resident week (incl	udes A to D); £1,749 care package costs (includes A to H).

<sup>1</sup> Felce, D., Perry, J., Romeo, R., Robertson, J., Meek, A., Emerson, E. & Knapp, M. (2008) Outcomes and costs of community living semi-independent living and fully staffed group homes, *American Journal on Mental Retardation*, 113, 2, 87-101.

<sup>&</sup>lt;sup>2</sup> Mansell, J., Knapp, M., Beadle-Brown, J. & Beecham, J. (2007) *Deinstitutionalisation and community living: outcomes and costs: report of a European study. Volume 2: Main Report*, Tizard Centre, University of Kent, Canterbury.

<sup>&</sup>lt;sup>3</sup> Mansell, J., Knapp, M., Beadle-Brown, J. & Beecham, J. (2007) *Deinstitutionalisation and community living: outcomes and costs: report of a European study, Country Report: United Kingdom*, Tizard Centre, University of Kent, Canterbury.

<sup>&</sup>lt;sup>4</sup> Department for Work and Pensions (2011) Benefits uprating, http://gmwrag.files.wordpress.com/2010/12/benefit\_rates\_2011\_2012.pdf.

<sup>&</sup>lt;sup>5</sup> Beecham, J. & Knapp, M. (1992) Costing psychiatric interventions, in G. Thornicroft, C. Brewin & J. Wing (eds) *Measuring Mental Health Needs*, Oxford University Press, Oxford.

<sup>&</sup>lt;sup>6</sup> Nihira, K., Leland, H. & Lambert, N. (1993) *Adaptive Behavior Scale — Residential and Community*, 2nd Edition, Pro-Ed, Austin, Texas.

#### 4.3 Semi-independent living settings

The costs of semi-independent living settings are based on the results of a study funded by the Wellcome Trust and conducted by Felce and colleagues in 2005. The sample comprised 35 service users who were resident in semi-independent living settings. These settings were partially staffed, having no paid support for at least 28 hours per week when service users were awake at home. These settings did not have any regular night-time support or sleep-over presence. All costs have been uprated using the appropriate inflators. See *Deinstitutionalisation and Community Living: outcomes and costs* (Mansell et al. 2007, chapter 3) which provides further details on service provision for people with learning disabilities. <sup>2,3</sup>

Costs and unit	2010/2011 value	Notes
estimation	-	
A. Capital costs	£59 per week	Capital costs for buildings and land were calculated using market
		valuations of property. They have been annuitised over 60 years at a discount rate of 3.5 per cent.
Revenue costs		discount rate of 3.5 per cent.
B. Staffing (direct and		
non-direct staffing)	£263 per week	
C. On-site		Calculated using facility-specific accounts information. 1
administration	£10 per week	
D. Agency overheads	£65 per week	
Other costs	,	This cost has been based on the allowances received by a sample of
E. Personal living	£251 per week	residents living in fully-staffed and semi-independent living settings. It
expenses for items	·	includes a Lower Disability Allowance (care component), Employment
such as food, utilities,		and Support Allowance 25 plus, Job Seekers Allowance (income based)
personal care and		and Housing Benefit as well as the Personal Allowances for a single
leisure		person (25 plus) and Housing Benefit (premium single). 4
External services		
F. Hospital	£10 per week	Client-specific service use was recorded using the Client Service Receipt
G. Community	£15 per week	Inventory (CSRI), <sup>5</sup> with 35 residents in semi-independent living settings
H. Day services	£132 per week	interviewed. Costs for day services were estimated using accounts
		information, where available. 1 Unit costs for all other services were
		taken from this volume.
Use of facility by client	52.18 weeks per	
	annum	
Multiplier for level of	Higher levels of ability:	Clients were grouped according to scores on the Adaptive Behaviour
disability	0.82 x (B to H)	Scale (ABS). Scores between zero and 145 were grouped as less able;
	Lower levels of ability:	scores higher than 145 were grouped as more able. (145 was selected
	1.60 x (B to H)	to allow relatively even distribution between groups.) All participants in
		the study had mild to moderate intellectual disability.
Unit costs available 201		
£397 establishment cost	s per resident week (inclu	des A to D); £805 care package costs (includes A to H).

<sup>&</sup>lt;sup>1</sup> Felce, D., Perry, J., Romeo, R., Robertson, J., Meek, A., Emerson, E. & Knapp, M. (2008) Outcomes and costs of community living semi-independent living and fully staffed group homes, *American Journal on Mental Retardation*, 113, 2, 87-101.

<sup>&</sup>lt;sup>2</sup> Mansell, J., Knapp, M., Beadle-Brown, J. & Beecham, J. (2007) *Deinstitutionalisation and community living: outcomes and costs: report of a European study. Volume 2: Main Report*, Tizard Centre, University of Kent, Canterbury.

<sup>&</sup>lt;sup>3</sup> Mansell, J., Knapp, M., Beadle-Brown, J. & Beecham, J. (2007) *Deinstitutionalisation and community living:outcomes and costs: report of a European study, Country Report: United Kingdom*, Tizard Centre, University of Kent, Canterbury.

<sup>&</sup>lt;sup>4</sup> Department for Work and Pensions (2011) Benefits uprating, http://gmwrag.files.wordpress.com/2010/12/benefit\_rates\_2011\_2012.pdf.

<sup>&</sup>lt;sup>5</sup> Beecham, J. & Knapp, M. (1992) Costing psychiatric interventions, in G. Thornicroft, C. Brewin & J. Wing (eds) *Measuring Mental Health Needs*, Oxford University Press, Oxford.

<sup>&</sup>lt;sup>6</sup> Nihira, K., Leland, H. & Lambert, N. (1993) *Adaptive Behavior Scale — Residential and Community*, 2nd Edition, Pro-Ed, Austin, Texas.

## 4.4 Local authority day care for people with learning disabilities

This table uses the Personal Social Services Expenditure return (PSS EX1) <sup>1</sup> for revenue costs, which have been uprated using the PSS Pay & Prices inflator. The median cost was £300 per client week and the mean cost was £285 per client week (including capital costs). These data do not report how many sessions clients attended each week.

Costs and unit	2010/2011	Notes
estimation	value	
Capital costs (A, B		Based on the new-build and land requirements for local authority day care
& C)		facilities (which do not distinguish by client group). These allow for 33.4 square
A. Buildings and	£4.60 per	metres per person. <sup>2</sup> Capital costs have been annuitised over 60 years at a
oncosts	session	discount rate of 3.5 per cent.
B. Land	£0.80 per	Based on Department for Communities and Local Government statistics. <sup>3</sup> Land
	session	costs have been discounted at 3.5 per cent over 60 years.
C. Other capital		Capital costs not relating to buildings and oncosts are included in the revenue
		costs so no additional cost has been added for other capital such as equipment
		and durables.
Revenue costs		Assuming people with learning disabilities attend day care five days a week, the
D. Salary and other	£55 per session	median and mean costs per day were £55 and £52 respectively. Capital charges
revenue costs		on the revenue account which relate to buildings have been deducted.
E. Agency		Social Services Management and Support Services (SSMSS) costs are included in
overheads		PSS EX1 revenue cost figures so no additional overheads have been added.
Use of facility by		Assumes attendance of 5 sessions a week.
client		
Occupancy		No current information is available.
London multiplier	1.20 x (A to B);	Relative London costs are drawn from the same source as the base data for each
	1.20 x (D to E)	cost element.
Unit costs available 2	010/2011	
£60 per session (inclu	des A to D).	

<sup>&</sup>lt;sup>1</sup> The Information Centre (2010) *PSS EX1 2009/10*, The Information Centre, Leeds.

<sup>&</sup>lt;sup>2</sup> Building Cost Information Service (2011) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>3</sup> Personal communication with the Department for Communities and Local Government, 2011.

# 5. Services for younger adults with physical and sensory impairments

- 5.1 High-dependency care home for younger adults with physical and sensory impairments
- 5.2 Residential home for younger adults with physical and sensory impairments
- 5.3 Special needs flats for younger adults with physical and sensory impairments
- 5.4 Rehabilitation day centre for younger adults with brain injury

# 5.1 High-dependency care home for younger adults with physical and sensory impairments

This table is based on information received from John Grooms in 2002 detailing the costs of providing a high-dependency residential centre. This registered nursing home provides 17 nursing places and one residential care place, for people with severe physical disabilities (commonly multiple sclerosis and brain injury) who are aged between 18 and 65 on admission. All of the residents use wheelchairs and many have communication problems. The emphasis is to enable people to develop their individuality and lifestyle in an environment that is acceptable to them as their long-term home. Each resident occupies an open-plan flatlet with en-suite facilities and a simple food preparation area. The objective is to provide a living environment that offers privacy and reasonable space in which to live to those who do not have the option of community living because of the severity of their condition. Costs have been uprated to 2010/2011 prices using the PSS inflators.

Costs and unit	2010/2011 value	Notes
estimation		
Capital Costs (A, B, C & D)		Capital costs for buildings and land were calculated using data which
A. Buildings	£196 per week	reflect Housing Corporation accessibility and build standards. Costs have
		been inflated using the BCIS/ABI House Rebuilding index. <sup>2</sup> The value of
		the building was annuitised over a 60-year period and discounted at 3.5
		per cent.
B. Land costs	£27 per week	Land costs have been discounted at 3.5 per cent over 60 years. <sup>3</sup>
C. Equipment/durables:		
- wheelchairs	£7.70 per week	Cost of powered chair, see schema 7.2.
- furnishings/fittings	£8.30 per week	Depreciation on furniture/fittings, calculated using facility-specific
- turnishings/fittings	18.30 per week	accounts.
D. Vehicles	£5.60 per week	
Revenue costs	·	
E. Salary costs	£848 per week	Costs of direct management, administrative, maintenance, medical and
		care staff. Calculated using facility-specific accounts information.
F. Training	£16 per week	Calculated using facility-specific accounts.
G. Maintenance	£19 per week	Includes repairs and contracts and cyclical maintenance.
H. Medical costs	£12 per week	Calculated using facility-specific accounts.
11. Ivieuicai costs	L12 per week	Calculated using facility-specific accounts.
I. Other revenue costs	£189 per week	Includes insurance, travel, staff adverts, uniforms, printing and stationery,
		telephone, postage, equipment replacement, household expenses,
		premises costs, cost of provisions, household, linen and laundry costs.
J. Overheads	£50 per week	Charges incurred for support from the linked national organisation.
K. External services		No information available.
Use of facility by resident	52.18 weeks	
	per annum	
Number of residents	18	17 nursing home places and 1 residential home place.
Unit costs available 2010/2011		
£1,378 per resident week.		

 $_{1}$  Information provided by David Newnham, Director of Services and Development at John Grooms in 2005.

<sup>&</sup>lt;sup>2</sup> Building Cost Information Service (2011) Surveys of Tender Prices, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>3</sup> Personal communication with the Department for Communities and Local Government, 2011.

# 5.2 Residential home for younger adults with physical and sensory impairments

This table is based on information received from John Grooms and is based on one residential home for younger adults with physical and sensory impairments. The home has 20 places for people aged between 18 and 65 on admission. It does not specialise in providing a service for any particular type of disability, but many of the residents are people with cerebral palsy and brain injury. The residents occupy individual open-plan flatlets offering en suite and food preparation facilities. Many residents prepare their own meals, and activities of daily living skills are developed with the goal of enabling residents to live independently in the community. The aim is for about 50 per cent of residents to follow this route while the remainder will remain for long-term care. The rate of 'move on' is slow, with one or two people leaving to live in the community per year. Dependency of residents is increasing, presenting greater obstacles for them in gaining independent living skills and reducing the likelihood of their living independently in the community. Costs have been inflated to 2010/2011 prices using the PSS Pay and Prices inflators.

Using PSS EX1 2009/10 uprated using the PSS Pay & Prices inflator, the mean cost of local authority residential care for adults with a physical disability or sensory impairment is £1,297 and the median cost is £877. The mean cost of residential care provided by others for adults with a physical disability or sensory impairment is £824 and the median cost is £829.

Costs and unit estimation	2010/2011 value	Notes
Capital costs (A, B, C & D)		Capital costs for building and land were based on the actual cost of the building and uprated using the BCIS/ABI House Rebuilding index. The value
A. Buildings	£85 per week	of the building was annuitised over a 60-year period discounted at 3.5 per cent.
B. Land costs	£13 per week	Based on an approximate measurement of 0.35 acres provided by John Grooms. Land costs have been annuitised at 3.5 per cent over 60 years.
C. Equipment/durables: - wheelchairs - furnishings/fittings	£7.70 per week £6.90 per week	Cost of powered chair, see schema 7.2.  Depreciation on furniture/fittings, calculated using facility-specific accounts.
D. Vehicles	£2.00 per week	Calculated using facility-specific accounts.
Revenue costs E. Salary costs	£519 per week	Costs of direct management, administrative, maintenance, medical and care staff. Calculated using facility-specific accounts.
F. Training G. Maintenance	£8.00 per week £30 per week	Calculated using facility-specific accounts. Includes repairs and contracts and cyclical maintenance.
H. Other revenue costs	£72 per week	Includes insurance, travel, staff adverts, uniforms, printing and stationery, telephone, postage, equipment replacement, household expenses, medical, premises and household and laundry costs. Calculated using facility-specific accounts information.
I. Overheads	£24 per week	Charges incurred for support from the linked national organisation.
J. External services		No information available.
Use of facility by	52.18 weeks	
resident	per annum	
Number of residents	20 places	
Unit costs available 2010,	/2011	
£768 per resident week.		

<sup>&</sup>lt;sup>1</sup> Information provided by David Newnham, Director of Services and Development for John Grooms, London.

<sup>&</sup>lt;sup>2</sup> The Information Centre (2010) *PSS EX1 2009/10*, The Information Centre, Leeds.

# 5.3 Special needs flats for younger adults with physical and sensory impairments

This table is based on information received from John Grooms in 2002 detailing the costs of providing a 24-hour on-site care service for five people with disabilities. The service consists of three single flats, a double flat and office space which is also used at night to accommodate a sleeping-in member of staff. The service provides at least one person on duty both day and night, with two cross-over periods during the day when two people are on duty. The care provided may include personal care, domestic tasks (including meal preparation), and assistance in maintaining social contacts, monitoring well-being and teaching/encouraging daily living and social skills. Residents live as independently as possible, making use of external health and social care services as identified below. Costs have been inflated to 2010/2011 prices.

Costs and unit	2010/2011 value	Notes
estimation		
Capital costs (A, B & C)	_	Capital costs for buildings were calculated using data which reflect
A. Buildings	£128 per week	Housing Corporation accessibility and build standards. The cost has been
		uprated using the BCIS/ABI House Rebuilding index. <sup>2</sup> The value of the
		building was annuitised over a 60-year period discounted at 3.5 per cent.
B. Land costs	£21 per week	The cost of land has been annuitised at 3.5 per cent over 60 years.
C. Equipment/durables:		
- wheelchairs	£7.70 per week	Cost of powered chair, see schema 7.2.
- furnishings/fittings	£8.50 per week	Depreciation on furniture/fittings.
Revenue costs		
D. Salary costs	£420 per week	Costs of direct management and care staff. Calculated using facility-
		specific accounts information.
E. Travel	£0.90 per week	Calculated using facility specific accounts.
F. Training	£2.10 per week	Includes insurance, staff adverts, uniforms, printing and stationery,
G. Other revenue costs	£16 per week	telephone, postage, equipment replacement, household expenses,
		premises and cost of provisions.
H. Overheads	£8.90 per week	Charges incurred for support from the linked national organisation.
Personal living expenses		Based on information taken from the disabled people's costs of living:
		more than you would think for service users with high to medium needs. <sup>3</sup>
I. Basic living costs	£184 per week	Basic living costs include food and drinks, clothing and footwear, health,
G	·	and miscellaneous costs such as personal care and insurances. It is
		assumed that housing, fuel and power costs are covered by the fee.
J. Other living costs	£127 per week	This includes recreation, culture and education costs.
K. External services		
Resident A	£211 per week	Resident A attends a day centre workshop 3 days per week, funded by
		social services. In addition, has volunteer support.
Resident B	£243 per week	Resident B is attended by the district nurse each night and during the day
		on two occasions each week. Four additional hours' care per day provided
Resident C	£151 per week	by scheme's care staff.
		Residents C is independent and rarely has personal care input unless
Resident D	£7.00 per week	unwell. From time to time requests help with domestic tasks from LA
		social services.
		Resident D is independent and has no external input.
Use of facility by client	52.18 weeks	
	per annum	
Number of clients	5	
Unit costs available 2010/	2011	,

#### Unit costs available 2010/2011

£604 per week's accommodation and on-site support (includes A to G); £757 per week all service and accommodation costs (includes A to G & K); £941 per week accommodation, support services and basic living (equivalent to care home costs) (A to I & K); £1,068 comprehensive package cost including external services and all living expenses (includes A to K).

<sup>2</sup> Building Cost Information Service (2011) Surveys of Tender Prices, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>1</sup> Information provided by David Newnham, Director of Services and Development for John Grooms, London.

<sup>&</sup>lt;sup>3</sup> Smith, N., Middleton, S., Ashton-Brooks, K., Cox, L. & Dobson, B. with Reith, L. (2004) *Disabled People's Costs of Living. More Than You Would Think*, Joseph Rowntree Foundation, York.

### 5.4 Rehabilitation day centre for younger adults with brain injury

This table is based on information received from John Grooms in 2002, detailing the costs of providing a day rehabilitation centre for people with acquired brain injury, <sup>1</sup> including those with traumatic brain injury and younger people who have had strokes. The facility provides up to 30 places per day, with a current case load of approximately 160 people. The centre operates on an outpatient basis and offers a full and intensive rehabilitation programme. The service model relies on strong partnerships with health and social services, as well as Addenbrooke Hospital, who provide specialist traumatic brain injury services. The service enables people with brain injury to remain in their own homes and to receive specialist intensive rehabilitation, rather than being referred to specialist residential rehabilitation in other areas of the country. The service has enabled the development of multi-disciplinary teamwork with a focus on the treatment of people with brain injury in a non-health care setting. Costs have been inflated to 2010/2011 prices.

Costs and unit estimation	2010/2011 value	Notes
Capital costs (A, B, C & D) A. Buildings	£13 per day	The capital costs for the buildings and land were based on the actual costs of buildings in 2001/2002 and uprated using the BCIS/ABI House Rebuilding index. <sup>2</sup> The value of the building was annuitised over a 60-year period discounted at 3.5 per cent.
B. Land costs	£1.30 per day	Based on 1,053 square metres. Data provided by John Grooms and annuitised at a discount rate of 3.5 per cent over 60 years.
C. Equipment/durables: - furnishings/fittings	£1.60 per day	Depreciation on furniture/fittings calculated using facility-specific accounts.
D. Capital costs for transport		
Revenue costs E. Salary costs	£52 per day	Costs of direct management, administrative, maintenance and medical. Calculated using facility-specific accounts information.
F. Travel	£1.50 per day	Calculated using facility-specific accounts.
G. Training	£0.50 per day	Calculated using facility-specific accounts.
H. Maintenance	£2.60 per day	Includes repairs and contracts and cyclical maintenance.
I. Other revenue costs	£14 per day	Includes insurance, staff adverts, uniforms, printing and stationery, telephone, postage, equipment replacement & household expenses and premises costs.
J. Overheads	£5.00 per day	Charges incurred for support from the linked national organisation.
Use of facility by client	253 days per year	The centre is closed at weekends and during public holidays.
Number of clients	30 places	160 clients attend the centre.
Unit costs available 2010/201	11	
£92 per place per day.		

<sup>&</sup>lt;sup>1</sup> Information provided by David Newnham, Director of Services and Development for John Grooms, London.

<sup>&</sup>lt;sup>2</sup> Building Cost Information Service (2011) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

## 6. Services for children and their families

- 6.1 NHS reference costs for children's health services
- 6.2 Community home for children—local authority
- 6.3 Community home for children—non-statutory sector
- 6.4 Local authority foster care for children
- 6.5 Social services support for children in need
- 6.6 Comparative costs of providing sexually abused children with individual and group psychotherapy
- 6.7 Key worker services for disabled children and their families
- 6.8 Multi-Systemic Therapy (MST)
- 6.9 Multidimensional treatment foster care
- 6.10 Incredible Years Parenting Programme
- 6.11 Short breaks for disabled children and their families

### 6.1 NHS reference costs for children's health services

We have drawn on the *NHS Trust and Primary Care Trusts combined* to report from the NHS Reference Costs of selected children's health services. All costs have been uprated to 2010/2011 levels using the HCHS Pay & Prices inflator.

	Lower quartile	Upper quartile	National average
COMMUNITY SERVICES			
Therapy services			
Physiotherapy group (one-to-one)	£30 (£52)	£160 (£89)	£93 (£77)
Occupational therapy group (one-to-one)	£84 (£76)	£175 (£148)	£155 (£118)
Speech therapy services group (one-to-one)	£48 (£63)	£101 (£101)	£78 (£84)
Other community services (includes child public			
health, safeguarding, statutory work for education			
and social services and other services, but excludes			
TFC 291 and other vaccination programmes)			
Weighted average of face-to-face contact	£196	£351	£290
Weighted average of non-face-to-face contact	£113	£198	£186
Community and outreach nursing			
School-based children's health services - group (one-to-one)	£25 (£22)	£42 (£46)	£38 (£36)
Vaccination programmes			
School-based children's health services	£18	£30	£28
Community nursing services — general	£41	£106	£82
OUTPATIENT ATTENDANCES			
Weighted average for all paediatric services	n/a	n/a	£775
MENTAL HEALTH			
Day care facilities — regular attendances	£216	£314	£284
Specialist inpatient services (weighted average of eating			
disorder, and mother and baby units)	£550	£784	£663
Consultant services — outpatient, weighted average of drugs			
and alcohol, and other services — follow-up face-to-face	£207	£266	£261
Child and Adolescent Medium Secure Services	£980	£1,340	£1,130

<sup>&</sup>lt;sup>1</sup> Department of Health (2011) *NHS Reference Costs 2009-2010,* www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\_123459.

## 6.2 Care home for children — local authority

The Costs and Effectiveness of Services for Children in Need study 'Management, Leadership and Resources in Children's Homes' (funded under the Department of Health's Costs and Effectiveness of Services for Children In Need initiative)<sup>1</sup> estimated the costs for a sample of 30 local authority residential homes in England. Using a combination of this research and publicly available data, this table presents the costs per resident week for a local authority care home for children. Establishment costs per week were £2,767 per resident week and costs including external services were £2,965. All costs have been uprated using the PSS Pay & Prices index. Based on Section 251<sup>2</sup> of the Department for Education's Financial Data collection for outturn 2009/10 and activity data (tables 7 and 8 of a report provided by the Department for Education for this work),<sup>3</sup> the cost for a week in an own provision residential home for children was £3,106 when uprated using the PSS Pay and Prices index. This was calculated by dividing net current expenditure (£363,977,726) for residential care for children (own provision) by the number of own provision activity days (843,072).

Costs and unit estimation	2010/2011 value	Notes
estimation	value Per resident	
C!t- t-/A D C C	week	December 2011 and leading and for the control of th
Capital costs (A, B &C)	6444	Based on the new-build and land requirements for local authority children's homes. These
A. Buildings	£111	allow for 59.95 m² per person. 4 Capital costs are discounted at 3.5 per cent over 60 years.
B. Land	£13	Based on statistics provided by the Department for Communities and Local Government. <sup>5</sup>
		Land costs have been annuitised at 3.5 per cent over 60 years.
Revenue costs		Mean costs for children looked after in own provision children's homes are based on PSS
C. Salary and other	£2,643	EX1 returns for 2007/2008 <sup>6</sup> uprated using the PSS Pay & Prices Index. Capital charges for
revenue costs		buildings have been deducted.
D. Agency overheads		Social Services Management and Support Services (SSMSS) costs are included in PSS EX1
		revenue cost figures so no additional overheads have been added.
E. Other costs		Service use data taken from the 'Management, Leadership and Resources in Children's
External services:		Homes' study are likely to be an underestimate as information on key services only was
		requested. <sup>1</sup>
Health services	£5	Costs of hospital services were taken from Trust Financial returns (CIPFA, 2001) and uprated
		to 2010/2011 prices using the HCHS Pay & Prices index. 7
Social services	£16	Support provided by field social workers, leaving care workers and family support workers.
		Unit costs were taken from Netten et al. (2001) <sup>8</sup> and uprated to 2010/2011 prices using the
Youth justice sector	£2	PSS Pay & Prices index. Costs for police contacts and youth custody were estimated using
•		information contained in Finn et al. (2000) 9 and uprated to 2010/2011 prices using the PSS
Education sector	£175	Pay & Prices Index. Costs estimated according to the location of the home using information
(excluding in-house		contained in CIPFA (2001). Home tuition costs were estimated using methodology reported
education)		by Berridge et al. (2002). <sup>10</sup> The mid-point of the pay scale for qualified teachers was used,
·		including employers' national insurance and superannuation contributions. A percentage
		(65%) was added to cover 'other institutional' expenditure and LEA overheads.
Use of facility by client	52.18 weeks	
Occupancy	84%	Taken from the 'Management, Leadership and Resources in Children's Homes' study and
		based on the occupancy rate for all Community Children's Homes. 1
London multiplier	1.06 x A; 2.73 x	Relative London costs are drawn from the same source as the base data for each cost
,	B; 1.01 x (D)	element. <sup>4,5,6</sup>
Unit costs available 2010		•
£2,767 establishment co	sts per resident we	ek (includes A to E); £2,965 care package costs per resident week (includes A to E).

<sup>&</sup>lt;sup>1</sup> Hicks, L., Gibbs, I., Weatherly, H. and Byford, S. (2009) Management, leadership and resources in children's homes: what influences outcomes in residential child-care settings?, *British Journal of Social Work*, 39, 5, 828-845.

<sup>&</sup>lt;sup>2</sup> Department for Education (2011) Section 251 data archive:Outturn data-detailed level 2008-09 onwards, outturn summary 2009-10, Department for Education, London.

www.education.gov.uk/schools/adminandfinance/financial management/schools revenue funding/section 251/archive/b0068383/section-251-data-archive/outturn-data----detailed-level-2008-09-onwards.

<sup>&</sup>lt;sup>3</sup> Personal communication with the Department for Education, 2011.

<sup>&</sup>lt;sup>4</sup> Building Cost Information Service (2011) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>5</sup> Personal communication with the Department for Communities and Local Government, 2011.

<sup>&</sup>lt;sup>6</sup> Department of Health (2008) PSS EX1 2007/08, Department of Health, London.

Objective of Public Finance and Accountancy (CIPFA) (2001) Personal Social Services Statistics 1999–2000 Actuals, Statistical Information Service. CIPFA, London.

<sup>&</sup>lt;sup>8</sup> Netten, A., Rees, T. & Harrison, G. (2001) *Unit Costs of Health and Social Care 2001*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>&</sup>lt;sup>9</sup> Finn, W., Hyslop, J. & Truman, C. (2000) *Mental Health, Multiple Needs and the Police*, Revolving Doors Agency, London.

<sup>&</sup>lt;sup>10</sup>Berridge, D., Beecham, J., Brodie, I., Cole, T., Daniels, H., Knapp, M. & MacNeill, V. (2002) *Costs and Consequences of Services for Troubled Adolescents: An Exploratory, Analytic Study,* Report to the Department of Health, University of Luton.

#### 6.3 Care home for children — non-statutory sector

The Costs and Effectiveness of Services for Children in Need study 'Management, Leadership and Resources in Children's Homes' (funded under the Department of Health's Costs and Effectiveness of Services for Children In Need initiative)<sup>1</sup> estimated the average costs of a sample of care homes in the non-statutory sector in England. Using a combination of this research and publicly available data, as detailed in this table, establishment costs per week were £2,472 per resident week and costs including external services were £2,557. All costs have been uprated using the PSS Pay & Prices index. Based on Section 251<sup>2</sup> of the Department for Education's Financial Data collection for outturn 2009/10 and activity data (tables 7 and 8 of a report provided by the Department for Education for this work),<sup>3</sup> the cost for a week in a private residential home for children was £3,467 when uprated using the PSS Pay and Prices Index. This was calculated by dividing net current expenditure (£558,885,557) for residential care for children (private) by number of activity days (1,159,610).

Costs and unit estimation	2010/2011 value Per resident week	Notes
Capital costs (A, B &C) A. Buildings	£111	Based on the new-build and land requirements for local authority children's homes.  These allow for 59.95 m <sup>2</sup> per person. <sup>4</sup> Capital costs are discounted at 3.5 per cent over 60 years.
B. Land	£13	Based on Department for Communities and Local Government statistics. Land costs have been annuitised at 3.5 per cent over 60 years.
Revenue costs C. Salary and other revenue costs	£2,347	The mean cost for children looked after in own provision children's homes is based on PSS EX1 returns for 2007/2008 uprated using the PSS Pay & Prices Index. Capital charges have been deducted. In the Leadership and Resources in Children's Homes study, staff costs accounted for 64 per cent of the total cost of homes on average.
D. Agency overheads		Social Services Management and Support Services (SSMSS) costs are included in PSS EX1 revenue cost figures so no additional overheads have been added.
E. Other costs		
External services:		Unit costs of hospital services were taken from Trust Financial returns (CIPFA, 2001)
Health services	£37	and uprated to 2010/2011 prices using the HCHS Pay & Prices index. <sup>7</sup>
Social services	£8	Support provided by field social workers, leaving care workers and family support workers were taken from Netten et al. (2001). <sup>8</sup>
Youth justice sector	£5	Costs for police contacts and youth custody were estimated using information contained in Finn et al. (2000). 9 Costs estimated according to the location of the home using information contained in CIPFA (2000). 7
Education sector	£34	Home tuition costs were estimated using methodology reported by Berridge et al.
(excluding in-house		(2002). 10 The mid-point of the pay scale for qualified teachers was used, including
education)		employers' national insurance and superannuation contributions. A percentage (65%) was added to cover 'other institutional' expenditure and LEA overheads.
Private sector costs	£2	,
Use of facility by client	52.18 weeks	
Occupancy	84%	Taken from the 'Management, Leadership and Resources in Children's Homes' study and based on the occupancy rate for all Community Children's Homes. 1
London multiplier	1.06 x A; 2.73 x B; 0.84 x (C)	Relative London costs are drawn from the same source as the base data for each cost element. 4,5,6
Unit costs available 2010/		
		ncludes A to D); £2,557 care package costs per resident week (includes A to E).

<sup>&</sup>lt;sup>1</sup> Hicks, L., Gibbs, I., Weatherly, H. and Byford, S. (2009) Management, leadership and resources in children's homes: what influences outcomes in residential child-care settings?, *British Journal of Social Work*, 39, 5, 828-845.

<sup>&</sup>lt;sup>2</sup> Department for Education (2011) *Section 251 data archive:Outturn data-detailed level 2008-09 onwards, outturn summary 2009-10,* Department for Education, London.

www.education.gov.uk/schools/adminandfinance/financial management/schools revenue funding/section 251/archive/b0068383/section-251-data-archive/outturn-data----detailed-level-2008-09-onwards.

<sup>&</sup>lt;sup>3</sup> Personal communication with the Department for Education, 2011.

<sup>&</sup>lt;sup>4</sup> Building Cost Information Service (2011) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>5</sup> Personal communication with the Department for Communities and Local Government, 2011.

<sup>&</sup>lt;sup>6</sup> Department of Health (2008) PSS EX1 2007/08. Department of Health, London.

<sup>&</sup>lt;sup>7</sup> Chartered Institute of Public Finance and Accountancy (CIPFA) (2001) *Personal Social Services Statistics 1999–2000 Actuals,* Statistical Information Service. CIPFA. London.

<sup>8</sup> Netten, A., Rees, T. & Harrison, G. (2001) *Unit Costs of Health and Social Care 2001*, Personal Social Services Research Unit, University of Kent, Canterbury

<sup>&</sup>lt;sup>9</sup> Finn, W., Hyslop, J. & Truman, C. (2000) *Mental Health, Multiple Needs and the Police*, Revolving Doors Agency, London.

<sup>&</sup>lt;sup>10</sup>Provisional cost based on the cost of mainstream schooling taken from D. Berridge et al. (2002) Costs and Consequences of Services for Troubled Adolescents: An Exploratory, Analytic Study, Report to the Department of Health, University of Luton.

### 6.4 Local authority foster care for children

This schema provides the cost of local authority foster care for children. For information on multidimensional treatment foster care, see schema 6.8 of this volume.

Costs and unit estimation	2010/2011 value	Notes
A. Boarding out allowances and administration	£400 per child per week	Using Section 251 <sup>1</sup> and dividing total net expenditure for own provision foster care of £663,972,914 by the total number of activity days (11,938,827), <sup>2</sup> the cost per day for 2009/10 was £55.60 (£389 per week). When uprated using the PSS Pay and Prices inflator, this was £400 per child per week.  Using Section 251 <sup>1</sup> and dividing total net expenditure for all foster care (includes own provision, private, other public and voluntary foster care) of £1,269,391,795 <sup>2</sup> by the total number of activity days (16,612,420), <sup>2</sup> the cost per day for all provision foster care for 2009/10 was £76.30 (£535 per week). When uprated using the Personal Social Services PSS Pay and Prices inflator, this was £548 per week.
B. Social services (including cost of social worker and support)	£230 per child per week	The majority of children looked after are in foster placements and the mean cost of support from fieldwork teams and centres (costed staff/centre time) has been estimated by using the Children in Need (CiN) Census 2005 <sup>3</sup> and uprated to current levels using the PSS Pay and Prices Inflators.
C. Other services, including education	£64 per child per week	A study by Beecham and Knapp (1995) <sup>4</sup> found that other services including health, education and law and order (estimated on the same basis as services to those in community homes) added a further 16 per cent to the cost.
Service use by client	52.18 weeks per year	
London multiplier	1.24	Based on PSS EX1 data for 2007/08. Costs in London were considerably higher, and this is likely to be partly as a result of having a larger market, with Independent Fostering Agencies available.
Unit costs available 2010/	2011	
£694 per child per week (ir	ncludes A to C).	

<sup>3</sup> Department for Education and Skills (2005) *Children in Need in England: Results of a Survey of Activity and Expenditure as Reported by Local Authority Social Services' Children and Families Teams for a Survey Week in February 2005*, Department for Education and Skills, London.

<sup>&</sup>lt;sup>1</sup> Department for Education (2011) Section 251 data archive: Outturn data-detailed level 2008-09 onwards, outturn summary 2009-10, Department for Education, London.

www.education.gov.uk/schools/adminandfinance/financial management/schools revenue funding/section 251/archive/b0068383/section-251-data-archive/outturn-data---detailed-level-2008-09-onwards.

<sup>&</sup>lt;sup>2</sup> Personal communication with the Department for Education, 2011.

<sup>&</sup>lt;sup>4</sup> Beecham, J. & Knapp, M. (1995) The costs of child care assessment, in R. Sinclair, L. Garnett & D. Berridge (eds) *Social Work Assessment with Adolescents*, National Children's Bureau, London.

<sup>&</sup>lt;sup>5</sup> Department of Health (2008) *PSS EX1 2007/08*, Department of Health, London.

#### 6.5 Social services support for Children in Need

Until 2005, the Children in Need Census was a biennial survey which collected information on the numbers and characteristics of children in need: that is, children receiving social services support. The unit costs of these services were also published for a survey week in February 2005 which included 234,700 children.<sup>1</sup> Since 2008/09, the Children in Need Census has been annual, but has contained slightly different information. In 2008/09, although financial information was collected, rather than being for a sample week as in previous censuses, the collection covered six months. Further differences between these two surveys are discussed in Mahon (2008).<sup>2</sup>

In this schema, therefore, we present information collected in 2005 which is based on services received by each child seen during a survey week in February. These costs have been uprated to 2010/2011 costs using the PSS Pay and Prices inflators. At 2010/2011 prices, the average weekly cost for looked-after children was £789, while for children supported in their families or independently, the cost was £161, with an average cost per Child In Need of £333.

Three types of expenditure are captured.

- 1) The costs of field and centre staff time carrying out social services activities with, or on behalf of, identified children in need and their families.
- 2) The costs of providing care and accommodation for children looked after (and similar regular, ongoing expenditure that can be treated in the same way).
- 3) One off or ad hoc payments and purchases for children in need or their families.

#### 6.5.1 Social services' costs per child per week by region

Location	Children supported in families or independently		families or		Total	
	Total no. of children	Average cost per child	Total no. of children	Average cost per child	Total no. of children	Average cost per child
All shire counties	60,265	£144	22,875	£737	83,140	£305
All unitary authorities	35,235	£144	12,115	£846	47,350	£322
All metropolitan districts	40,760	£155	18,685	£702	59,445	£328
All London authorities	32,490	£224	12,230	£944	44,720	£420
England	168,750	£ <b>161</b>	65,900	£ <b>783</b>	234,700	£ <b>334</b>

<sup>&</sup>lt;sup>1</sup> For further information on this survey see www.dcsf.gov.uk/rsgateway/DB/VOLv000647/vweb02-2006.pdf

<sup>&</sup>lt;sup>2</sup> Mahon, J. (2008) *Towards the New Children in Need Census*, York Consulting, www.education.gov.uk/research/data/uploadfiles/DCSF-RW039.pdf, accessed 15 September 2010.

## 6.5.2 Social services costs per child per week by need category

Need category <sup>1</sup>	Children supported in families or independently		Children looked after		
	Total no. of children	Mean cost per child	Total no. of children	Mean cost per child	
Abuse/neglect	50,900	£161	36,000	£748	
Disability	21,100	£184	8,700	£748	
Parental illness or disability	8,400	£161	3,200	£702	
Family in acute stress	20,000	£138	4,100	£978	
Family dysfunction	23,400	£150	6,400	£886	
Socially unacceptable behaviour	12,200	£184	1,800	£1,381	
Low income	3,900	£173	270	£760	
Absent parenting	5,500	£230	4,400	£691	
Cases other than children in need	8,000	£127	460	£668	
Cases not stated	15,400	£150	660	£541	

### 6.5.3 Average cost (£ per week) per child receiving a service

	Children supported in families or independently	Children looked after	Total
	Mean cost per child	Mean cost per child	Mean cost per child
Costs for staff/centre time	£132	£230	£161
Ongoing costs	£23	£547	£167
One-off costs	£6	£12	£5
Total costs	£161	£789	£333

## 6.5.4 Average amounts spent on children receiving a service (£ per week)

	Children supported in families or independently		Children looked after		Total	
	Mean hours per child	Mean cost per child	Mean hours per child	Mean cost per child	Mean hours per child	Mean cost per child
Asylum seeking children	1.5	£253	2.4	£691	1.8	£409
Disabled children	2.5	£184	3.0	£817	2.7	£403
Autistic children	2.6	£190	2.8	£950	2.7	£483
All children	2.3	£161	3.5	£789	2.7	£333

<sup>&</sup>lt;sup>1</sup> As specified in Department for Education and Skills (2005) Children in Need in England: Results of a Survey of Activity and Expenditure as Reported by Local Authority Social Services' Children and Families Teams for a Survey Week in February 2005, Department for Education and Skills, London.

# 6.6 Comparative costs of providing sexually abused children with individual and group psychotherapy

As part of the Children in Need research initiative, Paul McCrone and colleagues (2005) compared the costs of individual and group psychotherapy for children who have been sexually abused. Subjects were recruited to two clinics in London and randomly allocated to the two treatments. Girls between the ages of six and 14 who, within the previous two years, had disclosed sexual abuse and had symptoms of emotional or behavioural disturbance that warranted treatment were eligible for inclusion. The girls who consented to participate in the study were randomly allocated either to individual (n=35) or group psychotherapy (n=36). The individual treatment comprised up to 30 sessions of focused psychoanalytical psychotherapy. Individual therapists received supervision from a senior child psychotherapist in pairs after every other session. The group treatment consisted of up to 18 sessions with about five girls of similar ages, and incorporated psychotherapeutic and psycho-educational components. Various professionals provided therapy, including child psychiatrists, psychotherapists, nurse practitioners and specialist, occupational therapists and social workers. The girls were assessed at baseline, and followed up at one and two years after treatment had commenced.

Research found that these therapies have similar outcomes and, although this is a single small study and further work is required to strengthen the evidence-base before change in practice is undertaken, results of the study suggest that group therapy is more cost-effective than individual therapy. The mean cost of group therapy uprated to 2010/2011 levels was £2,893, and the total mean cost of individual therapy uprated to 2010/2011 levels was £4,728.

Service use data extracted from case notes and therapists' files were combined with unit costs representing the long-run marginal opportunity costs of the professionals involved in providing the service. Some of these were obtained from *Unit Costs of Health and Social Care 1999*<sup>2</sup> while others were estimated from (national) pay scales and any additional elements were based on similar services reported in that publication. These unit costs consist of salary, employer superannuation and national insurance contributions, overheads and capital costs. Costs shown in the tables have been up-rated to 2010/2011 levels using the appropriate indices.

<sup>&</sup>lt;sup>1</sup> McCrone, P., Weeramanthri, T., Knapp, M., Rushton, A., Trowell, J., Miles, G. & Kolvin, I. (2005) Cost-effectiveness of individual versus group psychotherapy for sexually abused girls, Child and Adolescent Mental Health, 10, 26-31. For further information contact Prof Paul McCrone, Centre for the Economics of Mental Health, Box PO24, Health Services Research Department, Institute of Psychiatry, De Crespigny Park, London SE5 8AF (p.mccrone@iop.kcl.ac.uk).

<sup>&</sup>lt;sup>2</sup> Netten, A., Dennett, J. & Knight, J. (1999) *Unit Costs of Health and Social Care 1999*, Personal Social Services Research Unit, University of Kent, Canterbury.

# 6.6.1 Group therapy

Intervention	Sample size	Provider	Duration (minutes)
	(n=36)		
Introductory meeting			
Mean (sd) no. of meetings	1 (0)	Consultant psychiatrist	16
Mean (sd) cost, £	£71 (£15)	Senior social worker	16
Initial assessment		Research psychologist	120
Mean (sd) no. of assessments	1 (0)	Consultant psychiatrist/senior	
		registrar	90
Mean (sd) cost, £	£594 (£44)	Senior social worker	105
Therapy provided to girls			
Mean (sd) no. of sessions	13.3 (4)	Various professionals providing 18	75
Mean (sd) cost, £	£578 (£209)	sessions	
Carers' support			
Mean (sd) no. of sessions	10.1 (5.3)	Social worker providing 10 sessions	50
Mean (sd)) cost, £	£537 (£382)		
Supervision of girls' therapists			
Mean (sd) number of sessions	13.3 (4.0)	Senior social worker/consultant	75
Mean (sd) cost, £	£454 (£153)	psychiatrist providing 18 sessions	
Supervision of carers' workers			
Mean (sd) number of sessions	3.4 (1.8)	Senior social worker providing	60
Mean (sd) cost, £	£220 (£156)	monthly sessions	
Follow-up assessments			
one year follow-up	1.5 (0.7)	Research psychologist	30
Mean (sd) number of	£438 (£237)	Consultant psychiatrist/senior	45
assessments		registrar Senior social worker	
Mean (sd) cost £		Semon Social Worker	45
mean (sa) cost L		All providing 1 session each	43
Mean (sd) total cost, £	£2,893 (£1,196)		

# 6.6.2 Individual therapy

Intervention	Sample size (n=35)	Provider	Duration (minutes)
Introductory meeting			
Mean (sd) no. of meetings	1 (0)	Consultant psychiatrist	16
Mean (sd) cost, £	£69 (£16)	Senior social worker	16
Initial assessment			
Mean (sd) no. of assessments	1 (0)	Research psychologist	120
Mean (sd) cost, £	£585 (£47)	Consultant psychiatrist/senior	90
		registrar	105
		Senior social worker	
Therapy provided to girls			
Mean (sd) no. of sessions	26 (8.1)	Various professionals providing 30	75
Mean (sd) cost, £	£1,401 (£521)	sessions	
Carers' support			
Mean (sd) no. of sessions	14.2 (9.3)	Social worker providing 15 sessions	50
Mean (sd)) cost, £	£1,367 (£932)		
Supervision of girls' therapists			
Mean (sd) number of sessions	13.0 (4.1)	Senior child psychotherapist	60
Mean (sd) cost, £	£518 (£162)	providing 15 sessions	
Supervision of carers' workers			
Mean (sd) number of sessions	4.7 (3.1)	Senior social worker providing	60
Mean (sd) cost, £	£387 (£286)	monthly sessions	
Follow-up assessments			
One year follow-up	1.4 (0.7)	Research psychologist	30
		Consultant psychiatrist/senior	45
Mean (sd) no. of assessments	£402 (£247)	registrar	45
Mean (sd) cost £		Senior social worker	
		All providing 1 session each	
Mean (sd) total cost, £	£4,728 (£2,210)		

#### 6.7 Key worker services for disabled children and their families

Key workers provide a single point of contact for disabled children and their families, supporting them and facilitating access to other services. Both key workers and the families supported see the key worker role as providing information and advice, identifying and addressing needs, accessing and co-ordinating services for the family, providing emotional support, and acting as an advocate. The National Service Framework for Children, Young People and Maternity Services (Department of Health & Department for Education and Skills, 2004)<sup>1</sup> recommends provision of key workers to help families obtain the services they require. Research has shown that key worker services appear to generate good outcomes for families, and provision is encouraged through central government policy.

In 2004/05, research was carried out in seven service sites providing key worker services in order to explore the effectiveness of different models and also to calculate costs (Greco et al., 2005; Beecham et al., 2007). In total, 205 families returned questionnaires of which there were 189 valid responses. Predominately, key workers included in the sample came from four professional backgrounds: health visiting, nursing, teaching and social work. However, parents, paediatricians, dieticians, speech therapists, occupational therapists, physiotherapists and early years workers also acted as key workers. The children supported by these seven key worker services had a range of diagnoses of which autistic spectrum disorders, cerebral palsy and developmental delay were the most common. Most children had more than one condition.

The table below shows that the average cost per working hour for the seven services was £35, ranging from £27 to £43. This has been calculated by dividing the total cost by the total number of hours for which staff members undertook keyworking activities. The unit cost is therefore, weighted for the staff-mix on each service. Over a three-month period, the average and mean cost of contact, taking into account telephone calls and the costs of visits, were £155 and £89 respectively. All costs have been uprated to reflect 2010/2011 prices.

Assuming this level of contact to be constant over 12 months, annual average contact costs would be £717. Using information provided by 11 key workers reporting time use, the contact to other activity ratio is 1:2.6 (for each hour spent in contact with the family, two and a half hours are spent on activities such as travel, liaison, meetings etc.). At 2010/2011 prices, the total cost of all schemes was £2,306,302 and the total caseload was 1,237, giving an average annual cost per family across the schemes of £1,864.

Use and costs of key worker services in three months prior to survey								
Service	Cost per working hour (£)	Mean number of visits (range)	Mean number of telephone calls (range)	Mean cost of visits and telephone calls (£)	Median cost of visits and telephone calls (£)			
Α	£27	2.9 (0-8)	6.7 (1-16)	£147	£128			
В	£43	2.7 (0-24)	5.0 (0-60)	£190	£92			
С	£37	3.6 (0-10)	5.4 (1-80)	£194	£145			
D	£39	1.9 (0-12)	2.5 (0-12)	£111	£61			
E	£39	2.8 (0-20)	4.6 (0-50)	£189	£117			
F	£33	4.4 (0-12)	2.5 (0-12)	£114	£77			
G	£25	1.4 (0-6)	2.1 (0-6)	£40	£25			
Total/average	£35	2.8 (0-24)	4.4 (0-60)	£155	£89			

<sup>&</sup>lt;sup>1</sup> Department of Health & Department for Education and Skills (2004) *National Service Framework for Children, Young People and Maternity Services*, Department of Health & Department for Education and Skills, London.

<sup>&</sup>lt;sup>2</sup> Greco, V., Sloper, P., Webb, R. & Beecham, J. (2005) *An Exploration of Different Models of Multi-Agency Partnerships in Key Worker Services for Disabled Children: Effectiveness and Costs*, Social Policy Research Unit, University of York.

<sup>&</sup>lt;sup>3</sup> Beecham, J., Sloper, P., Greco, V. & Webb, R. (2007) The costs of key worker support for disabled children and their families, *Child: Care, Health and Development* (Online Early Articles), doi: 10.1111/j.1365-2214.2007.00740.x.

### 6.8 Multi-systemic therapy (MST)

This schema is based on a costing which was undertaken for a randomised controlled trial of interventions for adolescents aged 11-17 years at risk of continuing criminal activity. 1

Costs and unit estimation	Unit cost 2010/2011	Notes
A. Salary plus oncosts	£45,362 per year	Based on the salary of a chartered counselling psychologist. Employers' national insurance is included plus 14 per cent of salary for employers' contribution to superannuation.
B. Overheads		Taken from NHS (England) Summarised Accounts. See preface for more information.
Management, administration and estates staff.	£8,664 per year	Management and other non-care staff costs were 19.1 per cent of direct care salary costs and included administration and estates staff.  Non-staff costs were 41.6 per cent of direct care salary costs. They
Non-staff	£18,871 per year	include costs to the provider for office, travel/transport and telephone, education and training, supplies and services (clinical and general), as well as utilities such as water, gas and electricity.
C. Capital overheads	£2,592 per year	Based on the new-build and land requirements of NHS facilities and adjusted to reflect shared used of both treatment and non-treatment space. Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent.
Working time	41.3 weeks per annum 37.5 hours per week	Includes 29 days annual leave and 8 days statutory leave. Assumes 5 study/training and 12 days sickness leave. Unit costs based on 1549 hours per annum.
Face-to-face time	1:1.40	The direct: indirect ratio was based on a survey of the three MST therapists who took part in the trial.
Length of sessions	60 minutes	Therapy sessions lasted 60 minutes.
Unit costs available 2010/203	11	
£49 per hour; £117 per thera	py session.	

<sup>1</sup> Butler, S., Baruch, G., Hickey, N. & Fonagy, P. (published online November 2011). A randomized controlled trial of Multisystemic Therapy and statutory therapeutic intervention for young offenders, *Journal of the American Academy of Child and Adolescent Psychiatry*. www.jaacap.com/.

<sup>&</sup>lt;sup>2</sup>The Audit Commission (2010) NHS (England) (2010) Summarised Accounts 2009-2010, NHS, London.

<sup>&</sup>lt;sup>3</sup> NHS Employers (2005) *Agenda for Change: NHS Terms and Conditions of Service Handbook*, NHS Employers, London.

#### 6.9 Multidimensional treatment foster care

Multidimensional treatment foster care (MTFC) is a programme of intervention designed for young people who display emotional and behavioural difficulties. It is based upon social learning and attachment theories, and provides intensive support in a family setting. A multidisciplinary team of professionals work with MTFC foster carers to change behaviour through the promotion of positive role models. Placements are intensive and tailored to the child's specific needs, with 24-hour support to carers. The specialised team of professionals is responsible for the planning and delivery of the programme, and each practitioner has a clearly defined role. The core team consists of a programme supervisor, individual therapist, birth family therapist, skills worker, administrator, foster carer recruiter and education worker; additional staff may be appointed in some local authorities (see table 6.4 for information on local authority foster care for children).

Research was carried out by the Centre for Child and Family Research, Loughborough University to calculate the costs of multidimensional treatment foster care<sup>1</sup> and to analyse how these costs compare with those of other types of provision for young people with similar needs. This research built on a previous study to explore the costs and outcomes of services provided to looked-after children, and the calculation of unit costs of eight social care processes.<sup>2</sup> The process costs shown below align with those in the tables for children in care (8.4.1-8.4.4), in particular the high-cost children. Costs per hour have been calculated using Curtis (2007)<sup>3</sup> and include overheads and capital costs. For each process the salary and overhead costs have been multiplied by the time spent by the practitioners involved to calculate the unit costs. The costs tablulated below for providing and maintaining the placement account for over 90 per cent of the costs of a care episode, but exclude the set-up costs. Costs have been uprated from 2006/2007 to 2010/2011 prices using the PSS Pay and Prices Inflators.

#### 6.9.1 Costs of eight social care processes for MTFC

Process number	MTFC cost per child (2010/2011 prices)
Process one: decision to place and finding first MTFC placement	£6,723
Process two: care planning	£131
Process three: maintaining the placement (per month)	£6,164
Process four: leaving care/accommodation	£287
Process five: finding subsequent MTFC placement	£6,407
Process six: review	£439
Process seven: legal process	£3,019
Process eight: transition to leaving care services	£1,271

## 6.9.2 Process costs for other types of provision for young people

Process number	LA foster care in LA area (2010/2011 prices)	Agency/foster care in LA area (2010/2011 prices)	Agency residential in LA area (2010/2011 prices)
Process one	£1,167	£1,519	£1,470
Process two	£131	£131	£131
Process three	£2,980	£5,481	£10,720
Process four	£287	£287	£287
Process five	£693	£1,044	£1,131
Process six	£625	£625	£625
Process seven	£3,019	£3,019	£3,019
Process eight	£1,271	£1,271	£1,271

<sup>&</sup>lt;sup>1</sup> Holmes, L., Westlake, D. & Ward, H. (2008) *Calculating and Comparing the Costs of Multidimensional Treatment Foster Care*, Report to the Department for Children, Schools and Families, Loughborough Centre for Child and Family Research, Loughborough University.

<sup>&</sup>lt;sup>2</sup> Ward, H., Holmes, L. & Soper, J. (2008) Costs and Consequences of Placing Children in Care, Jessica Kingsley Publishers, London.

<sup>&</sup>lt;sup>3</sup> Curtis, L. (2007) *Unit Costs of Health and Social Care 2007*, Personal Social Services Research Unit, University of Kent, Canterbury.

#### 6.10 Incredible Years parenting programme

The Incredible Years series is one of part of three interlocking training programmes for parents, children and teachers. The parenting programmes span the age range of 0-12 years. The child and teacher programmes span the age range of 3–8 years. The schema below shows costs for the Webster-Stratton Incredible Years basic parenting programme which were collected in 2003/04 and have been uprated using the hospital and community health services inflators (HCHS). The costs have been calculated using weekly diaries completed by leaders of four groups and the cost information supplied by the Incredible Years Welsh Office. The figures include costs of weekly attendance at supervision for group leaders. This was required because these leaders were participating in a randomised controlled trial and were relatively inexperienced and were not certified leaders. Generally, supervision for inexperienced leaders would be recommended on a termly basis, with encouragement to work for leader certification. Further details of the study are available from Edwards et al. (2007).

Although set-up costs are not itemised in the table below, the unit costs have been calculated with and without these activities. Set-up costs include producing the programme kits and also the training of two leaders, and their travel and supervision time. The total cost for these activities was £4,544 and the total time taken was 53 hours.

Costs and unit	2010/2011 value	Notes
estimation		
A. Capital costs	£3,584	Capital costs were 25 per cent of total costs.
premises		
B. Revenue costs		
salaries and oncosts	£7,363	Direct salary and oncosts for running the group included the recruitment costs (£1,049), supervision costs (£4,449) and group running costs (£1,865). The activities included:  - 2 group leaders to recruit parents including travel time  - 2 leaders to run the group  - salary in group session preparation time for 2 leaders  - supervision time for 2 leaders including travel  - trainer costs to deliver supervision
C. Overheads	£2,194	Telephone costs (£46), mileage costs (£750), clerical support costs (£99) and transport and creche costs (£1,299) were included in this cost.
Venue costs and		
refreshments	£1,363	Venue costs and refreshments.
Working time		
Length of programme	379.25 hours	375.25 hours spent for 2 leaders to run the programme.
Unit costs available 201	.0/2011	

Based on 8 parents per group: total costs per child (including set-up costs) £1,813 (£2,400); Based on 12 parents per group: total cost per child (including set-up costs) £1,209 (£1,600).

<sup>&</sup>lt;sup>1</sup> Webster-Stratton, C. & Hancock, L. (1998) Training for parents of young children with conduct problems: content, methods and therapeutic processes, in C.E Schaefer & J.M. Briesmeister (eds) *Handbook of Parent Training*, John Wiley, New York. Vol. 9, September.

<sup>&</sup>lt;sup>2</sup> Edwards, R.T., Céilleachair, A., Bywater, T., Hughes, D.A. & Hutchings, J. (2007) Parenting programme for parents of children at risk of developing conduct disorder: cost and effectiveness analysis, *British Medical Journal*, 334, 682-688.

#### 6.11 Short break provision for disabled children and their families

The costs of short-break provision study undertaken by the Centre for Child and Family Research<sup>1</sup> estimated the average cost to children's social care of a range of short-break services for disabled children and their families. The study used a bottom-up costing methodology,<sup>2</sup> which uses social care activity time data as the basis for building up unit costs. See Holmes & McDermid in Curtis (2010) for detailed information on methodological issues.<sup>3</sup>

#### The services

Short breaks can be delivered in the form of overnight stays, day, evening and weekend activities, and can take place in the child's own home, the home of an approved carer, or a residential or community setting.<sup>4</sup> A range of services and their costs were identified in this study.

Service type	Unit	Average cost 2010/11 value		Range	
		Mean cost	Median cost	2010/11 value	
Residential	Per child per night (24 hour period)	£270	£296	£72 - £417	
Family-based overnight	Per child per night (24 hour period)	£176	£151	£144 - £233	
Day care	Per child per session (8 hours)	£135	£125	£102 - £211	
Home support	Per family per hour	£22	£22	£18 - £26	
Home sitting	Per family per hour	£19	£19	£11 - £27	
General groups	per session	£342	£391	£100 - £632	
Afterschool clubs	per session	£288	£279	£246 - £340	
Weekend clubs	per session	£320	£321	£305 - £333	
Activity holidays	Per child per break	£1,319	£852	£117 a – £3,805 b	

<sup>&</sup>lt;sup>a</sup> This cost is for a 2 day break

<sup>1</sup> Holmes, L., McDermid, S. & Sempik, J. (2009) *The costs of short break provision: report to the Department for Children, Schools and Families*. Loughborough: Centre for Child and Family Research, Loughborough University.

<sup>&</sup>lt;sup>b</sup> This cost is for a 7 day break

<sup>&</sup>lt;sup>2</sup> Beecham, J.. (2000) *Unit Costs – Not Exactly Child's Play: A Guide to Estimating Unit Costs for Children's Social Care.* University of Kent: Department of Health, Dartington Social Research Unit and the Personal Social Services Research Unit; Ward, H., Holmes, L., and Soper, J. (2008). *Costs and consequences of placing children in care*, London: Jessica Kingsley.

<sup>&</sup>lt;sup>3</sup> Holmes, L. & McDermid, S. (2010) The Costs of Short Break Provision, in Curtis L. (ed) *Unit Costs of Health and Social Care 2011*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>&</sup>lt;sup>4</sup> Department for Children Schools and Families (2008) *Aiming high for disabled children: short breaks implementation guidance.* London: Department for Children, Schools and Families.

#### The social care processes

The study also calculated the costs of social care activity associated with providing short-break services to disabled children and their families. This included the routes by which families were able to access short-break provision, and any ongoing activity undertaken to support the child and family once in receipt of short-break services.

Process	Out of London cost 2010/11 value	London cost 2010/11 value		
Referral and assessment processes		1		
Local Core Offer eligibility models <sup>1</sup>	Not available	£12 a		
Common Assessment Framework	£191 a	Not available		
Initial Assessment	£345 a	£316 a		
Core Assessment	£519 a	£730 a		
Resource Panels for short break services <sup>2</sup>	£98 a £54 a			
Ongoing support				
Ongoing support	£79 b	£102 b		
Reviews	£199 a £268 a			

<sup>&</sup>lt;sup>a</sup> per process per child

<sup>1</sup> 'Local core offer eligibility model' refers to an access route whereby a local authority offers the provision of a standardised package of short break services to a specific population of disabled children and young people, who meet an identified set of eligibility criteria.

<sup>&</sup>lt;sup>b</sup> per month per child

<sup>&</sup>lt;sup>2</sup> Two of the three participating authorities used panels in deciding how resources may be most usefully deployed to support families. The out of London authority held panels once a fortnight and were attended by one social care senior manager. The London authority held their panel monthly and was attended by a larger number of social care professionals which included the district manager, two service managers and three unit managers.

# 7. Hospital and other services

- 7.1 NHS reference costs for hospital services
- 7.2 NHS wheelchairs
- 7.3 Local authority equipment and adaptations
- 7.4 Training costs of health service professionals
- 7.5 Rapid Response Service
- 7.6 Hospital-based rehabilitation care scheme
- 7.7 Expert Patients Programme
- 7.8 Re-ablement service
- 7.9 Public health interventions

## 7.1 NHS reference costs for hospital services

We have drawn on the *NHS Trust and Primary Care Trusts combined* to report from the NHS Reference Costs of selected adult health services. All costs have been uprated to 2010/11 levels using the HCHS Pay & Prices inflator.

	Lower quartile	Upper quartile	National average
	quartic	quartic	average
Elective/non elective Health Care Resource Group (HRG)			
data (average cost per episode)			
Elective inpatient stays	£2,070	£3,484	£2,931
Non-elective inpatient stays (long stays)	£1,688	£2,737	£2,334
Non-elective inpatient stays (short stays)	£359	£655	£549
Day cases HRG data			
Weighted average of all stays	£453	£815	£686
Outpatient procedures			
Weighted average of all outpatient procedures	£101	£171	£147
PALLIATIVE CARE	2101	2272	2217
Specialist Inpatient palliative care	£258	£592	£448
Hospital specialist palliative care support (inpatient)	£60	£137	£122
Outpatient medical specialist palliative care attendance	£154	£383	£252
Outpatient non-medical specialist palliative care attendance	£72	£208	£115
A&E SERVICES (Weighted average of attendances)			
Accident and emergency treatments leading to admitted (not			
admitted)	£101 (£84)	£171 (£123)	£147 (£106)
Minor injury services leading to admitted (not admitted)	£35 (£43)	£52 (£62)	£49 (£55)
Walk in services leading to admitted (not admitted)	£44 (£32)	£50 (£44)	£49 (£41)
PARAMEDIC SERVICES			
Emergency transfers	£238	£268	£253
Average of all paramedic services (categories A, B & C)	£205	£255	£234
N.B. Information on mental health service costs for adults			
and children's health services can be found in tables 2.1 and			
6.1 of this report respectively.			
ora or this report respectively.			

<sup>&</sup>lt;sup>1</sup> Department of Health (2011) *NHS Reference Costs 2009-2010,* www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\_123459.

#### 7.2 NHS wheelchairs

Information about wheelchair costs is based on the results of a study of six sites supplying wheelchairs (excluding wheelchairs for children). The study information was supplemented with national data not available from the sites. Three main types are identified: those propelled by an attendant or self-propelled; a lighter type of chair especially designed for active users and powered wheelchairs. (Active users are difficult to define, but the term generally refers to individuals who are permanently restricted to a wheelchair but are otherwise well and have high mobility needs). The range of purchase costs is very high for the latter two types, ranging from £175 to £977 for active user chairs and £991 to £1,833 for powered chairs (1994/95 prices uprated to current values). The costs have allowed for the cost of modifications in the estimated capital value, but this is a very approximate mid-range figure so specific information should be used wherever possible.

No current information is available on the cost of NHS wheelchairs and this information is based on information collected in 1994/1995, which has been uprated using the HCHS prices inflator. Next year, this will be replaced by new information taken from the Adult Social Care Survey which is currently being analysed (The Information Centre, 2011).<sup>2</sup>

Type of chair	Total value 2010/2011	Annual cost 2010/2011	Notes
Capital costs			Capital value has been annuitised over five years at a
Self or attendant propelled	£248	£60	discount rate of 3.5 per cent to allow for the expected life
Active user	£619	£147	of a new chair. In practice, 50 per cent of wheelchairs
Powered	£1,238	£295	supplied have been reconditioned, not having been worn
			out by the time their first users ceased to need them.
Revenue costs			Revenue costs exclude therapists' time but include the
Maintenance			staff costs of maintenance. The costs include all costs for
- non-powered		£27	pressure relief. The cost of reconditioning has not been
- powered		£107	included in the cost of maintenance.
Agency overheads			No estimate of management overhead costs is available.
			They are likely to be minimal.
Unit costs available 2010/201	.1	•	

£87 per self or attendant propelled chair per year; £174 per active user per chair per year; £402 per powered chair per year.

<sup>&</sup>lt;sup>1</sup> Personal communication with Richard Murray, National Health Service Management Executive, 1995.

<sup>&</sup>lt;sup>2</sup> The Information Centre (2011) *User Survey Guidance 2010-11*, The Information Centre, Leeds. www.ic.nhs.uk/services/social-care/social-care/collections/user-surveys/user-survey-guidance-2010-11

## 7.3 Local authority equipment and adaptations

Information about the capital cost of installing equipment and making adaptations to property is based on a benchmark study of the cost of aids and adaptations undertaken for the Department of the Environment by Ernst & Young. <sup>1</sup> The intention was to provide illustrative rather than statistically representative costs of installation. Forty local authorities provided information. Major variations were reported, probably reflecting differences in the scale of work undertaken. The median rather than the mean cost was used by Ernst & Young to overcome the spread of reported costs. All costs have been inflated from 1992 prices using the BCIS/ABI House Rebuilding Cost index. <sup>2</sup> Although this information is rather dated, the BCIS Access Audit Price Guide, 2002 suggested that the uprated figures were in line with current building costs. <sup>3</sup> Next year, this information will be replaced by information taken from the Adult Social Care Survey which is currently being analysed (The Information Centre, 2011). <sup>4</sup>

The period over which equipment and adaptations should be annuitised is open to debate. Ideally it should be annuitised over the useful life of the aid or adaptation. In many cases this is linked to the length of time the person using the appliance is expected to remain at home. Where it is expected that the house would be occupied by someone else who would also make use of the adaptation, a longer period would be appropriate. Clearly, this is difficult to do in practice. Many housing authorities have problems making sure that heavily adapted dwellings are occupied by people who can make use of the adaptations. According to government guidelines on the discount rate, this table shows the items annuitised over 10 years at 3.5 per cent.

Equipment or	Mean total	Median total	Range	of costs	Median annual
adaptation	cost	cost		1	equipment cost
			Minimum	Maximum	3.5% discount
Additional heating	£429	£397	£144	£4,936	£48
Electrical modifications	£438	£512	£58	£3,908	£62
Joinery work (external door)	£507	£602	£261	£1,244	£72
Entry phones	£359	£487	£215	£3,051	£59
Individual alarm systems	£380	£445	£211	£958	£54
Grab rail	£94	£52	£4	£422	£6
Hoist	£934	£2,608	£378	£8,037	£310
Low level bath	£531	£665	£355	£1,441	£79
New bath/shower room	£7,774	£14,895	£3,785	£34,063	£1,771
Redesign bathroom	£1,423	£3,332	£473	£7,570	£396
Redesign kitchen	£2,873	£3,949	£694	£6,623	£470
Relocation of bath or shower	£1,059	£2,023	£178	£10,557	£241
Relocation of toilet	£864	£1,726	£169	£4,069	£205
Shower over bath	£945	£878	£209	£2,385	£104
Shower replacing bath	£2,582	£2,433	£467	£4,340	£289
Graduated floor shower	£2,395	£2,957	£1,277	£6,662	£352
Stair lift	£2,611	£3,293	£2,271	£7,279	£391
Simple concrete ramp	£646	£384	£66	£2,734	£46

<sup>&</sup>lt;sup>1</sup> Ernst & Young (1994) Benchmark Study of the Costs of Aids and Adaptations, Report No. 4, Report to the Department of the Environment, London.

<sup>&</sup>lt;sup>2</sup> Building Cost Information Service (2011) Surveys of Tender Prices, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>3</sup> Building Cost Information Service (2002) Access Audit Price Guide, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>4</sup> The Information Centre (2011) *User Survey Guidance 2010-11*, The Information Centre, Leeds. www.ic.nhs.uk/services/social-care/social-care/collections/user-surveys/user-survey-guidance-2010-11

# 7.4 Training costs of health service professionals

This schema provides a breakdown of the training costs incurred using standard estimation approaches. <sup>1</sup> The investment costs of education should always be included when evaluating the cost-effectiveness of different approaches to using health service staff so that all the costs implicit in changing the professional mix are considered. For the most part, these investment costs are borne by the wider NHS and individuals undertaking the training rather than trusts, so evaluations which are concerned with costs to the provider organisation would incorporate these investment costs. This year, the costs have been updated in liaison with the Department of Health and the Higher Education Funding Council for England (HEFCE). <sup>2</sup>

The components of the cost of training health service professionals are, for pre-registration and post-graduate training, the costs of tuition; infrastructure costs (such as libraries); costs or benefits from clinical placement activities, and lost production costs during the period of training where staff are away from their posts. Although further training is available to all professionals after pre-registration to enable them to progress to higher grades, the cost of post-graduate training is only known for doctors.

This table shows details of the total investment incurred during the working life of the professional after allowing for the distribution of the costs over time. The final column shows the expected annual cost.

	Pre-registration			Post-graduate training	_	
	Tuition	Living expenses/ lost production costs	Clinical placement	Tuition and replacement costs	Total investment	Expected annual cost at 3.5%
	£	£	£	£	£	£
Scientific and professional						
Physiotherapist	£24,441	35,472	Not known	NA	59,913	4,927
Occupational therapist	£24,441	35,472	Not known	NA	59,913	4,911
Speech and language therapist	£24,441	35,472	Not known	NA	59,913	5,035
Dietician	£24,441	35,472	Not known	NA	59,913	5,095
Radiographer	£24,441	35,472	Not known	NA	59,913	5,278
Hospital pharmacist	£25,536	46,505	11,381	NA	83,422	6,574
Community pharmacist	£25,536	46,505	25,307	NA	97,348	7,671
Nurses						
Nursing degree	£23,151	47,296	03	NA	70,447	9,356
Doctors						
Foundation officer 1	£55,987	£57,166	£147,791	£0	£260,944	£19,546
Foundation officer 2	£55,987	£57,166	£141,496	£31,231	£292,175	£21,807
Registrar group	£55,987	£57,166	£141,496	£73,664	£334,608	£26,329
Associate specialist	£55,987	£57,166	£141,496	£113,609	£374,553	£30,008
GP	£55,987	£57,166	£141,496	£227,786	£488,730	£40,521
Consultants	£55,987	£57,166	£141,496	£293,514	£554,458	£44,827
Social workers						
Social work degree	£14,156	£36,822	£6,474	NA	£57,452	£21,378

<sup>&</sup>lt;sup>1</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a Ready Reckoner for Staff Costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>&</sup>lt;sup>2</sup> Provided by the Department of Health and the Higher Education Funding Council for England (HEFCE) (2011).

<sup>&</sup>lt;sup>3</sup> Currently the benefits obtained from the placements are assumed to be equivalent to the costs of providing the placement.

# 7.5 Rapid Response Service

This schema is based on a Rapid Response Service which serves the Shepway Primary Care Trust Areas located at Folkestone Hospital. It is designed to provide the local community with an alternative to hospital admission or long-term care where appropriate. The information is based on 2002/2003 costs and uprated using the appropriate inflators.

£158,100 per year  £36,702 per year  Not known  Not known	Based on median Agenda for Change (AfC) salaries. Includes a team of two nurses (Band 5), five clinical support assistants (Band 2), and two nurse managers (Band 7) (0.75 wte) <sup>1</sup> Employers' national insurance is included plus 14 per cent of salary for employers' contribution to superannuation.  In-house training is provided. The health care assistants often study to NVQ level. No costs are available.
Not known	employers' contribution to superannuation.  In-house training is provided. The health care assistants often study to
Not known	
	Taken from NHS (England) Summarised Accounts. <sup>2</sup> See preface for more information.
£37,207	Management and other non-care staff costs were 19.1 per cent of direct care salary costs and included administration and estates staff.
£81,037	Non-staff costs were 41.6 per cent of direct care salary costs. They include costs to the provider for office, travel/transport and telephone, education and training, supplies and services (clinical and general), as well as utilities such as water, gas and electricity.
£2,046 per year	Based on the new-build and land requirements of NHS facilities. <sup>3,4</sup> One office houses all the staff and 'hot-desking' is used. It is estimated that the office measures 25 square metres. Capital has been annuitised at 3.5 per cent.
£1,410 per year	The service shares equipment with another so the total cost has been divided equally and annuitised over five years to allow for the expected life of the equipment. Equipment includes facsimile machines, computers etc. Prices have been uprated from 2002/2003 using the retail price index.
£22,274 per year	
7 per week	The average annual caseload is 364 patients.
7 days a week (to include weekends and bank holidays) 8.00 am – 9.00 pm (24 hours if required), 365 days per year	The service would provide an intensive package of care, if necessary, over a 24-hour period to meet care needs, and support carers experiencing difficulty due to illness. It would be available for 72 hours and reviewed daily, with the possibility of an extension, up to a maximum of 5 days in exceptional circumstances.
9,646 per annum	Based on information about typical episodes delivered to patients in one
5 contact hours	year. A low-cost episode comprises, on average, a total of 5 contact hours.
43 patient contact hours	A high-cost episode comprises, on average, a total of 43 patient contact hours.
	£2,046 per year  £1,410 per year  £1,410 per year  7 per week  7 days a week (to include weekends and bank holidays)  8.00 am – 9.00 pm (24 hours if required), 365 days per year  9,646 per annum 5 contact hours  43 patient contact

Unit costs available 2010/2011

£35 per delivered hour (excludes cost for enhanced payments, cost of assessments, discharge and travel costs); high-cost episode £1,505; low-cost episode £175; Average cost per case £931.

<sup>&</sup>lt;sup>1</sup> The Information Centre (2011) *NHS Staff Earnings Estimates June 2011*, The Information Centre, Leeds.

<sup>&</sup>lt;sup>2</sup>The Audit Commission (2010) *NHS (England) (2010) Summarised Accounts 2009-2010*, NHS, London.

<sup>&</sup>lt;sup>3</sup> Building Cost Information Service (2011) Surveys of Tender Prices, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

<sup>&</sup>lt;sup>4</sup> Personal communication with the Department for Communities and Local Government, 2011.

# 7.6 Hospital-based rehabilitation care scheme

This PCT-run rehabilitation unit, based in a hospital in Kent, is supervised by a nurse consultant and had just undergone a service redesign to meet the changing needs of the community when the research was carried out. The information was collected in 2005/06 and all costs have been uprated using the HCHS inflators. The unit is managed by a modern matron, but has a strong multi-professional team approach. The unit is divided into three sections. The first is the 'assessment area', where patients go for between 24-72 hours on admission to have their health care needs closely observed and identified. They then go to the 'progression area', which is for patients who need moderate to high nursing support where they undertake a rehabilitation programme. Finally, when they are progressing well, they go to the 'independent area' before returning home. In total there are 38 beds in the unit.

Costs and unit estimation	2010/2011 value	Notes
A. Wages/salary	£843,470 per year	Based on salaries for a team of a modern matron (Band 8), 3 nurse team managers (Band 7), 7 (wte 5.34) nurse specialists (Band 6), 8 (wte 6.31) nurses (band 5), 21 (wte 17.09) higher-level clinical support workers (band 4), 4 (wte 3.2) clinical support workers (band 3) and a support physiotherapist (Band 3). <sup>1</sup>
B. Salary oncosts	£202,912 per year	Employers' national insurance is included plus 14 per cent of salary for employers' contribution to superannuation.
C. Qualifications	Not known	
D. Overheads		Taken from NHS (England) Summarised Accounts. <sup>2</sup> See preface for more information.
Management, administration and estates staff.	£199,859 per year	Management and other non-care staff costs were 19.1 per cent of direct care salary costs and included administration and estates staff.
Non-staff	£435,295 per year	Non-staff costs were 41.6 per cent of direct care salary costs. They include costs to the provider for office, travel/transport and telephone, education and training, supplies and services (clinical and general), as well as utilities such as water, gas and electricity.
E. Capital overheads	£83,358 per year	Includes capital overheads relating to the building and equipment.
Hours and duration of service	7 days a week (to include weekends and bank holidays) 8.00 am - 9.00 pm (24 hours if required), 365 days per year.	If necessary, the service provides an intensive package of care over 24-hours.
Average duration of	14 days	Patients can stay up to six weeks, but average duration is 14 days.
stay Caseload per worker	30 per month	The total annual caseload was 358.
•	<u> </u>	qualifications given in brackets)
		nual cost per patient £4,930; Cost of a typical client episode £1,781.

<sup>&</sup>lt;sup>1</sup> The Information Centre (2011) NHS Staff Earnings Estimates June 2011, The Information Centre, Leeds.

<sup>&</sup>lt;sup>2</sup>The Audit Commission (2010) NHS (England) (2010) Summarised Accounts 2009-2010, NHS, London.

### 7.7 Expert Patients Programme

Self-care support in England is being provided through a broad initiative called the Expert Patients Programme. This programme was delivered locally by a network of trainers and around 1400 volunteer tutors with long-term conditions. Courses led by trainers who themselves have a chronic condition, were held for an optimum number of 16 people over six weekly sessions. The groups were led by two lay trainers or volunteers.

The programme focuses on five core self-management skills: problem-solving, decision-making, resource utilisation, developing effective partnerships with healthcare providers and taking action. The programme offers a toolkit of fundamental techniques that patients can use to improve their quality of life. It enables patients who live with a long-term condition to develop their communication skills, manage their emotions, manage daily activities, interact with the healthcare system, find health resources, plan for the future, understand exercising and healthy eating, and manage fatigue, sleep, pain, anger and depression (Department of Health, 2001). 1,2

The information for this schema is based on research carried out by the University of York.<sup>3,4</sup> The cost per participant is £289. These costs are based on 2005 data and have been uprated using the appropriate inflators.

Costs and unit	2010/2011 value	Notes
estimation		
A. Staff salaries (including		
oncosts) and expenses	£4,295,662	Includes EPP trainers and coordinators.
B. Overheads:		
Publicity material	£455,078	Includes awareness raising, staff magazine, manuals, course books, website, intranet.
Office expenditure	£232,795	Includes IT and other office expenditure.
Assessment	£9,288	Assessment to ensure quality of trainers and programme.
C. Other overheads:	£415,493	Includes EPP staff days, venues (volunteers and staff).
Rental	£349,193	Rental of premises for EPP sessions.
D. Travel	£24,864	Volunteer travel expenses.
Number of participants	20,000	Participants were a range of people living with long-term conditions.
Length of programme	6 weeks	EPP courses take place over six weeks (2½ hours a week) and
		are led by people who have experience of living with a long- term condition.
Unit costs available 2010/2011		1
Cost per participant £289.		

<sup>&</sup>lt;sup>1</sup> Department of Health (2001) *The Expert Patient: A New Approach to Chronic Disease Management in the 21st Century,* The Stationery Office, London.

<sup>&</sup>lt;sup>2</sup> Expert Patients Programme Community Interest Company, EPP Price Guide 2008/2009, London, www.expertpatients.co.uk.

<sup>&</sup>lt;sup>3</sup> Richardson, G., Gravelle, H., Weatherly, H. & Richie, G. (2005) Cost-effectiveness of interventions to support self-care: a systematic review, *International Journal of Technology Assessment in Health Care*, 21, 4, 423-432.

<sup>&</sup>lt;sup>4</sup> Richardson, G., Kennedy, A., Reeves, D., Bower, P., Lee, V., Middleton, E., Gardner, C., Gately, C. & Rogers, A. (2008) Cost-effectiveness of the Expert Patients Programme (EPP) for patients with chronic conditions, *Journal of Epidemiology and Community Health*, 62, 361-367.

### 7.8 Re-ablement service

Adult social care services are increasingly establishing re-ablement services as part of their range of home care provision, sometimes alone, sometimes jointly with NHS partners. Typically, home care re-ablement is a short-term intervention, often provided to the user free of charge, and aims to maximise independent living skills. Information on the costs of reablement have been collected as part of an evaluation at the Personal Social Services Research Unit at Kent, in collaboration with the Social Policy Research Unit, University of York (Glendinning et al., 2010). The schema below provides the average costs across four re-ablement services participating in the evaluation.<sup>2</sup> All the services were based out of London and one service had occupational therapists (OTs) working closely with the team. Cost data were provided for 2008/09 and have been uprated using the PSS inflators.

Costs per service user for the four sites ranged from £1,651 to £2,242 at 2010/2011 prices.

Costs and unit estimation	2010/2011 value	Notes	
A. Salary plus oncosts	£2,412,820	Based on total salary costs ranging from £571,357 to £4,681,308 for re-ablement workers. Salary cost accounted for between 61 and 62 per cent of total costs. One site included OTs as well as re-ablement workers.	
B. Direct overheads			
Administrative and management	£889,776	Administrative and management costs accounted for between 2 and 25 per cent of the total for the four sites.	
Office and training costs	£47,918	The costs of uniforms and training costs are included here. These accounted for one per cent of the total.	
C. Indirect overheads	£167,438	Indirect overheads include general management and support services such as finance and human resource departments. These were 4 per cent of total costs and ranged from 0.5 to 9 per cent.	
D. Capital overheads			
Building and land costs	£6,339	Information supplied by the local authority and annuitised over 60 years at a discount rate of 3.5 per cent.	
Equipment costs	£2,670	Based on information supplied by the local authority and costed following government guidelines (see schemas 7.2 and 7.3 of this volume).	
E. Travel	£402,109	Average travel costs for the four local authorities were 10 per cent of total costs and ranged from 1 to 12 per cent.	
Patient contact hours	49 hours	Average duration of episode for the four sites was 49 hours. Average episodes ranged from 35 to 55 hours.	
Ratio of direct to indirect time			
on:		Fifty-two per cent of time was spent in contact with service users. This	
Face-to-face contacts	1:0.94	was based on the average number of working hours of (179,174) and average of 92,566 contact hours	
Number of service users	1,886	The average number of service users for the four sites was 1,886 per annum ranging between 429 and 3,500 service users.	
Unit costs available 2010/2011			
£22 per hour; £42 per hour of cor	ntact; average co	ost per service user, £2,083.	

1 Glendinning, C., Jones, K., Baxter, K., Rabiee, P., Curtis, L., Wilde, A., Arksey, H. & Forder, J. (2010) Home Care Re-ablement Services: Investigating the Longer-Term Impacts, Final Report, University of York, PSSRU Kent, Department of Health, London.

<sup>&</sup>lt;sup>2</sup> Although five sites participated in the evaluation, one of the sites had very different costs and did not provide complete information. The costs for this site have therefore been omitted. The costs contained in this table are considered to be typical of a re-ablement service.

### 7.9 Public health interventions

These costs are drawn from two reports: *Prioritising investments in public health* (Matrix Evidence and Bazian, 2008), <sup>1</sup> commissioned by the Department of Health, and *A review of the cost-effectiveness of individual level behaviour change interventions* commissioned by the Health and Well-Being Alliance group (North West Public Health Observatory, 2011). <sup>2</sup> Here we present the costs of interventions for which the economic evidence originated in the UK. Further information can be found on Public Health Interventions in the Cost Effectiveness Database (PHICED) on the following link: www.yhpho.org.uk/PHICED/. All costs have been taken directly from the reports and uprated to 2010/2011 prices using the appropriate inflators. Further information on the specific research studies can be found in the reports named above.

### Intervention: Reducing long term absence in the workplace.

The NICE public health guidance on Management of Long-term Sickness and Incapacity for Work provides cost information for three types of intervention: physical activity and education (10 sessions of physiotherapy or physical activity and 10 sessions of Cognitive Behaviour Therapy (CBT)), workplace intervention (usual care, workplace assessment and work modifications and communication between occupational physician and GP to reach a consensus on return to work) and physical activity and education along with a workplace visit (sessions as before plus half a day of line manager's time).

Intervention	Workplace	Physiotherapy/physical	Cognitive	Workplace	Total
	intervention	activity	behaviour therapy	visit	
Physical activity and		£169	£641		£810
education					
Workplace intervention	£545				£545
Physical activity education		£169	£641	£48	£857
and workplace visit					

#### Alcohol intervention

**Intervention:** Brief interventions have proven to be effective and have become increasingly valuable for the management of individuals with increasing and high-risk drinking, filling the gap between primary prevention efforts and more intensive treatment for persons with serious alcohol use disorders. The cost of delivering ten minutes brief advice for alcohol ranges from £14.50 for a practice nurse to £25 for a GP (see tables 10.6 and 10.8c of this publication).

### Reducing the incidence of sexually transmitted infections (STIs) and teenage pregnancy

**Intervention: Individual risk counselling**, defined here as one-to-one interventions, delivered by a counsellor to at risk groups with the aim of reducing incidence of STIs or risky behaviour. Individual risk counselling can be delivered through clinics (genitourinary medicine, abortion, or drug and alcohol misuse clinics), community health services, GPs and other community and non-healthcare settings. The review suggested that counselling interventions cost between £90 and £200 per person.

### Reducing smoking and the harms from smoking

**Intervention: Media supported campaigns:** The review suggested that there is strong evidence that mass media campaigns for both young and adult population cost between £0.30 and £2.30 per person. Estimates of cost are higher when the unit receiving the intervention is defined as those potentially exposed to the campaign (£23-£44).

Intervention: Drug therapies for smoking cessation. This can include nicotine replacement therapy (NRT) (such as nicotine patches and gum), nicotine receptor partial antagonists (such as varenicline), opioid antagonists (such as naltrexone), clonidine, lobeline, or antidepressants (such as bupropion). There is evidence that drug therapy (bupropion, nicotine replacement therapy and varenicline) has a moderate effect on smoking cessation, particularly in people motivated to quit. There is strong economic evidence from the UK on the cost of NRT (£53-£185 per person) bupriopion (£101-£108 per person), and combinations of NRT and bupriopion (£203-£209 per person).

**Intervention:** A ten minute opportunistic brief advice session for smoking is £25 for a GP and £14.50 for a practice nurse (see tables 10.6 and 10.8c of this publication).

<sup>&</sup>lt;sup>1</sup> Matrix Evidence & Bazian (2008) *Prioritising investments in public health*, Department of Health, London.

<sup>&</sup>lt;sup>2</sup> North West Public Health Observatory (2011) *A review of the cost-effectiveness of individual level behaviour change interventions,* Health and Wellbeing Alliance, Manchester. www.champspublichealth.com/writedir/0c65health\_choices%20-%20FINAL.pdf

# 8. Care packages

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## 8.1 Community care packages for older people

## 8.1.1 Community care package for older people: very low cost

The care package described in this schema is an example of a case where the costs to the public purse on health and social care support were in the lowest decile in a 2005 home care sample of 365 cases. In this sample, which had 35 per cent of 'intensive' cases with 10 or more home care hours per week compared with 26 per cent in England as a whole, 10 per cent of cases incurred gross public community care costs of less than £50 per week. Care package costs exclude the costs of hospital and any use of care homes for respite care. Social work/care management costs were included only where visits from a social worker during the previous three months were reported by the individual. GP visits data were not collected so estimates based on national data have been added. All costs have been uprated with the appropriate inflators.

#### Typical case

Mrs A was an 83 year old widow who lived alone in sheltered accommodation but received help from two people, with most help coming from another family member.

#### **Functional ability**

Mrs A. had problems with three activities of daily living: using the stairs, getting around outside, and bathing. Her problems stemmed from a previous stroke.

Services	Average weekly cost (2010/2011)	Level of service	Description
Social care Home care	£32		Taken from PSS EX1 2009/10, <sup>2</sup> the average cost for one hour of local authority home care costs £32 (See table 11.6 of this volume).
Meals on wheels	£43		Taken from PSS EX1 2009/10, <sup>2</sup> the average cost per meal on wheels was £6.00 for the Local Authority and £4.00 for the independent sector.
<b>Health care</b> GP	£7.40	11.7 minutes	Surgery visits estimated at once every four weeks based on the General Practitioner Workload Survey, July 2007. <sup>3</sup>
Accommodation	£155		Based on the weekly cost of sheltered accommodation.
Living expenses	£156		Taken from the Family Expenditure Survey (2010). Based on one retired adult household, mainly dependent on state pensions.
Total weekly cost of health and social care package	£82 £393		Excludes accommodation and living expenses.  All costs.

<sup>3</sup> The Information Centre (2007) 2006/07 UK General Practice Workload Survey, Primary Care Statistics, The Information Centre, Leeds.

<sup>&</sup>lt;sup>1</sup> Darton, R., Forder, J., Bebbington, A., Netten, A., Towers, A-M. & Williams, J. (2006) *Analysis to support the development of the Relative Needs Formula for Older People*, PSSRU Discussion Paper 2265/3, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>&</sup>lt;sup>2</sup> The Information Centre (2010) *PSS EX1 2009/10*, The Information Centre, Leeds.

<sup>&</sup>lt;sup>4</sup> Office for National Statistics (2010) Family Spending 2010 edition, Office for National Statistics, London, available at www.ons.gov.uk/ons/rel/family-spending/2010-edition/index.html

## 8.1.2 Community care package for older people: low cost

The care package described in this schema is an example of a case where the costs to the public purse on health and social care support were in the bottom quartile in a 2005 home care sample of 365 cases. In this sample, which had 35 per cent of 'intensive' cases with 10 or more home care hours per week compared with 26 per cent in England as a whole, 25 per cent of cases incurred gross public community care costs of less than £95 per week. Care package costs exclude the costs of hospital and any use of care homes for respite care. Social work/care management costs were included only where visits from a social worker during the previous three months were reported by the individual. GP visits data were not collected so estimates based on national data have been added. All costs have been uprated using the appropriate inflators.

### **Typical case**

Mrs B was a 79 year old widow who lived alone but received help from two people, most help being provided by a family member.

#### **Functional ability**

Mrs B had problems with three activities of daily living: using the stairs, getting around outside and bathing. Her problems stemmed from arthritic conditions and cardiovascular disease.

Services	Average weekly	Level of service	Description
	cost	Service	
Social care	£128	4 hours per	Based on 4 hours of local authority-organised home
Home care		week	care (See table 11.6 of this volume).
Private home care	£48	3 hours per week	Based on 3 hours of independently provided home care (See table 11.6 of this volume).
Health care			,
Community nurse	£5.30	20 minutes	Community nurse visits once a month (see table 10.1
			of this volume).
GP	£26	23.4 minutes	Home visits estimated at once every four weeks based on the General Practitioner Workload Survey, July 2007. <sup>2</sup>
Accommodation	£79		The national average weekly gross rent for a two bedroom house in the social housing sector including £7.36 service charge. <sup>3</sup>
Living expenses	£156		Taken from the Family Expenditure Survey (2010, table 3.9E). Based on one retired person household, mainly dependent on state pensions.
Total weekly cost of health and social care	£207		Excludes accommodation and living expenses.
package	£442		All costs.

<sup>&</sup>lt;sup>1</sup> Darton, R., Forder, J., Bebbington, A., Netten, A., Towers, A-M. & Williams, J. (2006) *Analysis to support the development of the Relative Needs Formula for Older People, PSSRU Discussion Paper 2265/3*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>&</sup>lt;sup>2</sup> The Information Centre (2007) 2006/07 UK General Practice Workload Survey, Primary Care Statistics, The Information Centre, Leeds.

<sup>&</sup>lt;sup>3</sup> Dataspring (2011) Review of Residential Rent and Service Charge, The Cambridge Centre for Housing and Planning Research, University of Cambridge. www.mpa.gov.uk/committees/finres/2011/0217/06/.

<sup>&</sup>lt;sup>4</sup> Office for National Statistics (2010) Family Spending 2010 edition, Office for National Statistics, London, available at www.ons.gov.uk/ons/rel/family-spending/2010-edition/index.html

# 8.1.3 Community care package for older people: median cost

The care package described in this schema illustrates the median public expenditure costs per week on health and social care support in a 2005 home care sample of 365 cases. In this sample there were 35 per cent of 'intensive' cases with 10 or more home care hours per week compared with 26 per cent in England as a whole. Care package costs exclude the costs of hospital and any use of care homes for respite care. Social work/care management costs were included only where visits from a social worker during the previous three months were reported by the individual. GP visits data were not collected so estimates based on national data have been added. All costs have been uprated using the appropriate inflators.

#### **Typical case**

Mrs D was an 80 year old widow living with two other relatives.

#### **Functional ability**

Mrs D had problems with four activities of daily living: using the stairs, getting around outside, dressing and bathing

Mrs D had problems with four activities of daily living: using the stairs, getting around outside, dressing and bathing.			
Services	Average	Level of	Description
	weekly	service	
	cost		
Social care			
Home care	£320	10 hours	Based on the cost of local authority-organised home
		per week	care (See table 11.6 of this volume).
Health care			Surgery visits estimated at once every four weeks based
GP	£7.40	11.7	on the General Practitioner Workload Survey, July 2007. <sup>2</sup>
		minutes	
Accommodation	£109		Privately rented shared three-bedroom
			house/bungalow. Based on the average (private) rental
			income in England in September 2011 and adjusted to
			take account of shared situation. <sup>3</sup>
Living expenses	£156		Living expenses taken from the Family Expenditure
			Survey (2010, table 3.9E), uprated to 2010/2011 price
			levels. 4 Based on one-person retired household mainly
			dependent on state pensions.
Total weekly cost of	£327		Excludes accommodation and living expenses.
health and social care			
package	£592		All costs.

<sup>&</sup>lt;sup>1</sup> Darton, R., Forder, J., Bebbington, A., Netten, A., Towers, A-M. & Williams, J. (2006) Analysis to support the development of the Relative Needs Formula for Older People, PSSRU Discussion Paper 2265/3, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>&</sup>lt;sup>2</sup> The Information Centre (2007) 2006/07 UK General Practice Workload Survey, Primary Care Statistics, The Information Centre, Leeds.

<sup>&</sup>lt;sup>3</sup> Rentright, Average price for England, www.rentright.co.uk/00\_00\_00\_3\_00\_rrpi.aspx

<sup>&</sup>lt;sup>4</sup> Office for National Statistics (2010) Family Spending, 2010, Office for National Statistics, London, available at www.statistics.gov.uk.

## 8.1.4 Community care package for older people: high cost

The care package described in this schema is an example of where the costs to the public purse on health and social care support were in the top quartile in a 2005 home care sample of 365 cases. In this sample, which had 35 per cent of 'intensive' cases with 10 or more home care hours per week compared with 26 per cent in England as a whole, 25 per cent of cases incurred gross public community care costs of over £283 per week. Care package costs exclude the costs of hospital and any use of care homes for respite care. Social work/care management costs were included only where visits from a social worker during the previous three months were reported by the individual. GP visits data were not collected so estimates based on national data have been added. All costs have been uprated using the appropriate inflators.

### **Typical case**

Mr D was a 79 year old widower who owned his own home and lived with two other friends. One of these friends provided him with help.

### **Functional ability**

Mr D had problems with seven activities of daily living: using the stairs, getting around outside and inside the house, using the toilet, transferring between chair and bed, dressing and bathing. His problems stemmed from arthritic conditions and a previous stroke.

Services	Average weekly cost	Level of service	Description
Social care			
Home care	£320		10 hours per week. Based on local authority-organised home care
			(See schema 11.6 of this volume).
Day care	£36		Attended a day centre about once a week. (See schema 1.4 of this volume).
Private home care	£384		Based on PSS EX1 2009/10 uprated using the PSS Pay & Prices
			Inflator. Cost of 24 hours of independently provided home care
			(See schema 11.6 of this volume).
Health care			
Community nurse	£21	20 mins	Once a week visit from a community nurse (see schema 10.1 of this volume).
ОТ	£42		Two visits were made by the OT (see schema 9.2 of this volume).
GP	£7.40	11.7 mins	Visits (surgery) estimated at once every four weeks based on the
			General Practitioner Workload Survey, July 2007. <sup>2</sup>
Accommodation	£78		Based on the annuitised value of a detached house and shared
			between three people. Taken from the Halifax Price Index, 2nd
			quarter 2011 and uprated using the BCIS/ABI House Building Price
			Index.
Living expenses	£212		Living expenses taken from the Family Expenditure Survey (2010,
			table 3.10E). <sup>3</sup> Based on one man and one woman retired
	1		household, mainly dependent on state pensions.
Total weekly cost of	£847		Excludes accommodation and living expenses and privately
health and social care			purchased home care.
package	£1,100		All costs

<sup>&</sup>lt;sup>1</sup> Darton, R., Forder, J., Bebbington, A., Netten, A., Towers, A-M. & Williams, J. (2006) *Analysis to support the development of the Relative Needs Formula for Older People*, PSSRU Discussion Paper 2265/3, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>&</sup>lt;sup>2</sup> The Information Centre (2007) 2006/07 UK General Practice Workload Survey, Primary Care Statistics, The Information Centre, Leeds.

<sup>&</sup>lt;sup>3</sup> Office for National Statistics (2010) Family Spending 2010 edition, Office for National Statistics, London, available at www.ons.gov.uk/ons/rel/family-spending/2010-edition/index.html

# 8.1.5 Community care package for older people: very high cost

The care package costs described in this schema are an example of a case where the costs to the public purse on health and social care support were in the top decile in a 2005 home care sample of 365 cases. In this sample, which had 35 per cent of 'intensive' cases with 10 or more home care hours per week compared with 26 per cent in England as a whole, 10 per cent of cases incurred gross public community care costs of over £390 per week. Package costs exclude the costs of hospital and any use of care homes for respite care. Social work/care management costs were included only where visits from a social worker during the previous three months were reported by the individual. GP visits data were not collected so estimates based on national data have been added. All costs have been uprated using the appropriate inflators.

#### **Typical case**

Mrs E was an 82 year old woman who was married and lived with her husband and another relative in her own home. Her husband provided most support.

### **Functional ability**

Mrs E suffered from dementia and needed help with nine activities of daily living: stairs, getting around outside and inside the house, using the toilet, transferring between chair and bed, dressing, bathing, washing and feeding.

Services	Average weekly costs	Level of service	Description
Social services Home care	£960		30 hours per week of local authority-organised home care (See schema 11.6 of this volume).
Health care Community nurse	£21	20 mins	Once a week visit from a community nurse (see schema 10.1 of this volume).
GP	£7.40	11.7mins	Visits (surgery) estimated at once every four weeks based on the General Practitioner Workload Survey, July 2007. <sup>2</sup>
Accommodation	£40		Based on the annuitised value of a terraced house and shared between three people. Taken from the Halifax Price Index, 2nd quarter 2011 and uprated using the BCIS/ABI Housebuilding Price Index.
Living expenses	£212		Living expenses taken from the Family Expenditure Survey (2010, table 3.10E). Based on one-man retired household, not mainly dependent on state pension.
Total weekly cost of health and social care package	£988 £1,240		Excludes accommodation and living expenses.  All costs.

<sup>&</sup>lt;sup>1</sup> Darton, R., Forder, J., Bebbington, A., Netten, A., Towers, A-M. & Williams, J. (2006) *Analysis to support the development of the Relative Needs Formula for Older People*, PSSRU Discussion Paper 2265/3, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>&</sup>lt;sup>2</sup> The Information Centre (2007) 2006/07 UK General Practice Workload Survey, Primary Care Statistics, The Information Centre, Leeds.

<sup>&</sup>lt;sup>3</sup> Office for National Statistics (2010) Family Spending 2010 edition, Office for National Statistics, London, available at www.ons.gov.uk/ons/rel/family-spending/2010-edition/index.html

# 8.2 Care packages for older people, people with learning disabilities, people with mental health problems and people with physical disabilities

The care packages described in the following schema (8.2.1-8.2.4) are drawn from the National Evaluation of the Individual Budgets Pilot Projects (IBSEN). This study collected information on the social care service use of 1001 people representing four client groups: older people, people with learning disabilities, people with mental health problems and people with physical disabilities. For the study, the service users' needs were categorised as critical, substantial or moderate and information was collected on a pre-specified set of services; the type of accommodation in which they usually lived, the number of hours of home care and day care received each week and the social security benefits they received. The services were costed using information contained in this volume where possible (see details below) otherwise they have been taken from the Personal Social Services Expenditure return (PSS EX1) (2009/2010) and uprated using the PSS pay and prices inflator. As the study database did not specify whether the services had been provided by the local authority or private organisations, we have used the weighted average price.

**Home care:** The cost per hour for a home care worker is £18 (see table 11.6). As the PSS EX1 return does not distinguish between client groups for home care, the cost of home care for adults and older people has been used for all client groups. This cost is likely to be an under estimate for certain client groups.

**Day care:** For day care, assumptions have to be made about the number of times service users attend per week as the PSS EX1 expenditure return provides the average weekly cost for day care. It has therefore been assumed that older people, people with mental health problems and people with physical disabilities attend on average three days per week, and that people with learning disabilities attend five days per week. Based on these assumptions, the average cost per client day for older people and people with mental health problems is £29,<sup>2</sup> for people with learning disabilities the cost is £54 per day<sup>2</sup> and for people with physical disabilities, the cost of a day care session is £51.<sup>2</sup>

**Benefit receipt:** All benefit receipt was costed using information taken from the Department for Work and Pensions (DWP)<sup>3</sup> and summed to provide a total for each service user. Benefits included long term incapacity benefit (£91.40 per week), severe disability benefit (£53.65 per week), disability (mobility) benefit (£49.85 per week), disability care allowance (£47.80 per week), attendance allowance, (lower/higher rate, £47.80/£71.40 per week), carer's allowance (£53.90 per week) and housing benefit (£65.45 per week).

Accommodation: Information was available on whether the service user lived in a registered care home, sheltered accommodation, supported living, flats, private accommodation or rented accommodation, whether the service user lived alone or in shared accommodation and how many bedrooms were in the accommodation. The data do not whether the service user lived in accommodation provided by the local authority or private organisations. We have taken the lower cost assumption that the accommodation was provided by a private sector organisation. For each client group, the appropriate cost was taken from this volume or other national sources such as Rentright (www.rentright.co.uk/), a website which provides the average rental costs for England for each month, or the Halifax Price Index which provides average prices for privately owned accommodation in England. Sometimes judgements were made about the type of accommodation according to the level of need of the service user. For example, for people with physical disabilities, where a care home was specified, it was assumed that this was a high dependency care home (see table 5.1). Similarly, when a 'flat' was specified and the level of need was 'critical' or 'substantial, the cost of special needs flats were applied (see table 5.3). When the accommodation type was 'supported living', when the level of need was 'critical', it was assumed that this also was a care home, otherwise the cost of 'sheltered accommodation' was used. Costs for residential care and supported living for all client groups were taken from the relevant sections of this volume.

<sup>&</sup>lt;sup>1</sup> Glendinning, C., Challis, D., Fernandez, J., Jacobs, S., Jones, K., Knapp, M., Manthorpe, J., Moran, N., Netten, A., Stevens, M. and Wilberforce, M. (2008) Evaluation of the Individual Budgets Pilot Programme: Final Report, Social Policy Research Unit, University of York, York.

<sup>&</sup>lt;sup>2</sup> The Information Centre (2010) *PSS EX1 2009/10*, The Information Centre, Leeds.

<sup>&</sup>lt;sup>3</sup> Department for Work and Pensions (2011) Social Security Benefit Uprating, www.dwp.gov.uk/docs/benefitrates2011.pdf.

# 8.2.1 Care packages for older people

Two hundred and eighty one people in the IBSEN study were over 65 (28% of the whole sample), with 39 having critical needs, 171 having substantial needs and 71 moderate needs. The average total cost for the whole sample was £259 per week with 10 per cent incurring costs of less than £110 and 10 per cent more than £497.

Service/need	Average weekly costs	Number of	Description
group	2010/2011	users	
Home care			
Critical	£273	18 users	Forty-two per cent of the sample of older people reported
Substantial	£142	74 users	the use of home care. The average weekly cost for critical
Moderate	£144	26 users	users was £273 compared to £144 for those with
			moderate needs. The average weekly cost for all 118
Total	£162	118 users	service users was £162 (9 hours per week).
Day care			
Critical:	£99	4 users	Twelve per cent of the older participants reported the use
Substantial	£64	24 users	of day care. The average weekly cost for all 35 users was
Moderate	£51	7 users	£65 per week.
Total	£65	35 users	
Benefits			
Critical	£113	15 users	Thirty-seven per cent reported receiving benefits. In total,
Substantial	£78	66 users	the cost of benefits received by critical service users was
Moderate	£88	24 users	£113 compared to £88 for moderate service users. The total average weekly cost for all 105 users was £86.
Total	£86	105 users	
Accommodation			
Critical	£165	39 users	The cost of accommodation for those with moderate
Substantial	£136	171 users	needs was 6 per higher than those with critical needs. The
Moderate	£175	71 users	average weekly cost for accommodation was £151.
Total	£151	281 users	
Total Costs			
Critical	£345	39 users	The average weekly cost for all service users was £259.
Substantial	£238	171 users	Support costs for critical service users were 32 per cent
Moderate	£262	71 users	higher than costs for moderate service users.
Total	£259	281 users	

# 8.2.2 Care packages for people with learning disabilities

Two hundred and sixty people in the IBSEN study had learning disabilities (26% of the whole sample), with 76 having critical needs, 159 substantial needs and 25 moderate needs. The average cost for this sample was £302 per week with 10 per cent incurring costs of less than £181 and 10 per cent more than £1,267.

Service/need	Average weekly costs	Number of	Description
group	2010/2011	users	
Home care			
Critical	£362	28 users	Forty-six per cent of the sample of people with
Substantial	£355	47 users	learning disabilities reported the use of home care. Of
Moderate	£252	2 users	those, the average weekly cost for critical users was £362 compared to £252 for those with moderate
Total	£355	77 users	needs. The average weekly cost for all 77 service users was £355.
Day care			
Critical	£301	18 users	Twenty-eight per cent of the whole sample of people
Substantial	£45	51 users	with learning disabilities reported the use of day care.
Moderate	£32	3 user	The average weekly cost was £50 across the 72 users.
Total	£50	72 users	
Benefits			
Critical	£129	68 users	Seventy-seven per cent reported receiving benefits. In
Substantial	£127	119 users	total, the value of benefits received by critical service
Moderate	£135	12 users	users was £129 compared to £135 for moderate service users. The total average weekly cost for all 199
Total	£128	199 users	users was £128.
Accommodation			
Critical	£193	76 users	The cost of accommodation for those with critical
Substantial:	£167	159 users	needs was £193 compared to the cost of those with
Moderate	£69	25 users	moderate needs of £69. The average weekly cost for the whole sample of people with learning disabilities
Total	£166	260 users	was £166.
Total Costs			
Critical	£373	76 users	The average weekly cost for all service users was
Substantial	£290	159 users	£302. Support costs for critical users were 135 per
Moderate	£159	25 users	cent higher than costs for moderate service users.
Total	£302	260 users	

# 8.2.3 Care packages for people with mental health problems

One hundred and forty three people in the IBSEN study had mental health problems (14% of the whole sample), with 22 having critical needs, 96 having substantial needs and 25 moderate needs. The average cost for these 143 people was £423 per week with 10 per cent incurring costs of less than £183 and 10 per cent incurring costs of more than £479 per week.

Service/need	Average weekly costs	Number of	Description
group	2010/2011	users	
Home care			
Critical	£95	4 users	Seven per cent of people with mental health problems
Substantial	£232	5 users	were receiving home care. The average weekly cost
Moderate	£72	1 user	for critical users was £95 compared to £72 for
			moderate users. The average weekly cost for all 10
Total	£162	10 users	service users was £162.
Day care			
Critical	£66	5 users	Fourteen per cent of people with mental health
Substantial	£69	13 users	problems were receiving day care. The average weekly
Moderate	£63	2 users	cost was £68 across all users of day care.
Total	£68	20 users	
Benefits			
Critical	£133	17 users	Seventy-seven per cent service users were receiving
Substantial	£144	73 users	benefits. In total, the value of benefits received by
Moderate	£102	20 users	critical service users was £133 compared to £102 for
Total	£134	110 users	moderate service users. The total average weekly cost for all 110 users was £134.
Accommodation			
Critical	£183	22 users	The cost of accommodation for those with critical
Substantial	£194	96 users	needs was £183 compared to the cost of those with
Moderate	£157	25 users	moderate needs of £157. The average weekly cost across all users was £184.
Total	£184	143 users	
Total Costs			
Critical	£303	22 users	The average weekly cost for all service users was
Substantial	£496	96 users	£423. Critical service users had costs of £303
Moderate	£247	25 users	compared to moderate service users whose weekly costs were £247.
Total	£423	143 users	

# 8.2.4 Care packages for people with physical disabilities

Three hundred and seventeen people in the IBSEN study had physical disabilities (32% of the whole sample), with 52 having critical needs, 245 having substantial needs and 20 moderate needs. The average cost for this group was £633 per week, with 10 per cent of service users incurring costs of less than £261 and 10 per cent more than £1,089

Service/need	Average weekly costs	Number of	Description
group	2010/2011	users	
Home care			
Critical	£348	31 users	Fifty-six per cent of the total sample of people with
Substantial	£257	136 users	physical disabilities received home care. The average
Moderate	£115	9 user	weekly cost for users with critical needs was £348
Total	£265	176 users	compared to £115 for those with moderate needs.  The average weekly cost for all users of home care
			(176 people) was £265.
Day care			
Critical	£133	8 users	Twelve per cent of the people with physical disabilities
Substantial	£140	27 users	were receiving day care. The value of day care
Moderate	£207	2 users	received by moderate users was 56 per cent higher
			than critical users. The average weekly cost was £142
Total	£142	37 users	for all 37 users of day care).
Benefits			
Critical	£119	72 users	Ninety-four per cent of service users were receiving
Substantial	£161	230 users	benefits. In total, the cost of benefits received by
Moderate	£152	17 users	critical service users was £119 per week compared to £152 for moderate service users. The total average
Total	£162	297 users	weekly cost for all 297 service users was £162.
Accommodation			
Critical	£741	52 users	The average weekly cost of accommodation for those
Substantial	£234	245 users	with critical needs was £741 compared to £234 for
Moderate	£234	20 users	those with moderate needs. The average weekly cost was £317.
Total	£317	317 users	
Total Costs			
Critical	£1,134	52 users	The average weekly care package cost for all service
Substantial	£542	245 users	users was £633 per week. Critical service users had
Moderate	£435	20 users	costs of £1,134 compared to moderate service users whose weekly costs were £435.
Total	£633	317 users	,
	1	1	

### 8.3 The cost of autism

There is growing evidence on the economic burden of autism spectrum disorders (ASD). Autism has life-time consequences with a range of impacts on the health, economic well-being, social integration and quality of life of individuals with the disorder, their families and potentially the rest of society. Many of those impacts can be expressed as economic costs.

Interventions and services currently used to treat or support children and adults with ASD include services provided by medical practitioners, nurses, dieticians, psychologists, speech and language therapists, teachers and various providers of complementary and alternative medicine, such as music therapy, aromatherapy, homeopathic remedies, naturopathic remedies, manipulative body therapies and spiritual healing. These treatments, services and supports all impose costs either to the state or to a voluntary sector organisation or to the families of people with ASD who have to pay for them out of their own pockets.

Here we present cost information taken from two research studies, the first of which focuses on pre-school children and provides the service and wider societal costs in the UK (Barrett et al., 2010). It looked at the services received by 152 pre-school children with autism, reported family out-of-pocket expenses and productivity losses, and explored the relationship between family characteristics and costs.

Service use data were collected using a modified version of the Child and Adolescent Service Use Schedule (CA-SUS), which was developed by the authors in previous studies and adapted for the purpose of this study on the basis of expert opinion and pilot testing during the start-up phase of the study. This was used to collect data on the use of specialist accommodation such as foster and respite care, education or day care facilities attended, all medication prescribed for the individual child, all hospital contacts, and all community health, education and social care services, including non-statutory provision. School based services were not recorded separately in order to avoid double-counting the costs of those services included in the overall cost of the education facility and because parents may not always be aware of their use. In addition, parents were asked to report details of time off work due to their child's illness, and expenditure on any specialist equipment or other extraordinary costs, such as home adaptations, conference or training attendance and overseas travel that were a direct result of their child's autism. Information from this study is found in 8.3.1.

The second study provides the annual costs for children and adults with low-functioning and high-functioning ASD (i.e. with and without an intellectual disability). The research carried out by Knapp et al. (2007, 2009)<sup>2,3</sup> estimated the full costs of autism spectrum disorders (ASDs) in the United Kingdom using data on 146 children and 91 adults. In the sample of children with autism, ages ranged from 3 to 17, with a mean of 10.28 years (standard deviation 3.17) and a median age of 10. Data were taken from a variety of sources, including: national surveys, published research, previous studies by the Institute of Psychiatry and expert advice. The purpose of the study was to examine the service, family and other economic consequences of autism in the UK, both for children and adults, with ASDs, with and without an intellectual disability. See Tables 8.3.2 to 8.3.4 for costs from this study.

<sup>1</sup> Barrett, B., Byford, S., Sharac, J., Hudry, K., Leadbitter, K., Temple, K., Aldred, C., Slonims, V., Green, J. & the PACT Consortium (2010) Service and Wider Societal Costs of Pre-School Children with Autism in the UK, King's College London, University College London, University of Manchester, Newcastle University, Stockport Primary Care Trust, Guy's Hospital London, and the PACT Consortium, UK (not publicly available).

<sup>&</sup>lt;sup>2</sup> Knapp, M., Romeo, R. & Beecham, J. (2007) *The Economic Consequences of Autism in the UK*, Report to the Foundation for People with Learning Disabilities, London.

<sup>&</sup>lt;sup>3</sup> Knapp, M., Romeo, R. & Beecham, J. (2009) Economic cost of autism in the UK, *Autism*, 13, 3, May, 317-336.

## 8.3.1 Children with autism (pre-school)

Information for this schema has been taken from Barrett et al. (2010)<sup>1</sup>. All costs presented were for 2006/2007 and have therefore been uprated to 2010/2011 using the appropriate inflators.

This table reports the service and wider societal costs for the six months prior to interview for pre-school children with autism. The mean total service costs were £2,850, equivalent to £475 per month and over £5,700 per year. Almost half the costs (45 per cent) were for education and childcare, 41 per cent were for community health and social services, and 12 per cent for hospital services. As total costs varied substantially between the children in the study (range £346 to £6,740 over six months). Box 1 below presents case studies of low- and high-cost cases.

On average, families spent an additional £248 as a result of their child's illness over the six months prior to interview (range £0 to £3,663). Fifty-one per cent of families reported taking some time off work due to their child's illness over the six months, associated with productivity losses of £300 per family. Total costs including all services, family costs and productivity losses were estimated over £3,000 over six months, equivalent to over £550 per month.

### Total costs per child for the six months prior to interview (£, n=152)

	Mean	SD	Total service cost	Total cost
			%	%
Accommodation	£17	£231	0.60	0.52
Hospital-based health services	£335	£491	11.80	9.76
Community health and social services	£1,188	£995	41.60	34.58
Medication	£17	£87	0.62	0.52
Voluntary sector services	£33	£89	1.20	0.97
Education and child care	£1,260	£901	44.20	37.37
Total service costs	£ <b>2,850</b>	£ <b>1,377</b>	100.00	83.72
Out-of-pocket expenses	£248	£550		7.36
Productivity losses	£300	£688		8.92
Total costs	£3,398	£1,841		100.00

### Box 1 Case studies of low and high cost cases

#### High cost — £6,740 over six months

Child H attends a mainstream nursery part-time and a specialist playgroup one day a week. He spent three nights in hospital following a grommet operation, and had two outpatient appointments with the ear, nose and throat specialist before and after the operation. Child H had monthly visits to his GP, regular contact with the practice nurse and his health visitor, and weekly contacts with a speech and language therapist at the local health centre. In addition, he had contact with a community paediatrician and a portage worker.

### Low cost — £346 over six months

Child I does not attend any formal education or childcare, spending all his time at home with his mother. He had one visit to a paediatrician at the local hospital, but did not have any other hospital contacts or use any services in the community.

<sup>&</sup>lt;sup>1</sup> Barrett, B., Byford, S., Sharac, J., Hudry, K., Leadbitter, K., Temple, K., Aldred, C., Slonims, V., Green, J. & the PACT (2011) Service and Wider Societal Costs of Very Young Children with Autism, the Journal of Autism and Developmental Disorders, Epub 2011 Nov 1.

# 8.3.2 Children with low-functioning autism (ages 0 -17)

The research carried out by Knapp et al. (2007, 2009)<sup>1,2</sup> estimated the full costs of autism spectrum disorders (ASDs) in the United Kingdom using data on 146 children.

The table below summarises the average cost per child with low-functioning ASD, whether living with their families or living in a residential or foster care placement. Costs are organised under a number of different service and support headings. Family expenses were also included and, where appropriate, costs were imputed for the lost employment of parents. The table distinguishes children in three different age groups. The annual costs for children with low-functioning ASD who are living in residential or foster placements are estimated to be £18,151 (if aged 0-3), £45,506 (aged 4-11) and £70,131 (aged 12-17). For the two older age groups, the largest contributors to these totals are the care placements themselves, and special education. The authors noted that, given the availability of data, residential special school costs may have been under estimated.

Costs for children with low-functioning ASD who live with families are much lower: £4,869 (if aged 0-3), £31,254 (aged 4-11) and £45,390 (aged 12-17). For the two older age groups the largest contributors to these totals are special education, and health and social care services (including hospital and respite care).

### Average annual cost per child with low-functioning ASD

	Living in residential or foster care placement			Living in private households with family			
	Ages 0-3	Ages 4-11	Ages 12-17	Ages 0-3	Ages 4-11	Ages 12-17	
Residential/foster care placement	£17,495	£25,192	£35,806	-	-	-	
Hospital services	-	967	£1,780	-	£967	£1,780	
Other health and social services	£656	£7,747	£449	£656	£7,747	£449	
Respite care	-	-	-	-	£3,169	£4,131	
Special education	-	£10,252	£30,962	-	£10,252	£30,962	
Education support	-	£1,328	£1,118	-	£1,328	£1,118	
Treatments	-	£20	£17	-	£20	£17	
Help from voluntary organisations	-	-	-	-	£945	£108	
Benefits	-	-	-	£4,213	£4,486	£4,486	
Lost employment (parents)	-	-	-	-	£2,339	£2,339	
Total annual cost (excluding benefits)	£18,151	£45,506	£70,131	£656	£26,768	£40,904	
Total annual cost (including benefits)	£18,151	£45,506	£70,131	£4,869	£31,254	£45,390	

Note: Expenditure on social security/welfare benefits could partly double-count the costs of lost employment for parents, which is why two totals are provided above.

<sup>&</sup>lt;sup>1</sup> Knapp, M., Romeo, R. & Beecham, J. (2007) *The Economic Consequences of Autism in the UK*, Report to the Foundation for People with Learning Disabilities, London.

<sup>&</sup>lt;sup>2</sup> Knapp, M., Romeo, R. & Beecham, J. (2009) Economic cost of autism in the UK, *Autism*, 13, 3, May, 317-336.

# 8.3.3 Children with high-functioning autism (ages 0-17)

The research carried out by Knapp et al. (2007, 2009)<sup>1,2</sup> estimated the full costs of autism spectrum disorders (ASDs) in the United Kingdom using data on 146 children.

As in schema 8.3.2, the table below distinguishes costs under a number of different service and support headings. The study assumed that all children with high-functioning ASD live with their parents. Average costs range from £1,887 to £24,177 per annum.

### Average annual cost per child with high functioning ASD

	Living in private household with family				
	Ages 0-3	Ages 4-11	Ages 12-17		
Hospital services	-	£871	£871		
Other health and social services	£1,361	£1,361	£1,361		
Respite care	-	£7,301	£7,301		
Special education	-	£13,099	£13,099		
Education support	-	£611	£611		
Treatments	-	£166	£166		
Help from voluntary organisations	-	-	-		
Benefits	£526	£526	£526		
Lost employment (parents)	-	£242	£242		
Total annual cost (excluding benefits)	£1,361	£23,651	£23,651		
Total annual cost (including benefits)	£1,887	£24,177	£24,177		

Note: Expenditure on social security/welfare benefits could partly double-count the costs of lost employment for parents, which is why two totals are provided above.

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<sup>&</sup>lt;sup>1</sup> Knapp, M., Romeo, R. & Beecham, J. (2007) *The Economic Consequences of Autism in the UK*, Report to the Foundation for People with Learning Disabilities, London.

<sup>&</sup>lt;sup>2</sup> Knapp, M., Romeo, R. & Beecham, J. (2009) Economic cost of autism in the UK, *Autism*, 13, 3, May, 317-336.

### 8.3.4 Adults with autism

The research carried out by Knapp et al. (2007, 2009)<sup>1,2</sup> estimated the full costs of autism spectrum disorders (ASDs) in the United Kingdom using data on 146 children. The estimated annual costs for adults with high-and low-functioning ASD are presented below. Imputed costs for lost employment are included for both the individuals with ASD and for parents, where these are appropriate. Costs are arranged by place of residence.

For an adult with high-functioning ASD, it is estimated that the annual cost of living in a private household (with or without family) is £36,460. A sizeable part of this (£21,617) is the imputed cost of lost employment for the individual with ASD (and hence also lost productivity to the economy). Part of that (not separately identified here) would be lost tax revenue to the Exchequer.

Costs for high-functioning adults in supported living settings or care homes are much higher (£95,694 and £98,735 per annum respectively) and the proportion attributable to lost employment is lower. The largest cost element in each case is for accommodation, and includes the costs of staff employed in those settings or supporting the residents.

For low-functioning adults, the mean annual costs (excluding benefits but including lost employment) rise with increased support in the accommodation for those living in private households from £48,256 to £110,786 for those in hospital care.

### Average annual cost per adult with ASD

	Adults w	ith high-functio	ning ASD	Δ	Adults with low-functioning ASD			
	Private household	Supporting People	Residential care	Private household	Supporting People	Residential care	Hospital	
Accommodation	£1,669	£66,191	£69,232	-	£66,190	£69,232	-	
Hospital services	£871	£871	£871	£98	£168	£38	£84,647	
Other health and social services	£545	£545	£545	£793	£525	£649	-	
Respite care	-	-	-	£1,723	-	-	-	
Day services	£2,496	£2,496	£2,496	£4,208	£4,063	£930	-	
Adult education	£3,237	£3,237	£3,237	£1,609	£954	£3,719	-	
Employment support	-	-	-	565	£1,226	-	-	
Treatments	£166	£166	£166	£70	£70	£70	-	
Family expenses	£2,121	-	-	£2,441	-	-	-	
Lost employment (parents)	£4,131	-	-	£4,131	-	-	1	
Subtotal	£15,236	£73,506	£76,547	£15,638	£73,196	£74,637	£84,647	
Lost employment (person with ASD)	£22,188	£22,188	£22,188	£25,102	£25,102	£25,102	£25,102	
Total (excluding benefits)	£37,424	£95,694	£98,735	£40,739	£98,298	£99,739	£109,749	
Benefits	-		-	£7,517	£4,845	£4,845	£1,037	
Total (including benefits)	£37,424	£95,694	£98,735	£48,256	£103,142	£104,584	£110,786	

<sup>&</sup>lt;sup>1</sup> Knapp, M., Romeo, R. & Beecham, J. (2007) *The Economic Consequences of Autism in the UK*, Report to the Foundation for People with Learning Disabilities, London.

<sup>&</sup>lt;sup>2</sup> Knapp, M., Romeo, R. & Beecham, J. (2009) Economic cost of autism in the UK, *Autism*, 13, 3, May, 317-336.

### 8.4 Services for children in care

The following tables present illustrative costs of children in care reflecting a range of circumstances. Information from practitioners and managers, gathered in the course of developing unit costs for social work processes, indicated that the prevalence of children— or combinations of them — are likely to have an impact on the cost of placements: disabilities; emotional or behavioural difficulties; and offending behaviour. Unaccompanied asylum-seeking children comprise a further group whose circumstances, rather than their attributes, engender a different pattern of costs. In any population of looked-after children, there will be some children who have none of these additional support needs. Authorities with a higher proportion of children without additional needs will incur lower average costs per looked-after child. However, in reality their overall expenditure on children's services may be greater, for such authorities may place a higher proportion of their whole population of children in need away from home than do those with better developed family support services.

The study by Ward and colleagues identified different combinations of additional support needs. There were five simple groups of children who display none or one of the attributes expected to affect costs, and six complex groups of children who display two or more additional support needs. In the sample of 478 children, 129 (27 per cent) showed no evidence of additional support needs, 215 (45 per cent) displayed one; 124 (26 per cent) children displayed combinations of two; and a very small group of children (2 per cent) displayed combinations of three or more.

The care package costs for children described in the tables illustrate an example of the support received by a child in some of these groups, taken from the study sample. Costs relate to time periods stated in each table.

<sup>&</sup>lt;sup>1</sup> Ward, H., Holmes, L. & Soper, J. (2008) Costs and Consequences of Placing Children in Care, Jessica Kingsley Publishers, London.

# 8.4.1 Children in care: low-cost — with no evidence of additional support needs

Child A is a boy aged fourteen with no evidence of additional support needs. The table shows the total cost incurred by social services and other agencies from February 2000 to October 2001, uprated using the PSS Pay & Prices inflator. Child A became looked after at the age of six, as the result of neglect. A care order was obtained in 1992. Since then he has been placed with the same local authority foster carers, a placement that had lasted eight years by the start of the study. In June 2001, his case was transferred to the leaving care team. Reviews were held at six-monthly intervals and his care plan was updated every six months. He attended six-monthly dental appointments and an annual looked-after child medical. During the time period shown above, this young person attended weekly, hour-long physiotherapy sessions as a result of a neck injury. He completed his statutory schooling in summer 2001 and obtained seven GCSEs, attending mainstream school until Summer 2000 where he then progressed to further education to start an A level course.

Child A had a relatively inexpensive placement with local authority foster carers. He incurred some educational costs, in that he attended school, and some health care costs, but there was no exceptional expenditure. Please note that these figures have been rounded. Where appropriate, the original information has been adjusted to take account of Agenda for Change salaries.

Process	Cost to LA	Total	Cost to others	Total
Fiotess	COST TO LA	iotai	Cost to others	TOtal
Care planning	£137 x 3	£412	£169 x 3	£507
Maintaining the placement	£540 x 87 weeks	£41,517	£54 x 3	£162
	minus £6,851 <sup>1</sup>			
Review	£466 x 3 + £13 <sup>2</sup>	£1,412		
Legal	£5.40 <sup>3</sup> x 87 weeks	£471	£10 <sup>4</sup> x 87 weeks	£870
Transition to leaving care	£1,328	£1,328		
Cost of services				
Mainstream schooling			£27 <sup>5</sup> per day	£7,695
FE college			£26 <sup>4</sup> per day	£802
Dentist			£8.60 <sup>6</sup> x 3	£26
Looked after child medical			£30 <sup>7</sup>	£30
Physiotherapy (home visit)			£54 x 87 weeks	£4,698
Total		£45,140		£14,790

<sup>&</sup>lt;sup>1</sup> Cost includes payment made for the placement and all activity to support the placement. There is a reduction in cost as a result of reduced activity once the placement has lasted for more than one year.

<sup>&</sup>lt;sup>2</sup> An additional cost is incurred for the first 16+ review.

<sup>&</sup>lt;sup>3</sup> The cost of obtaining a care order has been divided over the total number of weeks between admission and the child's eighteenth birthday.

<sup>&</sup>lt;sup>4</sup> Selwyn, J., Sturgess, W., Quinton, D. & Baxter, C. (2003) *Costs and Outcomes of Non-Infant Adoptions*, Report to the Department of Health, Hadley Centre for Adoption and Foster Care Studies, University of Bristol.

<sup>&</sup>lt;sup>5</sup> Based on the cost of a secondary school place. Calculated by dividing total secondary school expenditure by the total number of pupils on the roll, and by the total number of days of pupil contact (190). Department for Education (2011) Section 251 data archive:Outturn data-detailed level 2008-09 onwards, outturn summary 2009-10, Department for Education, London and table 1A 'All Schools: pupils with statements of special educational needs'.

<sup>&</sup>lt;sup>6</sup> Berridge, D., Beecham, J., Brodie, I., Cole, T., Daniels, H., Knapp, M. & MacNeill, V. (2002) Costs and Consequences of Services for Troubled Adolescents: An Exploratory, Analytic Study, University of Luton, Luton.

<sup>&</sup>lt;sup>7</sup> Based on the unit cost of a surgery consultation with a general practitioner (see Schema 10.8b).

# 8.4.2 Children in care: median cost — children with emotional or behavioural difficulties

Between February 2000 and April 2001, Child B was placed with local authority foster carers (within the area of the authority). She then changed to another placement with local authority foster carers within the area of the authority. A care order was obtained for this young person when she first became looked after in March 1995. During the time frame three review meetings were held and her care plan was also updated on three occasions. Child B attended mainstream school and from December 2000 until June 2001 she received support from a personal teaching assistant for four hours a week. This young person attended six monthly dental appointments and also her annual looked after child medical. Child B also received speech therapy until July 2001. Following a self-harm incident she was taken to the accident and emergency department and was referred to a clinical psychologist and began weekly sessions in September 2000.

Costs to social services are relatively low, largely because she was placed with local authority foster carers within authority throughout the study period, and not considered difficult to place. There were relatively high costs to other agencies, designed to meet both her health and educational needs. Please note that these figures have been rounded. Where appropriate, the original information has been adjusted to take account of Agenda for Change salaries.

Process	Cost to LA		Cost to otl	ners
	Unit costs	Total	Unit costs	Total
Care planning	£137 x 3	£412	£169 x 3	£507
Maintaining the placement	£495 x 87 weeks minus	£38,291		
	£5,118 plus £327 <sup>1</sup>			
Finding subsequent placement	£234	£234		
Review	£466 x 3	£1,398	£54 x 3	£162
Legal	£6.60 <sup>2</sup> x 87 weeks	£574	£12.10 <sup>3</sup> x 87	£1,053
Cost of services				
Mainstream schooling			£27 <sup>4</sup> per day	£8,559
Dentist			£8.60 <sup>5</sup> x 3	£26
Looked after child medical			£30 <sup>6</sup>	£30
Speech therapy			£54 x 60 weeks	£3,249
Clinical psychologist			£135 x 52 weeks	£7,020
Hospital accident and emergency visit			£147 <sup>7</sup>	£147
(admitted)				
Personal teaching assistant			£44 <sup>5</sup> (4 hrs per	£4,358
			week for 25	
			weeks)	
Total		£40,910		£25,110

<sup>&</sup>lt;sup>1</sup> Cost includes the payment made for the placements and all activity to support the placements. There is a reduction in cost as a result of reduced activity for the first placement which has lasted for more than one year. There is an increase in cost in the first three months of the second placement due to increased social worker activity.

<sup>&</sup>lt;sup>2</sup> The cost of obtaining a care order has been divided over the total number of weeks between admission and the child's eighteenth birthday.

<sup>&</sup>lt;sup>3</sup> Selwyn, J., Sturgess, W., Quinton, D. & Baxter, C. (2003) *Costs and Outcomes of Non-Infant Adoptions*, Report to the Department of Health, Hadley Centre for Adoption and Foster Care Studies, University of Bristol.

<sup>&</sup>lt;sup>4</sup> Based on the cost of a secondary school place. Calculated by dividing total secondary school expenditure by the total number of pupils on the roll, and by the total number of days of pupil contact (190). Department for Education (2011) Section 251 data archive:Outturn data-detailed level 2008-09 onwards, outturn summary 2009-10, Department for Education, London and table 1A 'All Schools: pupils with statements of special educational needs'.

<sup>&</sup>lt;sup>5</sup> Berridge, D., Beecham, J., Brodie, I., Cole, T., Daniels, H., Knapp, M. & MacNeill, V. (2002) Costs and Consequences of Services for Troubled Adolescents: An Exploratory, Analytic Study, University of Luton, Luton.

<sup>&</sup>lt;sup>6</sup> Based on the unit cost of a surgery consultation with a general practitioner (see Schema 10.8b)

<sup>&</sup>lt;sup>7</sup> Department of Health (2011) NHS Reference Costs 2009-2010,

 $www. dh. gov. uk/en/Publications and statistics/Publications/Publications Policy And Guidance/DH\_123459.$ 

# 8.4.3 Children in care: high cost — children with emotional or behavioural difficulties and offending behaviour

Child C was aged fifteen at the start of the study. He first became looked after at the age of eleven, when his parents needed respite. Prior to the start of the study he was placed in secure accommodation on five separate occasions. He had also been placed in various residential homes, schools and foster placements, many of which had broken down. As a consequence, he had been classified as 'difficult to place'. During the study period (74 weeks), Child C experienced ten different placements. He also refused all statutory medical and dental appointments; furthermore, he refused any mental health support. Child C did not complete his statutory schooling, as a result of numerous exclusions and non-attendance. Prior to the start of the study he had a history of offending: this continued throughout the study, with him committing ten further offences. He ceased being looked after in summer 2001 when he refused to return to any placement provided by the local authority.

The costs to social services were relatively high, both because of a number of out-of-authority, residential placements provided by independent sector agencies and due to nine changes of placement. There were substantial costs to other agencies (Youth Offending Team and the Police) as a result of his offending behaviour. Additional health care costs were not incurred for this young man because of his refusal to engage in the services offered to him. Please note that these figures have been rounded. Where appropriate, the original information has been adjusted to take account of Agenda for Change salaries.

Process	Cost to LA	Total	Cost to others	Total
Care planning	£137 x 2	£274	£164 x 2	£327
Maintaining the placement	£267,041 plus £1,200 <sup>1</sup>	£268,242	£54 x 74 weeks <sup>2</sup>	£4,006
Ceased being looked after	£301	£301		
Find subsequent placements	£8,879 <sup>3</sup>	£8,879		
Review	£466 + £930	£1,396	£197 x 2	£394
Cost of services <sup>4</sup>				
YOT involvement/criminal costs			£1,110 <sup>5</sup> x 74 weeks	£82,183
Total		£279,094		£86,910

<sup>&</sup>lt;sup>1</sup> This cost includes the payment made for the placement and all activity to support the placements. There is an increase in cost in the first three months of a placement due to increased social worker activity.

<sup>&</sup>lt;sup>2</sup> Child C ceased being looked after in July 2001, therefore the time period being costed is 74 weeks.

<sup>&</sup>lt;sup>3</sup> Child C experienced nine changes of placement during the timeframe of the study.

<sup>&</sup>lt;sup>4</sup>There are no additional education costs because these are included in the costs of the placements in process three.

<sup>&</sup>lt;sup>5</sup> Liddle, M. (1998) Wasted Lives: Counting the Cost of Juvenile Offending, National Association for the Care and Resettlement of Offenders (NACRO), London.

# 8.4.4 Children in care: very high cost — children with disabilities, emotional or behavioural difficulties plus offending behaviour

Child D experienced nine different placements from February 2000 to October 2001. Initially he was placed in an independent sector agency residential unit with education facilities. In March 2000, he was placed with independent sector foster carers, again out –of- area. He then experienced three further placements, all out of the independent sector area authority and all provided by independent sector organisations: another residential unit, then another foster placement, then a third residential placement. In September 2000 he was placed overnight in a secure unit within the authority. He then had three independent sector placements; foster carers, a residential unit, and a specialised one-bedded residential unit in December 2000. This placement was also out of the area of the authority. Review meetings were held six monthly and his care plan was also updated every six months. This young person attended the education provision in two different residential units up until summer 2000, when he was permanently excluded. He then started sessions with a home tutor in October 2000. During the given time period, he attended six-monthly dental appointments and his looked after child medical. He also attended weekly sessions with a clinical psychologist from October 2000 onwards. In September 2000, he was accused of a criminal offence; the police were involved, but he was not convicted.

These costs are markedly higher than for the majority of other children in the sample. Child D had become difficult to place; and increasing amounts of social work time had to be spent on finding the rare placements that were prepared to accept him. The costs of changing placements were calculated at over £1,000 per move. Please note that these figures have been rounded. Where appropriate, the original information has been adjusted to take account of Agenda for Change salaries.

Process	Cost to LA	Total	Cost to others	Total
Care planning	£69 x 3	£207	£169 x 3	£507
Maintaining the placement	£510,536 plus £1,310 <sup>1</sup>	£511,846		
Finding subsequent placements	£11,454	£11,454	£92 x 82	£739
Review	£931 x 3	£2,793	£399 x 3	£1,196
Legal	£3.50 <sup>3</sup> x 87 weeks	£299	£6.20 <sup>4</sup> x 87 weeks	£540
Transition to leaving care	£1,328	£1,328		
Cost of services				
Home tuition			£44 <sup>5</sup> per hour	£8,280
Permanent exclusion			£148 <sup>6</sup>	£148
Dentist			8.60 <sup>5</sup> x 3	£26
Looked after child medical			£30 <sup>7</sup>	£30
Clinical psychologist			£135 per hour for 52	£7,020
			weeks	
Police costs for criminal offence			£228 <sup>8</sup>	£228
Total		£527,926		£18,714

<sup>&</sup>lt;sup>1</sup> The cost includes the payment made for the placements and all activity to support the placements. There is an increase in cost in the first three months of a placement due to increased social worker activity.

<sup>&</sup>lt;sup>2</sup> Child D experienced eight changes of placement during the timeframe of the study.

<sup>&</sup>lt;sup>3</sup> The cost of obtaining a care order has been divided over the total number of weeks between admission and the child's eighteenth birthday.

<sup>&</sup>lt;sup>4</sup> Selwyn, J., Sturgess, W., Quinton, D. & Baxter, C. (2003) *Costs and Outcomes of Non-Infant Adoptions*, Report to the Department of Health, Hadley Centre for Adoption and Foster Care Studies, University of Bristol.

<sup>&</sup>lt;sup>5</sup> Berridge, D., Beecham, J., Brodie, I., Cole, T., Daniels, H., Knapp, M. & MacNeill, V. (2002) Costs and Consequences of Services for Troubled Adolescents: An Exploratory, Analytic Study, University of Luton, Luton.

<sup>&</sup>lt;sup>6</sup> Parsons, C. & Castle, F. (1998) The cost of school exclusion in England, International Journal of Inclusive Education, 2, 4, 277–294.

<sup>&</sup>lt;sup>7</sup> Based on the unit cost of a surgery consultation with a general practitioner (see Schema 10.8c).

<sup>&</sup>lt;sup>8</sup> Liddle, M. (1998) Wasted Lives: Counting the Cost of Juvenile Offending, National Association for the Care and Resettlement of Offenders (NACRO), London.

### 8.5 Young adults with acquired brain injury in the UK

Acquired brain injury (ABI) is 'a non-degenerative injury to the brain occurring since birth', including both open and closed head injuries. ABI includes a range of diagnoses or causes, including strokes or tumours. Head injury through trauma is a common cause among young adults. ABI is not thought to affect life expectancy after the initial acute phase, so the prevalence of long-term brain damage is high at 100-150 per 100,000 population, implying a total of 60,000-90,000 people in the UK (www.rhn.org.uk).

A study carried out by the Personal Social Services Research Unit was undertaken to identify the health and social care services used by young adults aged 18-25 years with acquired brain injury (ABI) and the associated costs. The study identified the annual incidence of ABI in this age group, and then tracked the young adults' likely progress through four support-related stages: trauma, stabilisation, rehabilitation and return to the community. By identifying the numbers using different treatment locations and services at each stage, a picture of service use and costs could be built up over a notional 12-month period following injury. All costs have been uprated to 2010/2011 prices using the HCHS Pay and Prices Inflator. Four broad groups of young people with ABI were identified by their location and the community care stage as follows:

Group 1 comprises the largest proportion of those sustaining brain injuries and includes those who attend A&E with ABI or spend short periods in a hospital ward and then return home. A small proportion, perhaps just one in five, will have follow-up appointments arranged at an outpatient clinic or with their GP. This group will generally have had a mild head injury and no longer-term disability, although 20 per cent of this group may continue to have residual symptoms six months after injury.

Group 1: Average cost per person = £292 per annum.

People in Group 2 are also likely to have returned to their own homes within a year, but are more seriously disabled and rely on personal care support provided by spouses, parents or other informal carers. This group may include those who are discharged home from longer-term residential rehabilitation (34 % of patients discharged), from acute brain injury units (25 %) and from neurosurgery units (23 %). It is likely that at least 40 per cent of them will require at least part-time support or supervision from informal carers.

Group 2: Average costs per person = £20,863 per annum.

The third group of young adults with ABI are those whose pathway towards the end of a year will see them living in supported accommodation with formal (paid) personal carers. Some will have been discharged straight from hospital and some will have stayed in a rehabilitation facility prior to their move to supported living. One in four of these young adults will need overnight supervision, and three in four will need at least part-time supervision during the day. The number of young adults may be quite high, but some will move on to more independent living. Others will need this type of support for many years to come. For cost estimates, it has been assumed this group will live in community-based housing with low staffing levels during the day and 'sleeping-in' staff at night. In addition to personal care, they are also likely to use outpatient clinics and community-based therapists. Personal care costs (estimated at an average of 8 hours overnight 'sleeping-in' and 6 hours during the day) would amount to £529 per week. Use of community-based therapy and health care services would add another £618 by the end of the notional 12 month period.

Group 3: Average cost per person = £39,999 per annum.

The fourth group includes young adults who are likely to be among the most severely disabled. Although some will be supported at home, it is estimated that 310 will be resident in nursing homes for young adults, specialist ABI residential units, in longer-stay hospital wards or in mental health units. They are likely to have been the most severely injured. Some of the principal independent providers contacted for this research reported current prices for residential placements of up to £3,079 per week, often jointly funded by health and social services. Nursing homes and 'young disability units' are likely to be less costly. However, nursing home care may not be appropriate for people with severe ABI-related disability as there tend to be few qualified staff and low input from local community-based teams or specialist doctors.

Group 4: Average cost per person = £41,215 per annum.

<sup>&</sup>lt;sup>1</sup> Beecham, J., Perkins, M., Snell, T. & Knapp, M. (2009) Treatment paths and costs for young adults with acquired brain injury in the United Kingdom, *Brain Injury*, 23, 1. 30-38.

## 8.6 Palliative care for children and young people

The Government's manifesto commitment to improve palliative care services in 2006 (Cochrane et al., 2007)<sup>1</sup> resulted in an independent review of children's palliative care services which was commissioned by the Secretary of State for Health (Craft and Killen, 2007).<sup>2</sup> This independent review was based on findings from a wide consultation with stakeholders, including children and young people and their families, commissioners and providers of services, along with commissioned research from Department of Health Analysis and the York Health Economics Consortium.

Information for this schema has been drawn from the work carried out by the York Health Economics Consortium published in 2007 (Lowson et al, 2007)<sup>3</sup> which provides examples of illness trajectories and the resulting unit costs for children in need of palliative care. All costs have been uprated using the appropriate inflators in order to provide current prices. See Lowson et al. (2007) for more information on the cost benefits of using community care instead of hospital services.

### 8.6.1 Short illness trajectory: cancer

This generic pathway was developed for a child with cancer from data provided by Sargent Cancer Care for Children and Cancer and Leukaemia in Childhood (CLIC Sargent). It was triangulated with information collected during focus groups from two parents, both of whose children had died, one from a form of leukaemia, the second from bone cancer.

A child with cancer	
During one year	
Three inpatient stays	£7,034
One ward attendance per month	£663
One day care episode per fortnight	£3,880
One home visit per week, including intensive bereavement support	£8,335
Subtotal health	£19,912
It was assumed that the child died at home with intensive community support	
It was assumed that there was no uptake of respite care	
It was assumed that there were no costs accruing to education and social services	
Assumptions re financial burden:	
One family member gives up paid employment	£13,807
Significant financial cost to family	£6,885

<sup>&</sup>lt;sup>1</sup> Cochrane, H., Liyanage, S. Nantambi, R. (2007) Palliative Care Statistics for Children and Young Adults, Department of Health, London. www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/ DH\_074459.

<sup>&</sup>lt;sup>2</sup> Craft, A. and Killen, S. (2007) *Palliative Care Services for Children and Young People in England*, Department of Health, London. www.dh.gov.uk/prod\_consum\_dh/groups/dh\_digitalassets/@dh/@en/documents/digitalasset/ dh\_074698.pdf

<sup>&</sup>lt;sup>3</sup> Lowson, K., Lowson, P. and Duffy, S. (2007) *Independent Review of Palliative Care Services for Children and Young People: Economic Study*, Final Report, York Health Economics Consortium, Department of Health Independent Review Team, London.

# 8.6.2 Longer life illness trajectories: cardiac care

This pathway has been developed from a typical patient being treated by a community-based team. The information was provided by parents at a focus group.

A child with a cardiac condition aged 15 months	
In one year	
<ul> <li>Inpatient stay of 5 days in local hospital for respiratory infection</li> </ul>	£2,345
<ul> <li>Inpatient stay of 4 weeks in paediatric cardiac unit including 1 week in PICU</li> </ul>	£47,613
<ul> <li>Inpatient stay of 6 days in local hospital for viral infection</li> </ul>	£2,345
<ul> <li>Inpatient stay of 6 weeks in paediatric cardiac unit including 2 weeks in PICU</li> </ul>	£74,147
One outpatient visit per month to local team	£1,990
One home visit per week by community team	£8,335
One telephone contact per week	£345
Subtotal health	£137,120
The child attends a pre-school special needs nursery	£3,560
Uses wheelchair and has home equipment	£5,960
Assumptions re. respite care (based on focus groups and published evidence):	
15 days per annum at hospice	£15,255
6 hours per week at home	£7,898
Total health, respite and social care costs	£146,640
Assumptions re. financial burden on family	
Family in receipt of carer allowance	
One family member gives up paid employment	£13,807
Significant financial cost to family	£6,885

# 8.6.3 Longer life illness trajectories: cystic fibrosis

This pathway has been developed from a typical patient being treated by a community-based team. The information was provided by parents at a focus group.

A child with cystic fibrosis aged 5 years	£	
In one year:		
Two inpatient stays in local hospital for receipt of intravenous antibiotics	£7,884	
One outpatient visit per month to local team comprising consultant paediatrician		
and consultant respiratory paediatrician	£9,648	
Four visits per year to speech and language therapist	£ 389	
One home visit per fortnight by community team	£4,168	
One telephone contact per week	£345	
Subtotal health	£22,435	
The child attends mainstream school with support	£6,564	
Uses wheelchair and has home equipment.	£5,960	
Assumptions re. respite care (based on focus groups and published evidence):		
15 days per annum at hospice	£15,255	
6 hours per week at home	£7,898	
Total health, respite and social care costs	£53,133	
Assumptions re. financial burden on family		
One family member gives up paid employment	£13,807	
Significant financial cost to family	£ 6,885	

# 8.6.4 Longer life illness trajectories: child with multiple disabilities

This pathway has been developed from a typical patient being treated by a community-based team. The information was provided by parents at a focus group.

An older child with complex and multiple needs:	
Child has renal problems and seizures, with visual impairment and learning difficulties.	
The child and family is in contact with five specialities:	
Paediatric endocrinology	
Paediatric gastroenterology	
Neurosurgery	
Ophthalmology	
Child psychiatry	
In one year:	
One inpatient stay in tertiary centre for neurosurgery	£15,347
One inpatient stays for dental extraction	£1,108
One outpatient visit per week for blood tests	£8,622
One outpatient visit per month for specialist reviews	£1,990
Two CT scans	£285
Two MRI scans	£743
Three EEGs	£328
Four visits per year to clinical psychologist	£1,689
Four visits per year to speech and language therapist	£389
One face-to-face visit per month by community team	£1,923
One home visit per fortnight by community team	£3,847
One telephone contact per fortnight with community team	£172
Subtotal health	£36,443
The child attends a school for children with special educational needs	£3,526
Uses wheelchair and has home equipment	£5,960
Assumptions re. respite care (based on focus groups and published evidence)	
15 days per annum at hospice	£15,255
6 hours per week at home	£7,898
Total health, respite and social care costs	£69,083
Assumptions re. financial burden	
Family in receipt of carer allowance	
One family member gives up paid employment	£13,807
Significant financial cost to family	£6,885