

7. Hospital and other services

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7.1 Hospital costs

We have drawn on reference costs¹ and report on NHS Trust and Primary Care Trusts combined. Any data for which there are fewer than ten submissions have been omitted due to their potential unreliability. All costs have been updated to 2009/10 levels using the HCHS Pay & Prices inflator.

	Lower quartile	Upper quartile	National average
	£	£	£
Elective/non elective Health Care Resource Group (HRG) data (average cost per episode)			
Elective inpatient stays	1,931	3,253	2,749
Non-elective inpatient stays (long stays)	1,571	2,588	2,197
Non-elective inpatient stays (short stays)	345	624	523
Day cases HRG data			
Weighted average of all stays	431	771	637
Outpatient procedures			
Weighted average of all outpatient procedures	104	184	152
Day facilities			
Weighted average of all day facilities	424	758	627
PALLIATIVE CARE			
Specialist Inpatient Palliative Care	342	521	425
Hospital Specialist Palliative Care support (inpatient)	33	85	78
Outpatient Medical specialist palliative care attendance	71	267	194
Outpatient Non medical specialist palliative care attendance	76	87	72
A&E SERVICES (Weighted average of attendances)			
Accident and Emergency treatments leading to admitted (not admitted)	95 (76)	150 (112)	131 (97)
Minor Injury Services leading to admitted (not admitted)	34 (42)	59 (62)	51 (54)
Walk in Services leading to admitted (not admitted)	31 (34)	44 (38)	37 (37)
PARAMEDIC SERVICES			
Emergency transfers	209	368	244
Average of all paramedic services (categories A,B & C)	192	246	223
MENTAL HEALTH SERVICES			
Inpatient attendances (cost per bed day)			
Intensive care — adult	460	658	585
Acute care — adult	269	321	295
Rehabilitation — adult	216	300	271
Elderly	269	311	293
Weighted average of all adult mental health inpatient bed days.	267	324	299
Specialist inpatient services -eating disorder (Adults)	378	503	426
Day care facilities — (cost per day — regular attendances)			
Weighted average of all attendances(adults and elderly)	91	146	119
Outpatient attendances, consultant services (follow-up face-to-face attendance)			
Drug and alcohol services — adult	51	121	87
Other services — adult	116	195	158
Elderly	94	194	154
Weighted average of all adult outpatient attendances	93	173	136
Community setting, consultant services (face-to-face contact)			
Weighted average of all contacts	91	135	117

1 http://www.dh.gov.uk/en/Publicationsandstatistics/PublicationsPublicationsPolicyAndGuidance/DH_111591

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).¹ Prices have been updated from 1994/1995 levels using the HCHS prices inflator. 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 updated 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.

Type of chair	Total value 2009/2010	Annual cost 2009/2010	Notes
Capital costs			
Self or attendant propelled	£241	£58	Capital value has been annuitised over five years at a discount rate of 3.5 per cent to allow for the expected life of a new chair. In practice, 50 per cent of wheelchairs supplied have been reconditioned, not having been worn out by the time their first users ceased to need them.
Active user	£603	£143	
Powered	£1,204	£287	
Revenue costs			
Maintenance			Revenue costs exclude therapists' time but include the staff costs of maintenance. The costs include all costs for pressure relief. The cost of reconditioning has not been included in the cost of maintenance.
- non-powered		£26	
- powered		£104	
Agency overheads			No estimate of management overhead costs is available. They are likely to be minimal.
Unit costs available 2009/2010			
£85 per self or attendant propelled chair per year; £170 per active user per chair per year; £390 per powered chair per year.			

¹ Personal communication with Richard Murray, National Health Service Management Executive, 1995.

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.¹ 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.² Although this information is rather dated, information contained in the BCIS Access Audit Price Guide, 2002 suggested that the uprated figures are in line with current building costs.³

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 adaptation	Mean	Median	Range		Median annual equipment cost
			Minimum	Maximum	3.5% discount
Additional heating	£436	£403	£147	£5,017	£48
Electrical modifications	£445	£521	£59	£3,071	£63
Joinery work (external door)	£515	£612	£266	£1,265	£74
Entry phones	£365	£495	£218	£3,102	£59
Individual alarm systems	£387	£453	£214	£973	£54
Grab rail	£95	£53	£4	£429	£6
Hoist	£950	2,651	£389	£8,260	£319
Low level bath	£539	£676	£365	£1,481	£81
New bath/shower room	£7,903	£15,142	£3,890	£35,008	£1,820
Redesign bathroom	£1,446	£3,388	£486	£7,780	£407
Redesign kitchen	£2,920	£4,015	£713	£6,806	£483
Relocation of bath or shower	£1,076	£2,057	£183	£10,850	£247
Relocation of toilet	£878	£1,754	£174	£4,181	£211
Shower over bath	£961	£893	£214	£2,451	£107
Shower replacing bath	£2,625	£2,473	£480	£4,460	£297
Graduated floor shower	£2,434	£3,006	£1,313	£6,847	£361
Stairlift	£2,654	£3,347	£2,334	£7,481	£402
Simple concrete ramp	£656	£390	£68	£2,810	£47

1 Ernst & Young (1994) *Benchmark Study of the Costs of Aids and Adaptations*, Report No. 4, Report to the Department of the Environment, London.

2 Building Cost Information Service (2010) *Survey of Tender Prices*, BCIS, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

3 Building Cost Information Service (2002) *Access Audit Price Guide*, BCIS, Royal Institute of Chartered Surveyors, Kingston-upon-Thames.

7.4 Training costs of health service professionals

This schema provides a breakdown of the training costs incurred.¹ The components of the cost of training health service professionals are 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 taken away from their posts in order to train.

For pre-registration courses, we need to consider the costs of tuition, the net cost or value of clinical placement and living expenses over the duration of the course.

This table shows the total investment after allowing for the distribution of the costs over time to give the total investment incurred during the working life of the health service professional, and also the expected annual cost to reflect the distribution of the returns on the investment over time.

The investment costs of education should always be included when evaluating the cost-effectiveness of different approaches to using health service staff as it is important to include all the costs implicit in changing the professional mix. For the most part, these investment costs are borne by the wider NHS and individuals undertaking the training rather than trusts, so those costing exercises which are concerned with narrowly defined costs to the provider organisation would not want to incorporate these investment costs.

	Pre-registration			Post-graduate training	Totals	
	Tuition	Living expenses/ lost production costs	Clinical placement	Tuition and replacement costs	Total investment	Expected annual cost at 3.5%
Scientific and Professional						
Physiotherapist	31,321	25,148	0	0	55,015	4,501
Occupational Therapist	29,089	25,148	0	0	52,852	4,331
Speech and Language Therapist	22,561	32,971	0	0	54,192	4,552
Dietician	23,000	32,971	0	0	54,618	4,643
Radiographer	43,338	25,148	0	0	66,663	5,431
Pharmacist	32,613	39,667	7,615	7,396	85,249	6,743
Nurses						
Hospital Nurse (team manager)	32,265	26,156	-12,087	0	45,224	4,686
Nurse Specialist (Community)	32,265	26,156	-12,087	10,614	66,948	8,048
Health Visitor	32,265	26,156	-12,087	14,547	60,881	6,518
Nurse (GP practice)	32,265	26,156	-12,087	14,547	60,881	6,518
Nurse Advanced	32,265	26,156	-12,087	44,081	90,405	10,614
Doctors						
Foundation Officer 2	65,586	41,469	167,299	0	274,354	20,566
Registrar Group	65,586	41,469	167,299	36,463	310,816	24,287
Associate Specialist	65,586	41,469	167,299	55,372	329,725	26,364
GP	65,586	41,469	167,299	70,374	344,728	27,237
Consultants	65,586	41,469	167,299	115,918	390,272	33,679

The figure for clinical placement for nurses is shown as a negative number because the input during the placement represents a benefit to the service provider offering the placement.

¹ Netten, A., Knight, 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.

7.5 Rapid Response Service

This schema is based on information received from the Royal Victoria Hospital, Folkestone. The Rapid Response Service serves the Shepway Primary Care Trust Areas and is designed to provide the local community with an alternative to hospital admission/long-term care where appropriate. The information is based on 2002/2003 costs and updated using the appropriate inflators.

Costs and unit estimation	2009/2010 value	Notes
A. Wages/salary	£150,925 per year	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 (Bands 7) (0.75) ¹
B. Salary oncosts	£34,779 per year	Employers' national insurance plus 14 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£13,204 per year	The equivalent annual cost of pre-registration after the total investment cost has been annuitised over the expected working life. See schema 6.4 for more details on training costs for health professionals.
D. Training	Not known	In-house training is provided. This includes OT, physiotherapy, ECGs, blood glucose, chiropody, vena puncture etc. The health care assistants often study to NVQ level. No costs are available for this.
E. Direct overheads	£4,117 per year £28,941 per year	Includes mobile phones, uniform replacement for clinical support assistants, stationery, thermometers, energy. 2002/2003 costs updated by the retail price index. Includes administrative staff (Band 2), Manager (Band 7) (0.25). 2002/2003 costs updated by the HCHS Pay Inflator.
F. Indirect overheads	£23,046 per year	Includes the personnel and finance functions 2002/03 costs updated by the HCHS Pay & Prices Inflator.
G. Capital overheads	£2,137 per year	Based on the new-build and land requirements of NHS facilities. ^{2,3} One office houses all the staff and 'hotdesking' is used. It is estimated that the office measures around 25 square metres. Capital has been annuitised at 3.5 per cent.
H. Equipment costs	£1,346 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. This includes facsimile machines, computers etc. 2002/2003 prices updated using the retail price index.
I. Travel	£21,253 per year	
Caseload	7 per week	The yearly caseload is on average 364 patients.
Hours and length of service	7 days a week (to include weekends and bank holidays) 8.00 am – 9.00 pm (24 hrs 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 extension, up to a maximum of 5 days in exceptional circumstances.
Patient contact hours	9,646 per annum	Based on information about typical episodes delivered to patients.
Low-cost episode	3 visits at 30 minutes for 3 days.	A low-cost episode comprises 10 visits and includes initial assessment and travel costs.
High-cost episode	43 patient contact hours over three days	A high-cost episode comprises 10 visits, on average a total of 43 patient contact hours.
Length of assessment/discharge	1 hour 1 hour	The assessment is carried out by either an E or G grade nurse. The discharge is carried out by a G grade care manager.
Unit costs available 2009/2010 (costs including qualifications given in brackets)		
£25 (£26) cost per delivered hour (excludes cost for enhanced payments, cost of assessments, discharge and travel costs); travel per visit £5.20. £201 (£207) per low-cost episode (includes assessment and travel costs); £1,078 (£1,137) per high-cost episode (includes assessment, travel and unsocial hours). Average cost per case £808 (£844).		

1 The Information Centre (2010) *NHS Staff Earnings Estimates June 2010*, The Information Centre, Leeds.

2 Building Cost Information Service (2010) *Surveys of Tender Prices*, March, BCIS, Royal Institute of Chartered Surveyors, London.

3 Based on personal communication with the Department for Communities and Local Government (2010) <http://www.communities.gov.uk/documents/housing/xls/141389.xls>.

7.6 Hospital-based rehabilitation care scheme

This rehabilitation unit is supervised by a nurse consultant and has undergone a service redesign to meet the changing needs of the community. It 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. These are 2009/10 salary costs, and other costs are uprated to present values by using the appropriate HCHS inflators.

Costs and unit estimation	2009/2010 value	Notes
A. Wages/salary	£811,782 per year	Information provided by the PCT and converted to allow for Agenda for Change. ¹ Based on a team of a modern matron (Band 8, range D), 3 nurse team managers (Band 7), 7 nurse specialists (Band 6), (wte 5.34), 8 nurses (Band 5) (wte 6.31), 21 higher-level clinical support workers (wte 17.09), 4 clinical support workers (wte 3.2) and a support physiotherapist (Band 3).
B. Salary oncosts	£193,713 per year	Estimated national insurance and superannuation contribution. Based on employers' national insurance and 14 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£81,078 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. ² See schema 6.4 for more information on training costs of health professionals.
D. Overheads: - direct overheads - indirect overheads	£95,039 per year £76,395 per year £165,990 per year	Includes drugs, dressings, medical equipment, uniforms, laundry allowance, travel and subsistence. Cost for maintenance etc. Includes Finance, Human resources, Board and Facilities.
E. Capital overheads Other capital charges	£81,088 per year £17,039 per year	Those capital overheads relating specifically to the unit. Capital proportioned out to all units.
Hours and length 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.	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 extension, up to a maximum of 5 days in exceptional circumstances.
Average length of stay	14 days	Information received from the PCT. Patients can stay up to six weeks, but average length of stay is 14 days.
Caseload per worker	30 per month	Based on information received from the PCT. The total for 7 months was 209 (PSSRU estimate is 358 for 12 months).
Unit costs available 2009/2010 (costs including qualifications given in brackets)		
Weekly service costs per bed £670 (£769), Average annual cost per patient £4,028 (£4,254), Cost of a typical client episode £1,455 (£1,537).		

1 The Information Centre (2010) *NHS Staff Earnings Estimates June 2010*, The Information Centre, Leeds.

2 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.

7.7 Expert Patients Programme

Self-care support in England is being provided through a broad initiative called the Expert Patients Programme. This programme is 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, are for an optimum number of 16 people and comprise six weekly sessions. 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 undertake to improve their quality of life living with a long-term condition. It enables patients 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.^{3,4} The cost per participant is £285. These costs are based on 2005 data and have been updated using the appropriate inflators.

Costs and unit estimation	2009/2010 value	Notes
A. Staff salaries (including oncosts) and expenses	£4,251,187	Includes EPP trainers and coordinators.
B. Overheads:		
Publicity material	£444,978	Includes awareness raising, staff magazine, manuals, course books, website, intranet.
Office expenditure	£226,455	Includes IT and other office expenditure.
Assessment	£9,192	Assessment to ensure quality of trainers and programme.
C. Other overheads:	£411,092	Includes EPP staff days, venues (volunteers and staff).
Rental	£339,682	Rental of premises for EPP sessions.
D. Travel	£23,725	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 2009/2010		
Cost per participant £285.		

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

2 Expert Patients Programme Community Interest Company, EPP Price Guide 2008/2009, London, www.expertpatients.co.uk.

3 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.

4 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 free of charge, that aims to maximise independent living skills. Information on the costs of re-ablement have been collected as part of the evaluation of home care reablement services carried out by the Personal Social Services Research Unit at Kent in collaboration with researchers at the Social Policy Research Unit, University of York (Glendinning et al., 2010).¹

The schema below provides the average costs of four re-ablement services participating in the evaluation.² All the services were based out of London and one service had occupational therapists embedded. Cost data was provided for 2008/09 and has been updated using the Personal Social Services Inflation.

Costs per service user for the four sites ranged from £1,631 to £2,215 at 2009/2010 prices. Please note that at 2008/2009 prices, the average cost of the four sites was £2,000.

Costs and unit estimation	2009/2010 value	Notes
A. Salary plus oncosts	£2,347,101	Based on total salary costs ranging from £571,357 to £4,681,308 for re-ablement workers. Costs 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	£865,541	These costs accounted for between 2 and 25 per cent of total costs for the four sites. The average cost for the four sites was 23 per cent of total costs.
Office and training costs	£46,613	These costs included general office costs, uniforms and training costs. Running costs accounted for 1 per cent of total costs.
C. Indirect overheads	£162,877	Indirect overheads include general management and support services such as finance departments and human resource departments. These accounted for on average 4 per cent of total costs ranging between 0.5 to 9 per cent of total costs.
D. Capital overheads		
Building and land costs	£6,166	Information supplied by the Local authority and annuitised over 60 at a discount rate of 3.5 per cent. This accounted for less than 1 per cent of total costs
Equipment costs	£2,598	Based on information supplied by the Local authority and costed according to government guidelines (see tables 7.2 and 7.3). This accounted for less than 1 per cent of total costs.
E. Travel	£391,156	Average cost for the four Local Authorities accounted for 10 per cent of total costs and ranged from 1 per cent to 12 per cent.
Patient contact hours	49 hours	Average length of episode for the four sites was 49 hours. Average episodes ranged from 35 to 55 hours.
Ratio of direct to indirect time on: Face to face contacts	1:0.94	Based on information received by the sites, 52 per cent of time was spent in contact with service users. Based on an average number of hours of 179,174 and an average number of contact hours of 92,566.
Number of service users	1,886	The average number of service users for the four sites was 1,886 per annum. Sites varied in size and the number of service users ranged between 429 and 3,500 for the four sites.
Unit costs available 2009/2010		
£21 cost per hour; £41 cost per hour of contact; £2,026 cost per service user.		

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.

2 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.