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# Unit Costs of Health and Social Care 2003

compiled by  
Ann Netten and Lesley Curtis

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The **PERSONAL SOCIAL SERVICES RESEARCH UNIT** undertakes social and health care research, supported mainly by the Department of Health, and focusing particularly on policy research and analysis of equity and efficiency in community care, long-term care and related areas — including services for elderly people, people with mental health problems and children in care. Views expressed in PSSRU publications do not necessarily reflect those of funding organisations. The PSSRU was established at the University of Kent at Canterbury in 1974, and from 1996 it has operated from three branches:

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## Foreword

This is the eleventh volume in a series of reports from a Department of Health-funded programme of work based at the Personal Social Services Research Unit at the University of Kent. The aim is to improve unit cost estimates over time, drawing on material as it becomes available, including ongoing and specially commissioned research.

The costs reported always reflect, to a greater or lesser degree, work in progress, as the intention is to refine and improve estimates wherever possible, drawing on a wide variety of sources. The aim is to provide as detailed and comprehensive information as possible, quoting sources and assumptions so users can adapt the information for their own purposes. Brief articles are included to provide background to user services, descriptions of cost methodology or use of cost estimates.

The editorial identifies the new developments in estimates included and key current issues in the estimation of costs and use of the information provided in this report.

In addition, this report relies on a large number of individuals who have provided direct input in the form of data, permission to use material and background information and advice. Thanks are due to Sue Baldwin, Candida Ballantyne, Jennifer Beecham, Santiago Calvo Ramos, Keith Childs, Jane Dennett, Usama Edo and Andrew Fenyo. Thanks also to Helen Friedrickson, Caroline Glendinning, Claire Grout, Glen Harrison, Bernard Horan, Professor Peter Jeffries, Anita Patel, Jan Payne, Tony Rees, Gabriel Serota, Andrew Street, David Wall, Deborah Wood and Zoe Whittington. We are particularly grateful to Becky Sandhu who has provided both general support and advice through several volumes.

If you are aware of other sources of information which can be used to improve our estimates, notice errors or have any other comments, please contact Lesley Curtis, telephone 01227 827193.

Many figures in this report have been rounded and therefore occasionally it may appear that the totals do not add up.

This report may be downloaded from our website: <http://www.pssru.ac.uk>

## Editorial

### New developments and changes in guidance on the discount rate

*Ann Netten*

#### Introduction

This series of volumes draws together information about unit costs of a wide, and growing, variety of health and social care services. The information is presented in as detailed and transparent a format as possible in order that users can adapt the estimated costs to suit local or specific circumstances, or draw on particular pieces of information to provide helpful assumptions when appropriate data are not easily available.

An important exercise when drawing on data or making assumptions based on other sources where direct information is not available is to test the sensitivity of results of any cost evaluation to changes in assumptions. One important assumption that has to be made with respect to capital costs is the level of the expected rate of return on that capital, usually taken as the discount rate. Guidance on this and on capital charging generally has changed recently, with implications for the estimated costs in this volume.

This editorial starts by briefly describing distinctive aspects of this volume before turning to the basis for changes in guidance about the discount rate and implications for our estimated unit costs.

#### New additions, changes and articles

##### *Intermediate care*

As part of the new emphasis on intermediate care a number of Rapid Response teams across the country are aiming to reduce the number of people who have to be admitted to hospital for treatment, freeing up hospital beds and so reducing waiting times for acute care. In this volume, we have been able to draw on information kindly provided by Sue Baldwin, Head of the Rapid Response Team to provide a detailed costing of the Rapid Response Service for Shepway which is operated in the Royal Victoria Hospital in Folkestone. A short article (pages 19-21) provides the service description and objectives of the service and discusses the assumptions made to arrive at the costs estimated in schema 7.6.

In another article (pages 15-18) Anita Patel and colleague evaluate the costs and influence of between-scheme variations on the estimation of unit costs for three services that have evolved within Lambeth, Southwark & Lewisham in south London. Each provides a combination of two types of support: supported discharge (rehabilitative support for patients discharged from local hospitals after disabling acute illness, injury and surgery) and rapid response (taking referrals directly from Accident and Emergency departments or occasionally from home in order to avoid an acute hospital admission). The study highlighted substantial differences between the three schemes, many of which were dependent on the historical context of their evolution.

***Pharmacist***

Unit costs of a community and hospital pharmacist have been introduced this year (see schemas 8.6 and 12.6 on pages 108 and 152), drawing on information from a variety of sources including a recently completed census carried out by the Royal Pharmaceutical Society of Great Britain. This is the first research-based census of pharmacists on the register of the Royal Pharmaceutical Society of Great Britain and will be significant in analysing industry trends and informing future planning.

For the purpose of producing unit costs, the PSSRU commissioned data from the census on the number of pharmacists working within each age band. This has enabled us to estimate the length and distribution of the expected working life of a pharmacist in order to annuitise the investment costs of training following the approach adopted for other health care professionals in the Ready Reckoner project (Netten and Knight, 1999; Netten et al.1998).

***Training costs***

Since 1999 we have incorporated information from the Ready Reckoner study about the investment costs of training for most health service professionals as one element of the unit cost estimation process. Each year we have updated the information presented in the original report reflecting current spending and specific inflators where necessary. In this volume we include a table showing the initial investment costs of training and the annuitised values that reflect expected working life distributions, using both 6 per cent and 3.5 per cent as the discount rate (see page 99).

***Reference costs***

In previous years we have drawn on the TFR2 returns on overall levels of expenditure and activity from Trusts as a basis for estimating hospital costs. As Andrew Street describes in his article (pages 23-24), these returns have been superseded by the Reference Cost return which is mandatory for all providers of NHS services. Andrew describes the basis for the estimates which we now draw on for our estimate of inpatient and outpatient costs in schema 7.1 (page 95) and discusses variations in these costs and where caution should be exercised in the use of Reference Costs generally.

Where Reference Costs are available for services for which we have bottom up estimates, we have included this information in the relevant schema (see for example schema 8.1, page 103).

***Technology dependent children***

Medical advances and government policies emphasising the importance of care at home have led to the emergence of a group of children with continuing medical and nursing needs living in the community. Some of these children remain dependent on the medical technology that enabled them to survive.

Although many of the service and family costs arising from the home care of technology dependent children are similar to those already identified in research on families with severely disabled children, there are a number of areas in which technology dependent children incur even more additional expenditure. Extra expenditure, over and above that needed by severely disabled children, is likely to arise in the purchase and installation of special medical equipment for use at home; regular 'consumable' nursing supplies associated with special equipment; domiciliary specialist nursing services and home support services; and for parents, costs arising from the provision of hospital-level care in their homes, such as mobile phones/pagers, extra electricity to run machinery and refreshments for home care workers.

Schemata 6.5.1 to 6.5.3 draw on three exemplar case studies to illustrate the wide range of medical, nursing and other needs of technology dependent children.



## Discount rates

In order to estimate the equivalent annual opportunity cost of capital we need to have an estimated rate of interest that represents the return we could have had, had that capital not been tied up in the production of the service. This rate of interest is usually set at the same level as the discount rate.

The discount rate is intended to reflect the fact that expenditure or benefits in the future are worth less to us than if they were incurred now. It is used to estimate the present value of a stream of expenditure and benefits for a number of purposes including appraisals of proposals for public expenditure and cost-effectiveness evaluations.

Until recently HM Treasury set the public sector discount rate at 6 per cent for public services in the UK. Treasury guidance was that a higher rate of interest (8 per cent) should be applied if the service being evaluated was “near market” in that it was also provided through the private sector. Many social care services fall into this category so in these volumes discount rates of both 6 and 8 per cent have been used depending on the nature of the service.

In the international literature discount rates have always been lower than the rate set by the Treasury. The convention has been to use 5 per cent (Drummond et al, 1997), although in 1996 Gold and colleagues estimated that 3 per cent would be most appropriate discount rate for economic evaluations as it reflects the real rate of return on US long-term government bonds (Gold et al, 1996). Guidance now tends to suggest using 3 per cent but to perform sensitivity analysis using 5 per cent because of the large number of cost effectiveness studies using this rate (Jamison, 2002).

In the UK the different factors comprising the discount rate have been “unbundled” in the current edition of the “Green Book” (HM Treasury 2003). The Social Time Preference Rate (STPR) is defined as the value society attaches to present as opposed to future consumption. This has two components:

- the rate at which individuals discount future consumption compared with present consumption on the assumption of no change in levels of income; and
- the effect of increased income over time. As income increases we value incremental rises less (at the extreme a millionaire does not value an additional £10 as much as someone on income support). We need to allow for the fact that GDP and overall wealth are expected to increase in the future.

The rate at which individuals discount future consumption includes the risk of a catastrophic occurrence (so the expected returns do not occur) and pure time preference. This is estimated as 1.5 per cent. The effect of increased income over time is estimated as 2 per cent so HM Treasury guidance is that the discount rate is now set at 3.5 per cent (HM Treasury, 2003).

Table 1 shows the equivalent annual cost of £1 using the various discount rates identified above for the most frequently used periods for discounting equipment, vehicles and buildings 5, 10 and 60 years. From this we can see that in order to estimate the equivalent annual cost of a building we now multiply the capital value by .0401 rather than .0619 (6 per cent discount rate) or .0808 (8 per cent discount rate). As most sources of information only provide tables of EAC by whole percentage points, appendix A on page 13 shows the EAC for £1 for 3.5 per cent up to 100 years.

It could be argued that when annuitising over 60 years we also ought to use the lower discount rate recommended for the longer term: between 31 and 75 years the Treasury recommends the rate

drops to 3 per cent. Under the assumption of declining rates of return the multiplier for capital over 60 years becomes 0.378.

**Table 1 Equivalent annual cost of £1**

Discount rate	Number of years		
	5	10	60
1.5	.2091	.1084	.0254
3	.2184	.1172	.0361
3.5	.2215	.1202	.0401
5	.2310	.1295	.0528
6	.2374	.1359	.0619
8	.2505	.1490	.0808

The discussion about the impact of this change in the discount rate has focused on the increase in the estimated present value of future costs and benefits in public sector option appraisals. This should encourage a longer-term approach to appraisal and evaluation. The main impact will be that private finance initiative construction schemes will be less likely to be value for money compared with publicly funded alternatives (Department of Health, 2003).

For the purposes of this volume we are now using 3.5 per cent as the minimum rate of return that the Treasury recommend should be used for valuing the cost of capital. Rather than recommending a specific rate for near market services, the Treasury will be producing further guidance on different factors that should be taken into consideration and ways of doing this for capital fees and charges. We will draw on this guidance for future volumes, but as the rate should depend on the purpose of the costing exercise it is most appropriate that we provide estimates based on this minimum rate together with information so users of this volume can adapt estimates for specific circumstances and test the sensitivity of their conclusions to changes in assumptions.

The reduced discount rate represents a substantial change in our previous assumptions about the cost of capital. In each schema we include information about the capital cost under our previous assumptions. Below we discuss the impact that on our estimates of both capital and the unit costs of services.

### **Impact of changes**

Capital investments include physical capital in the form of care facilities, offices, treatment areas, equipment and adaptations to premises, and human capital in the form of investment in training and qualifying professional staff. Tables 2 and 3 show the impact of the changed discount rate on capital and unit costs for a few examples.

In terms of physical capital the impact, as we would expect, depends on how capital intensive the service is, whether the previous discount rate was 6 or 8 per cent, and the length of the period over which the capital is annuitised. Buildings are annuitised over 60 years. One of the most capital intensive services in terms of the building is sheltered housing for older people. Table 2 shows that the unit cost of the accommodation element (building and management support) of local authority sheltered housing drops by 43 per cent; once the costs of associated care are taken into account the difference is 37 per cent. By comparison, the establishment costs of care homes managed by local authorities are 8 per cent less than they would have been using the 8 per cent discount rate. At the other end of the spectrum, a rehabilitation service previously used a 6 per cent discount rate and was much less capital intensive so the overall effect on the unit cost was less

than 2 per cent. The reduction in the office costs of social workers results in a 5 per cent reduction in the overall unit cost.

When capital is annuitised over shorter periods of time the impact of the changed discount rate is reduced. The capital cost of equipment and adaptations are annuitised over different periods of time depending on the expected life of the equipment or use of the adaptation. Wheelchairs, which we annuitise over five years, have a 7 per cent lower capital value when discounted at 3.5 compared with 6 per cent; when other costs are included the unit cost difference is 5 per cent. Equipment and adaptations annuitised over 10 years are valued at 11-12 per cent less when the 3.5 per cent rate is used compared with 6 per cent.

**Table 2 Effect of changed discount rates on capital and unit costs of selected services**

	<b>Capital at previous discount rate</b>	<b>Capital at 3.5%</b>	<b>Unit Cost at previous discount rate</b>	<b>Unit Cost using 3.5% discount rate</b>
Local authority sheltered housing for older people	£148 (8%)	£74	£173 per week accommodation £199 per week accommodation and care	£98 per week accommodation £125 per week accommodation and care
Local authority residential care for older people	£85 (8%)	£42	£612 establishment costs	£560 establishment costs
Voluntary sector residential rehabilitation for people who misuse drugs/alcohol.	£26 (6%)	£17	£673 per resident week	£663 per resident week
Social worker	£2,465 (6%)	£1,598	£20 per hour	£19 per hour
NHS powered wheelchairs	£271 (6%)	£253	£363	£345
Adaptations				
Additional heating	£41	£36	N/a	N/a
Electrical modifications	£53 (6%)	£47		

The change in the rate of interest assumed means that the costs of human capital investment have reduced by about 30 per cent for all health service professionals for whom we have information. The size of the investment means that the impact on the unit cost tends to be more marked than the impact of the change in the value of the physical capital costs associated with most health service professionals. The net effect of the cost of a unit of activity by a GP is a drop of 8 per cent when both physical and human capital costs are taken into account. For a hospital based physiotherapist the difference is about 11 per cent. The estimated unit costs of a hospital based nurse, assumed not to have any post registration qualifications, is about 4 per cent less, whereas the difference for a district nurse, with a community nursing degree, is over 7 per cent.

**Table 3 Effect of changed discount rates on human and physical capital and unit costs of selected services**

	<b>Capital/ qualifications At 6%</b>	<b>Capital/ qualifications At 3.5%</b>	<b>Unit cost At 6%</b>	<b>Unit Cost At 3.5%</b>
General Practitioner	Premises £9,666 Qualifications £34,447	Premises £6,249 Qualifications £23,258	Per hour of GMS activities £87 (£70 excluding qualifications)	Per hour of GMS activities £80 (£68 excluding qualifications)
Nurse Manager, Day Ward	Capital £2,781 Qualifications £5,403	Capital £1,802 Qualifications £3,851	£24 per hour (£21 excluding qualifications)	£23 per hour (£20 excluding qualifications)
Hospital physiotherapist	Capital £5,468 Qualifications £5,280	Capital £3,422 Qualifications £3,796	£28 per hour (£24 excluding qualifications)	£25 per hour (£23 excluding qualifications)
District Nurse	Capital £2,643 Qualifications £7,000	Capital £1,713 Qualifications £5,027	£27 per hour (£23 excluding qualifications)	£25 per hour (£22 excluding qualifications)

### Conclusion

As in previous volumes we have extended the range of and aimed to improve the basis for the cost estimates presented. The most far-reaching change has been the change in the discount rate used to estimate the equivalent annual cost of capital investments.

In some instances conclusions drawn in terms of cost-effectiveness of services or the policy implications of different investments can be very sensitive to the value of unit costs. It is always sensible to conduct sensitivity analyses to allow the implications of these changes to be explored. The change in guidance from the Treasury and the change in the base case assumption in this volume about the valuation of capital have important implications for the values presented here. The estimates based on previous assumptions about the discount rate are included in each schema to allow users of this volume to adjust the costs to reflect the circumstances of the particular investigation.

## Appendix A

### Equivalent annual cost (EAC) at 3.5 per cent discount rate

Year	EAC	Year	EAC
1	1.0350	21	0.0680
2	0.5264	22	0.0659
3	0.3569	23	0.0640
4	0.2723	24	0.0623
5	0.2215	25	0.0607
6	0.1877	26	0.0592
7	0.1635	27	0.0579
8	0.1455	28	0.0566
9	0.1314	29	0.0554
10	0.1202	30	0.0544
11	0.1111		
12	0.1035	40	0.0468
13	0.0971	50	0.0426
14	0.0916	60	0.0401
15	0.0868	70	0.0385
16	0.0827	80	0.0374
17	0.0790	90	0.0367
18	0.0758	100	0.0362
19	0.0729		

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## The costs of intermediate care schemes

*Anita Patel, Judy Foster and Finbarr Martin*

### Background

Intermediate care (IC) services are now an established component of health services for older people in England. They are hoped to provide 'added value' to the whole system of health and social care, particularly for older people, by cost-effectively enabling more appropriate use of hospital facilities and providing a safe alternative to hospital. However, models of IC vary between areas. Evaluations of effectiveness and cost-effectiveness compared to conventional care have produced inconsistent results and no specific model has been demonstrated to be the most effective way of achieving the benefits. Three borough-based IC schemes have evolved within Lambeth, Southwark & Lewisham in south London. Each provides a combination of two types of support: supported discharge (rehabilitative support for patients discharged from local hospitals after disabling acute illness, injury or surgery) and rapid response (taking referrals directly from Accident & Emergency departments or occasionally from home in order to avoid an acute hospital admission). An earlier study showed differences between them in organisational details, and patient case-mix, outcomes and length of time on the scheme (Foster, 2001). We recently carried out a cost-effectiveness evaluation of these services (Patel *et al.*, 2003). This paper illustrates the influence of between-scheme variations on the estimation of unit costs for the three services.

### General approach to unit cost estimation

In order to estimate the costs of patient contacts for different types of scheme staff, we set out to measure the total cost of each staff member and the way in which they used their working time. Three elements of time consumption were considered: first, the duration of face-to-face contacts; second, time spent on patient-specific activities that did not actually involve contact with the patient e.g. telephone calls to co-ordinate care and travel time; and finally, time spent on activities that did not concern specific patients, but that were essential to the overall running of the service e.g. team meetings and general administration.

### Data collection

In order to estimate the time spent on these different types of activities, we devised a Patient Event Record (PER) that was completed by each individual staff member during all shifts worked over a 7-day monitoring period during the course of the study. The PER recorded any activity that was carried out related to a specific patient (i.e. excluding any general activities that could not be attributed to any specific patient). For each patient-related activity, staff were asked to record its location, type, duration and travelling time. It was assumed that any remaining working time not recorded on the PERs was spent on non-patient-specific activities. The working patterns recorded during this monitoring week were assumed to represent annual working patterns.

Costs were estimated from schemes' revenue expenditure accounts for the financial year 2000/01. We aimed to include the following types of costs in the unit cost estimations:

- salaries and salary on-costs;
- direct overheads, e.g. stationery, equipment, travel and clerical support;

- indirect overheads, e.g. support departments in the organisation (personnel, finance etc.), maintenance and electricity;
- capital overheads, e.g. physical land and premises.

It was necessary to make some assumptions and adjustments where any schemes' expenditure information was not consistent or complete. As unit costs were calculated only for those staff providing direct patient-specific services, costs of other scheme staff (i.e. clerical workers and team co-ordinators) were allocated in the form of direct overheads. For the Lambeth and Southwark schemes, revenue expenditure information did not include physiotherapists and occupational therapists that were located within hospitals, and specifically funded by the local Health Authority to carry out tasks related to rapid response/supported discharge. (Therapists carrying out the equivalent activities in Lewisham were already included in the Lewisham scheme accounts). To ensure that cost data were comparable across the schemes, and to include the full costs of the schemes, a separate estimation was made for the costs of these Lambeth and Southwark hospital-based therapists.

### **Staff working patterns and unit costs**

In terms of budget allocation for different types of staff, rehabilitation support workers (RSWs) constituted the bulk of staffing in each of the schemes - 18 of 24 whole time equivalents (w.t.e.) in Lambeth, 14 of 19 in Southwark but only 5 of 11 in Lewisham. The other major difference was that Lewisham had a higher proportion of therapists (3.5 w.t.e., 33%) and only one nurse (the RSW team leader), whereas in Lambeth and Southwark the qualified professional input was predominantly nursing (5 nurses including the team leader and 1 w.t.e. therapist in Lambeth, and 3 nurses and 2.7 therapists in Southwark).

There were also major differences between the three schemes in the patterns of staff activities recorded during the monitoring week. A much greater proportion of the contracted time of Lambeth RSWs was ascribed to direct face-to-face contacts (34%) and to total patient-specific activities in general (54%) than in Southwark (12% and 20% respectively) or Lewisham (10% and 32%). Within this, the time ascribed to travel also varied - 18%, 8% and 13% in Lambeth, Southwark and Lewisham respectively. The team leader in Lewisham spent far more time with patients (18%) than the team leaders in Lambeth (1.3%) and Southwark (4%). This reflected their differing roles in each scheme. In Lewisham, the team leader was the 'nurse' for the team, whereas in Lambeth the role was more managerial. The proportion of physiotherapist time spent with patients or on total patient-specific activities in Lambeth (38% and 53%) was much higher than the average for the 2 Southwark therapists (13% and 26%) or the 5 Lewisham therapists (9% and 20%). These differences are at least partly explained by the broader role of the team therapy input in Lewisham, as explained above.

These differences in staffing and staff activity patterns resulted in quite large differences in unit costs (Table 1). Notably, the RSW unit cost in Southwark was twice that in Lambeth and the scheme therapist costs were considerably high in Lewisham compared with the other two schemes (although the difference narrowed when the costs of hospital-based therapists were accounted for).

### **Comment**

It was necessary to assume that PERs were completed accurately and consistently between the three schemes, and that the monitoring week accurately reflected usual working patterns. It is also possible that the schemes were operating below potential maximum capacity and that the unit costs

were therefore inflated (particularly in Lewisham where activity levels were reported to be higher after the study period, with no staffing changes). There is a lack of similar data in the available published literature so benchmarking the local services against others is not possible, but the proportion of non-contact time by RSWs in Southwark, and therapists generally, is surprising. In order to explore the potential impact of increased activity, Table 1 also reports direct:indirect time ratios and unit costs under the assumption of an additional 20% of time spent on face-to-face contacts by each staff type.

The overall study highlighted substantial differences between the three schemes, many of which should be considered in the historical context of their evolution. Nevertheless, the study illustrated how the differences translate through to unit cost estimation and subsequently, the ability to compare the schemes' relative cost-effectiveness. However, the information is useful to guide the continuing development of these relatively new and innovative services.

### Acknowledgements

We are grateful to the Lambeth Southwark and Lewisham Health Authority for funding this study; Marilyn Peters for administrative support; and all staff in each of the schemes for supporting the study, their input into the planning of the study and their data collection efforts.

### References

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**Table 1: Contact time and unit costs (2000/1 prices) of service inputs from the schemes, by staff type<sup>1,2</sup>**

	Lambeth		Southwark		Lewisham	
	Ratio of direct: indirect time on face-to-face contacts	Cost per hour of face-to-face contact (£)	Ratio of direct: indirect time on face-to-face contacts	Cost per hour of face-to-face contact (£)	Ratio of direct: indirect time on face-to-face contacts	Cost per hour of face-to-face contact (£)
Team leader/nurse	1:8.69 (1:7.08)	242.34 (202.07)	1:7.45 (1:6.04)	168.63 (140.49)	1:4.42 (1:3.52)	133.06 (110.96)
RSW	1:1.95 (1:1.46)	48.76 (40.66)	1:7.03 (1:5.69)	108.31 (90.24)	1:4.36 (1:3.46)	78.61 (65.41)
Physiotherapist	1: 2.54 (1:1.95)	96.42 (80.35)	1:6.89 (1:5.58)	201.52 (168.06)	1:14.24 (1:11.71)	425.278 (354.68)
Occupational therapist	1: 2.54 (1:1.95)	96.42 (80.35)	1:6.50 (1:5.25)	169.28 (141.06)	1:9.08 (1:7.4)	272.82 (227.35)
Social worker	n/a	n/a	n/a	n/a	1:4.77 (1:3.81)	169.58 (141.36)
Hospital-based physiotherapist	1:4.0	91.32	1:4.00	91.32	n/a	n/a
Hospital-based occupational therapist	1:2.0	63.06	1:2.00	63.06	n/a	n/a



## Notes

1. Where there was more than one of a particular type of staff in a scheme, average ratios and unit costs for those staff are reported.
  2. Figures in brackets show direct:indirect contact time ratios and costs, under the assumption of an additional 20% of working time spent on face-to-face contacts. These sensitivity analyses were only carried out for staff directly employed by the schemes, i.e. not for the hospital-based physiotherapists and occupational therapists.
- n/a: Staff type did not exist in the scheme.

## The Rapid Response Service

*Lesley Curtis and Ann Netten*

The Rapid Response Service is one of a range of intermediate care facilities offered by certain hospitals and nursing and social service teams throughout the country. The general aim of the service is to ensure that patients have access to an alternative to hospital admission where this is appropriate and to prevent unnecessary hospital admissions by offering skilled nursing care and social support to patients in their own home. The service has responded to a rising number of emergency admissions and is designed to tackle the growing pressures on hospital beds.

Research carried out at the Royal Victoria Hospital in Folkestone who operate the Rapid Response Service for Shepway has provided the opportunity for a detail costing to be carried out. The cost estimates are presented in Schema 7.6 (page 100). Here we describe the service and basis for the cost estimates.

### Service description and objectives

The objective of the Rapid Response Service is to provide rapid assessment and immediate treatment for patients in their own homes. Response is made within two hours of the referral being made by the patient's GP, the Social Services Department or from the Hospital. The team is then responsible for ensuring that effective communication is maintained with the General Practitioner, patients, relatives and other agencies involved. Programmes of care are designed to fit individual patients' needs enabling patients to return to their maximum functional independence. If appropriate, a Community Assessment and Rehabilitation Team (CART) also provide a rehabilitation programme. This has not been included in the cost estimates as it would require a separate detailed costing exercise.

The Rapid Response team comprises of a part time G grade staff nurse, two whole time E grade qualified nurses, five whole time B grade unqualified nursing staff and a G grade Care Manager. Supervision is provided by an I grade manager and administrative duties carried out by a full time administrative worker. The Service is available seven days a week from 8.00 am until 9.00 pm, but can provide an intensive package of care if required over a 24 hour period. This would mean that a Health Care Assistant would remain in the patient's home and, if he/she considered that the patient required qualified nursing care during the night, a community nurse could be called out between 10 pm and 8 am. At the time of writing the community nursing team had not been called out to a Rapid Response patient so this was not included in the cost estimates.

### Service process

The process begins when a referral is made either by telephone or fax and this is responded to within two hours. A completed proforma, with the General Practitioner's signature accepting medical responsibility must be available the same day. Exceptions to this rule are made if there is a carer crisis or a situation where no medical support is required. However, the care package cannot be implemented unless the GP has accepted medical responsibility.

The referral is then assessed against service criteria before a face to face assessment is made of the patient. Patients have to be 60 years or over to qualify, although flexibility may be exercised

following discussion with the team. The patient must live in a designated area and the patient's family/carer must consent to treatment.

The referral can be made if the patient is unable to cope at home following injury or illness, or if there is a sudden reduction in mobility or exacerbation of any chronic condition requiring short-term nursing care and additional social support, such as a short-term carer crisis. However, the service is not for patients who require acute hospital admission who cannot be safely cared for in the community or who require administration of intravenous medication. Patients are not eligible if their needs can be met by existing community services or if they have symptoms of a stroke or a history of resistance to intervention.

When the eligibility criteria have been checked the patient will then be assessed by a Rapid Response Nurse and a care plan agreed with the patient and/or his or her carer. Written information is sent to the patient or carer and the referrer and is reviewed daily. All referrals for continuation of treatment by other agencies are completed pre-patient discharge to facilitate continuity of care and the team completes and sends a discharge summary report within two working days of discharge to the GP and other relevant agencies. Discharge planning forms an integral part of the patient's programme from the Rapid Response team and the team liaises with community services as soon as possible to ensure continuity of care.

### **Estimated costs**

Detailed information was provided about expenditure and resource use, but information about the number of patients treated was not available. We have assumed that the service is working to capacity (seven patients per week), based on the types of programmes of treatment described below. Plans to expand the service suggest that it is working to capacity. A variety of unit costs have been estimated to reflect hours of care, types of activity (such as assessment) and episodes of care.

The amount of care required varies enormously from patient to patient so the basic cost of a delivered hour has been calculated for situations in which there is detailed information about the nature of the service received. This includes all costs related to those who provide the direct care and excludes other costs such as carrying out an assessment, discharging the patient and travel costs. These can be added on separately to reflect the service received by the individual patient. The cost per delivered hour is estimated to be £18 excluding, and £19 including the investment costs of the nurses' qualifications.

Approximately three quarters of assessments are carried out by an E grade nurse and the remainder by a G grade staff nurse. On this basis, the average weighted cost of an assessment was estimated as £39 (including travel). When a patient requires continuing care from the community nursing team, a Care Manager discharges the patients and makes the necessary preparations. This is estimated to cost £43 (including travel).

The costs of two typical types of episode have been identified. The first is an episode that typically consists of three visits during normal working hours at 30 minutes each for three days. This type of patient would undergo the obligatory assessment (including travel costs) but would not require any night care or incur discharge costs. The Rapid Response team may be called in simply to provide carer relief. This is estimated to cost £159.

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A typical high cost episode includes the cost of assessing and discharging the patient and enhanced payments for unsocial hours. It consists of 10 visits, an average of 43 patient contact hours, of which 11 are paid at an enhanced rate. We estimate the cost of this episode to be £874.

### **Conclusion**

There is a burgeoning of intermediate care services throughout the country but a dearth of information about the resource implications of these services. This limited study of one service provides us with some insight into the costs of provision. From these data it would seem that intensive episodes cost rather more than hospital stays for a similar period. However, this type of service is intended to be preventative. Any judgement about cost-effectiveness must be based on evidence about comprehensive costs and both short and longer-term outcomes.

### **Acknowledgements**

Our thanks are extended to Sue Baldwin, Head of The Rapid Response Team.

## Reference costs

*Andrew Street*

In previous editions of this volume, unit costs of inpatient and outpatient care have been reported by specialty. These data were derived from the TFR2 specialty and programme costs returns made each year by Trusts to the Department of Health. Trusts are no longer obliged to make these returns as they have been superseded by the Reference Cost return which is mandatory for all providers of NHS services. The National Schedule of Reference Costs (NSRC) has been compiled annually since 1998 and has become steadily more comprehensive. The 2002 NSRC ([www.doh.gov.uk/nhsexec/refcosts.htm](http://www.doh.gov.uk/nhsexec/refcosts.htm)) itemises the unit costs of some 89% of hospital and community health service expenditure under the following broad categories:

- emergency and elective inpatients and day cases;
- outpatients;
- critical care;
- radiotherapy and chemotherapy;
- accident and emergency;
- specialist services including renal dialysis, bone marrow transplantation, spinal injuries services, and rehabilitation;
- pathology and radiology;
- community nursing services and other community services such as occupational therapy, speech therapy, physiotherapy;
- audiology services; and
- mental health services.

Within these categories, services are defined in a variety of ways. Inpatient and day case activity is defined using Healthcare Resource Groups (HRGs), which provide a more accurate description of patients than the specialty-level costs reported in the TFR2. Previously estimates of the cost of inpatient activity were available for only the forty or so specialties listed in the TFR2. In contrast, the 2002 NSRC provides details of the costs of emergency care subdivided into 553 different categories, with separate costs for 545 and 532 different types of elective and day case activity respectively. Inpatient costs are not included in the current edition as they can be downloaded directly from the Department's website ([www.doh.gov.uk/nhsexec/refcosts.htm](http://www.doh.gov.uk/nhsexec/refcosts.htm)). Outpatient costs continue to be reported at specialty level, the NSRC distinguishing between first and follow-up attendances; critical care services are reported according to the number of occupied bed days, as are mental health services; and community service activity is defined according to the number of clients seen.

In order to reduce inconsistencies in how finance departments calculate unit costs, the Department of Health provides instructions about how costs should be apportioned to activity ([www.doh.gov.uk/nhsexec/costing.htm](http://www.doh.gov.uk/nhsexec/costing.htm)) as well as specific guidance relating to the collection of Reference Costs ([www.doh.gov.uk/nhsexec/natsched.htm](http://www.doh.gov.uk/nhsexec/natsched.htm)). Despite this, inconsistencies are likely to remain, particularly over matters where local discretion has to be exercised (for example, in how to apportion the costs of consultants who work across specialties). Inconsistent cost apportionment was known to be a problem with the TFR2 returns, Trusts having had few incentives to invest in ensuring accuracy and rarely receiving feedback on how the data were used – if they were used at all. The greater prominence of the Reference Cost data, both in being made publicly available and in being used to inform the setting of efficiency targets, may have encouraged Trusts to put greater effort into compiling the returns. The use of Reference Costs to inform the creation of a set of national prices for paying Trusts on the basis of their activity may

act as a further spur to improved accuracy ([www.doh.gov.uk/nhsfinancialreforms/](http://www.doh.gov.uk/nhsfinancialreforms/)).

Summarising the returns made by each Trust, the NSRC reports mean costs together with the interquartile range and the full range, along with additional information for some services. There is variation in the unit costs reported by individual Trusts for these services, as indicated in the columns in schema 7.1 showing the interquartile range. This variation may be due to several causes:

- some Trusts may be more efficient in providing these services;
- there may be differences across Trusts in how activity is defined and in how accurately units of activity are counted;
- there may be systematic unmeasured differences between Trusts in the condition or treatment requirements of patients seen within each category;
- Trusts may not be applying the costing guidance in a standard fashion or they may be making different judgements about how to apportion costs when there is scope for discretion; and
- costs in some Trusts may be influenced unduly by atypical patients (although, as a safeguard against this, Trusts below a threshold level of activity are excluded).

Where these factors come into play, caution should be exercised in using the Reference Cost data as estimates of the 'true' cost of the service in question. Wide variation among Trusts in their reported costs may indicate that the factors listed above are influential. Another indicator of possible inaccuracy is to look at how reported costs change over time – if there is little change, greater confidence might be placed in the estimate. The table below shows the change in mean cost from 2001/02 to 2002/03 (uprated from 2000/01 and 2001/02 figures) for a selection of services. As can be seen, there is no consistency in the direction of change and the size of movement in the mean cost for some types of services is dramatic. Only reference costs that show a reasonable level of stability over time (i.e. less than 20% variation year on year) have been included in Schema 7.1. In practice this has meant excluding all Community Nursing Services which have been reported only since 2001.

Despite these cautions, the Reference Cost database represents an important resource for management and research purposes. With the move to paying NHS providers on the basis of their activity, the prominence and accuracy of the data are likely to increase further.

<b>Mental Health Services – inpatient date</b>	<b>201 Mean £</b>	<b>2002 Mean £</b>	<b>Change %</b>
Children	329	363	10
Adult			
Intensive care	286	385	35
Acute care	171	181	6
Rehabilitation	175	183	5
Elderly	154	170	10

<b>Community Services Type</b>	<b>201 Mean £</b>	<b>2002 Mean £</b>	<b>Change %</b>
Cancer related nursing care	254	299	18
Palliative/respite care/nursing care	282	411	46
Diabetic nursing/liaison	107	104	-3
Cardiac nursing/liaison	143	151	6
Asthma/respiratory nursing/liaison	201	139	-31
Parkinson/Alzheimer nursing/liaison	124	181	46
Intensive care nursing	2,196	3,778	72

# **I. SERVICES**

## **1. Services for older people**

- 1.1 Private nursing homes for older people
- 1.2 Private residential care for older people
- 1.3 Voluntary residential care for older people
- 1.4 Local authority residential care for older people
- 1.5 Nursing-led inpatient unit (NLIU) for intermediate care
- 1.6 Local authority day care for older people
- 1.7 Voluntary day care for older people
- 1.8 Local authority sheltered housing for older people
- 1.9 Housing association sheltered housing for older people
- 1.10 Local authority very sheltered housing for older people
- 1.11 Housing association very sheltered housing for older people
- 1.12 ECCEP community care package: very low cost
- 1.13 ECCEP community care package: low cost
- 1.14 ECCEP community care package: median cost
- 1.15 ECCEP community care package: high cost
- 1.16 ECCEP community care package: very high cost

### Schema 1.1 Private nursing homes for older people

Using PSS EX1 2001/02<sup>1</sup> returns uprated using the PSS Pay and Prices inflator, median costs per person for supporting older people in nursing care were £398 per week and mean costs were £400 per week. Twenty-five percent of local authorities had average gross costs of £370 or less and 25 per cent of £455 or more. It has not been possible to exclude capital charges on the revenue account.

Costs and unit estimation	2002/2003 value	Notes
A. Fees	£454 per week	The direct unit cost of independent nursing homes is assumed to be the fee. The method of estimating the unit cost of a private care home is taken from Kavanagh et al. <sup>2</sup> Where a market is fairly competitive, such as the market for private nursing homes, it is reasonable to assume that the fee will approximate to the social 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. <sup>3</sup>
<i>External services</i> B. Community nursing C. GP services D. Other external services	£ 0.60 £20 per week	Reflects the level of service receipt found in a 1996 PSSRU survey of 137 nursing homes. <sup>4</sup> In the home with the highest level of nursing input, the average weekly cost was £13 (1996/97 prices). A study <sup>5</sup> found that residents in private nursing homes consulted GPs for an average 6.01 minutes per week. Since it is not possible to distinguish between surgery consultations and home visits, it is assumed here that the visit was to the home. If these were surgery consultations, the cost would be £13 per week.
E. Personal living expenses	£ 8.20 per week	A study of expenditure in private and voluntary residential homes found that residents spent £6 per week on average (1992/93 prices) on non-fee expenditure. <sup>6</sup> This has been uprated by the Retail Price Index. The DWP personal allowance for people in residential care or a nursing home is £16.80. This has been used as a proxy for personal consumption in the past but is probably an over-estimate.
Short-term care	0.967 x A	Based on weekly prices for short-term residents in 88 nursing homes reported in the 1996 survey. In nursing homes as in residential care, short-term residents were less dependent. The lower price may be associated with this factor.
Dependency		Overall, the relationship with dependency in the PSSRU survey was very flat, with the weekly fee for an individual with a Barthel score of four or less costing 0.03 per cent more than average.
London multiplier	1.31 x A	Fees in London nursing homes were 31 per cent higher than the national average (Laing & Buisson market survey). <sup>2</sup>
<b>Unit costs available 2002/2003</b>		
£454 establishment costs per permanent resident week (A); £439 establishment costs per short-term resident week (A); £484 care package costs per permanent resident week (includes A to E); £468 care package costs per short-term resident week (includes A to E).		

<sup>1</sup> PSS EX1 2001/02, Department of Health.

<sup>2</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, Discussion Paper 817/2, Personal Social Services Research Unit, University of Kent.

<sup>3</sup> Laing & Buisson (2003) *Care of Elderly People: Market Survey 2003*, Laing & Buisson, London.

<sup>4</sup> Netten, A., Bebbington, A., Darton, R., Forder, J. & Miles, K. (1998) Cross-sectional survey of residential and nursing homes for elderly people, Discussion Paper 1423, Personal Social Services Research Unit, University of Kent.

<sup>5</sup> Kavanagh, S. & Knapp, M. (1998) The impact on general practitioners of the changing balance of care for elderly people living in institutions, *British Medical Journal*, 317, August, 322-327.

<sup>6</sup> Clare, R. & West, P. (1993) A survey of expenditure in residential nursing homes, *Economic Trends*, 481, 120-25.



## Schema 1.2 Private residential care for older people

Costs and unit estimation	2002/2003 value	Notes
A. Fees	£328 per week	The direct unit cost of private care homes is assumed to be the fee. The method of estimating the unit cost of a private care home is taken from Kavanagh et al. <sup>1</sup> Where a market is fairly competitive, such as the market for private residential homes, it is reasonable to assume that the fee will approximate to the social 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. <sup>2</sup>
<i>External services</i> B. Community nursing C. GP services D. Other external services	£ 5.10 £13  per week	Reflects the level of service receipt found in a 1996 survey of 123 residential homes. <sup>3</sup> In the home with the highest level of nursing input, the average weekly cost was £44 (1996 prices). A study <sup>4</sup> found that residents in private residential homes consulted GPs for an average 3.85 minutes per week. Since it is not possible to distinguish between surgery consultations and home visits, it is assumed here that the visit was to the home. If these were surgery consultations, the cost would be £8.30 per week.
E. Personal living expenses	£ 8.30 per week	A study of expenditure in private and voluntary residential homes found that residents spent £6 per week on average (1992/93 prices) on non-fee expenditure. <sup>5</sup> This has been updated by the Retail Price Index. The DWP personal allowance for people in residential care is £16.80 and sometimes used as a proxy for personal consumption. This is probably an over-estimate
Short-term care	1.059 x A	Based on weekly prices for short-term residents in 44 independent residential homes reported in the 1996 survey.
Dependency		Overall, the relationship with dependency in the PSSRU survey was very flat, with the weekly fee for an individual with a Barthel score of four or less costing 0.04 per cent more than average.
London multiplier	1.38 x A	Fees in London residential homes were 38 per cent higher than the national average (Laing & Buisson market survey). <sup>2</sup>
<b>Unit costs available 2002/2003</b>		
£328 establishment costs per permanent resident week (A); £348 establishment costs per short-term resident week (A); £355 care package costs per permanent resident week (includes A to E); £375 care package costs per short-term resident week (includes A to E).		

<sup>1</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, Discussion Paper 817/2, Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Laing & Buisson (2003) *Care of Elderly People: Market Survey 2003*, Laing & Buisson, London.

<sup>3</sup> Netten, A., Bebbington, A., Darton, R., Forder, J. & Miles, K. (1998) Cross-sectional survey of residential and nursing homes for elderly people, Discussion Paper 1423, Personal Social Services Research Unit, University of Kent.

<sup>4</sup> Kavanagh, S. & Knapp, M. (1998) The impact on general practitioners of the changing balance of care for elderly people living in institutions, *British Medical Journal*, 317, August, 322-327.

<sup>5</sup> Clare, R. & West, P. (1993) A survey of expenditure in residential nursing homes, *Economic Trends*, 481, 120-25.

**Schema 1.3 Voluntary residential care for older people**

Costs and unit estimation	2002/2003 value	Notes
A. Fees	£284 per week	Based on the Laing and Buisson market survey <sup>1</sup> and the relationship between private and voluntary sector prices reported in the 1996 PSSRU survey. <sup>2</sup> Prices have been uprated using the PSS Pay and Prices inflator.
<i>External services</i> B. Community nursing C. GP services D. Other external services	£ 6.80 £13  per week	The weekly cost reflects average level of community nurse service receipt in the 1996 survey which had information about nursing for 110 voluntary homes. In the home with the highest level of nursing input average weekly cost was £65 (1996/97 prices). A study <sup>3</sup> found that residents in private residential homes consulted GPs for an average 3.85 minutes per week. Since it is not possible to distinguish between surgery consultations and home visits, it is assumed here that the visit was to the home. If these were surgery consultations, the cost would be £8.30 per week.
E. Personal living expenses	£8.20 per week	A study of expenditure in private and voluntary residential homes found that residents spent £6 per week on average (1992/93 prices) on non-fee expenditure. <sup>4</sup> This has been uprated using the RPI Index. The DWP personal allowance for people in a residential care or a nursing home is sometimes used as a proxy for personal consumption. This is probably an over-estimate.
Short-term care	1.059 x A	Based on weekly prices for short-term residents in 44 independent residential homes reported in the 1996 survey.
Dependency	1.019 x A	Based on an analysis of factors affecting prices in 1996 survey. The relationship with price is statistically significant but very flat, with prices only increasing marginally with levels of dependency. The multiplier reflects the price charged for people with a Barthel score of 4 or less.
London multiplier	1.38 x A	Fees in London residential homes were 38 per cent higher than the UK average (Laing & Buisson market survey <sup>1</sup> ).
<b>Unit costs available 2002/2003</b>		
£284 establishment costs per permanent resident week (A); £301 establishment costs per short-term resident week (A); £312 care package costs per permanent resident week (includes A to E); £330 care package costs per short-term resident week (includes A to E).		

<sup>1</sup> Laing & Buisson (2003) *Care of Elderly People: Market Survey 2003*, Laing & Buisson, London.

<sup>2</sup> Netten, A., Bebbington, A., Darton, R., Forder, J. & Miles, K. (1998) Cross-sectional survey of residential and nursing homes for elderly people, Discussion Paper 1423, Personal Social Services Research Unit, University of Kent.

<sup>3</sup> Kavanagh, S. & Knapp, M. (1998) The impact on general practitioners of the changing balance of care for elderly people living in institutions, *British Medical Journal*, 317, August, 322-327.

<sup>4</sup> Clare, R. & West, P. (1993) A survey of expenditure in residential nursing homes, *Economic Trends*, 481, 120-25.

### Schema 1.4 Local authority residential care for older people

This schema now uses PSS EX1 revenue costs. Prior to 2003, it was based on a PSSRU survey of homes conducted in 1996,<sup>1</sup> for which costs and activity data were based on a nationally representative sample of 161 homes. The average revenue cost was £384 per week and at current prices, the standard deviation was £108. Ten per cent of homes had average gross costs of £545 or more and 10 per cent of £279 or less. Median costs were £371 per week and mean costs were £384 per week. Costs have been inflated using the PSS pay and prices inflator.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£ 42 per week	Based on the new build and land requirements for local authority residential care establishments. These allow for 57.3 square metres per person. <sup>2</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. When discounted at 8 per cent, the cost is £85 per resident week.
B. Land	£ 4.70 per week	Based on Department of the Environment, Transport and the Regions statistics. Land costs have been discounted at 3.5 per cent over sixty years.
C. Equipment and durables	£ 4.70 per week	Equipment and durables amount to 10 per cent of capital cost. <sup>3</sup>
D. Revenue costs	£484 per week	The median revenue cost estimate is taken from PSS EX1 2001/02 <sup>4</sup> uprated using the PSS Pay and Prices Index. Capital charges on the revenue account have been deducted (£34.60). Twenty five percent of local authorities had average gross costs of £402 or less and 25 per cent of £571 or more. Mean costs were £433 per week.
E. Agency overheads	£ 24 per week	An Audit Commission report found that overheads associated with residential care <sup>5</sup> amounted to 5 per cent of revenue costs.
<i>External services</i> F. Community nursing G. GP services  H. Other external services	£7.70 £7.50 per week  Not known	The weekly cost reflects average level of community nurse service receipt in the 1996 survey, which had information about nursing for 110 homes. In the home with the highest level of nursing input, the average weekly cost was £69 (1996/97 prices). A study <sup>6</sup> found that people in private residential homes consulted GPs for an average 3.45 minutes per week. Since it is not possible to distinguish between surgery consultations and home visits, it is assumed here that the visit was to the home. If the GP visited the resident at the home, the cost would be £11.70 per week.
I. Personal living expenses	£8.20 per week	A study of expenditure in private and voluntary residential homes found that residents spent £6 per week on average (1992/93 prices) on non-fee expenditure. <sup>7</sup> This figure has been uprated by the RPI Index.
Use of facility by client	52.18 weeks p.a.	
Occupancy	91%	See <sup>8</sup> and 1996 PSSRU survey <sup>9</sup> .
Short-term care	1.047 x (D to F)	Based on an analysis of factors affecting prices in the 1996 survey. Costs rise significantly only when more than 17 per cent of residents are short-stay.
High dependency	1.064 x (D to F)	Based on an analysis of factors affecting prices in the 1996 survey.
London multiplier	1.46 x (D to F)	Based on the same source as resource costs data.
<b>Unit costs available 2002/2003</b>		
£560 establishment costs per permanent resident week (includes A to E); £586 establishment costs per short-term resident week (includes A to E); £583 care package costs per permanent resident week (includes A to I); £611 care package costs per short-term resident week (includes A to I).		

<sup>1</sup> Netten, A., Bebbington, A., Darton, R., Forder, J. & Miles, K. (1998). Cross-sectional survey of residential and nursing homes for elderly people, Discussion Paper 1423, Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>3</sup> Knapp, M., Beecham, J. & Allen, C. (1989) The methodology for costing community and hospital services used by clients of the Care in the Community demonstration programme, Discussion Paper 647, Personal Social Services Research Unit, University of Kent.

<sup>4</sup> PSS EX1 2002, Department of Health.

<sup>5</sup> Audit Commission (1993) *Taking Care*, Bulletin, Audit Commission, London.

<sup>6</sup> Kavanagh, S. & Knapp, M. (1998) The impact on general practitioners of the changing balance of care for elderly people living in institutions, *British Medical Journal*, 317, August, 322-327.

<sup>7</sup> Clare, R. & West, P. (1993) A survey of expenditure in residential nursing homes, *Economic Trends*, 481, 120-25.

<sup>8</sup> Laing, W (2002), Calculating a fair price for care.

<sup>9</sup> Netten, A., Bebbington, A., Darton, R., Forder, J. & Miles, K. (1998) Cross-sectional survey of residential and nursing homes for elderly people, Discussion Paper 1423, Personal Social Services Research Unit, University of Kent.

### Schema 1.5 Nursing-Led Inpatient Unit (NLIU) for intermediate care

The Nursing-Led Inpatient Unit (NLIU) aims to promote recovery and substitute for a period of care in the acute wards, prior to discharge to the community. The data presented below are based on a randomised controlled trial which compared outcomes of care on a nursing-led inpatient unit with the system of consultant-managed care on a range of acute hospital wards.<sup>1</sup> The subjects were 175 patients - 89 patients randomly allocated to care on the unit (nursing-led care with no routine medical intervention) and 86 to usual hospital care. The study identified 1997/1998 costs which have been updated.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£ 7.40	1997/1998 capital costs updated using the BCIS public sector Output Price Index. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 8 per cent capital costs would be £7.40.
<i>Revenue costs</i> B. Salary and oncosts	£74	Costs of nursing and special nursing staff. Based on a top down costing approach using actual expenditure on salaries and costs in the relevant wards. 1997/1998 costs updated using the HCHS Pay Index.
C. Other direct care costs Medical Other	£38.50 £ 7.00	1997/1998 costs updated using the HCHS Pay and Prices Index. Includes diagnostics and ward round updated using the HCHS Pay and Prices Index.
D. Direct overheads	£36	Includes catering, domestics, energy, security, administration, laundry and supplies. 1997/1998 costs inflated by the HCHS Pay and Prices Index.
E. Indirect overheads	£14	Includes the estates, central administration and corporate function. 1997/1998 prices inflated by the HCHS Pay and Prices Index.
Average ward size	25 places	
Use of facility by client	365.25 days per year	
Occupancy	94%	Occupancy figures are drawn from the same source as the base data.
<b>Unit costs available 2002/2003</b>		
£177 per inpatient day.		

<sup>1</sup> Griffiths.P., Harris R., Richardson G., Hallett N., Heard S., Wilson-Barnett J. Age and Ageing 2001; 30:483-488, British Geriatrics Society. Substitution of a nursing-led inpatient unit for acute services: randomised controlled trial of outcomes and cost of nursing-led intermediate care.

Data provided by Gerald Richardson, Research Fellow at the Centre for Health Economics, University of York.

### Schema 1.6 Local authority day care for older people

Prior to 1998 the cost given was per place per day. Since 1998 the cost has been per session. A session is defined as either a morning, an afternoon or an evening at the day care facility.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£3.60 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>1</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. When discounted at 8 per cent, the cost is £7.20 per session.
B. Land	£0.30 per session	Based on Department of the Environment, Transport and the Regions <sup>2</sup> statistics. Land costs have been discounted at 3.5 per cent over sixty years.
C. Equipment and durables		No information available.
<i>Revenue costs</i> D. Salary and other revenue costs E. Capital charges	£20 per session	The median revenue cost estimate is taken from PSS EX1 2001/02 <sup>3</sup> uprated using the PSS Pay and Prices Index. Capital charges on the revenue account have been deducted (£1.80). The mean cost per session has dropped slightly since last year probably due to the fact that more authorities have reported their costs. Data were adjusted to exclude expenditure on services purchased from the independent sector. Reported unit costs contain a wide variation and clearly refer to very different types of care. Ten per cent of authorities had average costs of £9 per session or less, and 10 per cent £44 per session or more. Mean costs were £20 per session.
F. Agency overheads		Social Services Management and Support services (SSMSS) overhead costs are included in PSS EX1 so no additional agency overheads have been included in unit costs below.
Use of facility by client	500 sessions p.a.	Assumes two sessions, 250 days per year. Used to estimate per session capital costs.
Occupancy	76%	Department of Health statistics, 1997 <sup>4</sup> . More recent figures are not available.
London multiplier	1.23 x A; 5.20 x B; 1.38 x (D to G)	Relative London costs are drawn from the same source as the base data for each cost element.
<b>Unit costs available 2002/2003</b>		
£24 per session (includes A to F).		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> PSS EX1 2001/02, Department of Health.

<sup>4</sup> Department of Health (1997) *Community Care Statistics, Day and Domiciliary Personal Social Services for Adults, Detailed statistics, Table 3.3*, Government Statistical Service, London.

### Schema 1.7 Voluntary day care for older people

The costs of voluntary day care for elderly people are based on the results of a survey of Age Concern conducted in 1999/2000. Information was received from 10 Centres and the figures have been inflated by PSS Pay and Prices. Costs ranged from £17.40 to £39.40 per client day with an average cost of £27 and a median cost of £27.

Three of the Age Concern Centres responding to the survey accommodated elderly people with dementia resulting in costs 15 per cent higher than the average. This is largely due to the high staff/client ratios. A rural centre also reported a high unit cost with its total vehicle and transport costs accounting for 25 per cent of the total cost. The cost per client day for Age Concern Centres offering standard day care (excluding the rural Centre and those with specialised needs) was 40 per cent less than the average.

Using PSS EXI 2001/02 updated using the PSS Pay and Prices inflator, mean and median costs per session for independently provided day care were £14. This is equivalent to £28 per client day. Three authorities have been excluded from this analysis as they reported costs in excess of £100 per session.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i>		
A. Premises	£3.30 per client day	These costs ranged from £2.10 to £4.40 with a mean cost of £3.25 per day. Many of these costs are very low due to the fact that the venue for many Age Concern Centres is the local village hall. Premises costs based on rental paid as purpose built centres are very rare in this centre.
B. Vehicle	£2.80 per client day	Of the 10 Centres, 3 had their own minibus/es and costs ranged from £1.20 per client day to £5.20 per client day. Vehicle costs were high for a rural centre which opens only 2 days per week.
<i>Staffing</i>		
C. Salaries	£14.50 per client day	Costs ranged from £7.20 to £33.60. Those Centres with the highest costs were those accommodating Elderly Mental Ill clients where the staff ratios are often 1:4. The median cost was £12.
D. Volunteer costs	£0.35 per client day	Seven of the centres reported incurring volunteer expenses.
E. Other staff costs	£1.00 per client day	This includes staff recruitment and training, courses & conferences, travel expenses and redundancy payments.
F. Transport	£2.60 per client day	This includes taxi expenses, fuel & oil, vehicle repairs, insurance and contract hire. Costs ranged from £1.00 to £5.30 with a median cost of £2.40.
G. Meals	£1.40 per client day	Seven Centres provided meals.
H. Overheads	£2.10 per client day	Seven Centres provided information on overheads which ranged from £0.90 to £4.40.
I. Other revenue costs	£2.80 per client day	Costs includes management & administration, maintenance charges, heat, light & water, telephone, stationery & postage, insurance, sundry expenses & bank charges. Costs ranged from £0.90 to £6.50 per client day and the median cost was £1.80.
Use of facility by client	50.3 weeks 4.9 days per week	The majority of Centres open 50 weeks of the year. The median number of days per week was 5 with one Centre opening 2 days per week.
Occupancy	84%	Occupancy figures are drawn from the same source as the base data.
<b>Unit costs available 2002/2003</b>		
The average cost of the 10 Centres was £27 per client day. A Centre incurring all costs A-I would cost £31 per client day.		

### Schema 1.8 Local authority sheltered housing for older people

The costs of accommodation and services are based on the results of a study by Ernst & Young in 1993 commissioned by the Department of the Environment.<sup>1</sup>

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Notional rent	£ 74 per person per week	Capital costs excluded the cost of warden and staff accommodation but were based on the costs of actual schemes in the study divided by the number of people in the schemes to establish a cost per person. This figure reflects the types of housing stock and proportions of single and multiple occupancy dwellings. This was converted to notional rents per year using a 3.5 per cent discount rate over sixty years and uprated using the BCIS/ABI house rebuilding Cost Index. See editorial. Using an 8 per cent discount rate over sixty years, the cost would be £139.
<i>Revenue costs</i> B. Salary and other revenue costs	£ 25 per person per week	Annual gross running costs were adjusted to ensure they reflected the costs incurred by residents over the age of 60. Inflated using the PSS Pay and Prices Index.
C. Agency overheads		No information available.
<i>Personal living expenses</i> D. Basic living costs E. Other living costs	£ 74.10 £ 8.50	Based on Family Expenditure Survey (2001/02) estimates of household expenditure of a single person retired mainly dependent on state pension inflated to 2002/03 using the Retail Price Index. Basic living costs are those covered by care home fees (for example fuel, food and household goods). Other living costs are those covered by personal expenses (for example leisure goods and alcohol). The average weekly expenditure per person in all expenditure groups with the exception of household goods and services and leisure services has decreased slightly or remained the same as last year.
F. Other health and social services costs	£ 26 per person per week	Average cost of service use was based on the Ernst & Young survey of residents and unit costs supplied by the DH and the PSSRU.
Use of facility by client	52.18 weeks per year	
Occupancy		
High dependency	1.52 x F	Data presented allowed a comparison in local authority schemes between the average level of costs of health and social services and the costs of highly dependent residents. Highly dependent residents were those who fell into the Clackmannan D/E category (short interval needs).
London multiplier		
<b>Unit costs available 2002/2003</b>		
£98 per week sheltered housing costs (includes A to B); £125 per week service and accommodation (includes A to B and F); £199 (includes all costs borne by care homes (A to D and F)); £207 comprehensive package costs (A to F).		

<sup>1</sup> Ernst & Young (1993) *The Cost of Specialised Housing and The Cost of Maintaining an Elderly Person at Home*, reports to the Department of the Environment, Ernst & Young, London.

**Schema 1.9 Housing association sheltered housing for older people**

The costs of accommodation and services are based on the results of a study by Ernst & Young in 1993 commissioned by the Department of the Environment.<sup>1</sup>

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Notional rent	£81 per person per week	Capital costs excluded the cost of warden and staff accommodation but were based on the costs of actual schemes in the study divided by the number of people in the schemes to establish a cost per person. This figure reflects the types of housing stock and proportions of single and multiple occupancy dwellings. This was converted to notional rents per year using a 3.5 per cent discount rate over sixty years and uprated using the BCIS/ABI house rebuilding Cost Index. See editorial. Using an 8 per cent discount rate over sixty years, the cost would be £154.
<i>Revenue costs</i> B. Salary and other revenue costs	£ 33 per person per week	Annual gross running costs were adjusted to ensure they reflected the costs incurred by residents over the age of 60. Costs have been inflated to 2002/2003 using the PSS Pay and Prices Index.
C. Agency overheads		No information available.
<i>Personal living expenses</i> D. Basic living costs E. Other living costs	£ 74.10 £ 8.50	Based on Family Expenditure Survey (2001/02) estimates of household expenditure of a single person retired mainly dependent on state pension inflated to 2002/03 using the Retail Price Index. Basic living costs are those covered by care home fees (for example fuel, food and household goods). Other living costs are those covered by personal expenses (for example leisure goods and alcohol). The average weekly expenditure per person in all expenditure groups with the exception of household goods and services and leisure services has decreased slightly or remained the same as last year.
F. Other health and social services costs	£14 per person per week	Average cost of service use was based on the Ernst & Young survey of residents and unit costs supplied by the DH and the PSSRU. Gross resource costs of services are reported here.
Use of facility by client	52.18 weeks per year	
Occupancy		
London multiplier		
<b>Unit costs available 2002/2003</b>		
£115 per week sheltered housing costs (includes A to B); £129 per week service and accommodation (includes A to B and F); £203 (includes all costs borne by care homes (A to D and F)); £211 comprehensive package costs (A to F).		

<sup>1</sup> Ernst & Young (1993) *The Cost of Specialised Housing and The Cost of Maintaining an Elderly Person at Home*, reports to the Department of the Environment, Ernst & Young, London.



### Schema 1.10 Local authority very sheltered housing for older people

The costs of accommodation and services are based on the results of a study by Ernst & Young in 1993 commissioned by the Department of the Environment.<sup>1</sup>

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Notional rent	£81 per person per week	Capital costs excluded the cost of warden and staff accommodation but were based on the costs of actual schemes in the study divided by the number of people in the schemes to establish cost per person. This figure reflects the types of housing stock and proportions of single and multiple occupancy dwellings. This was converted to notional rents per year using a 3.5 per cent discount rate over sixty years and uprated using the BCIS/ABI house rebuilding Cost Index. See editorial. Using an 8 per cent discount rate over sixty years, the cost would be £154.
<i>Revenue costs</i> B. Salary and other revenue costs	£ 74 per person per week	Annual gross running costs were adjusted to ensure they reflected the costs incurred by residents over the age of 60. Costs have been inflated to 2002/03 using the PSS Pay and Prices Index.
C. Agency overheads		No information available.
<i>Personal living expenses</i> D. Basic living costs E. Other living costs	£ 74.10 £ 8.50	Based on Family Expenditure Survey (2001/02) estimates of household expenditure of a single person retired mainly dependent on state pension inflated to 2002/03 using the Retail Price Index. Basic living costs are those covered by care home fees (for example fuel, food and household goods). Other living costs are those covered by personal expenses (for example leisure goods and alcohol). The average weekly expenditure per person in all expenditure groups with the exception of household goods and services and leisure services has decreased slightly or remained the same as last year.
F. Other health and social services costs	£ 27 per person per week	Average cost of service use was based on a survey of residents and unit costs supplied by the DH and the PSSRU. Gross resource costs of services are reported here.
Use of facility by client	52.18 weeks p.a.	
Occupancy		
High dependency	1.24 x F	Data presented allowed a comparison in local authority schemes between the average level of costs of health and social services and the costs of highly dependent residents. Highly dependent residents were those who fell into the Clackmannan D/E category (short interval needs).
London multiplier		
<b>Unit costs available 2002/2003</b>		
£156 per week sheltered housing costs (includes A to B); £183 per week service and accommodation (includes A to B and F); £257 (includes all costs borne by care homes (A to D and F)); £265 comprehensive package costs (A to F).		

<sup>1</sup> Ernst & Young (1993) *The Cost of Specialised Housing and The Cost of Maintaining an Elderly Person at Home*, reports to the Department of the Environment, Ernst & Young, London.

**Schema 1.11 Housing association very sheltered housing for older people**

The costs of accommodation and services are based on the results of a study by Ernst & Young in 1993 commissioned by the Department of the Environment.<sup>1</sup>

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Notional rent	£73 per person per week	Capital costs excluded the cost of warden and staff accommodation but were based on the costs of actual schemes in the study divided by the number of people in the schemes to establish a cost per person. This figure reflects the types of housing stock and proportions of single and multiple occupancy dwellings. This was converted to notional rents per year using a 3.5 per cent discount rate over sixty years and uprated using the BCIS/ABI house rebuilding Cost Index. See editorial. Using an 8 per cent discount rate over sixty years, the cost would be £138.
<i>Revenue costs</i> B. Salary and other revenue costs	£215 per person per week	Annual gross running costs were adjusted to ensure they reflected the costs incurred by residents over the age of 60. Costs have been inflated to 2002/2003 using the PSS Pay and Prices Index.
C. Agency overheads		No information available.
<i>Personal living expenses</i> D. Basic living costs E. Other living costs	£ 74.10 £ 8.50	Based on Family Expenditure Survey (2001/02) estimates of household expenditure of a single person retired mainly dependent on state pension inflated to 2002/03 using the Retail Price Index. Basic living costs are those covered by care home fees (for example fuel, food and household goods). Other living costs are those covered by personal expenses (for example leisure goods and alcohol). The average weekly expenditure per person in all expenditure groups with the exception of household goods and services and leisure services has decreased slightly or remained the same as last year.
F. Other health and social services costs	£ 40 per person per week	Average cost of service use was based on the Ernst & Young survey of residents and unit costs supplied by the DH and the PSSRU. Gross resource costs of services are reported here.
Use of facility by client	52.18 weeks p.a.	
Occupancy		
London multiplier		
<b>Unit costs available 2002/2003</b>		
£288 per week sheltered housing costs (includes A to B); £328 per week service and accommodation (includes A to B and F); £402 (includes all costs borne by care homes (A to D and F)); £410 comprehensive package costs (A to F).		

<sup>1</sup> Ernst & Young (1993) *The Cost of Specialised Housing and The Cost of Maintaining an Elderly Person at Home*, reports to the Department of the Environment, Ernst & Young, London.

### Schema 1.12 ECCEP community care package: very low cost

Information on service receipt is based on research studies which were described in the 1998 volume of *Unit Costs of Health and Social Care*.<sup>1</sup>

The Care Package Costs of the Elderly described in this schema illustrates the first percentile from a total of 243 cases for whom there was adequate information regarding the receipt of both health and social care services. The packages described were those being received by each user at the beginning of the study in 1995. This case has not been chosen as 'typical' or representative of other packages with similar costs, but rather provides some examples of how resources are combined to support individual users. The costs have been uprated to present day costs using the PSS pay and prices index.

<b>Type of case</b> Mrs A. is 75 years old and lives alone in a privately rented flat. She has no family living nearby and no principal carer. She was admitted to hospital for a minor surgical procedure and while there received an assessment from a hospital social worker, which resulted in the receipt of home help services following discharge from hospital.		
<b>Health problems</b> Diabetes.		
<b>Functional ability</b> Mrs A. is able to do all daily activities without assistance, although she does find shopping, general mobility and managing stairs difficult. She does not do any heavy housework.		
<b>Services received</b>	<b>Average weekly cost</b>	<b>Description</b>
<b>Social services</b> Home care	£22	Two hours per week. Visits take place on weekdays before 5 p.m. SSD is the provider.
<b>Health services</b> GP	£10.40	Visits the GP surgery once every four weeks.
Accommodation	£184	Private rented property, 2 bedrooms.
Living expenses	£78	Main income from pension and interest from savings. Had savings of between £20,000 and £50,000. Living expenses taken from Family Expenditure Survey (2001/02 uprated to 2002/03 price levels). Based on 1 adult retired household, mainly dependent on state pensions.
<b>Total weekly cost of health and social care package, 2002/2003</b>	<b>£33</b> <b>£295</b>	Excludes accommodation and living expenses. Total including accommodation and living expenses.

<sup>1</sup> Netten, A., Dennett, J., Knight, J., *Unit Costs of Health and Social Care (1998)*, Personal Social Services Research Unit, University of Kent.

**Schema 1.13 ECCEP community care package: low cost**

Information on service receipt is based on research studies which were described in the 1998 volume of *Unit Costs of Health and Social Care*.<sup>1</sup>

The Care Package Costs of the Elderly described in this schema illustrates the second percentile from a total of 243 cases for whom there was adequate information regarding the receipt of both health and social care services. The packages described were those being received by each user at the beginning of the study in 1995. This case has not been chosen as 'typical' or representative of other packages with similar costs, but rather provides some examples of how resources are combined to support individual users. The costs have been updated to present day costs using the PSS pay and prices index.

<b>Type of case</b> Mrs E. is 88 years old, living alone in her own house. Her main carer is a close friend who lives nearby and visits twice a week on average. As well as providing companionship, this carer does some shopping and runs errands, helps with household repairs, monitors Mrs E's situation, and takes her out and to appointments by car.		
<b>Health problems</b> Depression, moderate to severe cognitive impairment.		
<b>Functional ability</b> Able to do most activities unaided. Is able to manage general mobility, stairs and money matters with difficulty. Needs help with transport, shopping, errands and heavy housework.		
<b>Services received</b>	<b>Average weekly cost</b>	<b>Description</b>
<b>Social services</b>		
Home care	£54	4.5 hours per week. Visits take place Monday to Friday before 5 p.m. (3.5 hours per week) and on weekends (1 hour per week). <sup>2</sup>
Frozen meals	£5	Two per week.
<b>Total</b>	<b>£59</b>	
<b>Health services</b>		
GP	£10	Visits estimated at once every eight weeks based on GHS data. <sup>3</sup>
Accommodation	£82	Based on the annuitised value of a terraced house. Taken from the Halifax Price Index 3 <sup>rd</sup> quarter 2002. See editorial for changes in rates from previous years. Using an 8 per cent discount rate over sixty years, the cost would be £165.
Living expenses	£78	Taken from Family Expenditure Survey (2001/02, updated to 2002/03 price levels). Based on 1 adult retired household, mainly dependent on state pensions.
<b>Total weekly cost of health and social care package, 2002/2003</b>	<b>£69</b>	Excludes accommodation and living expenses.
	<b>£229</b>	Total including accommodation and living expenses.

<sup>1</sup> Netten, A., Dennett, J., Knight, J., *Unit Costs of Health and Social Care (1998)*, Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Evening and weekend rates were estimated to be 30 per cent above the daytime rate. This assumption was derived from PSSRU studies which have found differential costs for home care in English local authorities, depending when it is provided (Hallam and Netten, 1996; Davies et al., 1990; Bebbington et al., 1986).

<sup>3</sup> Reflects consumption of GP services by a comparable group: those elderly people in the General Household Survey (1994) who used at least one social care service.

### Schema 1.14 ECCEP community care package: median cost

Information on service receipt is based on research studies which were described in the 1998 volume of *Unit Costs of Health and Social Care*.<sup>1</sup>

The Care Package Costs of the Elderly described in this schema illustrates the third percentile from a total of 243 cases for whom there was adequate information regarding the receipt of both health and social care services. The packages described were those being received by each user at the beginning of the study in 1995. This case has not been chosen as 'typical' or representative of other packages with similar costs, but rather provides some examples of how resources are combined to support individual users. The costs have been uprated to present day costs using the PSS pay and prices index.

<b>Type of case</b>		
Mr C. is 79 years old and lives with his wife in a bungalow which they jointly own. His wife is his main carer. She provides an intensive amount of assistance; changing continence pads, helping with toileting and transfers, washing soiled linen, preparing meals, shopping and other errands, liaises with formal services and monitors his medication. Mr C. was recently admitted to hospital following a stroke. While there, his needs were reassessed by a social worker.		
<b>Health problems</b>		
Stroke, urinary incontinence.		
<b>Functional ability</b>		
Mr C. is unable to do most activities without assistance. He has difficulty with bathing, transferring, negotiating stairs, toileting and general mobility. He needs assistance to manage his medication and money, make meals and use transport. He does no shopping, errands or heavy housework.		
<b>Services received</b>	<b>Average weekly cost</b>	<b>Description</b>
<b>Social services</b> Home care	£65	7.25 hours per week. Visits occur Monday to Friday before 5 pm (5.75 hours per week), and on weekends (1.5 hours per week). <sup>2</sup> SSD is the provider.
<b>Health services</b> Community nursing visits GP	£64 £10	2 visits per week (each 45 minutes) by a district nurse. Visits estimated at once every eight weeks based on GHS data. <sup>3</sup>
<b>Total</b>	<b>£74</b>	
Accommodation	£54	Based on the annuitised value of a bungalow. Taken from the Halifax Price Index, 3 <sup>rd</sup> quarter 2002. See editorial for changes from previous years' rates. Using an 8 per cent discount rate over sixty years, the cost would be £109.
Living expenses	£153	Living expenses taken from the Family Expenditure Survey (2001/02, uprated to 2002/03 price levels). Based on one man one woman retired households mainly dependent on state pensions.
<b>Total weekly cost of health and social care package, 2002/2003</b>	<b>£139</b> <b>£346</b>	Excludes accommodation and living expenses. Total including accommodation and living expenses.

<sup>1</sup> Netten, A., Dennett, J., Knight, J., *Unit Costs of Health and Social Care (1998)*, Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Evening and weekend rates were estimated to be 30 per cent above the daytime rate. This assumption was derived from PSSRU studies which have found differential costs for home care in English local authorities, depending when it is provided (Hallam and Netten, 1996; Davies et al., 1990; Bebbington et al., 1986).

<sup>3</sup> Reflects consumption of GP services by a comparable group: those elderly people in the General Household Survey (1994) who used at least one social care service.

**Schema 1.15 ECCEP community care package: high cost**

Information on service receipt is based on research studies which were described in the 1998 volume of *Unit Costs of Health and Social Care*.<sup>1</sup>

The Care Package Costs of the Elderly described in this schema illustrates the fourth percentile from a total of 243 cases for whom there was adequate information regarding the receipt of both health and social care services. The packages described were those being received by each user at the beginning of the study in 1995. This case has not been chosen as 'typical' or representative of other packages with similar costs, but rather provides some examples of how resources are combined to support individual users. The costs have been uprated to present day costs using the PSS pay and prices index.

<b>Type of case</b> Mrs D. is 85 years old and lives alone in local authority sheltered housing. Her main carer is her daughter, who provides a moderate level of assistance; helping with housework, shopping, errands and providing transport.		
<b>Health problems</b> Senile dementia.		
<b>Functional ability</b> Able to do most activities unaided. Does not however do any shopping, errands, heavy housework, managing money or managing medication, and relies on others for transport.		
<b>Services received</b>	<b>Average weekly cost</b>	<b>Description</b>
<b>Social services</b>		
Home care	£28	2.5 hours per week. Visits occur Monday to Friday before 5pm. SSD is the provider.
Day care	£88	Two visits per week to an SSD day centre.
Respite care	£66	Two visits since referral (one 7 days, one 14 days) to an SSD residential care home.
<b>Total</b>	<b>£182</b>	
<b>Health services</b>		
Community nursing visits	£3.60	One visit per quarter from a district nurse.
GP	£10	Visits estimated at once every eight weeks based on GHS data. <sup>2</sup>
Chiropody	£1.80	One visit per quarter.
<b>Total</b>	<b>£15</b>	
<b>Other services</b>		
Church lunch club		Attends voluntary lunch club run by the local church twice a week.
Accommodation	£137	Local authority sheltered housing, one bedroom.
Living expenses	£78	Living expenses taken from the Family Expenditure Survey (2001/02, uprated to 2002/03 price levels). Based on 1 adult retired household, mainly dependent on state pensions.
<b>Total weekly cost of health and social care package, 2002/2003</b>	<b>£198</b>	Excludes accommodation and living expenses.
	<b>£413</b>	Total including living expenses.

<sup>1</sup> Netten, A., Dennett, J., Knight, J., *Unit Costs of Health and Social Care (1998)*, Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Evening and weekend rates were estimated to be 30 per cent above the daytime rate. This assumption was derived from PSSRU studies which have found differential costs for home care in English local authorities, depending when it is provided (Hallam and Netten, 1996; Davies et al., 1990; Bebbington et al., 1986).

### Schema 1.16 ECCEP community care package: very high cost

Information on service receipt is based on research studies which were described in the 1998 volume of *Unit Costs of Health and Social Care*.<sup>1</sup>

The Care Package Costs of the Elderly described in this schema illustrates the fifth percentile from a total of 243 cases for whom there was adequate information regarding the receipt of both health and social care services. The packages described were those being received by each user at the beginning of the study in 1995. This case has not been chosen as 'typical' or representative of other packages with similar costs, but rather provides some examples of how resources are combined to support individual users. The costs have been uprated to present day costs using the PSS pay and prices index.

<b>Type of case</b> Mrs E. is an 81 year old woman who lives alone in her own home. She has no principal carer.		
<b>Health problems</b> Arthritis and urinary incontinence.		
<b>Functional ability</b> Is able with difficulty to transfer, wash, go to the toilet and move around the house. Requires assistance with bathing, dressing, errands, meals and drinks. Does not do any housework or attempt to go down the stairs.		
<b>Services received</b>	<b>Average weekly cost</b>	<b>Description</b>
<b>Social services</b>		
Home care	£228	13.25 hours per week. Visits take place on Monday to Friday before 5pm (9.5 hours per week); weekday evenings (3.75 hours) and weekends (4.5 hours per week). <sup>2</sup> SSD is the provider.
Day care	£44	One day per week at an Age Concern day centre.
<b>Total</b>	<b>£272</b>	
<b>Health services</b>		
Community nursing visits	£21	One visit per week (30 minutes) from a district nurse.
GP	£10	Visits estimated at once every eight weeks based on GHS data. <sup>3</sup>
Chiropody	£1.80	One visit per quarter.
<b>Total</b>	<b>£33</b>	
Accommodation	£168	Owner occupied house with three bedrooms. Based on the annuitised value of an average priced home. Taken from the Halifax Price Index, 3 <sup>rd</sup> quarter 2002. See editorial for changes from previous years' rates. Using an 8 per cent discount rate over sixty years, the cost would be £339.
Living expenses	£148	Living expenses taken from the Family Expenditure Survey (2001/02, uprated to 2002/03 price levels). Based on one person retired households not mainly dependent on state pension.
<b>Total weekly cost of health and social care package, 2002/2003</b>	<b>£306</b> <b>£622</b>	Excludes accommodation and living expenses. Includes accommodation and living expenses.

<sup>1</sup> Netten, A., Dennett, J., Knight, J., *Unit Costs of Health and Social Care (1998)*, Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Evening and weekend rates were estimated to be 30 per cent above the daytime rate. This assumption was derived from PSSRU studies which have found differential costs for home care in English local authorities, depending when it is provided (Hallam and Netten, 1996; Davies et al., 1990; Bebbington et al., 1986).

<sup>3</sup> Reflects consumption of GP services by a comparable group: those elderly people in the General Household Survey (1994) who used at least one social care service.

## **2. Services for people with mental health problems**

- 2.1 Local authority residential care (staffed hostel)
- 2.2 Local authority residential care (group home)
- 2.3 Voluntary sector residential care (staffed hostel)
- 2.4 Voluntary sector residential care (group home)
- 2.5 Private sector residential care (staffed hostel)
- 2.6 Acute NHS hospital services
- 2.7 Long-stay NHS hospital services
- 2.8 NHS psychiatric intensive care unit (PICU)
- 2.9 NHS Trust day care for people with mental health problems
- 2.10 Local authority social services day care for people with mental health problems
- 2.11 Voluntary/non-profit organisations providing day care for people with mental health problems
- 2.12 Sheltered work schemes
- 2.13 Psychiatric reprovion package: independent living
- 2.14 Psychiatric reprovion package: assessment centre
- 2.15 Psychiatric reprovion package: care home
- 2.16 Psychiatric reprovion package: nursing home placement



## Schema 2.1 Local authority residential care (staffed hostel) for people with mental health problems

Based on a study of 20 staffed hostels from eight mental health services.<sup>1</sup>

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£ 22 per resident week	The market value of the buildings was obtained from a recent valuation or, where this was not available, the mid-point of the property's Council Tax Band was employed as a proxy for the current market value. Costs have been uprated using the BCIS public sector output price index. The value of buildings was annuitised over a 60-year period discounted at 3.5 per cent. See editorial. If capital were annuitised at 6 per cent, the cost would be £35 per resident week.
<i>Revenue costs</i> B. Salary costs	£299 per res. week	Costs of direct management and care staff, the latter including nursing and social work inputs. Costs have been uprated using the PSS Pay Index.
C. Other revenue costs	£ 58 per res. week	Catering and domestic costs are included as far as possible since the staffing element of catering or domestic services was often not separately identified in the returns. Other revenue costs include energy, utilities, transport, renewals and replacements, cleaning, laundry, TV licence, registration fees and insurance. The capital and revenue costs together represent the total weekly cost of accommodation (or establishment costs). Over and above this accommodation cost, additions have been made to estimate 'care package' costs. These additions include personal consumption or living expenses, and the use that clients typically make of hospital and community health and social services. Costs have been uprated using the PSS Pay and Prices Index.
D. Agency overheads	£16 per res. week	Indirect management, such as central administration, was categorised under the heading of agency overheads along with personnel, accounting and finance functions. Costs have been uprated using the PSS Pay and Prices Index.
<i>Other costs</i> E. Personal living expenses	£16.80 per week	The DWP allowance is used as a proxy for personal consumption.
F. Service use	£ 72 per res. week	Service use is the mean receipt per client of a 'reduced list' of services including inpatient days and outpatient attendances in a psychiatric or general hospital, day centre or sheltered workshop attendances, and contact with a GP, community psychiatric nurse, social worker or community psychiatrist. Costs have been uprated using the PSS Pay and Prices Index.
Use of facility by client	365.25 days per year	
Occupancy	85%	Occupancy figures are drawn from the same source as the base data.
London multiplier	1.25 x (A to D) + F	Relative London costs are drawn from the same source as the base data for each cost element.
<b>Unit costs available 2002/2003</b>		
£395 per resident week establishment costs (includes A to D); £484 per resident week care package costs (includes A to F).		

<sup>1</sup> Chisholm, D., Knapp, M., Astin, J., Beecham, J., Audini, B. & Lelliott, P. (1997) The mental health residential care study: the costs of provision, *Journal of Mental Health*, 6, 1, 85-99.

## Schema 2.2 Local authority residential care (group home) for people with mental health problems

Based on a study of 23 group homes from eight mental health services.<sup>1</sup>

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£26 per resident week	The market value of the buildings was obtained from a recent valuation or, where this was not available, the mid-point of the property's Council Tax Band was employed as a proxy for the current market value. Costs have been uprated using the BCIS public sector output price index. The value of buildings was annuitised over a 60-year period discounted at 3.5 per cent. See editorial. If capital were annuitised at 6 per cent, the cost would be £39 per resident week.
<i>Revenue Costs</i> B. Salary Costs	£9 per res. week	Costs of direct management and care staff, the latter including nursing and social work inputs. Services in a group home are provided more on an ad hoc or regular-visit basis rather than on a 24-hour basis as is the case in a hospital. Costs have been uprated using the PSS Pay Index.
C. Other revenue costs	£37 per res. week	Catering and domestic costs are included as far as possible since the staffing element of catering or domestic services was often not separately identified in the returns. Other revenue costs include energy, utilities, transport, renewals and replacements, cleaning, laundry, TV licence, registration fees and insurance. The capital and revenue costs together represent the total weekly cost of accommodation (or establishment costs). Over and above this accommodation cost, additions have been made to estimate 'care package' costs. These additions include personal consumption or living expenses, and the use that clients typically make of hospital and community health and social services. Costs have been uprated using the PSS Pay and Prices Index.
D. Agency overheads	£3 per res. week	Indirect management, such as central administration, was categorised under the heading of agency overheads along with personnel, accounting and finance functions. Costs have been uprated using the PSS Pay and Prices Index.
<i>Other costs</i> E. Personal living expenses	£16.80 per week	The DWP allowance is used as a proxy for personal consumption.
F. Service use	£110 per res. week	Service use is the mean receipt per client of a 'reduced list' of services including inpatient days and outpatient attendances in a psychiatric or general hospital, day centre or sheltered workshop attendances, and contact with a GP, community psychiatric nurse, social worker or community psychiatrist. Costs have been uprated using the PSS Pay and Prices Index.
Use of facility by client	365.25 days per year	
Occupancy	85%	Occupancy figures are drawn from the same source as the base data.
London multiplier	1.23 x (A to D) + F	Relative London costs are drawn from the same source as the base data for each cost element.
<b>Unit costs available 2002/2003</b>		
£74 per resident week establishment costs (includes A to D); £202 per resident week care package costs (includes A to F).		

<sup>1</sup> Chisholm, D., Knapp, M., Astin, J., Beecham, J., Audini, B. & Lelliott, P. (1997) The mental health residential care study: the costs of provision, *Journal of Mental Health*, 6, 1, 85-99.

### Schema 2.3 Voluntary sector residential care (staffed hostel) for people with mental health problems

Based on a sample of 31 staffed hostels.<sup>1</sup>

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£24 per resident week	The market value of the buildings was obtained from a recent valuation or, where this was not available, the mid-point of the property's Council Tax Band was employed as a proxy for the current market value. Costs have been uprated using the BCIS public sector output price index. The value of buildings was annuitised over a 60-year period discounted at 3.5 per cent. See editorial. If capital were annuitised at 6 per cent, the cost would be £36 per resident week.
<i>Revenue costs</i> B. Salary costs	£217 per res. week	Salary costs represent the costs of direct management and care staff, the latter including nursing and social work inputs. Costs have been uprated using the PSS Pay Index.
C. Other revenue costs	£80 per res. week	Catering and domestic costs are included as far as possible since the staffing element of catering or domestic services was often not separately identified in the returns. Other revenue costs include energy, utilities, transport, renewals and replacements, cleaning, laundry, TV licence, registration fees and insurance. The capital and revenue costs together represent the total weekly cost of accommodation (or establishment costs). Over and above this accommodation cost, additions have been made to estimate 'care package' costs. These additions include personal consumption or living expenses, and the use that clients typically make of hospital and community health and social services. Costs have been uprated using the PSS Pay and Prices Index.
D. Agency overheads	£29 per res. week	Indirect management, such as central administration, were categorised under the heading of agency overheads along with personnel, accounting and finance functions. Costs have been uprated using the PSS Pay and Prices Index.
<i>Other costs</i> E. Personal living expenses	£16.80 per week	The DWP allowance is used as a proxy for personal consumption.
F. Service use	£59 per res. week	Service use is the mean receipt per client of a 'reduced list' of services including inpatient days and outpatient attendances in a psychiatric or general hospital, day centre or sheltered workshop attendances, and contact with a GP, community psychiatric nurse, social worker or community psychiatrist. Costs have been uprated using the PSS Pay and Prices Index.
Use of facility by client	365.25 days per year	
Occupancy	90%	Occupancy figures are drawn from the same source as the base data.
London multiplier	1.46 x (A to D) + F	Relative London costs are drawn from the same source as the base data for each cost element.
<b>Unit costs available 2002/2003</b>		
£349 per resident week establishment costs (includes A to D); £425 per resident week care package costs (includes A to F).		

<sup>1</sup> Chisholm, D., Knapp, M., Astin, J., Beecham, J., Audini, B. & Lelliott, P. (1997) The mental health residential care study: the costs of provision, *Journal of Mental Health*, 6, 1, 85-99.

## Schema 2.4 Voluntary sector residential care (group home) for people with mental health problems

Based on a sample of 33 group homes.<sup>1</sup>

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£27 per resident week	The market value of the buildings was obtained from a recent valuation or, where this was not available, the mid-point of the property's Council Tax Band was employed as a proxy for the current market value. Costs have been uprated using the BCIS public sector output price index. The value of buildings was annuitised over a 60-year period discounted at 3.5 per cent. See editorial. If capital were annuitised at 6 per cent, the cost would be £41 per resident week.
<i>Revenue costs</i> B. Salary costs	£86 per res. week	Costs of direct management and care staff, the latter including nursing and social work inputs. Costs have been uprated using the PSS Pay Index.
C. Other revenue costs	£47 per res. week	Catering and domestic costs are included as far as possible since the staffing element of catering or domestic services was often not separately identified in the returns. Other revenue costs include energy, utilities, transport, renewals and replacements, cleaning, laundry, TV licence, registration fees and insurance. The capital and revenue costs together represent the total weekly cost of accommodation (or establishment costs). Over and above this accommodation cost, additions have been made to estimate 'care package' costs. These additions include personal consumption or living expenses, and the use that clients typically make of hospital and community health and social services. Costs have been uprated using the PSS Pay and Prices Index.
D. Agency overheads	£20 per res. week	Indirect management, such as central administration, was categorised under the heading of agency overheads along with personnel, accounting and finance functions. Costs have been uprated using the PSS Pay and Prices Index.
<i>Other costs</i> E. Personal living expenses	£16.80 per week	The DWP allowance is used as a proxy for personal consumption.
F. Service use	£78 per res. week	Service use cost is the mean receipt per client of a 'reduced list' of services including inpatient days and outpatient attendances in a psychiatric or general hospital, day centre or sheltered workshop attendances, and contact with a GP, community psychiatric nurse, social worker or community psychiatrist. Costs have been uprated using the PSS Pay and Prices Index.
Use of facility by client	365.25 days per year	
Occupancy	95%	Occupancy figures are drawn from the same source as the base data.
London multiplier	1.11 x (A to D) + F	Relative London costs are drawn from the same source as the base data for each cost element.
<b>Unit costs available 2002/2003</b>		
£180 per resident week establishment costs (includes A to D); £275 per resident week care package costs (includes A to F).		

<sup>1</sup> Chisholm, D., Knapp, M., Astin, J., Beecham, J., Audini, B. & Lelliott, P. (1997) The mental health residential care study: the costs of provision, *Journal of Mental Health*, 6, 1, 85-99.

## Schema 2.5 Private sector residential care (staffed hostel) for people with mental health problems

Based on a sample of 33 hostels.<sup>1</sup>

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£26 per resident week	The market value of the buildings was obtained from a recent valuation or, where this was not available, the mid-point of the property's Council Tax Band was employed as a proxy for the current market value. Costs have been uprated using the BCIS public sector output price index. The value of buildings was annuitised over a 60-year period discounted at 3.5 per cent. See editorial. If capital were annuitised at 6 per cent, the cost would be £40 per resident week.
<i>Revenue costs</i> B. Salary costs	£114 per res. week	Costs of direct management and care staff, the latter including nursing and social work inputs. Indirect management, such as central administration, was categorised under the heading of agency overheads along with personnel, accounting and finance functions. Costs have been uprated using the HCHS pay index.
C. Other revenue costs	£77 per res. week	Catering and domestic costs are included as far as possible since the staffing element of catering or domestic services was often not separately identified in the returns. Other revenue costs include energy, utilities, transport, renewals and replacements, cleaning, laundry, TV licence, registration fees and insurance. The capital and revenue costs together represent the total weekly cost of accommodation (or establishment costs). Over and above this accommodation cost, additions have been made to estimate 'care package' costs. These additions include personal consumption or living expenses, and the use that clients typically make of hospital and community health and social services. Costs have been uprated using the HCHS pay and prices index.
D. Agency overheads	£10 per res. week	Indirect management, such as central administration, was categorised under the heading of agency overheads along with personnel, accounting and finance functions. Costs have been uprated using the HCHS pay and prices index.
<i>Other costs</i> E. Personal living expenses	£16.80 per week	The DWP allowance is used as a proxy for personal consumption.
F. Service use	£65 per res. week	Service use cost is the mean receipt per client of a 'reduced list' of services including inpatient days and outpatient attendances in a psychiatric or general hospital, day centre or sheltered workshop attendances, and contact with a GP, community psychiatric nurse, social worker or community psychiatrist. Costs have been uprated using the HCHS pay and prices index.
Use of facility by client	365.25 days p.a.	
Occupancy	85%	Occupancy figures are drawn from the same source as the base data.
London multiplier		No estimate is available for privately managed staffed hostels in London.
<b>Unit costs available 2002/2003</b>		
£226 per resident week establishment costs (includes A to D); £308 per resident week care package costs (includes A to F).		

<sup>1</sup> Chisholm, D., Knapp, M., Astin, J., Beecham, J., Audini, B. & Lelliott, P. (1997) The mental health residential care study: the costs of provision, *Journal of Mental Health*, 6, 1, 85-99.

### Schema 2.6 Acute NHS hospital services for people with mental health problems

Based on a sample of 25 acute psychiatric wards covered in a survey of residential care in eight district health authorities.<sup>1</sup> All costs are based on 1995/96 figures, uprated using the appropriate HCHS inflators. The costs are based on acute wards and so are not representative of the daily unit cost of general psychiatric hospital care.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£ 10 per bed per day	Based on the new build and land requirements for a bed in a psychiatric hospital ward. <sup>2</sup> Occupancy rates have been taken into account. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. If capital were annuitised at 6 per cent, the cost would be £15.
B. Land	£ 0.60 per bed per day	Based on land values provided by the Department of the Environment, Transport and the Regions, <sup>3</sup> discounted at 6 per cent over sixty years.
C. Equipment and durables		No information available.
<i>Revenue costs</i> D. Salary, supplies and services costs E. Agency overheads	£115 per day £40 per day	Revenue costs were obtained from hospital accounts and were broken down into salaries, supplies and services and agency overheads. Salary costs include medical and clinical support services. Where this input could not be identified at ward level, a multiplier of 1.33 was calculated on the basis of nursing (75 per cent) to medical and clinical support (25 per cent) ratios in those wards where full information was available. Salaries represent 66 per cent of the total cost per day.
Use of facility by client	365.25 days per year	
Occupancy	95%	Occupancy in London was estimated to be 102 per cent. Occupancy figures are drawn from the same source as the base data.
London multiplier	1.23 x A; 5.20 x B; 1.10 x D; 1.15 x E	Relative London costs are drawn from the same source as the base data for each cost element. If the interest is just in effects due to technology and price effects, the multiplier to be used for salaries, supplies and service costs is 1.19 (see <i>Unit Costs of Health and Social Care 1996</i> , pp.19-22). The increase on previous years in the inflator for land is due to a revision of price trends by the DTLR.
<b>Unit costs available 2002/2003</b>		
£165 per inpatient day (includes A to E).		

<sup>1</sup> Chisholm, D., Knapp, M., Astin, J., Beecham, J., Audini, B. & Lelliott, P. (1997) The mental health residential care study: the costs of provision, *Journal of Mental Health*, 6, 1, 85-99.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

**Schema 2.7 Long-stay NHS hospital services for people with mental health problems**

Based on a sample of 19 long-stay psychiatric wards covered in a survey of residential care in eight district health authorities.<sup>1</sup> All costs are based on 1995/96 figures, uprated using the appropriate HCHS inflators. The costs are based on long-stay inpatient psychiatric care wards and so are not as representative of the daily unit cost of general psychiatric hospital care. In such a case, the unit cost estimates derived from the reference costs (<http://www.doh.gov.uk/nhsexec/refcosts.htm>) would be more appropriate.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£ 12 per bed per day	Estimates are based on the new build and land requirements for a bed in a psychiatric hospital ward. <sup>2</sup> Occupancy rates have been taken into account. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. If capital were annuitised at 6 per cent, the cost would be £19.
B. Land	£ 0.70 per bed per day	Based on land values provided by the Department of the Environment, Transport and the Regions, <sup>3</sup> discounted at 6 per cent over sixty years.
C. Equipment and durables		No information available.
<i>Revenue costs</i> D. Salary, supplies and services costs	£79 per day	Revenue costs were obtained from hospital accounts and were broken down into salaries, supplies and services and agency overheads. Salary costs include medical and clinical support services. Where this input could not be identified at ward level, a multiplier of 1.33 was calculated on the basis of nursing (75 per cent) to medical and clinical support (25 per cent) ratios in those wards where full information was available. Salaries represent 54 per cent of the total cost per day.
E. Agency overheads	£46 per day	The capital and revenue costs together represent the total weekly cost of accommodation (or establishment costs). Over and above this accommodation cost, additions have been made to estimate 'care package' costs. These additions include personal consumption or living expenses, and the use that clients typically make of hospital and community health and social services.
<i>Other costs</i> F. Personal living expenses	£ 14.50 per week	Once patients have given up their private accommodation, their full package of costs can be estimated by including other services received and personal expenditure. The latter is estimated by using the DWP personal allowance for those in hospital over 52 weeks and is, therefore, included in the long-stay schema.
Use of facility by client	365.25 days per year	
Occupancy	83%	Occupancy in London was estimated to be 93 per cent. Occupancy figures are drawn from the same source as the base data.
London multiplier	1.17x A; 4.58 x B; 1.32 x D; 1.10 x E	Relative London costs are drawn from the same source as the base data for each cost element. If the interest is just in effects due to technology and price effects, the multiplier to be used for salaries, supplies and service costs is 1.19 (see <i>Unit Costs of Health and Social Care 1996</i> , pp.19-22). The increase on previous years in the inflator for land is due to a revision of price trends by the DTLR.
<b>Unit costs available 2002/2003</b>		
£141 per inpatient day (includes A to F).		

<sup>1</sup> Chisholm, D., Knapp, M., Astin, J., Beecham, J., Audini, B. & Lelliott, P. (1997) The mental health residential care study: the costs of provision, *Journal of Mental Health*, 6, 1, 85-99.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

### Schema 2.8 NHS psychiatric intensive care unit (PICU)

Based on a study of a PICU in Withington Hospital, Manchester in 1993.<sup>1</sup>

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£19 per patient day (ppd)	Annuitised value of an NHS psychiatric ward over a 60-year period discounted at 3.5 per cent, taking into account occupancy rates. <sup>2</sup> See editorial. If capital were annuitised at 6 per cent, the cost would be £29.
B. Land	£ 1.03 ppd	Based on land values provided by the Department of the Environment, Transport and the Regions, <sup>3</sup> discounted at 3.5per cent over sixty years.
C. Equipment and durables		No information available.
<i>Revenue costs</i> D. Salary costs E. Supplies and services – drugs – other F. Overheads	£287 ppd  £24 ppd £1.80 ppd £84 ppd	Staff costs have been inflated to current levels using the HCHS pay index, drug costs were inflated using the HCHS prices index and all other costs were inflated using the combined index. The revenue costs include calls on other wards to deal with violent incidents. Variable costs were distinguished from fixed costs in the study. These comprised just 7 per cent of total cost (excluding capital) and were dominated by the cost of special nursing. General hospital overheads comprised 22 per cent of total cost in the study.
<i>Other costs</i> G. Patient injury	£3.30 per patient day	This was the cost of treating one patient who incurred major injuries as a result of an aggressive incident (inflated using the HCHS pay and prices index).
Use of facility by client	12.3 days	Average length of stay.
Occupancy	55%	Occupancy during study period.
High dependency		Highly disturbed and violent patients.
London multiplier	1.23 x A; 5.20 x B	Costs were based on one unit in Manchester. The increase on previous years in the inflator for land is due to a revision of price trends by the DTLR.
<b>Unit costs available 2002/2003</b>		
£420 per patient day (includes A to G); £5,169 per average stay.		

<sup>1</sup> Hyde, C. & Harrower-Wilson, C. (1995) Resource consumption in psychiatric intensive care: the cost of aggression, *Psychiatric Bulletin*, 19, 73-76.

<sup>2</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.



**Schema 2.9 NHS Trust day care for people with mental health problems**

A session is defined as either a morning, afternoon or evening at the day care facility.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£3.60 per session	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 person. <sup>1</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. When discounted at 8 per cent, the cost is £7.20 per session.
B. Land	£ 0.35 per session	Based on Department of the Environment, Transport and the Regions <sup>2</sup> statistics. Land costs have been discounted at 8 per cent over sixty years. Since the revenue costs given below now include capital costs, this has not been included in the unit costs figures quoted below.
C. Equipment and durables		No information available.
D. Revenue costs	£ 21 per session	Mean cost based on a survey <sup>3</sup> conducted in the South Thames NHS region of day settings for adults with mental health problems. In total sufficient data were obtained to estimate the revenue costs for 122 settings. These results have been uprated using the PSS pay and prices index. Most of the NHS Trust settings taking part were orientated towards providing treatment and consequently 95 per cent of these settings had costs between £16-£26 at current prices with a median cost per session of £12.
E. Agency overheads	£1.05 per session	Following the Audit Commission report about overheads associated with residential care, <sup>4</sup> agency overheads have been assumed to be 5 per cent of revenue costs.
Occupancy	76%	Department of Health statistics, 1998. <sup>5</sup> More recent data are not available.
London multiplier	1.23 x A; 5.20 x B; 1.02 x D.	The increase on previous years in the inflator for land is due to a revision of price trends by the DTLR. D has been based on PSS EX1. <sup>6</sup>
<b>Unit costs available 2002/2003</b>		
£26 per session (includes A to E); £52 per day (excluding evenings).		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> Beecham, J., Schneider, J. & Knapp, M. (1998) *Survey of Day Activity Settings for People with Mental Health Problems*, Report to the Department of Health, Discussion Paper 1457, Personal Social Services Research Unit, University of Kent.

<sup>4</sup> Audit Commission (1993) *Taking Care*, Bulletin, Audit Commission, London.

<sup>5</sup> Department of Health (1998) *Community Care Statistics, Day and Domiciliary Personal Social Services for Adults, Detailed Statistics*, Government Statistical Service, London.

<sup>6</sup> PSS EX1 2002, Department of Health.

### Schema 2.10 Local authority social services day care for people with mental health problems

A session is defined as either a morning, afternoon or evening at the day care facility.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i>		
A. Buildings and oncosts	£4.00 per session	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 person. <sup>1</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. When discounted at 8 per cent, the cost is £7.20 per session.
B. Land	£0.35 per session	Based on Department of the Environment, Transport and the Regions <sup>2</sup> statistics. Land costs have been discounted at 3.5 per cent over sixty years.
C. Equipment and durables		No information available.
D. Revenue costs	£ 12 per session	Mean cost based on a survey <sup>3</sup> conducted in the South Thames NHS region of day settings for adults with mental health problems. In total sufficient data were obtained to estimate the revenue costs for 122 settings. These results have been uprated using the PSS Pay and Prices Index. Ninety five per cent of the Social Service departments had costs between £10-£14 at current prices with a median cost of £12 per session. In comparison to day care provided by the NHS Trusts, only 3.2 per cent of settings managed by the Local Authority Social Service Departments were orientated towards providing treatment whereas over a third provided social support.  PSS EX1 2001/02 <sup>4</sup> gross costs uprated using the PSS Pay and Prices Index reported median costs at £23 per session and mean costs at £21 per session. Capital costs charged to the revenue account have been deducted (£2). Five authorities reporting costs of either more than £500 and or less than £1 have been excluded.
E. Agency overheads	£0.60 per session	Following the Audit Commission report about overheads associated with residential care, <sup>5</sup> agency overheads have been assumed to be 5 per cent of revenue costs.
Occupancy	76%	Department of Health statistics, 1998. <sup>6</sup> No later statistics are available.
London multiplier	1.23 x A; 5.20 x B 1.01x D	The increase on previous years in the inflator for land is due to a revision of price trends by the DTLR. D is based on PSS EX1 statistics.
<b>Unit costs available 2002/2003</b>		
£17 per session (includes A to E); £33 per day (excluding evenings).		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> Beecham, J., Schneider, J. & Knapp, M. (1998) *Survey of Day Activity Settings for People with Mental Health Problems*, Report to the Department of Health, Discussion Paper 1457, Personal Social Services Research Unit, University of Kent.

<sup>4</sup> PSS EX1 2001/02, Department of Health.

<sup>5</sup> Audit Commission (1993) *Taking Care*, Bulletin, Audit Commission, London.

<sup>6</sup> Department of Health (1998) *Community Care Statistics, Day and Domiciliary Personal Social Services for Adults, Detailed Statistics*, Government Statistical Service, London.

### Schema 2.11 Voluntary/non profit-organisations providing day care for people with mental health problems

A session is defined as either a morning, afternoon or evening at the day care facility.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i>		
A. Buildings and oncosts	£3.57 per session	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 person. <sup>1</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. When discounted at 8 per cent, the cost is £7.20 per session.  Although a capital value has been given, in practice premises costs are often based on rental paid and purpose built centres are rare.
B. Land	£0.34 per session	Based on Department of the Environment, Transport and the Regions <sup>2</sup> statistics. Land costs have been discounted at 8 per cent over sixty years.
C. Equipment and durables		No information available.
D. Revenue costs	£ 12 per session	A survey <sup>3</sup> was conducted in the South Thames NHS region of day settings for adults with mental health problems. In total sufficient data were obtained to estimate the revenue costs for 122 settings. These results have been uprated using the PSS Pay and Prices index. Ninety five per cent of the settings managed by voluntary/non-profit organisations had costs between £8-£15 at current prices with a median and mean cost per session of £12. Sixty per cent of voluntary/non profit-organisations providing day care for people with mental health problems provide work-related activities and none of them provide treatment.
E. Agency overheads	£0.60 per session	Following the Audit Commission report about overheads associated with residential care, <sup>4</sup> agency overheads have been assumed to be 5 per cent of revenue costs.
Occupancy	76%	Department of Health statistics, 1998. <sup>5</sup>
London multiplier	1.23 x A; 5.20 x B.  1.02 x D.	The increase on previous years in the inflator for land is due to a revision of price trends by the DTLR.  The multiplier for revenue costs has been based on PSS EX1 2002 <sup>6</sup> statistics.
<b>Unit costs available 2002/2003</b>		
£16 per session (includes A to E); £33 per day (excluding evenings).		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> Beecham, J., Schneider, J. & Knapp, M. (1998) *Survey of Day Activity Settings for People with Mental Health Problems*, Report to the Department of Health, Discussion Paper 1457, Personal Social Services Research Unit, University of Kent.

<sup>4</sup> Audit Commission (1993) *Taking Care*, Bulletin, Audit Commission, London.

<sup>5</sup> Department of Health (1998) *Community Care Statistics, Day and Domiciliary Personal Social Services for Adults, Detailed Statistics*, Government Statistical Service, London.

<sup>6</sup> PSS EX1 2002, Department of Health.

## Schema 2.12 Sheltered work schemes

Opportunities for employment among people with disabilities are changing rapidly (Schneider 1998a, 1998b).<sup>1,2</sup> The research upon which these costs is based was conducted in specialist settings for people with mental health problems, now several years ago. It is clearly important to ensure that the models that were operating during the research are relevant to any setting to be costed. The models and costs upon which this schema is based are described in Hallam and Schneider (1999).<sup>3</sup> The methodology for costing these work schemes is given in Netten and Dennett (1996 pages 28-31),<sup>4</sup> and can be adapted to innovative settings.

The figures in the table below are averages for the seven schemes and are based on 1994/1995 figures, uprated using the PSS Pay and Prices Index.

The costs do not take into account variations in different departments within each scheme due to staffing levels, attendance rates or productivity. Cost per hour ranged from £1.90 to £9.20 at current prices with the full-time placements working out least expensive per hour. There is also wide variation in the cost per placement per year with net costs ranging from £3,246 to £8,709 per annum.

Costs and unit estimation	2002/2003 value	Notes
A. Total annual expenditure	£ 8,271	Average gross expenditure for the seven work schemes ranged from £5,538 to £11,612.
B. Total annual income	£ 1,769	Average gross expenditure minus average net expenditure. Income ranged from £334 to £3,563.
Number of places	46	The number of places provided per week in 1994-95 ranged from 21 to 60.
Hours worked per week	25	Based on the mean number in each work scheme. The number of hours worked per week ranged from 16 to 35.
Number of weeks worked	43	Based on the mean number in each work scheme. The number of weeks worked per year ranged from 29 to 52.
Number of workers at any one time	37	The number of workers on the schemes at one time differs from the number of places because of shift working on three of the schemes.
<b>Unit costs available 2002/2003</b>		
£7.70 gross cost per hour; £6.15 net cost per hour.		

<sup>1</sup> Schneider, J. (1998a) Work interventions in mental health care: Arguments in favour, and a review of the evidence, *Journal of Mental Health* 7, 81-94.

<sup>2</sup> Schneider, J. (1998b) Models of specialist employment for people with mental health problems, *Health and Social Care in the Community*, 6, 2, 120-129.

<sup>3</sup> Hallam, A. & Schneider, J. (1999) Sheltered work schemes for people with mental health problems: Service use and costs, *Journal of Mental Health*, 8, 2, 163-178.

<sup>4</sup> Netten, A. & Dennett, J. (1996) *Unit Costs of Health and Social Care 1996*, PSSRU, University of Kent: Canterbury.

**Schema 2.13 Psychiatric reprovision package: independent living**

Information on service receipt is based on research studies which were described in the 1998 volume of Unit Costs of Health and Social Care.<sup>1</sup>

This schema identifies the full costs of providing care for a former long-stay patient during his fifth year after leaving Friern Hospital. Mr A. is now living independently and receives one of the least expensive care packages.

<b>Type of case</b> Mr A. is a 39-year old man with mental health problems who lives alone in a housing association rented flat. He has no informal care support.		
<b>Health problems</b> He has problems of the gastro-intestinal tract which require monitoring by his GP. He takes medication (without supervision) for dermatological problems.		
<b>Social behaviour</b> No problems.		
<b>Services received</b>	<b>Average weekly cost</b>	<b>Description</b>
<b>Social services</b> Social work	£19	Social worker and link worker visit once every two weeks for 30 minutes.
<b>Total</b>	<b>£19</b>	
<b>Health services</b> GP Chiropodist Hospital outpatients	£1.85 £0.45 £18.30	Ten surgery appointments during the past year. Two visits during the past year. One appointment a month for check-up and depot injections.
<b>Total</b>	<b>£20.60</b>	
<b>Other services</b> Housing officer	£6.70	Visits once every two weeks for 15 minutes.
Accommodation	£136	Includes local taxes forgone by the local authority, and capital, management and maintenance costs borne by the housing association.
Living expenses	£127	Income support, invalidity benefit and disability allowances.
<b>Total weekly cost of care package, 2002/2003</b>	<b>£309</b>	

<sup>1</sup> Netten, A., Dennett, J., Knight, J., *Unit Costs of Health and Social Care (1998)*, Personal Social Services Research Unit, University of Kent.

### Schema 2.14 Psychiatric reprovision package: assessment centre

Information on service receipt is based on research studies which were described in the 1998 volume of *Unit Costs of Health and Social Care*.<sup>1</sup>

This schema identifies the full costs of providing care for a former long-stay patient during his fifth year after leaving Friern Hospital. This package was among the most costly examined.

<b>Type of case</b> Mr B. is 51 and lives in an assessment centre owned and managed by the community health services trust. There are seven other residents in the house.		
<b>Health problems</b> He needs daily medical care for respiratory problems. Mr B. also has problems with verbal aggression at least once a month and has episodes of extreme agitation, during which he becomes doubly incontinent. He is able to concentrate for short periods only and has poor hygiene habits.		
<b>Social behaviour</b> Mr B. is an isolated individual. A heavy smoker, he is considered a health risk and has twice been responsible for causing a fire.		
<b>Services received</b>	<b>Average weekly cost</b>	<b>Description</b>
<b>Social services</b> Social work	£1.20	Social worker has visited twice during the past year for one hour each time.
<b>Total</b>	<b>£1.20</b>	
<b>Health services</b> Depot injection Chiroprapist  Dentist Optician	£6.70 £1.80  £0.20 £0.30	Cost of the drug given by staff. Visits once a month seeing four residents on each occasion. One check up during the past year. One visit to optician for sight test in past year - no need for glasses.
<b>Total</b>	<b>£9.00</b>	
<b>Other services</b> Day centre	£4.40	Drops in approximately one hour per week.
<b>Accommodation</b> Staff costs Non-staff costs Agency overheads Capital costs	£1,248 £102 £74 £96	Per resident week. Per resident week. Per resident week. Per resident week. Capital costs are discounted at 6 per cent. When discounted at 3.5 per cent, the cost is £62.
<b>Total</b>	<b>£1,520</b>	
Living expenses	£34 £3.00	Personal expenses. Bus pass.
<b>Total</b>	<b>£37</b>	
<b>Total weekly cost of care package, 2002/2003</b>	<b>£1,572</b>	

<sup>1</sup> Netten, A., Dennett, J., Knight, J., *Unit Costs of Health and Social Care (1998)*, Personal Social Services Research Unit, University of Kent.

**Schema 2.15 Psychiatric reprovision package: care home**

Information on service receipt is based on research studies which were described in the 1998 volume of *Unit Costs of Health and Social Care*.<sup>1</sup>

This schema identifies the full costs of providing care for a former long-stay patient during her fifth year after leaving Friern Hospital. This service package was costly to support during the first year after leaving the hospital but Mrs J. has subsequently been able to move to a less highly supported environment.

<b>Type of case</b> Mrs J. is a 57 year old woman who lives in a small registered care home which has six places. It is one of four units with a central office and waking staff cover at night.		
<b>Health problems</b> No problems.		
<b>Social behaviour</b> No special behavioural problems but she is a careless smoker, which causes problems on a daily basis.		
<b>Services received</b>	<b>Average weekly cost</b>	<b>Description</b>
<b>Social services</b> Social work	£0.14	One visit by field social worker during the past year. Two residents seen during visit.
<b>Total</b>	<b>£0.14</b>	
<b>Health services</b> GP	£1.80	Three visits during the past year.
Psychiatrist	£2.10	Two visits during the past year seeing two residents on each occasion.
Chiropodist	£1.80	Four 30-minute visits per year.
<b>Total</b>	<b>£5.60</b>	
<b>Other services</b> Resource centre	£88	Attends five days a week, four hours per day.
Accommodation	£1,113	Per resident week. Includes personal expenses.
Living expenses		Included in accommodation costs.
<b>Total weekly cost of care package, 2002/2003</b>	<b>£1,207</b>	

<sup>1</sup> Netten, A., Dennett, J., Knight, J., *Unit Costs of Health and Social Care (1998)*, Personal Social Services Research Unit, University of Kent.

### Schema 2.16 Psychiatric reprovision package: nursing home placement

Information on service receipt is based on research studies which were described in the 1998 volume of *Unit Costs of Health and Social Care*.<sup>1</sup>

This schema identifies the full costs of providing care for a former long-stay patient during his fifth year after leaving Friern Hospital. This package was selected because Mr G's cost of care was closest to the average.

<b>Type of case</b> Mr G. is a 92 year old man who lives in a nursing home managed by a consortium arrangement between the health authority and housing association.		
<b>Health problems</b> He requires daily nursing care for cardio-vascular problems and poor mobility.		
<b>Social behaviour</b> Mr G. responds negatively to attempts to initiate conversation. His attempts to make contact are often inappropriate and he takes no spontaneous care of himself or his clothes. He can concentrate only for a few minutes at a time.		
<b>Services received</b>	<b>Average weekly cost</b>	<b>Description</b>
<b>Health services</b>		
GP	£0.30	Two visits during the past year, seeing ten residents on each occasion.
Chiropodist	£1.50	Four 30-minute visits during the past year.
Optician	£2.40	Two visits and new spectacles.
Physiotherapist	£1.60	Four visits during the past year.
Occupational therapist	£3.30	Visits twice a week and sees ten residents.
Music therapist and art therapist	£7.00	Visit weekly to see ten residents.
<b>Total</b>	<b>£16.00</b>	
<b>Aids and adaptations</b>		
Wheelchair and zimmer frame	£3.90	Equivalent weekly cost when annuitised over a five-year period. See editorial about changes from previous years' rates. If capital were annuitised at 6 per cent, the cost would be £4.40.
Accommodation	£1,097	Per resident week. Includes personal expenses.
Living expenses		Personal expenses included in accommodation costs.
<b>Total weekly cost of care package, 2002/2003</b>	<b>£1,117</b>	

<sup>1</sup> Netten, A., Dennett, J., Knight, J., *Unit Costs of Health and Social Care (1998)*, Personal Social Services Research Unit, University of Kent.



### **3. Services for people who misuse drugs/alcohol**

- 3.1 Voluntary sector residential rehabilitation for people who misuse drugs/alcohol
- 3.2 NHS inpatient treatment for people who misuse drugs/alcohol
- 3.3 Cost of maintaining a drugs misuser on a methadone treatment programme

### Schema 3.1 Voluntary sector residential rehabilitation for people who misuse drugs/ alcohol

Based on information received for 1994/95 from eleven voluntary rehabilitation units across England, as part of an economic evaluation conducted by the Centre for the Economics of Mental Health of treatment services for the misuse of drugs (the National Treatment Outcome Research Study: NTORS).<sup>1</sup> At current prices unit costs varied across the eleven residential rehabilitation units, ranging from a minimum of £362 per resident week to a maximum of £1,326 per resident week. Costs have been inflated to 2002/2003 prices.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings B. Land	£17 per resident week	Based on property valuation information received for 1994/95, inflated using the BCIS public sector building index. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent the cost per resident week would be £26.
C. Equipment and durables	£0.17 per res. Week	1994/95 costs inflated using the PSS Prices Index.
<i>Revenue costs</i> D. Salary costs	£368 per res. Week	1994/95 costs inflated using the PSS Pay Index.
E. Other revenue costs	£233 per res. Week	1994/95 costs inflated using the PSS Prices Index.
F. Agency overheads	£45 per res. Week	1994/95 costs inflated using the PSS Pay and Prices Index.
Use of facility by client	52.18 weeks per year	
Occupancy	77%	Occupancy figures are drawn from the same source as the base data.
<b>Unit costs available 2002/2003</b>		
£663 per resident week (includes A to F).		

<sup>1</sup> For further information contact Andrew Healey, PSSRU at LSE, Department of Social Policy and Administration, Houghton Street, London WC2A 2AE (email A.T.Healey@lse.ac.uk; telephone 020 7955 6134; fax 020 7955 6131).

### Schema 3.2 NHS inpatient treatment for people who misuse drugs/alcohol

Based on information received for 1994/95 from four NHS inpatient units located across England, as part of an economic evaluation conducted by the Centre for the Economics of Mental Health of treatment services for the misuse of drugs (the National Treatment Outcome Research Study: NTORS).<sup>1</sup> The least expensive service was estimated to cost £84 per patient day, while the most expensive was £231 per patient day (1994/95 prices updated to 2002/2003).

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings	£12 per patient day	Based on the new build and land requirements for a bed in a psychiatric hospital ward. <sup>2</sup> Occupancy rates have been taken into account. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent the cost would be £19 per patient day.
B. Land	£0.67 per patient day	Based on Department of the Environment, Transport and the Regions <sup>3</sup> statistics. Land costs have been discounted at 3.5% over sixty years. At 6 per cent, the cost would be £1.04.
C. Equipment and durables	£0.74 per patient day	1994/95 costs inflated using the HCHS prices index.
<i>Revenue costs</i> D. Salary costs	£93 per patient day	1994/95 costs inflated using the HCHS pay index
E. Other revenue costs	£13 per patient day	1994/95 costs inflated using the HCHS prices index
F. Agency overheads	£42 per patient day	1994/95 costs inflated using the HCHS pay and prices index
Use of facility by client	365.25 days per year	
Occupancy	84%	Occupancy figures are drawn from the same source as the base data
<b>Unit costs available 2002/2003</b>		
£161 per patient day (includes A to F).		

<sup>1</sup> For further information contact Andrew Healey, PSSRU at LSE, Department of Social Policy and Administration, Houghton Street, London WC2A 2AE (email A.T.Healey@lse.ac.uk; telephone 020 7955 6134; fax 020 7955 6131).

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 2001-2002*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

### Schema 3.3 Cost of maintaining a drugs misuser on a methadone treatment programme

Based on information received for 15 methadone programmes located across England, as part of an economic evaluation conducted by the Centre for the Economics of Mental Health of treatment services for the misuse of drugs (the National Treatment Outcome Research Study: NTORS).<sup>1</sup>

The majority of the methadone programmes in the sample were provided by NHS community drug teams. These are either based on a hospital site or literally in the community. Drug users go to the relevant site perhaps on a daily basis - although arrangements vary from service to service - either to pick up their methadone prescription (dispensed at a community pharmacist) or to receive their dose under supervision on site. They may also consult visiting health professionals (e.g. a visiting GP about health problems, or psychiatrist/CPN about psychiatric problems), visiting probation officers and social workers and site staff. Some services also provide counselling/therapy to deal with addiction. Some of the methadone programmes were run by community drug teams, but the methadone may have actually been prescribed at a GP surgery. A small number of programmes (one or two at most) were provided entirely from a primary care site.

All data were generated from NHS Trust financial accounts and where necessary prescribing cost data for specific programmes were provided by the Prescription Pricing Authority in Newcastle-Upon-Tyne.

Unit costs varied across the programmes, ranging from a minimum of £6 per week to a maximum of £100 per week (1995/96 prices updated to 2002/2003).

Costs and unit estimation	2002/2003 value	Notes
A. Capital and revenue costs	£36 per patient week	The following costs are included: buildings and land, equipment and durables, staff costs (including site staff and external support staff), supplies and services, and site and agency overheads. 1995/96 prices inflated by the HCHS pay and prices index. Capital costs have been discounted at 3.5 per cent over sixty years. See editorial for changes from previous years' rates. At 6 per cent capital and revenue costs would be £39.
B. Methodone costs	£20 per patient week	Includes the cost of prescriptions, any pharmacist dispensing fees, and any toxicology tests. 1995/96 prices inflated by the HCHS pay and prices index.
<b>Unit costs available 2002/2003</b>		
£56 per patient week (includes A and B).		

<sup>1</sup> For further information contact Andrew Healey, PSSRU at LSE, Department of Social Policy and Administration, Houghton Street, London WC2A 2EA (email A.T.Healey@lse.ac.uk; telephone 020 79556134; fax 020 7955 6131).

## **4. Services for people with learning disabilities**

- 4.1 Group homes
- 4.2 Village communities
- 4.3 NHS residential campus provision
- 4.4 Supported living schemes
- 4.5 Local authority day care
- 4.6 Voluntary sector activity-based respite care

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

The costs of group homes are based on the results of a study commissioned by the Department of Health and conducted by Emerson et al. in 1998.<sup>1/2</sup> The sample comprises services provided by nine independent and public sector organisations in the UK (218 service users).

Costs and unit estimation	2002/2003 value	Notes
A. Capital costs	£ 41 per week	Capital costs of buildings and land were calculated using market valuations of property and/or construction costs. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. When discounted at 8 per cent, the weekly capital costs were £83. Equipment and durables amounting to 10 per cent of capital cost were added. <sup>3</sup> Annual costs of vehicle replacement were estimated based on the methodology devised by the Automobile Association. <sup>4</sup>
<i>Revenue costs</i> B. Salary costs C. Other revenue costs	£715 per week £ 76 per week	Calculated using facility-specific accounts information.
D. Agency overheads	£ 95 per week	Calculated using facility-specific accounts information, or by adding 5 per cent of revenue costs, following an Audit Commission report about overheads associated with residential care. <sup>5</sup>
<i>External services</i> E. Hospital F. Community G. Day services	£ 8.30 per week £ 30 per week £148 per week	Client-specific service use was recorded using the Client Service Receipt Inventory (CSRI). <sup>6</sup> Day services were costed using accounts information, where available. All other services were costed using national unit costs data.
H. Personal living expenses	£ 59.00 per week	Individual client living expenses (based on CSRI information)
Use of facility by client	52.143 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). <sup>7</sup> 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.)
<b>Unit costs available 2002/2003</b>		
£928 establishment costs per resident week (includes A to D); £1,172 care package costs (includes A to H).		

<sup>1</sup> Emerson, E., Robertson, J., Gregory, N., Hatton, C., Kessissoglou, S., Hallam, A., Knapp, M., Järbrink, K. & Netten, A. (1999) *Quality and Costs of Residential Supports for People with Learning Disabilities: A Comparative Analysis of Quality and Costs in Village Communities, Residential Campuses and Dispersed Housing Schemes*, Hester Adrian Research Centre, University of Manchester, Manchester.

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

<sup>3</sup> Knapp, M., Beecham, J. & Allen, C. (1989) The methodology for costing community and hospital services used by clients of the Care in the Community demonstration programme, Discussion Paper 647, Personal Social Services Research Unit, University of Kent.

<sup>4</sup> Automobile Association Technical Services, Basingstoke, Hampshire.

<sup>5</sup> Audit Commission (1993) *Taking Care*, Bulletin, Audit Commission, London.

<sup>6</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>7</sup> Nihira, K., Leland, H. & Lambert, N. (1993) *Adaptive Behavior Scale – Residential and Community*, 2nd Edition, Pro-Ed, Austin, Texas.

## Schema 4.2 Village communities

The costs of village communities are based on the results of a study commissioned by the Department of Health and conducted by Emerson et al. in 1998.<sup>1/2</sup> The sample comprises three village communities, all managed by voluntary organisations, in the UK (86 service users).

Costs and unit estimation	2002/2003 value	Notes
A. Capital costs	£ 44 per week	Capital costs of buildings and land were calculated using market valuations of property and/or construction costs. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. When discounted at 8 per cent, the weekly capital costs were £89. Equipment and durables amounting to 10 per cent of capital cost were added. <sup>3</sup> Annual costs of vehicle replacement were estimated based on the methodology devised by the Automobile Association. <sup>4</sup>
<i>Revenue costs</i> B. Direct staffing C. Direct non-staffing	£ 406 per week £ 60 per week	Calculated using facility-specific accounts information. Costs relate to staffing within the individual setting/house.
D. On-site administration	£124 per week	Calculated using facility-specific accounts information. Cost relates to staffing and non-staffing expenditure across the whole site (such as management and maintenance, social areas and grounds).
E. Agency overheads	£ 52 per week	Calculated using facility-specific accounts information, or by adding 5 per cent of revenue costs, following an Audit Commission report about overheads associated with residential care. <sup>5</sup>
<i>External services</i> F. Hospital G. Community H. Day services	£ 5.95 per week £ 20 per week £148 per week	Client-specific service use was recorded using the Client Service Receipt Inventory (CSRI). <sup>6</sup> Day services were costed using accounts information, where available. All other services were costed using national unit costs data.
I. Personal living expenses	£ 20 per week	Individual client living expenses (based on CSRI information).
Use of facility by client	52.143 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). <sup>7</sup> 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).
<b>Unit costs available 2002/2003</b>		
£687 establishment costs per resident week (includes A to E); £880 care package costs (includes A to I).		

<sup>1</sup> Emerson, E., Robertson, J., Gregory, N., Hatton, C., Kessissoglou, S., Hallam, A., Knapp, M., Järbrink, K. & Netten, A. (1999) *Quality and Costs of Residential Supports for People with Learning Disabilities: A Comparative Analysis of Quality and Costs in Village Communities, Residential Campuses and Dispersed Housing Schemes*, Hester Adrian Research Centre, University of Manchester, Manchester.

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

<sup>3</sup> Knapp, M., Beecham, J. & Allen, C. (1989) The methodology for costing community and hospital services used by clients of the Care in the Community demonstration programme, Discussion Paper 647, Personal Social Services Research Unit, University of Kent.

<sup>4</sup> Automobile Association Technical Services, Basingstoke, Hampshire.

<sup>5</sup> Audit Commission (1993) *Taking Care*, Bulletin, Audit Commission, London.

<sup>6</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>7</sup> Nihira, K., Leland, H. & Lambert, N. (1993) *Adaptive Behavior Scale – Residential and Community*, 2nd Edition, Pro-Ed, Austin, Texas.

### Schema 4.3 NHS residential campus provision

The costs of village communities are based on the results of a study commissioned by the Department of Health and conducted by Emerson et al. in 1998.<sup>1/2</sup> The sample comprises five residential campus facilities in the UK (133 service users).

Costs and unit estimation	2002/2003 value	Notes
A. Capital costs	£ 39 per week	Capital costs of buildings and land were calculated using market valuations of property and/or construction costs. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. When discounted at 8 per cent, the weekly capital costs were £79. Equipment and durables amounting to 10 per cent of capital cost were added. <sup>3</sup> Annual costs of vehicle replacement were estimated based on the methodology devised by the Automobile Association. <sup>4</sup>
<i>Revenue costs</i> B. Direct staffing C. Direct non-staffing	£707 per week £ 92 per week	Calculated using facility-specific accounts information. Costs relate to staffing within the individual setting/house.
D. On-site administration	£107 per week	Calculated using facility-specific accounts information. Cost relates to staffing and non-staffing expenditure across the whole site (such as management and maintenance, social areas and grounds).
E. Agency overheads	£ 85 per week	Calculated using facility-specific accounts information, or by adding 5 per cent of revenue costs, following an Audit Commission report about overheads associated with residential care. <sup>5</sup>
<i>External services</i> F. Hospital G. Community H. Day services	£ 3.60 per week £ 17 per week £ 79 per week	Client-specific service use was recorded using the Client Service Receipt Inventory (CSRI). <sup>6</sup> Day services were costed using accounts information, where available. All other services were costed using national unit costs data.
J. Personal living expenses	£25 per week	Individual client living expenses (based on CSRI information)
Use of facility by client	52.143 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). <sup>7</sup> 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.)
<b>Unit costs available 2002/2003</b>		
£1,029 establishment costs per resident week (includes A to E); £1,153 care package costs (includes A to J).		

<sup>1</sup> Emerson, E., Robertson, J., Gregory, N., Hatton, C., Kessissoglou, S., Hallam, A., Knapp, M., Järbrink, K. & Netten, A. (1999) *Quality and Costs of Residential Supports for People with Learning Disabilities: A Comparative Analysis of Quality and Costs in Village Communities, Residential Campuses and Dispersed Housing Schemes*, Hester Adrian Research Centre, University of Manchester, Manchester.

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

<sup>3</sup> Knapp, M., Beecham, J. & Allen, C. (1989) The methodology for costing community and hospital services used by clients of the Care in the Community demonstration programme, Discussion Paper 647, Personal Social Services Research Unit, University of Kent.

<sup>4</sup> Automobile Association Technical Services, Basingstoke, Hampshire.

<sup>5</sup> Audit Commission (1993) *Taking Care*, Bulletin, Audit Commission, London.

<sup>6</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>7</sup> Nihira, K., Leland, H. & Lambert, N. (1993) *Adaptive Behavior Scale – Residential and Community*, 2nd Edition, Pro-Ed, Austin, Texas.



### Schema 4.4 Supported living schemes

The costs of supported living schemes are based on the results of a study commissioned by the Department of Health and conducted by Emerson et al. in 1998.<sup>1/2</sup> The sample comprises services provided by six independent and public sector organisations in the UK (63 service users).

Costs and unit estimation	2002/2003 value	Notes
A. Capital costs	£ 43 per week	Capital costs of buildings and land were calculated using market valuations of property and/or construction costs. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. When discounted at 8 per cent, the weekly capital costs were £86. Equipment and durables amounting to 10 per cent of capital cost were added. <sup>3</sup> Annual costs of vehicle replacement were estimated based on the methodology devised by the Automobile Association. <sup>4</sup>
<i>Revenue costs</i> B. Salary costs C. Other revenue costs	£ 818 per week £ 49 per week	Calculated using facility-specific accounts information.
D. Agency overheads	£ 141 per week	Calculated using facility-specific accounts information, or by adding 5 per cent of revenue costs, following an Audit Commission report about overheads associated with residential care. <sup>5</sup>
<i>External services</i> E. Hospital F. Community G. Day services	£ 5.95 per week £ 26 per week £ 49 per week	Client-specific service use was recorded using the Client Service Receipt Inventory (CSRI). <sup>6</sup> Day services were costed using accounts information, where available. All other services were costed using national unit costs data.
H. Personal living expenses	£117 per week	Individual client living expenses (based on CSRI information)
Use of facility by client	52.143 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). <sup>7</sup> 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.)
<b>Unit costs available 2002/2003</b>		
£1,050 establishment costs per resident week (includes A to D); £1,248 care package costs (includes A to H).		

<sup>1</sup> Emerson, E., Robertson, J., Gregory, N., Hatton, C., Kessissoglou, S., Hallam, A., Knapp, M., Järbrink, K. & Netten, A. (1999) *Quality and Costs of Residential Supports for People with Learning Disabilities: A Comparative Analysis of Quality and Costs in Village Communities, Residential Campuses and Dispersed Housing Schemes*, Hester Adrian Research Centre, University of Manchester, Manchester.

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

<sup>3</sup> Knapp, M., Beecham, J. & Allen, C. (1989) The methodology for costing community and hospital services used by clients of the Care in the Community demonstration programme, Discussion Paper 647, Personal Social Services Research Unit, University of Kent.

<sup>4</sup> Automobile Association Technical Services, Basingstoke, Hampshire.

<sup>5</sup> Audit Commission (1993) *Taking Care*, Bulletin, Audit Commission, London.

<sup>6</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>7</sup> Nihira, K., Leland, H. & Lambert, N. (1993) *Adaptive Behavior Scale – Residential and Community*, 2nd Edition, Pro-Ed, Austin, Texas.

### Schema 4.5 Local authority day care for people with learning disabilities

Prior to 1998 the cost given was per place per day. Since 1998 the cost has been per session. A session is defined as either a morning, an afternoon or an evening at the day care facility.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£ 3.48 per session	Based on the new build and land requirements for local authority day care facilities (which do not distinguish by client group). These allow for 33.4 square metres per person. <sup>1</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. When discounted at 8 per cent the cost is £7.01 per session.
B. Land	£ 0.34 per session	Based on Department of the Environment, Transport and the Regions <sup>2</sup> statistics. Land costs have been discounted at 3.5 per cent over sixty years.
C. Equipment and durables		
<i>Revenue costs</i> D. Salary and other revenue costs E. Capital charges	£25 per client per session	PSS EX1 2001/02 <sup>3</sup> median costs uprated using the PSS Pay and Prices Index. Data were adjusted to exclude expenditure on services purchased from the independent sector. Two local authorities were excluded because the distribution of costs suggested that these authorities provided services of a different nature. Capital charges on the revenue account have been deducted (£3). Ten per cent of authorities had average gross costs of £15 per session or less and 10 per cent £57 per session or more. Mean costs were £26 per session.
F. Agency overheads		A study by the Audit Commission <sup>4</sup> indicated that 5 per cent of the cost of residential care was attributable to managing agency overheads. SSMSS overhead costs are included in PSS EX1 2001 so no additional agency overheads have been included in unit costs below.
G. Other costs		
Use of facility by client	500 sessions per year	
Occupancy	78%	Department of Health statistics, 1997 <sup>5</sup> . No later statistics available.
London multiplier	1.23 x A; 5.20 x B; 1.30 x (D to G)	Relative London costs are drawn from the same source as the base data for each cost element. The increase on previous years in the inflator for land is due to a revision of price trends by the DTLR.
<b>Unit costs available 2002/2003</b>		
£29 per session (includes A to E).		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> PSS EX1 2001/02, Department of Health.

<sup>4</sup> Audit Commission (1993) *Taking Care*, Bulletin, Audit Commission, London.

<sup>5</sup> Department of Health (1997) *Community Care Statistics, Day and Domiciliary Personal Social Services for Adults, Detailed statistics, Table 3*, Government Statistical Service, London.

### Schema 4.6 Voluntary sector activity-based respite care for people with learning disabilities

The schema illustrates a specific activity-based respite service for people with learning disabilities and their carers. The information was drawn from a study<sup>1/2</sup> of innovative approaches to providing respite care. Although each of the schemes in the study was very individual, this service typified the pattern of costs associated with such schemes. It should be noted, however, that this scheme did not provide an exclusively one-to-one staff to user ratio during outings and activities. Those schemes that did tended to have higher hourly unit costs. There is little information about the costs of homes that specialise in short-term residential care.

Costs and unit estimation	2002/2003 value	Notes
A. Coordinator wages/salary	£21,154 per year	1994/95 costs inflated by the PSS Pay Index.
B. Salary oncosts	£1,515 per year	Employers' national insurance.
C. Worker/volunteer costs of sessions	£18,408 per year	1994/95 costs inflated by the PSS Pay Index.
D. Expenses associated with sessions	£6,179 per year	1994/95 costs inflated by the PSS Pay and Prices Index.
E. Training	£2,074 per year	1994/95 costs inflated by the PSS Pay and Prices Index.
F. Capital costs of equipment and transport	£1,853 per year	Discounted at 3.5 per cent over ten years. 1994/95 costs inflated by the retail prices index. See editorial for changes from previous years' rates. At 8 per cent, the capital costs of equipment and transport would be £2297.
G. Direct overheads		
Revenue	£8,934 per year	Includes management, telephone, secretarial support, stationery, etc. 1994/95 costs inflated by the PSS Pay and Prices Index.
Capital		1994/95 costs inflated by the PSS Prices Index.
- office space	£347	Discounted at 3.5 per cent over sixty years.
- office equipment	£330 per year	Discounted at 3.5 per cent over five years.
H. Indirect overheads	£2,989 per year	Includes the personnel and finance functions. 1994/95 costs inflated by the PSS Pay and Prices Index.
Number of users	29	
Number of users with challenging behaviours/ multiple disabilities	6	Varying degrees of challenging behaviours. All receive one-to-one support.
Number of client sessions per year	920	Type of session varies. 26 per cent (235) of sessions are one-to-one.
Length of sessions	4.35 hours	Average length of session.
<b>Unit costs available 2002/2003</b>		
£69 per session per client; £16 per client hour (includes A to H).		

<sup>1</sup> Netten, A. (1994) Costing innovative schemes offering breaks for people with learning disabilities and their carers, Discussion Paper 1100, Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Netten, A. (1995) Costing breaks and opportunities, in K. Stalker (ed.) *Breaks and Opportunities: Developments in Short Term Care*, Jessica Kingsley, London.

## **5. Services for disabled people**

- 5.1 High dependency care home for disabled people
- 5.2 Residential home for disabled people
- 5.3 Special needs flats for disabled people
- 5.4 Rehabilitation day centre for people with brain injury

**Schema 5.1 High dependency care home for disabled people**

This schema is based on information received from John Grooms<sup>1</sup> in 2002 detailing the costs involved in providing a high dependency residential centre. It is a registered nursing home providing 17 nursing places and one residential care place, for people with severe physical disabilities aged between 18 and 65 on admission. Multiple sclerosis and brain injury predominate among the conditions that are dealt with. All of the residents use wheelchairs and many have communications 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 care in the community because of the severity of their condition. Costs have been inflated to 2002/2003 prices.

<b>Costs and unit estimation</b>	<b>2002/2003 value</b>	<b>Notes</b>
<i>Capital Costs</i> A. Buildings	£135 per week	Capital costs of buildings and land were calculated using costs which reflect Housing Corporation accessibility and build standards. The value of the building was annuitised over a 60-year period and discounted at 3.5 per cent. See editorial. At 8 per cent the cost would be £273.
B. Land costs	£ 8 p.w	Land costs have been discounted at 8 per cent over 60 years. At 8 per cent the cost would be £16.
C. Equipment/ durables. Wheelchairs Furnishings/fittings	£7.20 p.w £6.80 p.w	Cost of powered chair Depreciation on furniture/fittings. Calculated using facility specific accounts.
D. Vehicles	£4.60 p.w	
<i>Revenue costs</i> E. Salary costs F. Training G. Maintenance H. Medical costs I. Other revenue costs	£654 p.w £13 p.w £16 p.w £10 p.w £154 p.w	Costs of direct management, administrative, maintenance, medical and care staff. Calculated using facility specific accounts information.  Includes repairs and contracts and cyclical maintenance.  Includes insurance, travel, staff adverts, uniforms, print & stationery, telephone, postage, equipment replacement, household expenses, premises costs, cost of provisions, household, linen & laundry costs.
J. Overheads	£41 p.w	Charges incurred by national organisation.
K. External services		No information available.
Use of facility by client	52.18 weeks per annum	
Number of clients	18	17 nursing home places and 1 residential home place.
<b>Unit costs available 2002/2003</b>		
£1,049 per resident week.		

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

## Schema 5.2 Residential home for disabled people

This schema is based on information received from John Grooms<sup>1</sup> in 2002 detailing the costs involved in providing a registered residential home. 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% 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 2002/2003 prices. Using PSS EX1 2001/02<sup>2</sup> returns uprated using the PSS Pay and Prices inflator, median revenue costs per person for supporting people with a physical disability or sensory impairment in own provision residential care were £759 per week and mean revenue costs were £712 per week.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital Costs</i>		
A. Buildings	£63 per week	Capital costs of building and land were based on actual cost of building and uprated using the BCIS Public Sector OPI. The value of the building was annuitised over a 60-year period discounted at 3.5 per cent. See editorial. At 8 per cent the cost would be £123.
B. Land costs	£3.80 p.w	Based on an approximate measurement of 0.35 acres provided by John Grooms. Land costs have been discounted at 8 per cent over sixty years. At 8 per cent the cost would be £7.40.
C. Equipment/ durables. Wheelchairs Furnishings/fittings	£7.20 p.w £5.60 p.w	Cost of powered chair. Depreciation on furniture/fittings. Calculated using facility specific accounts.
D. Vehicles	£1.70 p.w	
<i>Revenue costs</i>		
E. Salary costs	£400 p.w	Costs of direct management, administrative, maintenance, medical and care staff. Calculated using facility specific accounts information.
F. Training	£6.70 p.w	
G. Maintenance	£24 p.w	Includes repairs and contracts and cyclical maintenance.
H. Other revenue costs	£58 p.w	Includes insurance, travel, staff adverts, uniforms, print & stationery, telephone, postage, equipment replacement, household expenses, medical, premises and household and laundry costs. Calculated using facility specific accounts information.
I. Overheads	£20 p.w	Charges incurred by national organisation.
J. External services		No information available.
Use of facility by client	52.18 weeks per annum	
Number of clients	20 places	
<b>Unit costs available 2002/2003</b>		
£589 per resident week.		

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

<sup>2</sup> PSS EX1 2001/02, Department of Health.

### Schema 5.3 Special needs flats for disabled people

This schema is based on information received from John Grooms<sup>1</sup> in 2002 detailing the costs involved in 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 used also 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) assistance in maintaining social contacts, monitoring well-being and teaching/ encouraging daily living and social skills. Clients live as independently as possible, making use of external health and social care services as identified below. Costs have been inflated to 2002/2003 prices.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital Costs</i> A. Buildings	£98 per week	Capital costs of buildings were calculated using costs which reflect Housing Corporation accessibility and build standards. The value of the building was annuitised over a 60-year period discounted at 3.5 per cent. See editorial. At 8 per cent the cost would be £190.
B. Land costs	£ 6.20 p.w	Land costs have been discounted at 3.5 per cent over 60 years. At 8 per cent the cost would be £12.
C. Equipment/ durables. Wheelchairs Furnishings/fittings	£7.20 p.w £6.90 p.w	Cost of powered chair. Depreciation on furniture/fittings.
<i>Revenue costs</i> D. Salary costs E. Travel F. Training G. Other revenue costs	£324 p.w £0.70 p.w £1.70 p.w £13 p.w	Costs of direct management and care staff. Calculated using facility specific accounts information.  Includes insurance, staff adverts, uniforms, print & stationery, telephone, postage, equipment replacement, household expenses, premises and cost of provisions. Calculated using facility specific accounts information.
H. Overheads	£7.20 p.w	Charges incurred by national organisation.
<i>Personal Living Expenses</i> I. Basic living costs J. Other living costs	£89 p.w £43 p.w	Based on Family Expenditure Survey (2001/02) estimates of household expenditure of a one person non-retired household in the lowest income group inflated to 2002/03 using the Retail Price Index. Basic living costs are those covered by care home fees (for example fuel, food and household goods). Other living costs are those covered by personal expenses (for example leisure goods and alcohol).
K. <i>External services</i> Client A  Client B  Clients C&D  Client E	£163 p.w  £188 p.w £329 p.w  £5.50 p.w	Client A attends a Day Centre Workshop 3 days per week, funded by Social Services. In addition has volunteer input. Client B is attended by the District Nurse each night and during the day on two occasions each week. 4 additional hours care per day provided by scheme's care staff. Clients C&D are independent and rarely have personal care input unless unwell. From time to time request help with domestic tasks from LA Social Services. Client E is independent and has no external input.
Use of facility by client	52.18 weeks per annum	
Number of clients	5	
<b>Unit costs available 2002/2003</b>		
£457 per week's accommodation and on site support (includes A to G); £595 per week all service and accommodation costs (includes A to G and K); £692 per week accommodation, support services and basic living (equivalent to care home costs) (A to I and K); £735 Comprehensive package cost including external services and all living expenses (includes A to K).		

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

### Schema 5.4 Rehabilitation day centre for people with brain injury

This schema is based on information received from John Grooms<sup>1</sup> in 2002 detailing the costs involved in providing a day rehabilitation centre for people with acquired brain injury. This includes predominately traumatic brain injury and younger people who have had strokes. The facility provides up to 30 places per day, with a current caseload 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, and local hospitals and GPs. 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 2002/2003 prices.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital Costs</i>		
A. Buildings	£ 9 per day	Capital costs of building and land were based on actual cost of building three years ago and uprated using the BCIS Public Sector OPI. The value of the building was annuitised over a 60-year period discounted at 3.5 per cent. See editorial. At 8 per cent the cost would be £19.
B. Land costs	£0.35 per day	Based on actual statistics of 1,053 square metres provided by John Grooms and discounted at 3.5 per cent over sixty years. At 8 per cent the cost would be £0.75.
C. Equipment/ durables. Furnishings/ fittings	£1.20 per day	Depreciation on furniture/ fittings. Calculated using facility specific accounts.
D. Capital Costs of transport		
<i>Revenue costs</i>		
E. Salary costs	£40 per day	Costs of direct management, administrative, maintenance, medical and staff. Calculated using facility specific accounts information.
F. Travel	£1.15 per day	
G. Training	£0.40 per day	
H. Maintenance	£2.10 per day	
I. Other revenue costs	£11 per day	
J. Overheads	£4.10 per day	Includes repairs and contracts and cyclical maintenance. Includes insurance, staff adverts, uniforms, print & stationery, telephone, postage, equipment replacement & household expenses and premises costs.
Use of facility by client	253 days per year	Charges incurred by national organisation.
Number of clients	30 places	The centre is closed at weekends and during public holidays.
		160 clients attend the centre
<b>Unit costs available 2002/2003</b>		
£68 per place per day; £3,315 per year per client registered at the centre.		

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



## **6. Services for children and their families**

- 6.1 Local authority community home
- 6.2 Local authority day nursery
- 6.3 Local authority foster care
- 6.4 Social services support for children
- 6.5 The costs of community-based care of technology-dependent children
  - 6.5.1 Technology dependent children: Case A
  - 6.5.2 Technology dependent children: Case B
  - 6.5.3 Technology dependent children: Case C

**Schema 6.1 Local authority community home for children**

Costs and unit estimation	2002/2003 value	Notes
Capital costs A. Buildings	£62 per resident week	Based on the new build and land requirements for local authority children's homes. These allow for 59.95 square metres per person. <sup>1</sup> Capital costs are discounted at 3.5 per cent over sixty years. See editorial. When discounted at 8 per cent, the cost is £126 per resident week.
B. Land	£5.80 per res. week	Based on Department of the Environment, Transport and the Regions <sup>2</sup> statistics. Land costs have been discounted at 3.5 per cent over sixty years.
C. Equipment		
Revenue costs D. Salary and other revenue costs	£2,187 per res. week	Median gross revenue costs are based on PSS EX1 returns for 2001/02 uprated using the PSS Pay and Prices Index. Capital charges on the revenue account have been deducted (£58). Local authorities reporting costs of below £450 and above £5,000 per resident week were excluded. One local authority was excluded because the distribution of costs suggested that it provided services of a different nature. Ten per cent of authorities reported costs of £1,596 or less; and 10 per cent £3,063 or more per week. The mean was £2,145.
E. Agency overheads		Social Services Management and Support Services overheads (SSMSS) overhead costs are included so no additional agency overheads have been included in unit costs below.
F. Other costs Social work Other services	£136 £131 per res. week	Mean cost for social worker support of children looked after, taken from the Children in Need (CiN) Census discussed in Unit Costs of Health and Social Care 2001. <sup>3</sup>  A study of child care assessment services <sup>4</sup> was conducted after the passage of the Children Act in 1989 but prior to its implementation in October 1991. This found that other services (including education, health and social services) added about 6 per cent to running costs of community homes. The homes included had costs ranging between £526 and £925 per resident week at 1990/91 prices.
Use of facility by client	52.18 wks p.a.	
Occupancy	78%	Cipfa Actuals 1995-96. More recent data are not available.
London multiplier	1.23 x A; 5.20 x B; 1.27 x (D to F)	Relative London costs are drawn from the same source as the base data for each cost element. Information about London revenue costs has previously been based on each year's KIGS statistics. These present an inconsistent picture across services so have been excluded in this volume.
<b>Unit costs available 2002/2003</b>		
£2,255 establishment costs per resident week (includes A to D); £2,522 care package costs per resident week (includes A to D and F).		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> Netten, A., Harrison, G., Rees, T. *The Unit Costs of Health and Social Care* (2001), Child care costs in social services, pages 13-17.

<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.

## Schema 6.2 Local authority day nursery for children

Prior to 1998 the cost given was per place per day. Since 1998 the cost has been per session. A session is defined as either a morning or an afternoon at the day care facility.

Costs and unit estimation	2002/2003 value	Notes
<i>Capital costs</i> A. Buildings	£0.90 per session	Based on the new build and land requirements for local authority day nurseries. These allow for 8.35 square metres per person. <sup>1</sup> Capital costs are discounted at 3.5 per cent over sixty years. See editorial. When discounted at 8 per cent, the cost is £1.45 per session.
B. Land	£0.07 per session	Based on Department of the Environment, Transport and the Regions <sup>2</sup> statistics. Land costs have been discounted at 8 per cent over sixty years.
C. Equipment		
<i>Revenue costs</i> D. Salary costs and other revenue overheads	£26 per registered child per session	CIPFA Actuals 1999-2000 <sup>3</sup> uprated using the PSS Pay and Prices Index. No later statistics are available. Data were adjusted to exclude expenditure on services purchased from the independent sector. Capital charges on the revenue account are included in expenditure data. Ten per cent of authorities had average costs of £17 per session or less and 10 per cent £39 per session or more. Median costs were £26 per session. Local authorities reporting costs of less than £1 or more than £40 per session were excluded.
E. Agency overheads	£1.30	Calculated by adding 5 per cent of revenue costs, following an Audit Commission report about overheads associated with residential care. <sup>4</sup>
<i>Other costs</i>		
Use of facility by client	500 sessions p.a.	
Occupancy	76%	Department of Health statistics, 1997. <sup>5</sup> More recent statistics are not available.
London multiplier	1.23 x A; 5.20 x B.	Relative London costs are drawn from the same source as the base data for each cost element. Information about London revenue costs used to be based on each year's CIPFA statistics. These present an inconsistent picture across services so have been excluded.
<b>Unit costs available 2002/2003</b>		
£27 per place per session (includes D to E). See note in D about treatment on capital.		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> CIPFA, *Personal Social Services Statistics 1999-2000 Actuals*, Statistical Information Service, London.

<sup>4</sup> Audit Commission (1993) *Taking Care*, Bulletin, Audit Commission, London.

<sup>5</sup> Department of Health (1997) *Community Care Statistics, Day and Domiciliary Personal Social Services for Adults, Detailed statistics*, Government Statistical Service, London.

**Schema 6.3 Local authority foster care for children**

<b>Costs and unit estimation</b>	<b>2002/2003 value</b>	<b>Notes</b>
A. Boarding out allowances and administration	£305 per child per week	Median costs using PSS EX1 for 2001/02 uprated using the PSS pay and prices index. The lower quartile is £264 and the upper quartile is £400.
B. Care		
C. Social work support	£136 per child per week	The majority of children looked after are in foster placements and the mean cost of social work support has been taken from the Children in Need (CiN) Census discussed in Unit Costs of Health and Social Care 2001. <sup>1</sup>
D. Other services, including education	£152 per child per week	The study by Beecham and Knapp found that other services including health, education and social services (estimated on the same basis as services to those in community homes) added a further 50 per cent to the cost.
Service use by client	52.18 weeks per year	
London multiplier	1.27	Department of Health Key Indicators 2000-01. Costs in London were considerably higher and this is likely to be due to, as well as higher costs in London, a larger market with Independent Fostering Agencies available.
<b>Unit costs available 2002/2003</b>		
£593 per child per week (includes A to D).		

<sup>1</sup> Netten, A., Harrison, G., Rees, T. *The Unit Costs of Health and Social Care (2001), Child care costs in social services, pages 13-17.*

## **Schema 6.4 Social services support for children**

### ***Children in Need 2001***

The Children in Need survey is an annual collection by local authorities for the Department of Health designed to link needs, services and costs of children's social services. For the first time in 2001, local authorities returned information on each service received by each child seen during the survey week. Returns were made by 144 of the 150 local authorities in England, which included information on 363,389 children or young adults supported by child protection legislation. For further information see <http://www.doh.gov.uk/cin/>.

We present data on the weekly costs of supporting children based on this survey. These costs are established by summing the component cost of each individual service provided to each child during census week. This includes all costs falling to social services departments including placement costs and other regular payments, commissioned and directly provided services, social work and other fieldwork, group work and individual work in centres and teams, and miscellaneous costs, and one-off costs and payments. However, it excludes costs to other agencies, where these are shared. The guidance notes at the above site provide full details of definitions.

The information presented here is based on 177,570 children who were known at the start of the week, received any service or payment during survey week and whose costs for each service they received are within a normal range. The figures presented are medians (the cost for a typical child) rather than means (the average cost per child), which we consider to be more reliable given the quite high proportion of exceptional costs reported. For children looked after, the median weekly cost is £273 while for children supported in their families or independently it is £56. Means are much larger, £456 and £111 respectively, because of small numbers of children with exceptional costs.

These figures are derived from a Department of Health funded research project *Childcare Costs: Variations and Unit Costs*, the report of which will be available shortly via the PSSRU website.

**Table 1 Social services costs per child per week by region**

Location	Children supported in families or independently		Children looked after		Total	
	Total no. children	Median cost per child £	Total no. children	Median cost per child £	Total no. children	Median cost per child £
Inner London	10,213	88	3,772	343	13,985	127
Outer London	14,775	101	4,039	399	18,814	120
Metropolitan Districts	30,927	48	14,687	231	45,614	79
Unitary Authorities	26,385	56	8,994	272	35,379	82
Shire Counties	40,975	48	15,623	281	56,598	78

**Table 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	
	Total no. children	Median cost per child £	Total no. children	Median cost per child £	Total no. children	Median cost per child £
Abuse/neglect	34,437	57	26,996	271	61,433	121
Disability	16,662	46	5,633	218	22,295	62
Parental illness	6,905	56	2,708	266	9,613	91
Family stress	14,986	45	2,659	298	17,645	57
Family dysfunction	15,628	52	4,809	303	20,437	78
Socially unacceptable behaviour	8,732	65	1,438	465	10,170	82
Low income	9,184	107	151	308	9,335	110
Absent parenting	3,096	97	2,513	312	5,609	165
Cases other than children in need	4,574	42	381	220	4,955	47
Cases not stated	13,920	47	2,158	208	16,078	57

**Notes**

1. As specified in the CIN Survey.

**Table 3 Social services costs<sup>1</sup> per child per week by placement type**

Type of placement	Children supported in families or independently		Children looked after		Total	
	Total no. children	Median cost Per child £	Total no. children	Median cost per child £	Total no. children	Median cost per child £
Residential home	553	866	4,604	1,397	5,157	1,350
Foster home	1,673	208	24,630	217	26,303	216
Placed for adoption	471	74	875	124	1,346	85

**Notes**

1. Placement costs only, based on children in a single placement type throughout the week.

**Table 4 Social services costs per child per week by child protection register status (CPR)**

Type of placement	Children supported in families or independently		Children looked after		Total	
	Total no of children	Median cost per child £	Total no of children	Median cost per child £	Total no of children	Median cost per child £
Registered on CPR	12,849	74	4,373	348	17,222	110
Not registered on CPR	115,275	54	45,073	266	160,348	85

### Schema 6.5      The costs of community-based care of technology-dependent children

A study led by Caroline Glendinning and Susan Kirk<sup>1/2</sup> investigated the costs of supporting a group of children dependent on medical technology which enables them to survive. The definition of technology dependence crucially affects estimates of the numbers of such children and for the purpose of the study was defined as: dependence on technological device to sustain life or optimise health and the need for substantial and complex nursing care for substantial parts of the day and/or night. Exemplar case studies of three technology dependent children were constructed in order to demonstrate the costs of caring for a technology dependent child at home. These case studies were designed to illustrate the wide range of medical, nursing and other needs of technology dependent children. They are not precise descriptions of any three particular families. Instead of drawing on 'real life' cases, they are designed to illustrate the wide range of medical, nursing and other needs of technology dependent children.

The following aspects of care were costed:

- One-off capital/start-up costs (mainly the purchase of equipment)
- Recurrent costs of equipment and consumables
- Recurrent staffing costs
- Recurrent statutory social security benefits
- Additional costs borne by families themselves (partially offset by social security benefits)

The costs summarised below have been derived from a number of sources. The costs of specialist equipment and associated consumables, home care services and enteral feeding were supplied by staff at two specialist regional hospitals. Information on the costs of community health and local authority services were originally obtained from Netten et al (1998)<sup>3</sup>. Details of professional salary costs were obtained from the 1999 report of the relevant pay review bodies. These costs have been updated to reflect the present day costs. Costs borne by families themselves which were similar to those incurred in the care of a severely disabled child were obtained from a study which used budget standard methods to estimate the costs of childhood disability (Dobson and Middleton, 1998).<sup>4</sup> The costs of other extra consumer items needed by families themselves were obtained from mainstream High Street suppliers.

<sup>1</sup> Glendinning C., Kirk S., Guiffida, A. & Lawton D. (2001). Technology-dependent children in the community; definitions, numbers and costs, *Child Care Health and Development*, 27 (4) 321-34.

<sup>2</sup> Glendinning C., Kirk S., with S., Guiffida, A. & Lawton D. (1999). *The Community-Based Care of Technology-Dependent Children in the UK: Definitions, numbers and costs*. Research Report commissioned by the Social Care Group, Department of Health. National Primary Care Research and Development Centre, University of Manchester.

<sup>3</sup> Netten, A., Dennett, J., Knight, J., *Unit Costs of Health and Social Care* (1998). Personal Social Services Research Unit, University of Kent.

<sup>4</sup> Dobson, B. & Middleton, S. (1998). *Paying to Care; the Cost of Childhood Disability*, York, Joseph Rowntree Foundation.

**Schema 6.5.1 Technology dependent children: Case A**

<b>Type of case</b>		
<p>Case study A was a 6 year old girl with a congenital neuromuscular condition who needed continuous ventilatory support and was fed by a gastrostomy; she was also incontinent. Her divorced mother gave up work as a secretary to care for her and they lived in local authority housing which was adapted to provide a downstairs bedroom and bathroom. They had no car, so used taxis or pay friends to take A out. She attended a special school and received home visits from an outreach nurse from the specialist regional hospital 10 miles away, monthly visits from the local paediatric nursing team and physiotherapy once a week. A's mother had round the clock help from a team of specially trained home carers (who also care for A at school); some home help for housework and to take A's sibling to school; and quarterly visits from a social worker. She also received counselling and medication to help cope with the stress of caring for A. She had extra phone bills and the costs of refreshments for the home carers, over and above those normally associated with a severely disabled child.</p>		
<b>Items</b>	<b>Average cost per annum</b>	<b>Description of items</b>
Equipment non recurrent costs	£ 8,144	Includes housing adaptation, bed, wheelchair, two ventilators, electricity generator, pulse oximeters, two suction machines, one humidifier. Costs for all cased ranged from £ 6,245 to £11,100 per annum. Costs have been annuitised over a lifetime of 4-6 years at a discount rate of 3.5 per cent. See editorial. Housing adaptation costs were annuitised over a lifetime of 10-15 years.
Equipment recurrent costs	£13,559	Includes clinical waste removal service, consumables, servicing ventilator, pulse oximeters, servicing suction machines and humidifier and gastrostomy feeding.
Annual staffing costs	£ 98,102	Based on a Health Care Assistant, Qualified Nursing Supervision, Community nursing input, Specialist outreach nurses, GP involvement, Social worker involvement Home help type input, Community and Hospital Paediatricians, community children's nurse, Community physiotherapist, OT and Social Worker and Teacher. Costs for all cases ranged from £ 93,042 to £103,162 per annum.
Consequences of health costs to mother	£ 612	Includes prescription for anti-depressants, counselling from psychologists and GP appointments. Costs for all cases ranged from £460 to £732.
Social security benefits	£ 12,435	Includes income support and premium for lone parent, child allowance, disabled child premium, highest care DLA, highest care mobility DLA.
Education	£ 2,881	Includes transport to the school by taxi and community therapist input. Costs for all cases ranged from £2,555 and £3,175.
Family costs	£ 13,606	Includes increased electricity bills, laundry and clothing, incontinence and consumables, travel costs, home carers, telephone calls to hospitals, purchase of mobile phone and loss of earnings. Costs for all cases ranged from £12,822 to £14,393 per annum.
<b>Unit Costs Available 2002/2003</b>		
£123,298 Service costs; £135,733; Costs to state agencies; £136,904 Social costs.		



**Schema 6.5.2 Technology dependent children: Case B**

<b>Type of case</b>		
<p>Case study B was 4 months old. She suffered severe anoxia at birth, has a tracheostomy and was fed through a naso-jejunal tube. She was likely to be severely disabled. Her parents owned their house 50 miles from the regional specialist hospital. They had no personal transport. B's father switched from full to part-time work to help with her care. They had quarterly visits from a specialist outreach nurse from the hospital and monthly visits from the local district nurse, health visitor, occupational and physiotherapists and Portage workers. A weekly service removed clinical waste from the house. Trained home carers provided a break for B's parents three nights a week. A social worker was involved in multi-disciplinary planning/review meetings about B. B's parents used taxis or paid relatives' petrol costs instead of public transport, purchased a mobile phone and spent extra on phone calls to hospital.</p>		
<b>Items</b>	<b>Average cost per annum</b>	<b>Description of items</b>
Equipment non recurrent costs	£ 202	Includes suction machines and one humidifier. Costs for all cases ranged from £167 to £244 per annum. Costs have been annuitised over a lifetime of 4-6 years at a discount rate of 3.5 per cent. See editorial.
Equipment recurrent costs	£ 4,350	Includes clinical waste removal service, consumables, servicing suction machines and humidifier.
Annual staffing costs	£21,894	This includes a Home Carer support, a specialist outreach nurse, GP involvement, Social Worker involvement, District nurse, Health visitor, Community therapist, OT, physiotherapist, Portage worker, Paediatricians, and District Nurse. Costs for all cases ranged from £21,579 to £22,213.
Social security benefits	£ 5,050	Invalidity care allowance and highest care DLA.
Family costs	£ 6,115	Costs for all cases ranged from £5,061 to £7,170.
<b>Unit Costs Available 2002/2003</b>		
£26,446 Service costs; £31,496 Costs to state agencies; £32,561 Social costs.		

**Schema 6.5.3 Technology dependent children: Case C**

<b>Type of case</b>		
<p>Case study C was an 11-year old boy with renal failure. He received continuous cycling peritoneal dialysis every night and overnight feeding through a gastrostomy. He lived with his younger sibling in an owner-occupied house, which has had some minor adaptations to improve hygiene and storage facilities. His father worked full time; his mother cut her hours and lost promotion opportunities because of C's care. They owned their own car. C lived 20 miles from the specialist hospital, which he attended regularly for outpatient monitoring; both parents therefore needed extra time off work and incurred associated travel costs. C was visited at home each month by a specialist outreach nurse and also had annual visits from the dietician and social worker based at the hospital. C attends mainstream school, but requires no extra support there. However, his parents have bought mobile phones/pagers in case of an emergency.</p>		
<b>Items</b>	<b>Average cost per annum</b>	<b>Description of items</b>
Equipment non recurrent costs	£ 1,119	Includes dialysis machine. Costs for all cases ranged from £939 to £1,362 per annum. Costs have been annuitised over a lifetime of 4-6 years at a discount rate of 3.5 per cent. See editorial.
Equipment recurrent costs	£40,384	Includes clinical waste removal service, consumables, gastrostomy feeding and associated drug therapy. Costs for all cases ranged from £40,282 to £40,485 per annum.
Annual staffing costs	£ 833	Includes a specialist outreach nurse, hospital dietician involvement, hospital social worker involvement and GP involvement. Costs for all cases ranged from £794 to £873.
Social security benefits	£ 2,877	Includes highest care DLA.
Family costs	£ 3,715	Includes increased electricity bills, laundry and clothing, travel costs, home carers, telephone calls to hospitals and loss of earnings. Costs for all cases ranged from £3,099 to £4,331 per annum.
<b>Unit Costs Available 2002/2003</b>		
£ 42,336 Service costs; £46,051 Costs to state agencies; £46,051 Social costs.		

## **7. Hospital and other services**

- 7.1 Hospital costs
- 7.2 Paramedic and emergency ambulance services
- 7.3 NHS wheelchairs
- 7.4 Local Authority aids and adaptations
- 7.5 Training Costs of health service professionals
- 7.6 Rapid Response Service

**Schema 7.1 Hospital costs**

This year we have been able to draw on reference costs (<http://www.doh.gov.uk/nhs/refcosts.htm>) which have become more comprehensive and reliable since they were introduced in 1998. See article on pages 23-24 of this volume. These have replaced the information derived from analysis of the TFR2 speciality and programme cost returns to the Department of Health. These unit costs are 2001/02 figures inflated using the HCHS pay and prices index.

	Range for 50 per cent		Average £
	Minimum £	Maximum £	
	Cost per bed day		
<b>Service type</b>			
Intensive Therapy Unit/Intensive Care Unit	1,105	1,478	1,265
Coronary Care Unit	351	539	430
Paediatric Intensive Care Unit	973	1,543	1,421
Special Care Baby Unit	247	403	335
Stroke Patients	132	226	168
Elderly Patients	124	195	147
	<b>Cost per first attendance</b>		
<b>Speciality</b>			
ENT	72	109	93
Neurosurgery	116	239	211
Plastic Surgery	51	103	91
Cardiothoracic Surgery	75	183	154
Paediatric Surgery	87	155	118
Accident & Emergency	41	98	57
Family Planning Clinic	31	48	39
Rehabilitation	139	624	421
Neurology	113	206	183
Paediatrics	110	203	164
Geriatric Medicine	122	232	188
	<b>Cost per attendance</b>		<b>Cost per bed day</b>
<b>Community services type</b>			
Dietetics Services	26	55	37
Community Dental Services	29	70	39
	<b>Cost per bed day</b>		<b>Cost per bed day</b>
<b>Mental Health Services (Inpatient)</b>			
Children	297	442	363
Adult			
- Acute Care	159	209	181
- Rehabilitation	154	206	183
Elderly	151	196	170
<b>Mental Health Services (Domiciliary)</b>			
Psychologists	78	145	101

## Schema 7.2 Paramedic and emergency ambulance services

The costing is based on one Ambulance Trust which provided information about expenditure, value of capital, salary levels and activity for 1994/95. Prices have been uprated by HCHS inflators. Information is provided about three types of service: paramedic units; emergency ambulance services; and patient transport services. In practice, all emergency ambulance services provided by the Trust are now paramedic units but, as separate costs were required for a currently unpublished study, separate costings have been provided here. Unit costs are provided for successfully completed journeys, allowing for the costs of so-called 'abortive' journeys.

	Paramedic unit (PU)	Emergency ambulance (EA)	Patient transport service (PTS)	Notes
Overheads and management	£113	£113	£113	Accounts were used to identify expenditure on management and administrative costs, operational costs (e.g. vehicle running costs) and overheads (including heating and lighting, training, building maintenance and so on). Both these and capital costs of buildings and land were assumed to be invariant with respect to type of ambulance journey.
Buildings and land	£2.34	£2.34	£2.34	Capital costs associated with the buildings and land invested in the ambulance service were estimated by discounting their capital value over 60 years at 3.5 per cent. See editorial. At 6 per cent capital costs were £3.61.
Ambulances and equipment	£15	£13	£12	PU and EAs use exactly the same type of vehicle with similar equipment on board. The ambulances cost £44,106 new and standard equipment including defibrillators costs £11,026 per vehicle. Vehicles and the equipment are expected to last five years. The only additional equipment carried by PUs is the 'paramedic case' which costs £1,654 and is replaced annually. PTSs use a different type of ambulance which costs £29,771 and is expected to last seven years. Discounting at 3.5 per cent the annual cost of a PU is £13,866; an EA is £12,212 and a PTS £4,868. The average number of journeys per emergency ambulance was 1152 and the average number of journeys per transport ambulance 520.
Crew salaries and wages	£110	£107	£83	A crucial distinguishing characteristic of the different services is the type of crew. A PU carries one paramedic (average salary £24,317 pa) and one technician (average salary £22,887). An EA is crewed by two technicians and a PTS by two care assistants (average salary £12,499). Once national insurance and pension payments are included the average annual crew cost is £52,868 for a PU; £51,266 for an EA; and £27,997 for a PTS. The average number of journeys per EA and PU crew is 480 per year, PTS crews provides an average of 339 journeys per PTS crew.
Total	£240	£235	£210	
Cost per minute	£5.40	£5.30	n.a.	Based on the average length of an emergency journey: 44.4 minutes.
Average cost per patient journey	£268 <sup>1</sup>	£205	£42	A successful vehicle journey is equivalent to transporting a single patient for A&E services. PUs averaged 49.5 minutes per journey and EAs 38.6 minutes per journey. An average of five patients per vehicle journey was assumed for PTS.

<sup>1</sup> Allowing for different lengths of time to complete journey.

**Schema 7.3 NHS wheelchairs**

Information about wheelchair costs is based on the results of a study of six sites supplying wheelchairs (excluding wheelchairs for children).<sup>1</sup> Prices have been uprated from 1994/95 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 £162 to £863 for active user chairs and £917 to £1,618 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.

Type of chair	Total value 2002/2003	Annual cost 2002/2003	Notes
<i>Capital costs</i> Self or attendant propelled Active user Powered	£223 £558 £1,114	£51 £127 £253	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. See editorial. At 6 per cent, the annual cost would be £55 for a self or attendant propelled wheelchair, £136 for an active user and £271 for a Powered wheelchair. 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. The cost of reconditioning has not been included in the cost of maintenance: this should be included in the initial capital valuation when detailed information is known.
<i>Revenue costs</i> Maintenance - non-powered - powered		£23 £92	Revenue costs exclude therapists' time but include the staff costs of maintenance. The costs include all costs for pressure relief.
<i>Agency overheads</i>			No estimate of management overhead costs is available. They are likely to be minimal.
<b>Unit costs available 2002/2003</b>			
£75 per self or attendant propelled chair per year; £150 per active user per chair per year; £345 per powered chair per year.			

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

### Schema 7.4 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. Although this information is rather dated, information contained in the BCIS Access Audit Price Guide, 2002<sup>2</sup> suggested that the updated figures are in line with current building costs.

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 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. In the 1997 report, the annual median value was discounted over 10 years at 6 per cent but in previous editions of this report, as there is a competitive market in providing these aids and adaptations, it was argued that 8 per cent was a more appropriate discount rate. Due to government guidelines on the discount rate (see editorial) this table shows the items discounted over ten years at both 8 per cent and 3.5 per cent.

Equipment or adaptation	Mean	Median	Range		Median annual cost	
			Minimum	Maximum	3.5% discount	8% discount
Additional heating	£325	£301	£109	£3,714	£36	£45
Electrical modifications	£332	£388	£44	£2,961	£47	£58
Joinery work (external door)	£384	£457	£198	£943	£55	£68
Entry phones	£272	£369	£163	£2,313	£44	£55
Individual alarm systems	£288	£338	£160	£726	£41	£50
Grab rail	£71	£40	£3	£320	£5	£6
Hoist	£708	£1,976	£290	£6,159	£238	£294
Low level bath	£402	£504	£272	£1,104	£61	£75
New bath/shower room	£5,893	£11,290	£2,901	£26,103	£1,357	£1,682
Redesign bathroom	£1,078	£2,526	£362	£5,801	£304	£376
Redesign kitchen	£2,177	£2,993	£532	£5,075	£360	£446
Relocation of bath or shower	£802	£1,534	£137	£8,091	£184	£229
Relocation of toilet	£655	£1,308	£130	£3,118	£157	£195
Shower over bath	£716	£666	£160	£1,828	£80	£99
Shower replacing bath	£1,957	£1,844	£358	£3,326	£222	£275
Graduated floor shower	£1,815	£2,242	£979	£5,105	£269	£334
Stairlift	£1,979	£2,496	£1,740	£5,578	£300	£372
Simple concrete ramp	£489	£291	£51	£1,095	£35	£43

<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>2</sup> Building Cost Information Service Ltd, The Royal Institution of Chartered Surveyors 2002, BCIS Access Audit Price Guide.

## Schema 7.5 Training costs of health service professionals

This year, we have included for the first time a breakdown of training costs incurred.<sup>1</sup> 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 discounting 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 these costs 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			Postgraduate Training	Totals		
	Tuition	Living expenses	Clinical placement	Tuition and replacement costs	Total investment	Expected annual cost at 3.5%	Expected annual cost at 6%
<b>Professionals Allied to Medicine</b>							
Physiotherapist	23,752	22,650	0	0	46,402	3,796	5,468
Occupational Therapist	22,059	22,650	0	0	44,709	3,664	5,259
Speech and Language Therapist	17,109	29,695	0	0	46,803	3,931	5,834
Dietician	17,441	29,695	0	0	47,136	4,007	5,798
Radiographer	32,865	22,650	0	0	55,514	4,522	6,572
Pharmacist	25,674	36,772	5,645	4,801	72,892	5,570	N/A
<b>Nurses</b>							
Ward Managers/Staff Nurses	24,468	23,550	-8,482	0	39,535	3,851	5,443
District Nurse	24,468	23,550	-8,482	10,648	50,183	5,027	7,000
Health Visitor	24,468	23,550	-8,482	10,648	50,183	5,128	7,126
CPN	24,577	23,550	-8,070	10,648	50,704	4,766	6,674
Practice Nurse	24,468	23,550	-8,482	10,648	50,183	4,715	6,567
<b>Doctors</b>							
Pre-Registration House Officer	49,736	37,342	126,102	0	213,180	16,921	25,061
Senior House Officer	49,736	37,342	126,102	17,599	230,779	18,134	26,807
Specialist Registrar	49,736	37,342	126,102	41,442	254,623	19,949	29,412
Consultants	49,736	37,342	126,102	89,433	302,613	24,399	35,847
GP	49,736	37,342	126,102	66,842	280,022	23,258	34,447

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.

<sup>1</sup> 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.



## Schema 7.6 Rapid Response Service

This schema is based on information received from the Royal Victoria Hospital. 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. See article on pages 19-21.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£ 136,030 per year	This is based on a team of two whole time E grades and five B grades, 1 G grade staff nurse (0.5) and 1 G grade Care Manager (0.25). This includes pay enhancements for unsocial hours worked.
B. Salary oncosts	£ 17,093 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£ 10,590 per year	The equivalent annual cost of pre-registration after the total investment cost has been annuitised over the expected working life. See schema 7.5 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	£ 3,390 per year £ 21,456 per year	Includes mobile phones, Uniform replacement for B grades nurses, stationery, thermometers, energy. Includes Administrative staff (grade 3), Manager (based on I grade) (0.25).
F. Indirect overheads	£ 18,143 per year	Includes the personnel and finance functions.
G. Capital overheads	£ 1,887 per year	Based on the new build and land requirements of NHS facilities. <sup>1/2</sup> 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%. See editorial. At 6%, the cost would be £2,912.
H. Equipment costs	£ 1,108 per year	The Service shares equipment with another so the total cost has been divided equally and annuitised over 5 years to allow for the expected life of the equipment. This includes facsimile machines, computers etc.
I. Travel	£ 17,500 per year	
Case load	7 per week	The yearly case load is on average 364 patients.
Hours and length of service	7 days a week (to include weekends and bank holiays) 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 (of which 11 are paid at the enhanced rate of £9.62 per hour), and the cost of an assessment and travel.
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.
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£18 (£19) cost per delivered hour (excludes cost for enhanced payments, cost of assessments, discharge and travel costs); cost of assessment £39 (includes travel), cost of discharge £43 (includes travel), travel per visit £4.30. £159 (£164) per low cost episode (includes assessment and travel costs); £874 (£922) per high cost episode (includes assessment, travel and unsocial hours).		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

## **II. COMMUNITY-BASED HEALTH CARE STAFF**

### **8. Professionals allied to medicine**

- 8.1 Community physiotherapist
- 8.2 Community occupational therapist (health authority)
- 8.3 Community speech and language therapist
- 8.4 Chiropodist
- 8.5 Clinical psychologist
- 8.6 Community Pharmacist

## Schema 8.1 Community physiotherapist

Using Reference costs ([www.doh.gov.uk/nhsexec/refcosts.htm](http://www.doh.gov.uk/nhsexec/refcosts.htm)), the mean average cost for an episode of physiotherapy services for 2002 was £75 with the minimum range for 50% of services being £69 and the maximum £155.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£25,958 per year	National average salary for a senior 1 grade physiotherapist, based on the mid-point of the April 2002 pay scale. It includes an element to reflect the proportion of staff who receive a London allowance and an allowance of £1,073 for supervising students.
B. Salary oncosts	£ 2,788 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£ 3,796 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See schema 7.5 for more details.
D. Overheads	£ 3,819 per year	Comprises £2,381 for indirect overheads and 5 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£ 1,985 per year	Based on the new build and land requirements of NHS facilities, <sup>2, 3</sup> but adjusted to reflect shared used of both treatment and non-treatment space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £3,064.
F. Travel	£2.24 p. visit	Based on expenditure provided by a community trust.
Working time	42 wks p.a., 36 hrs p.w.	Includes 25 days annual leave and 10 days statutory leave. <sup>4</sup> Assumes 5 study/training days, and 10 days sickness leave. <sup>5</sup>
Ratio of direct to indirect time on: face-to-face contacts clinic contacts home visits	1:0.67 1:0.33 1:0.73	Assuming 50 per cent in patient's own home; 10 per cent in clinics; 20 per cent on non-contact time; and 20 per cent on travel. Information derived from consultation with NHS Trusts.
Length of contacts	30 mins 60 mins	Per clinic contact Per home visit. Based on discussions with Trusts.
Average elderly/short rehabilitation episode	5.2 hours	Williams (see below) estimates the cost of an example episode.
London multiplier	1.13 x (A to D) 1.27 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>6</sup> Building Cost Information Service and Department of the Environment.
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment.
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£23 (£25) per hour; £38 (£42) per hour of client contact; £30 (£34) per hour in clinic; £40 (£44) per hour of home visiting; £42 (£46) per home visit; £15 (£17) per clinic visit (includes A to E). Example episode £198 (£220).		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Whitley Councils for the Health Services (Great Britain) (1995) *Pay and Conditions of Service Handbook, Professions allied to medicine and related grades of staff. (PTA) Council*, Department of Health, Leeds.

<sup>5</sup> Williams, J. (1991) *Calculating Staffing Levels in Physiotherapy Services*, Pampas, Rotherham.

<sup>6</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula

## Schema 8.2 Community occupational therapist (health authority)

Using Reference costs ([www.doh.gov.uk/nhsexec/refcosts.htm](http://www.doh.gov.uk/nhsexec/refcosts.htm)), the mean average cost for Occupational Therapy services for 2002 was £166 with the minimum range for 50% of services being £102 and the maximum £272.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£25,449 per year	National average salary for a senior 1 grade occupational therapist, based on the mid-point of the April 2002 pay scale. The sum includes an element to reflect the proportion of staff who receive a London allowance and an allowance of £1,073 for supervising students.
B. Salary oncosts	£ 2,726 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£ 3,664 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. See schema 7.5 for more details.
D. Overheads	£ 3,790 per year	Comprises £2,381 for indirect overheads and 5 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£ 1,985 per year	Based on the new build and land requirements of NHS facilities, <sup>1/2</sup> but adjusted to reflect shared used of both treatment and non-treatment space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £3,064.
F. Travel	£2.24 p. visit	Based on expenditure provided by a community trust.
Working time	42 wks p.a., 36 hrs p.w.	Includes 25 days annual leave and 10 days statutory leave. Assumes 5 study/training days, and 10 days sickness leave. <sup>3</sup>
<i>Ratio of direct to indirect time on:</i> face-to-face contacts clinic contacts home visits	1:0.67 1:0.33 1:0.73	Assuming 50 per cent in patient's own home; 10 per cent in clinics; 20 per cent on non-clinical activity time; and 20 per cent on travel. Information derived from consultation with NHS Trusts.
Length of contacts	30 mins 60 mins 5.2 hours	Per clinic contact Per home visit. Per care episode. Based on discussions with Trusts.
London multiplier	1.14 x (A to D) 1.27 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>4</sup> Building Cost Information Service and Department of the Environment.
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment.
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£22 (£25) per hour; £37 (£41) per hour of client contact; £30 (£33) per hour in clinic; £39 (£43) per hour of home visiting; £41 (£45) per home visit; £15 (£17) per clinic visit (includes A to E). £195 (£216) per care episode.		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> Data provided by the DH health authority personnel division.

<sup>4</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

**Schema 8.3 Community speech and language therapist**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£23,778 per year	National average salary for a grade 2 speech and language therapist, based on the April 2002 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance.
B. Salary oncosts	£ 2,520 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£ 3,931 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See schema 7.5 for more details.
D. Overheads	£ 3,696 per year	Comprises £2,381 for indirect overheads and 5 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£ 1,985 per year	Based on the new build and land requirements of NHS facilities, <sup>2/3</sup> but adjusted to reflect shared used of both treatment and non-treatment space. See editorial for changes from previous years' rates. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £3,064.
F. Travel	£2.24 p. visit	Based on expenditure provided by a community trust.
Working time	42 wks p.a., 36 hrs p.w.	Includes 25 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave. <sup>4</sup>
<i>Ratio of direct to indirect time on:</i> patient contacts clinic contacts home visits	1:0.67 1:0.33 1:0.73	Assuming 50 per cent of time in patient's own home, 10 per cent in clinics, 20 per cent on non-clinical activity and 20 per cent on travel. Information derived from consultation with NHS Trusts.
Length of contacts	30 mins 60 mins	Per clinic contact Per home visit. Based on discussions with Trusts.
London multiplier	1.14 x (A to D) 1.27 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>5</sup> Building Cost Information Service and Department of the Environment.
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment.
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£21 (£24) per hour; £35 (£40) per hour of client contact; £28 (£32) per hour in clinic; £37 (£41) per hour of home visiting; £39 (£43) per home visit; £14 (£16) per clinic visit (includes A to E).		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Department of Health Advance Letter (SP) 5/91, Appendix F.

<sup>5</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

## Schema 8.4 Community chiropodist

Using Reference costs ([www.doh.gov.uk/nhsexec/refcosts.htm](http://www.doh.gov.uk/nhsexec/refcosts.htm)), the mean average cost for chiropody/podiatriy services for 2002 was £20 with the minimum range for 50 per cent of services being £16 and the maximum £26.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£21,297 per year	National average salary for a grade 2 chiropodist, based on the April 2002 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance.
B. Salary oncosts	£ 2,215 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications		Qualification costs are not available.
D. Overheads	£ 3,557 per year	Comprises £2,381 for indirect overheads and 5 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£ 1,985 per year	Based on the new build and land requirements of NHS facilities, <sup>1,2</sup> but adjusted to reflect shared used of both treatment and non-treatment space. See editorial for changes from previous years' rates. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £3,064.
F. Travel	£1.17 per visit	Taken from Netten <sup>3</sup> and inflated using the retail price index.
Working time	42 wks p.a., 36 hrs p.w.	Includes 25 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave. <sup>4</sup>
<i>Ratio of direct to indirect time on: client contact</i>		No information available. Costs are based on the number of visits per week.
Average number of visits per week	40 75	Domiciliary visits Clinic visits. Information provided by an NHS Trust
London multiplier	1.13 x (A to D) 1.27 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>5</sup> Building Cost Information Service and Department of the Environment.
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment.
<b>Unit costs available 2002/2003</b>		
£19 per hour; £17 per home visit; £9 per clinic visit (includes A to E).		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> Netten, A. (1992) Some cost implications of Caring for People: interim report, Discussion Paper 809/4, Personal Social Services Research Unit, University of Kent.

<sup>4</sup> Data provided by the DH health authority Personnel division.

<sup>5</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

**Schema 8.5 Clinical psychologist**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£33,193 per year	National average salary for a clinical psychologist, based on the mid-point of the April 2002 pay scale.
B. Salary oncosts	£ 3,775 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications		Qualification costs are not available.
D. Overheads	£ 4,230 per year	Comprises £2,381 for indirect overheads and 5 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£1,713 per year	Based on the new build and land requirements of NHS facilities, <sup>1/2</sup> but adjusted to reflect shared used of both treatment and non-treatment space. See editorial for changes from previous years' rates. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,643.
F. Travel	£1.17 per visit	Taken from Netten <sup>3</sup> and inflated using the Retail Price Index.
Working time	41 wks p.a., 36 hrs p.w.	Includes 30 days annual leave and 10 days statutory leave. Assumes 5 study/training days, and 10 days sickness leave. <sup>4</sup>
Ratios of: professional outputs to support activities	1:0.3	Five types of 'chargeable service' have been distinguished <sup>5</sup> : clinical work with patients; clinical consultancy and project work; service organisation and development; teaching and supervision; and research and service evaluation. Mental health psychologists spend 40 per cent of their time on client contact. The relationship between the five types of chargeable service and other 'supporting activities' is similar for both types of psychologist. The multiplier used in the schema to reflect this variety of outputs is based on mental health psychologists.
London multiplier	1.08 x (A to D) 1.25 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>6</sup> Building Cost Information Service and Department of the Environment.
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment.
<b>Unit costs available 2002/2003</b>		
£29 per hour; £66 per hour of client contact; £38 per professional chargeable hour (includes A to E). Travel £1.17 per visit.		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> Netten, A. (1992) Some cost implications of Caring for People: interim report, Discussion Paper 809/4, Personal Social Services Research Unit, University of Kent.

<sup>4</sup> Data provided by the DH health authority personnel division.

<sup>5</sup> Cape J., Pilling, S. & Barker, C. (1993) Measurement and costing of psychology services, *Clinical Psychology Forum*, October.

<sup>6</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

## Schema 8.6 Community pharmacist

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£40,000 per year	Based on information provided by the Guild of Healthcare Pharmacists for 2002/2003. <sup>1</sup> Examples of salaries in community pharmacy have been offered of around £35,000 for newly qualified pharmacists and salaries of £45,000 plus after only a few years of service. Pharmacists who commit to working in Emergency also receive an emergency duty commitment allowance of £2,297 per annum.
B. Salary oncosts	£ 4,851 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications Pre-registration training:  Post graduate training :	£ 5,170 per year	The equivalent annual cost of pre-registration education. The investment costs of a four year masters degree plus one year pre-registration training. The total investment cost has been annuitised over the expected working life. <sup>2/3</sup>  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. The investment costs for pre-registration are borne partly by the HEFCE and by practitioners provided by the NHS. Community employers cover the cost for the Pre-registration training year with some help from the Department of Health.  A postgraduate diploma is available for community pharmacists but this would be taken in their own time and there is no available data on the proportion of pharmacists who undergo this. See schema 12.6 on Hospital Pharmacists for this cost.
D. Overheads	£ 4,624 per year	Comprises £2,381 for indirect overheads and 5 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£ 899 per annum	Based on the new build and land requirements of a pharmacy, <sup>4/ 5</sup> plus additional space for shared facilities. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £1,387.
F. Travel	£1.17 p. visit	Taken from Netten <sup>6</sup> and inflated using the retail price index.
Working time	42 wks p.a, 40 hrs p.w.	Includes 25 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave.
Ratio of direct to indirect time on: Direct clinical activities Patient related activities	1:1.50 1:0.25	Ratios are estimated on the basis that 40 per cent of time is spent on direct clinical activities (includes advice to patients and travel), 40 per cent of time on dispensary service activities and 20 per cent of time on non clinical activities.
London multiplier	1.50 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>7</sup> Building Cost Information Service and Department of the Environment.
Non-London multiplier	0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment.
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£30 (£33) per hour (includes travel), £75 (£83) per hour of direct clinical activities (includes travel to visits), £37 (£41) per patient related activities.		

<sup>1</sup> <http://www.ghp.org.uk>.

<sup>2</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>3</sup> Research carried out by the Royal Pharmaceutical Society of Great Britain.

<sup>4</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>5</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>6</sup> Netten, A. (1992) Some cost implications of Caring for People: interim report, Discussion Paper 809/4, Personal Social Services Research Unit, University of Kent.

<sup>7</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitulation formula.



## **9. Nurses and doctors**

- 9.1 District nurse
- 9.2 Community psychiatric nurse
- 9.3 Health visitor
- 9.4 NHS community nurse specialist for AIDS/HIV
- 9.5 Health care assistant
- 9.6 Practice nurse
- 9.7a General practitioner – cost elements
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- 9.7c General practitioner – commentary

**Schema 9.1 District nurse**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£25,015 per year	National average salary, based on the April 2002 scale mid-point for a G grade district nurse. The sum does not include any lump sum allowances or pay enhancements for unsocial hours worked.
B. Salary oncosts	£2,672 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£5,027 per year	The equivalent annual cost of pre-registration and post-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See schema 7.5 for more information on training costs of health professionals.
D. Overheads	£5,150 per year	Comprises £2,381 for indirect overheads and 10 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£1,713 per year	Based on the new build and land requirements of community health facilities, <sup>2/3</sup> but adjusted to reflect shared used of both treatment and non-treatment space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,643.
F. Travel	£1.17 per visit	Taken from Netten <sup>4</sup> and inflated using the retail price index.
Working time	42 wks p.a., 37.5 hrs p.w.	Nursing and midwifery staffs negotiating council conditions of service and rates of pay. Includes 25 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave.
<i>Ratio of direct to indirect time on:</i> face-to-face contacts clinic contacts home visits	1:1.08 1:0.58 1:1.21	Dunnell and Dobbs <sup>5</sup> estimated that the proportion of working time spent in different locations/activities was as follows: patient's own home 38 per cent; clinics 6 per cent; hospitals 2 per cent; other face-to-face settings 2 per cent; travel 24 per cent; non-clinical activity 28 per cent. Patient direct to indirect contact ratios allocate all non-contact time to all contact time. Clinic and home visit multipliers allocate travel time just to home visits.
Length of contact	20 mins	Per home visit. Based on discussions with a group of NHS Trusts.
London multiplier	1.13 x (A to D) 1.27 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>6</sup>
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£22 (£25) per hour; £46 (£52) per hour spent with a patient; £35 (£40) per hour in clinic; £49 (£56) per hour spent on home visits (includes A to E); £17 (£20) per home visit (includes A to F).		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Netten, A. (1992) Some cost implications of Caring for People: interim report, Discussion Paper 809/4, Personal Social Services Research Unit, University of Kent.

<sup>5</sup> Dunnell, K. & Dobbs, J. (1982) *Nurses Working in the Community*, OPCS, HMSO.

<sup>6</sup> Department of Health (1997) *Labour Market Forces Factor*, Department of Health, London.

## Schema 9.2 Community psychiatric nurse

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£25,448 per year	National average salary, based on the April 2002 scale mid-point for a G grade community psychiatric nurse. The sum includes an element to reflect the proportion of staff who receive a London allowance. It does not include any lump sum allowances or pay enhancements for unsocial hours worked.
B. Salary oncosts	£2,726 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£4,766 per year	The equivalent annual cost of pre-registration and post-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See schema 7.5 for more information on training costs of health professionals.
D. Overheads	£5,199 per year	Comprises £2,381 for indirect overheads and 10 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£1,713 per year	Based on the new build and land requirements of community health facilities, <sup>2,3</sup> but adjusted to reflect shared used of both treatment and non-treatment space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,643.
F. Travel	£1.17 per visit	Taken from Netten <sup>4</sup> and inflated using the retail price index.
Working time	42 wks p.a., 37.5 hrs p.w.	Nursing and midwifery staffs negotiating council conditions of service and rates of pay. Includes 25 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave.
<i>Ratio of direct to indirect time on:</i> face-to-face contacts clinic contacts home visits	1:1.78 1:1.19 1:2.03	Dunnell and Dobbs <sup>5</sup> estimated that the proportion of working time spent in different locations/activities was as follows: patient's own home 25 per cent; clinics 3 per cent; other face-to-face settings 8 per cent; travel 21 per cent; non-clinical activity 43 per cent. Patient direct to indirect contact ratios allocate all non-contact time to all contact time. Clinic and home visit multipliers allocate travel time just to home visits.
Length of contact	20 mins	Per home visit. Based on discussions with a group of NHS Trusts.
London multiplier	1.13 x (A to D) 1.27 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>6</sup>
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£22 (£25) per hour; £62 (£70) per hour of client contact; £49 (£56) per hour of clinic contact; £68 (£77) per hour spent on home visits (includes A to E); £24 (£27) per home visit (includes A to F).		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Netten, A. (1992) Some cost implications of Caring for People: interim report, Discussion Paper 809/4, Personal Social Services Research Unit, University of Kent.

<sup>5</sup> Dunnell, K. & Dobbs, J. (1982) *Nurses Working in the Community*, OPCS, HMSO.

<sup>6</sup> Department of Health (1997) *Labour Market Forces Factor*, Department of Health, London.

### Schema 9.3 Health visitor

Using Reference costs ([www.doh.gov.uk/nhsexec/refcosts.htm](http://www.doh.gov.uk/nhsexec/refcosts.htm)), the average cost per contact for Health Visiting Services was £29 for 2002 and the average cost per episode was £132.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£25,015 per year	National average salary for a health visitor, based on the April 2002 scale mid-point for a G grade nurse. The sum includes an element to reflect the proportion of staff who receive a London allowance. It does not include any lump sum allowances or pay enhancements for unsocial hours worked.
B. Salary oncosts	£2,672 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£5,128 per year	The equivalent annual cost of pre-registration and post-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See schema 7.5 for more information on training costs of health professionals.
D. Overheads	£5,150 per year	Comprises £2,381 for indirect overheads and 10 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£1,713 per year	Based on the new build and land requirements of community health facilities, <sup>2,3</sup> but adjusted to reflect shared used of both treatment and non-treatment space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,643.
F. Travel	£1.17 per visit	Taken from Netten <sup>4</sup> and inflated using the retail price index.
Working time	42 wks p.a., 37.5 hrs p.w.	Nursing and midwifery staffs negotiating council conditions of service and rates of pay. Includes 25 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave.
<i>Ratio of direct to indirect time on:</i> face-to-face contacts clinic contacts home visits	1:1.86 1:1.40 1:2.47	Dunnell and Dobbs <sup>5</sup> estimated that the proportion of working time spent in different locations/activities was as follows: patient's own home 15 per cent; clinics 12 per cent; other face-to-face settings 8 per cent; travel 16 per cent; non-clinical activity 49 per cent. Patient direct to indirect contact ratios allocate all non-contact time to all contact time. Clinic and home visit multipliers allocate travel time just to home visits.
Length of contact	20 mins	Per home visit. Based on discussions with a group of NHS Trusts.
London multiplier	1.13 x (A to D) 1.27 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>6</sup> Building Cost Information Service and Department of the Environment, Transport and the Regions.
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£22 (£25) per hour; £63 (£72) per hour of client contact; £53 (£60) per hour of clinic contact; £76 (£87) per hour spent on home visits (includes A to E); £27 (£30) per home visit (includes A to F).		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Netten, A. (1992) Some cost implications of Caring for People: interim report, Discussion Paper 809/4, Personal Social Services Research Unit, University of Kent.

<sup>5</sup> Dunnell, K. & Dobbs, J. (1982) *Nurses Working in the Community*, OPCS, HMSO.

<sup>6</sup> Department of Health (1997) *Labour Market Forces Factor*, Department of Health, London.

### Schema 9.4 NHS community nurse specialist for HIV/AIDS

Based on a study of community services for people with HIV/AIDS in 1994/95 by Renton et al.<sup>1</sup>

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£27,619 per year	National average salary for community nurses specialising in the care of people with HIV/AIDS. Information about the grade and enhancement allowance was collected by Renton et al. Costs have been inflated by the HCHS pay index.
B. Salary oncosts	£2,993 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£5,027 per year	Based on the training costs of a district nurse. See schema 7.5 for more information on training costs of health professionals.
D. Overheads: direct and indirect	£5,443 per year	Comprises £2,381 for indirect overheads and 10 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£1,223 per year	Based on the new build and land requirements of community health facilities, <sup>2/3</sup> but adjusted to reflect shared used of both treatment and non-treatment space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £1,887.
F. Travel	£1.17 per visit	Based on community health service travel costs.
Working time	42 weeks p.a. 37.5 hours p.w.	Includes 25 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave.
Ratio of direct to indirect time on: face-to-face contacts	1:1.5	Based on findings by Renton et al.
Length of contact		
London multiplier	1.13 x (A to D) 1.27 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>4</sup> Building Cost Information Service and Department of the Environment.
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment.
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£24 (£27) per hour; £59 (£67) per hour of client contact (includes A to E). Travel £1.17 per visit.		

<sup>1</sup> Renton, A., Petrou, S. & Whitaker, L. (1995) *Utilisation, Needs and Costs of Community Services for People with HIV Infection: A London-based Prospective Study*, Department of Health, London.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Department of Health (1997) *Labour Market Forces Factor*, Department of Health, London.

**Schema 9.5 Health care assistant**

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£12,648 per year	National average salary for a health care assistant, based on the April 2002 scale mid-point for a B grade nurse. The sum includes an element to reflect the proportion of staff who receive a London allowance. It does not include any lump sum allowances or pay enhancements for unsocial hours worked.
B. Salary oncosts	£1,151 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£0	No professional qualifications assumed.
D. Overheads	£3,071 per year	Comprises £2,381 for indirect overheads and 5 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£ 694 per year	Based on the new build and land requirements of community health facilities, <sup>1/2</sup> but adjusted to reflect shared used of both treatment and non-treatment space. It is assumed that an auxiliary nurse uses one-sixth of the treatment space used by a district nurse. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £1,071.
F. Travel	£1.17 per visit	Taken from Netten <sup>3</sup> and inflated using the retail price index.
Working time	44 wks p.a., 37.5 hrs p.w.	Nursing and midwifery staffs negotiating council conditions of service and rates of pay. Includes 20 days annual leave and 10 statutory leave days. Assumes 10 days sickness leave, but no study/training days.
<i>Ratio of direct to indirect time on:</i> face-to-face contacts clinic contacts home visits	1:0.61 1:0.27 1:0.64	Dunnell and Dobbs <sup>4</sup> estimated that the proportion of working time spent in different locations/activities was as follows: patient's own home 58 per cent; clinics 2 per cent; other face-to-face settings 2 per cent; travel 21 per cent; non-clinical activity 17 per cent. Patient direct to indirect contact ratios allocate all non-contact time to all contact time. Clinic and home visit multipliers allocate travel time just to home visits.
Length of contact	20 mins	Per home visit. Based on discussions with a group of NHS Trusts.
London multiplier	1.13 x (A to D) 1.27 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>5</sup>
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003</b>		
£11 per hour; £17 per hour spent with a patient; £14 per hour in clinic contacts; £17 per hour spent on home visits; £7 per home visit (includes A to F).		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> Netten, A. (1992) Some cost implications of Caring for People: interim report, Discussion Paper 809/4, Personal Social Services Research Unit, University of Kent.

<sup>4</sup> Dunnell, K. & Dobbs, J. (1982) *Nurses Working in the Community*, OPCS, HMSO.

<sup>5</sup> Department of Health (1997) *Labour Market Forces Factor*, Department of Health, London.

## Schema 9.6 Practice nurse

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£21,914 per year	Based on the April 2002 scale mid-point for a F grade nurse. A study in Sheffield found the average hourly rate for a practice nurse was £9.79 in 1997/8 which is the equivalent of an F grade district nurse. The sum includes an element to reflect the proportion of staff who receive a London allowance in order to provide a national average.
B. Salary oncosts	£2,291 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£4,715 per year	The equivalent annual cost of pre-registration and post-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See schema 7.5 for more information on training costs of health professionals.
D. Overheads	£4,802 per year	Comprises £2,381 for indirect overheads and 10 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£2,753 per year	Based on the new build and land requirements of community health facilities, <sup>2/3</sup> but adjusted to reflect shared used of both treatment and non-treatment space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £4,248.
F. Travel	£0.58 per visit	Atkin and Hirst <sup>4</sup> assumed an average journey of two miles and costed travel at 22.3 pence per mile (1992/93 prices), inflated using the retail price index. Travel costs were found to be lower than those incurred by district nurses as they only visit within an area defined by the practice.
Working time	42 wks p.a., 37 hrs p.w.	Nursing and midwifery staffs negotiating council conditions of service and rates of pay. Includes 25 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave.
Ratio of direct to indirect time on: face-to-face contacts clinic contacts home visits	1:0.18 1:0.12 1:0.45	Assumed time use: 15% patient's own home; 60% clinics/surgeries; 5% hospital; 5% other face-to-face settings; 5% travel; and 10% non-clinical activity. Patient direct to indirect contact ratios allocate all non-contact time to all contact time. Clinic and home visit multipliers allocate travel time just to home visits. Based on discussions with health service professionals.
Length of contact	27 mins	Per home visit. Based on a one week survey of 4 Sheffield practices. <sup>5</sup>
Client contacts	98 p.w. 109 p.w.	No. of consultations per week. No. of procedures per week. <sup>6</sup>
London multiplier	1.13 x (A to D); 1.62 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>7</sup> BCIS and DETR.
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£20 (£26) per hour; £24 (£31) per hour of client contact; £23 (£29) per hour in clinic; £8 (£10) per consultation; £7 (£9) per procedure; £30 (£38) per hour of home visits (includes A to E); £10 (£18) per home visit (includes A to F).		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Atkin, K. & Hirst, M. (1994) *Costing Practice Nurses: Implications for Primary Health Care*, Social Policy Research Unit, University of York.

<sup>5</sup> The Centre for Innovation in Primary Care, *Consultations in General Practice, What do they cost? (1999)*

<sup>6</sup> Jeffreys, L.A., Clark, A. & Koperski, M. (1995) Practice nurses' workload and consultation patterns, *British Journal of General Practice*, 45, August, 415-18.

<sup>7</sup> Department of Health (1997) *Labour Market Forces Factor*, Department of Health, London.

**Schema 9.7a General practitioner – cost elements**

Costs and unit estimation	2002/2003 value	Notes (for further clarification see Commentary)
A. Net remuneration	£67,911 per annum	Intended average net income for 2002/2003 plus expected further earnings associated with higher target payments less expected expenses associated with the activity. This figure has been adjusted to reflect the expected Income for a whole-time equivalent GP. <sup>1</sup>
B. Practice expenses – Direct care staff – Travel  – Other	£14,253 p.a. £ 3,928 p.a.  £45,566 p.a.	On average in 2002/2003, each wte principal employed 0.40 of a practice nurse and 0.06 of other direct care staff. Travel costs are estimated using the car allowance for GP registrars and have remained the same as last year. <sup>2</sup> This is the latest estimation made and is based on AA information about the full cost of owning and running a car and allows for 10,000 miles. Average cost per visit is £4.29. Travel costs are included in the annual and weekly cost but excluded from costs per minute and just added to cost of a home visit. Other practice expenses are estimated on the basis of Inland Revenue Schedule D expenses for 2001/02, less expenditure on direct care staff, trainees, associates, locum staff, computer equipment and travel (see commentary). Expenditure is inflated using the HCHS pay and prices inflators, and adjusted to allow for wte principals. Excludes all expenditure on drugs. Average prescription costs per consultation are £30.94 <sup>3</sup> .
C. Qualifications	£23,258 p.a.	The equivalent annual cost of pre-registration and postgraduate medical education. The investment costs of a medical degree, one year spent as a pre-registration house officer, two years as senior house officer and one year as a GP registrar have been annuitised over the expected working life of the GP. See schema 7.5 for more information on training costs of health professionals.
D. Ongoing training	£ 825 p.a.	Calculated using budgeting information provided by the Medical Education Funding Unit of the NHS Executive relating to allocation of Medical and Dental Levy (MADEL) funds (provisional). Adjustment has been made to reflect assumed usage of educational facilities.
E. Capital costs – Premises  – Equipment	£ 6,249 p.a.  £ 1,732 p.a.	Based on new build and land requirements for a GP practitioner suite. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent the cost would be £9,666. Expenditure on computer equipment is currently used as proxy for annuitised capital costs. (See commentary).
F. Overheads	£ 5,885 p.a.	Estimated assuming an average list size of 1885 (1996 figure, personal communication with NHS Executive). When inflated using the HCHS pay index and adjusted to allow for a wte GP, the costs were: family health services administration £1.66 per head (3,125 per GP), strategy and development £0.67 (£1,260), and supporting primary care-led purchasing £0.80 (£1,500). <sup>4</sup>
Working time	46.5 w.p.a., 44.7 h.p.w	Derived from the GMP Workload Survey 1992/93. Allows for time spent per year on annual leave, sick leave and study leave.
<i>Ratio of direct to indirect time: surgery/clinic/phone contact home visits</i>	1:0.57 1:1.46	Based on proportion of time spent on home visits (10.5 per cent), surgery contacts (surgery consultations 36.6 per cent; telephone consultations 7.7 per cent; clinics 2.9 per cent) reported in the 1992-3 survey of GMPs. <sup>5</sup> Patient direct to indirect contact ratios allocate all non-contact time to all contact time. Surgery and home visit multipliers allocate travel time just to home visits.
<i>Consultations:</i> Surgery Clinic Telephone Home visit	9.36 <sup>6</sup> mins 12.6 mins 10.8 mins 13.2 mins	Based on GMP workload survey. The time spent on a home visit just includes time spent in the patients home. On average 12 minutes were spent travelling per visit. This travel time has been allowed for in the estimation of the ratio of direct to indirect time spent on home visits.
<b>Unit costs for 2002/2003 are given in the table overleaf</b>		

<sup>1</sup> Information provided by Department of Health.<sup>2</sup> Department of Health, Revised Fees and Allowances payable to General Practitioners (GP) 2002-03.<sup>3</sup> Last year, the number of items per consultation was kept consistent with previous years due to a very large increase. This year, the higher rate is consistent.<sup>4</sup> Griffiths, J. (1998) *Roles, Functions and Costs of Health Authorities*, NHS Executive, Leeds.<sup>5</sup> General Medical Practitioners' Workload Survey 1992-93, Final Analysis (1994), Joint evidence to the Doctors' and Dentists' Review Body from the Health Departments and the GMC.<sup>6</sup> Review Body on Doctors' and Dentists' Remuneration, Thirtieth-First Report 2002, CM 5341 TSO, London.



**Schema 9.7b General practitioner – unit costs**

Unit cost 2002/2003	Including direct care staff costs		Excluding direct care staff costs	
	With qualification costs	Without qualification costs	With qualification costs	Without qualification costs
Annual	£169,607	£146,350	£155,355	£132,097
*Per hour of GMS activity	£80	£68	£73	£62
*Per hour of patient contact	£127	£108	£116	£98
*Per surgery/clinic minute	£2.09	£1.80	£1.91	£1.62
*Per home visit minute	£3.27	£2.81	£2.99	£2.53
*Per surgery consultation lasting 9.36 minutes	£20	£17	£18	£15
*Per clinic consultation lasting 12.6 minutes	£26	£23	£24	£20
*Per telephone consultation lasting 10.8 minutes	£23	£19	£21	£17
Per home visit lasting 13.2 minutes **(plus 12 minutes travel time)	£61	£52	£56	£47
Prescription costs per consultation	£30.97			
Average costs incurred by patient when attending a GP surgery.	£6.90 <sup>1</sup> (Includes weighted average loss of waged time and non-waged time plus oncots plus cost of travel).			

\* In order to provide consistent unit costs, these costs exclude travel costs.

\*\*Allows for 12 minute travel time. Previous estimates included prescription costs. These have now been excluded to provide consistency with other consultation costs.

<sup>1</sup> Kernick, D. Reinhold, D. & Netten, A. (1999) What does it cost to see the doctor? Published in *British Journal of General Practice*, (2000), Vol 50, 401-403.

### Schema 9.7c General practitioner – commentary

**GP expenditure.** GPs are paid capitation payments and fees and allowances for specific activities such as vaccination and immunisation, contraception and out-of-hours visits. These payments are constructed in such a way as to encourage the activity *and* to ensure that collectively they result in an average level of gross income (Intended Average Gross Remuneration; IAGI). This IAGI is intended to deliver an average level of personal income (Intended Average Net Income; IANI) and cover all expenses not met directly by the Health Authority. The degree to which this is achieved is monitored and if activities change in such a way that the IAGI exceeds or fails to meet expenses adequately then adjustments are made in following years. The exception to this is the use of additional target payments to encourage specific activities. In order to allow for the impact of these on GP income, expected expenses are deducted from the payments.

**Allowing for whole time equivalence (wte).** NHS Executive estimated that there would be 28,536 unrestricted principals in 2001/02<sup>1</sup>. On the basis of information provided by the Department of Health about proportion of part time GPs, it was estimated that this was the equivalent of 25,711 wte GPs.

**Direct care staff.**<sup>2</sup> On average in 2002 each wte principal employed 0.40 of a practice nurse and 0.06 of other direct care staff. Other care staff include physiotherapists, chiropodists, dispensers, interpreters, link workers, counsellors and complementary therapists. All direct care staff have been costed at the same level as a practice nurse (see Schema 8.6).

**Allowing for expenditure not associated with GP activity.** GPs IAGI covers trainees, associates, locums and assistants whose activity results in separate outputs. Expenditure on trainees and associates is deducted based on information from HA annual accounts. Locum expenses are also deducted: HAs pay 60 per cent when GPs qualify so the remaining 40 per cent is deducted from indirectly reimbursed expenses. On the basis of HA accounts and assuming that GPs pay locums 75 per cent of intended net remuneration, 4.4 locum days per wte GP are purchased when GPs qualify for allowances. It is known that GPs employ locums when they do not qualify for allowances, so the total amount deducted has been increased to allow for four weeks per GP. The assistants' allowance has been deducted from HA expenditure, but no further adjustment has been made. The resulting unit costs are not very sensitive to assumptions about the level of locum activity: rounded unit costs per consultation and per home visit do not change if the number of locum weeks purchased is one or four weeks.

**Other practice expenses.** These are estimated by deducting specific expenditure, care staff, travel etc. from total expenditure. Not too much should be read into variations between individual years as they may well result from individual year's estimates being too low or a little high.

**Computer equipment.** A study of 1995/6 and 1996/7 accounts found that 51.1 per cent of computer reimbursements were for equipment. Fifty per cent of computer capital reimbursements are made through HAs - the remainder are paid by GPs. Total capital expenditure is deducted from overall expenses. At present the total amount deducted is identified in the schema as computer equipment costs. This should be replaced by an annuitised figure reflecting the level of computer equipment in GP surgeries. The situation at present is very variable between GPs and changeable over time, making it difficult at present to make any realistic assumptions.

**Prescription costs.** These are based on information about annual numbers of consultations per GP (8,440 in 2001)<sup>3</sup> number of prescriptions per GP (23,528 in 2002)<sup>4</sup> and the average total cost per prescription (£11.10 at 2002/2003 prices)<sup>5</sup>. The number of prescriptions per consultation (2.78) probably reflects repeat prescriptions arising from initial consultations. Last year, due to a very large increase in the number of items per consultation, the same number was used as in previous years. This year the increase is consistent and the new number has been used.

**Overheads.** Family Health Services administration includes administration of the contracts of GPs, financial payments to practitioners, transfers of patients' medical records, registration and allocation of GPs' patients, and breast and cervical cytology screen systems. Strategy and development includes the costs of primary care strategy and development, and practice premises, staff, IT and personnel development. Supporting primary care-led purchasing includes the cost of support for activities such as locality commissioning, fundholding, and employment of GPs.

**Activity.** The GMP Workload Survey (1992/3) was conducted for every week of the year. The difference between the average number of hours per week of doctors undertaking GMS activity and those not undertaking such activity is the number of weeks leave/sick etc. Full-time doctors activity was used in order to ensure that we are estimating for wte doctors. In order to convert the annual hours worked into weeks the average number of hours worked on GMS duties each week by GMPs carrying out GMS duties was used. On this basis wte GMPs work 46.5 weeks a year for 44.7 hours per week.

**Coverage.** Figures refer to Great Britain rather than England. GPs in Scotland do have lower incomes than GPs in England on average. This has been found to be due to lower list sizes and correspondingly lower levels of activity.<sup>6</sup>

**Fundholding.** No allowance for fundholding has been included as the fundholding allowance covers the cost of managing the commissioning of secondary care so are not strictly a cost of primary care.

<sup>1</sup> NHS Executive TSC Report, December 2002.

<sup>2</sup> NHS Executive, General and Personal Medical Services Statistics, England and Wales. October 2002.

<sup>3</sup> DH estimate (2002) using data from ONS.

<sup>4</sup> DH Prescribing Analysis and Cost (PACT) system data. February 2003.

<sup>5</sup> Prescription Cost Analysis (2002), DH.

<sup>6</sup> General Medical Practitioners' Workload Survey 1992-93, Final Analysis (1994), Joint evidence to the Doctors' and Dentists' Review Body from the Health Departments and the GMS.

### **III. COMMUNITY-BASED SOCIAL CARE STAFF**

#### **10. Social care staff**

- 10.1 Social work team leader
- 10.2 Social worker (adult)
- 10.3 Social worker (children)
- 10.4 Social work assistant
- 10.5 Home care worker
- 10.6 Personal home care
- 10.7 Community occupational therapist (local authority)
- 10.8 Intensive case management for older people
- 10.9 Adolescent support worker
- 10.10 Family support worker

**Schema 10.1 Social work team leader**

Costs and unit estimation	2002/2003 value	Notes
A. Salary	£29,938 per year	Information taken from a survey carried out by PSSRU of 40 authorities during 2003. Wage levels reflect the average level of wages paid in 38 of the authorities. The information was weighted by authority size and social work team leader staff numbers. The midpoint between the average minimum and the average maximum was calculated. The salaries ranged from £21,271-£33,370 and the median salary was £28,633 outside London and £33,637 in London.
B. Salary oncosts	£3,428 per year	Employers' national insurance plus 4.5 per cent of salary for contribution to superannuation.
C. Qualifications		
D. Overheads	£5,005 per year	15 per cent of salary costs for management and administrative overheads. <sup>1</sup>
E. Capital overheads	£1,598 per year	Based on the new build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support <sup>2/3</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,466.
F. Travel		No information available about travel costs for social work team leaders.
Working time	42 wks p.a., 37 hrs p.w.	Includes 20 days annual leave and 10 statutory leave days. Ten days sickness leave and 10 days for study/training have been assumed.
<i>Ratios of direct to indirect time on: client-related work</i>	1:0.30	Team leaders provide a number of outputs other than direct client-related work (such as support and training). They do, however, usually carry a caseload and carry out assessments. Drawing on a study by the National Institute for Social Work, <sup>4</sup> it is assumed that when team leaders are involved in such activities, the relationship between client-related and non-client-related time is the same as that for social workers.
Domiciliary v. office/clinic visit		It is not possible to estimate a cost per visit as there is no information available on the number of visits or the typical length of time spent with a client.
London multiplier	1.16 x A 1.65 x E	Based on the same source as the salary data Building Cost Information Service and Department of the Environment, Transport and the Regions
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003</b>		
£26 per hour; £33 per hour of client-related work (includes A to E).		

<sup>1</sup> Knapp, M., Bryson, D. & Lewis, J. (1984) The comprehensive costing of child care: the Suffolk cohort study, Discussion Paper 355, Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Levin, E. & Webb, S. (1997) *Social Work and Community Care. Changing Roles and Tasks*. Draft final report to Department of Health.

**Schema 10.2 Social worker (adult)**

Costs and unit estimation	2002/2003 value	Notes
A. Salary	£22,422 per year	Information taken from a survey carried out by PSSRU of 40 authorities during 2003. The midpoint between the average minimum and the average maximum was calculated. The information was weighted by authority size and social worker (adult) staff numbers. The salaries ranged from £20,130-£25,824. The median salary was £21,961 outside London and £26,664 in London.
B. Salary oncosts	£2,465 per year	Employers' national insurance plus 4.5 per cent of salary for employers' contribution to superannuation.
C. Qualifications		
D. Overheads	£3,733 per year	15 per cent of salary costs for management and administrative overheads. <sup>1</sup>
E. Capital overheads	£1,598 per year	Based on the new build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. <sup>2/3</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,466.
F. Travel		No information is readily available about travel costs for social workers.
Working time	42 w.p.a., 37 hrs p.w.	Includes 20 days annual leave and 10 statutory leave days. Ten days sickness leave and 10 days for study/training have been assumed.
<i>Ratios of direct to indirect time on:</i> client-related work direct outputs face-to-face contact	1:0.30 1:0.85 1:4.00	Ratios are estimated on the basis that 77 per cent of time is spent on client-related work, <sup>4/5</sup> 54 per cent on direct outputs for clients, <sup>6</sup> and 20 per cent on face-to-face contact. <sup>7/8</sup> Face-to-face contact is not a good indicator of input to clients.
Domiciliary v. office/clinic visit		It is not possible to estimate a cost per visit as there is no information available on the number of visits or the typical length of time spent with a client.
London multiplier	1.16 x A 1.65 x E	Based on the same source as the salary data Building Cost Information Service and Department of the Environment, Transport and the Regions
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003</b>		
£19 per hour; £25 per hour of client-related work; £36 per hour of direct outputs; £93 per hour of face-to-face contact (includes A to E).		

<sup>1</sup> Knapp, M., Bryson, D. & Lewis, J. (1984) The comprehensive costing of child care: the Suffolk cohort study, Discussion Paper 355, Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Tibbitt, J. & Martin, P. (1991) *The Allocation of 'Administration and Casework' Between Client Groups in Scottish Departments of Social Work*, CRU Papers, Scottish Office.

<sup>5</sup> von Abendorff, R., Challis, D. & Netten, A. (1995) Case managers, key workers and multidisciplinary teams, Discussion Paper 1038, Personal Social Services Research Unit, University of Kent.

<sup>6</sup> von Abendorff, R., Challis, D. & Netten, A. (1995) Case managers, key workers and multidisciplinary teams, Discussion Paper 1038, Personal Social Services Research Unit, University of Kent.

<sup>7</sup> Levin, E. & Webb, S. (1997) *Social Work and Community Care. Changing Roles and Tasks*, Final report to Department of Health.

<sup>8</sup> Netten, A. (1997) Costs of social work input to assessment and care package organisation, *Unit Costs of Health and Social Care 1997*, pp.107-111.

**Schema 10.3 Social worker (children)**

Costs and unit estimation	2002/2003 value	Notes
A. Salary	£22,739 per year	Information taken from a telephone survey carried out by PSSRU of 40 authorities during 2003. The midpoint between the average minimum and the average maximum was calculated. The information was weighted by authority size and social worker (children) staff numbers. The average salary differs from that of a social worker (adult) due to the higher proportion of staff working in the London area. The salaries ranged from £20,026-£26,974. The median salary was £21,961 outside London and £26,664 in London.
B. Salary oncosts	£2,506 per year	Employers' national insurance plus 4.5 per cent of salary for employers' contribution to superannuation.
C. Qualifications		
D. Overheads	£3,787 per year	15 per cent of salary costs for management and administrative overheads. <sup>1</sup>
E. Capital overheads	£1,598 per year	Based on the new build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support <sup>2,3</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,466.
F. Travel		No information is readily available about travel costs for social workers.
Working time	42 wks p.a., 37 hrs p.w.	Includes 20 days annual leave and 10 statutory leave days. Ten days sickness leave and 10 days for study/training have been assumed.
Client-related work <i>Ratio of direct to indirect time on:</i> Home visits	1:1.5	In a study of the determinants of expenditure on children's personal social services, Carr-Hill et al. <sup>4</sup> found that the annual input per child was 2,973 minutes, or about 50 hours per week in 1998 and that 40 per cent of time spent was on home visits.
Client related work	1:2.79	In a study commissioned by the Department of Health, <sup>5</sup> it was found that 66 per cent of a children's social worker's time was spent on client-related activities, allowing an hour spent on client-related activities to be costed. This is not the same as the cost per hour spent with a client.
London multiplier	1.17 x A 1.65 x E	Based on the same source as the salary data Building Cost Information Service and Department of the Environment, Transport and the Regions
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003</b>		
£20 per hour; £30 per hour of client-related work; £76 per hour's home visit; £94 per child per week (includes A to E).		

<sup>1</sup> Knapp, M., Bryson, D. & Lewis, J. (1984) The comprehensive costing of child care: the Suffolk cohort study, Discussion Paper 355, Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Roy, A., Carr-Hill, R., Nigel, R. & Smith, P.C. (1999) 29, 679-706. The determinants of expenditure on children's personal social services, *British Journal of Social Work* (29, 679-706).

<sup>5</sup> Department of Health (2001), *The Children in Need Census 2001- National Analyses*, [www.doh.gov.uk/qualityprotects/work\\_pro/analysis1.htm](http://www.doh.gov.uk/qualityprotects/work_pro/analysis1.htm).

**Schema 10.4 Social work assistant**

Costs and unit estimation	2002/2003 value	Notes
A. Salary	£16,672 per year	Information taken from a telephone survey carried out by PSSRU of 40 authorities. Wage levels reflect the average level of wages paid in 35 of the authorities. The midpoint between the average minimum and the average maximum was calculated. The information was weighted by authority size and social work assistant staff numbers. The salaries ranged from £12,772-£19,156. The median salary was £16,031 outside London and £20,506 in London.
B. Salary oncosts	£1,729 per year	Employers' national insurance plus 4.5 per cent of salary for contribution to superannuation.
C. Overheads	£2,760 per year	15 per cent of salary costs for management and administrative overheads. <sup>1</sup>
D. Capital overheads	£1,598 per year	Based on the new build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. <sup>2/3</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. See editorial. At 6 per cent, the cost would be £2,466.
E. Travel		No information is readily available about travel costs for social work assistants.
Working time	43 wks p.a., 37 hrs p.w.	Includes 20 days annual leave and 10 statutory leave days. Ten days sickness leave and 5 days for study/training have been assumed.
<i>Ratios of direct to indirect time on: client-related work face-to-face contact</i>	1:0.18 1:2.69	Ratios are used to estimate the full cost of direct and indirect time required to deliver each output. No information is available about the proportion of social work assistant time spent on client-related outputs so for the purpose here it is assumed that 85 per cent of time was spent on such activity. Direct face-to-face contact is not a good indicator of input to clients, but it is often the only information available. A study by the National Institute for Social Work <sup>4</sup> included 52 social work assistants who spent 27 per cent of their time in face-to-face contact. Work by Netten gives more information. <sup>5</sup>
London multiplier	1.22 x A 1.65 x D	Based on the same source as the salary data Building Cost Information Service and Department of the Environment, Transport and the Regions
Non-London multiplier	0.93 x (A to D) 0.97 x D	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003</b>		
£14 per hour; £17 per hour of client-related work; £53 per hour of face-to-face contact (includes A to E).		

<sup>1</sup> Knapp, M., Bryson, D. & Lewis, J. (1984) The comprehensive costing of child care: the Suffolk cohort study, Discussion Paper 355, Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Levin, E. & Webb, S. (1997) *Social Work and Community Care. Changing Roles and Tasks*, Draft final report to Department of Health.

<sup>5</sup> Netten, A. (1997) Costs of social work input to assessment and care package organisation, *Unit Costs of Health and Social Care 1997*, pp.107-111.

### Schema 10.5 Local authority home care worker

The information is based on data collected from a benchmarking club of 14 local authorities, all located in the Midlands. The original data were for 1998/1999 and have been updated to 2002/2003 prices. This can be compared with a mean hourly cost of LA home care of £16 based on PSS EX1 2001/02<sup>1</sup> updated by the PSS Pay and Prices Index. Average cost of all LA home care including LA and independent provision – (see schema 10.6) was £13 per hour.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£5.89 per hour	Information taken from a telephone survey carried out by PSSRU of 40 authorities during 2002. Wage levels reflect the average level of wages paid in 26 of the authorities. In order to estimate annual costs it was assumed that this is paid to full-time workers for 52.18 weeks per year. Mean wage levels were £6.03 per hour and ranged from £5.59 to £7.71 per hour.
B. Salary oncosts	£0.56 per hour	Employers' national insurance plus 4.5 per cent of salary for employers' contribution to superannuation.
C. Direct overheads	£1.74 per hour	Direct overheads include administration, management, office costs, insurance, training and premises. For those authorities for which the information was available, these costs comprised about 15 per cent of total hourly costs on average in the 14 authorities. Total hourly costs include unsocial hours payments.
D. Indirect overheads	£0.83 per hour	Indirect overheads include general management and support services such as finance departments and human resource departments. For those authorities for which the information was available, these costs comprised about 8 per cent of total hourly costs on average. Total hourly costs include unsocial hours payments.
E. Travel	£0.50 per visit	Cost of travel per visit was estimated from information provided by the authorities about expenditure on travel and number of visits.
Working time	43 wks p.a., 39 hrs p.w.	Although there were a small number of authorities and considerable variation in the level of non-productive time reported, the assumption of 20 days annual and 10 days statutory leave appeared to be reasonable. Average levels of sick leave were much higher than had previously been assumed, however: 15 days compared with 10. A few of the authorities also allowed time off for training. The majority of the authorities employed home care workers for a 39 hour working week.
Ratios of direct to indirect time on contact:	1:0.16	On the basis of information provided about the number of working hours paid for and the number of contact hours with clients, 86 per cent of time was spent in direct contact on average, ranging between 72 and 99 per cent of time.
Length of visit	45 mins	Average length of visits based on information about number of contact hours and number of visits, ranged between 33 minutes and an hour.
Typical home care package	7.6 hrs p.w.	Average number of local authority home help contact hours received per household per week. <sup>2</sup> Based on a study of community care packages, <sup>3</sup> it has been estimated that 6.4 hours are worked weekdays between 9 a.m. and 5 p.m., 0.1 hours weekdays after 5 p.m., and 0.53 hours each on Saturday and Sunday. The authorities in the Benchmark Club visited clients 6.34 times per week on average. Increasing this pro rata to reflect the increase in the number of hours of 7.6 which are being received since the time of the study (previously 5 hours) raises the number of visits to 9.6.
Unsocial hours multipliers	1.2 1.5 2.0 1.3	Weekdays 8 p.m to 10 p.m Saturday Sundays and bank holidays Evenings
<b>Unit costs available 2002/2003</b>		
£9 per weekday hour (£10.81 per hour weekday evenings; £13.52 per hour Saturdays; £18.02 per hour Sundays); £10.45 per hour face-to-face weekday contact (£12.54 per hour weekday evenings; £15.68 per hour Saturdays; £20.91 per hour Sundays) (Includes A to D). £87.54 typical home care package if all hours are provided by the LA.		

<sup>1</sup>PSS EX1 2001/02, Department of Health.

<sup>2</sup> Department of Health (2002) <http://www.doh.gov.uk/public/hh2001.htm>

<sup>3</sup> Bauld, L., Chesterman, J., Davies, B., Judge, K. & Mangalore, R. (2000) *Caring for Older People: An Assessment of Community Care in the 1990s*, Ashgate, Aldershot.



### Schema 10.6 Prices of independently provided personal home care

The data presented below are drawn from a study of 155 personal home care providers in 11 local authorities conducted in 1999.<sup>1/2/3</sup> The analyses of these data revealed average mark-up rates of 11.6 per cent. On this basis the underlying average unit cost per weekday hour would be £8. The analyses allowed the prediction of different prices based on the characteristics of the service, the providers, the clients, and the contracting arrangements with the local authority. The predicted prices shown below are based on these analyses, holding all other factors constant. All prices have been updated to 2002/03 levels using the PSS Pay Index.

	N	Mean	Minimum	Maximum	Std. Deviation
<b>Prices by timing of visit</b>					
Weekday, daytime	122	9.55	6.09	18.34	1.98
Weekday, night-time	82	10.36	6.44	19.25	2.46
Weekend, daytime	112	10.85	6.11	22.92	2.62
Weekend, night-time	85	11.30	6.84	22.92	3.01
<b>Prices by location</b>					
<i>North</i>					
Weekday, daytime	61	8.81	6.09	18.34	1.87
Weekday, night-time	39	9.01	6.44	14.66	1.71
Weekend, daytime	55	9.65	6.85	18.34	2.00
Weekend, night-time	41	9.75	6.85	17.12	1.98
<i>South</i>					
Weekday, daytime	61	10.28	6.11	15.95	1.86
Weekday, night-time	43	11.57	7.57	18.48	2.48
Weekend, daytime	57	12.01	6.11	22.00	2.68
Weekend, night-time	44	12.74	9.17	22.00	3.18

#### Predicted weekday prices by characteristics of service and clients

Characteristic	Predicted weekday price per hour
Staff have nursing qualification	£9.82
Live-in service constitutes over 50 per cent of hours delivered	£9.92
Over 25 per cent of clients incontinent	£9.89
Over 75 per cent of clients have special needs	£10.90
No client is over the age of 65	£10.45

<sup>1</sup> Netten, A., Rees, T., Harrison, G. (2001) *Unit Costs of Health and Social Care*, Pages 19-23. Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Forder, J., Kendall, J., Knapp, M., Matosevic, T., Hardy, B. and Ware, P. (2001) Prices, contracts and domiciliary care, PSSRU discussion paper 1609/2, Personal Social Services Research Unit, London School of Economics.

<sup>3</sup> For further information about this study, please contact Julian Forder at the PSSRU, LSE, Tel: 0207 955 6173; email: J.Forder@lse.ac.uk or Tihana Matosevic at the PSSRU, LSE, Tel: 0207 955 6315; email: T.Matosevic@lse.ac.uk.

**Schema 10.7 Community occupational therapist (local authority)**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£25,184 per year	Information taken from a survey of 76 local authorities. <sup>1</sup> The midpoint between the average minimum and the average maximum in each local authority was inflated by the PSS Pay Index. The sum includes an element to reflect the proportion of staff who receive a London allowance. The national average for an occupational therapist, based on the midpoint of the April 2002 pay scale was £23,402. A survey carried out by PSSRU of 40 authorities during 2002 gave an average salary of £22,510. This was based on information given by 19 of the 40 authorities.
B. Salary oncosts	£2,819 per year	Employers' national insurance plus 4.5 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£3,664 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. <sup>2</sup> The investment costs of education should always be included, however, 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. (See editorial about changes from previous years' rates).
D. Overheads	£4,200 per year	15 per cent of salary costs to reflect revenue overheads. Additional costs associated with the purchase and supply of aids have not been allowed for here. Information about the capital cost of aids and adaptations can be found in Schema 7.4.
E. Capital overheads	£1,598 per year	Based on the new build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. <sup>3/4</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,466.
F. Travel	£1.17 per visit	Taken from Netten <sup>5</sup> and inflated using the retail price index.
Working time	42 wks p.a., 37 hrs p.w.	Includes 25 days annual leave and 10 statutory leave days. Ten days sickness leave and 5 days for study/training have been assumed.
Ratio of direct to indirect time on: client contact	1:0.96	There is considerable variation in patterns of work and this should be taken into consideration whenever possible. This figure is based on the proportion of time spent by NHS occupational therapists in client contact. <sup>6</sup> No information is available about local authority occupational therapists.
Length of visit	40 mins	Taken from Netten (see below)
London multiplier	1.07 x A 1.65 x E	Based on a survey carried out by PSSRU. Building Cost Information Service and Department of the Environment, Transport and the Regions
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003 (costs including training given in brackets)</b>		
£22 (£24) per hour; £43 (£47) per hour of client contact (includes A to E); £30 (£33) per home visit (includes A to F).		

<sup>1</sup> Local Government Management Board & Association of Directors of Social Service (1994) *Social Services Workforce Analysis, 1993*, LGMB & ADSS, London.

<sup>2</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>3</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>5</sup> Netten, A. (1992) Some cost implications of Caring for People: interim report, Discussion Paper 809/4, Personal Social Services Research Unit, University of Kent.

<sup>6</sup> Government Statistical Service (1994) *Summary Information Form KT27, Physiotherapy Services, Table 7, 1994*, England and Wales.

### Schema 10.8 Intensive case management for older people

The information in the schema reflects an experimental intensive case management scheme working with long-term cases.<sup>1</sup> The team referred cases to the case managers, who were not involved in screening or duty work. All clients were elderly and suffering from senile dementia.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£28,963 per year	The salary is the midpoint of minimum and maximum salaries for care managers given in a sample of 47 authorities in 1992/93. <sup>2</sup> This was updated to current salary scales using the PSS Pay Index. A PSSRU survey of 32 authorities carried out in 2001 found the average weighted salary for a care manager to be £23,349. This has been updated using the PSS Pay Index. Thirteen of the 32 authorities included the Care Manager in their job titles but the salary ranges may not represent the above responsibilities.
B. Salary oncosts	£3,303 per year	Employers' national insurance plus 4.5 per cent of salary for employers' contribution to superannuation
C. Qualifications		No information available.
D. Overheads: direct and indirect	£5,168 per year	Based on health authority overheads of 16 per cent since the case managers were based in a health authority multidisciplinary mental health team.
E. Capital overheads	£1,598 per year	Based on the new build and land requirements of an NHS office and shared facilities for waiting, interviews and clerical support. <sup>3/4</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,466.
F. Travel	£1.17 per visit	Based on community health service travel costs and inflated using the Retail Price Index.
Working time	42 wks p.a., 37 hrs p.w.	Includes 25 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave.
<i>Ratios of direct to indirect time on:</i> client-related work direct outputs	1:0.28 1:0.96	Ratios are used to estimate the full cost of direct and indirect time required to deliver each output. The study found that 78 per cent of time was spent on all client-related work. Fifty-one per cent of time was spent on activities which generated direct outputs for clients either in the form of face-to-face contact or service liaison on their behalf. Direct face-to-face contact is not a good indicator of input to clients, but it is often the only information available. The study found that direct face-to-face contact with clients and carers occupied 18 per cent of working time.
face-to-face contact	1:4.55	
Frequency of visits Length of visits	9 45 minutes	Average number of visits per week per worker and average length of visits overall in teams.
Caseload per worker	14	Number of cases per care manager. Limited turnover
London multiplier	1.07 x (A to D) 1.65 x E	Relative London costs are drawn from the same source as the base data for each cost element.
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003</b>		
£25 per hour; £32 per hour of client-related work; £49 per hour of direct output activity; £140 per hour of face-to-face contact; £65 per case per week (includes A to E); £33 per home visit (includes A to F).		

<sup>1</sup> von Abendorff, R., Challis, D. & Netten, A. (1995) Case managers, key workers and multidisciplinary teams, Discussion Paper 1038, Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Local Government Management Board & Association of Directors of Social Service (1994) *Social Services Workforce Analysis, 1993*, LGMB & ADSS, London.

<sup>3</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

**Schema 10.9 Adolescent support worker**

The information in this schema is based on an unpublished study of unit costs of children's services in York, by Anna Semlyen in 1997-8.<sup>1</sup> The work was funded by the NHS Maternal & Child Health Research and Development Programme. The aim of the study was to measure the additional, marginal costs of behaviour problem children compared to a 'normal child' for a year. The components of support for the children were identified and detailed costing completed. The estimated unit costs of resources used form the basis of information in this schema. Costs have been inflated to 2002/03 value and adjusted for consistency with other of methodology with other services. This service was run by community (social) services. The team comprises five full-time equivalent staff and works with children aged 11 and over.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£20,801 per year	Median salary taken from the City of York Council budget.
B. Salary oncosts	£2,258 per year	Employers' national insurance plus employers' contribution to superannuation.
C. Training		No information available.
D. <i>Overheads:</i> Direct	£1,157	5 per cent of salary costs added for equipment, management and administrative overheads.
Indirect	£3,125 per year	Indirect overheads include office expenses and secretarial staff costs.
E. Capital overheads	£1,672 per year	Building Cost Information Service <sup>2</sup> and Department of the Environment, Transport and the Regions. <sup>3</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,581.
F. Travel	£1,359 per year	Travel is based on an annual car allowance plus mileage (budget estimates).
Working time	44 wks p.a., 39 hrs p.w.	Includes 26 days annual leave and 8 statutory leave days, 5 study/training days, and 2 days sickness leave.
<i>Ratio of:</i> Individual client to all working time	1:0.30	Assumes 77 per cent of time is spent on client-related activities.
London multiplier		These are non-London costs. No London multiplier is available.
<b>Unit costs available 2002/2003</b>		
£17 per hour; £22 per hour of client-related activity.		

<sup>1</sup> Semlyen, A. (1998) Unit costs of children's services in York, Centre for Health Economics, University of York, York.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

### Schema 10.10 Family support worker

A study was conducted on family support workers working with carers of people with schizophrenia<sup>1</sup> to investigate the outcomes of a training scheme on costs.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£19,951 per year	1996/1997 costs inflated by the PSS Pay Index. Information taken from a survey of 14 family support workers. (FSWs).
B. Salary oncosts	£2,847 per year	Includes employers' national insurance plus employers' contribution to superannuation (8%).
C. Training	£1,822 per year	1996/1997 costs inflated by the PSS Pay and Prices Index. The training consisted of 12 day sessions attended by 14 FSWs. <sup>2</sup> The costs included the payments to trainers and their expenses, accommodation in which the training took place and lunches. Allowance was made for the opportunity cost of the FSW's time which otherwise could have been spent delivering the service. The total cost was £35,373 or £2,530 per trainee. It was assumed that two years was the expected length of time over which the training package would deliver. Half the staff left during the second year so the total number of "trained years" that were delivered from the course was 21. This initial investment was annuitised over two years and allowed for drop outs to reach an annual cost of £1,801.
D. Overheads	£6,449 per year	1996/1997 costs inflated by the PSS Pay and Prices Index. Office, travel, clerical support and supervision costs were categorised under the general heading of overheads.
Working time	44 wks p.a., 39 hours p.w.	FSWs were entitled to 25 days leave plus bank holidays and had on average one week a year as sick leave.
<i>Ratios of direct to indirect time on: client related work</i>	1:0.70	Direct contact with clients, including practical support, emotional support and time spent in support groups, occupied 59 per cent of their time. The rest of the time was spent on liaison with other agencies (13 per cent), travelling (14 per cent), staff development (5 per cent) and administration and other (9 per cent).
London multiplier		These are non-London costs. No London multiplier is available.
<b>Unit costs available 2002/2003 (costs including training given in brackets)</b>		
£17 (£18) for a basic hour; £29 (£31) for a contact hour.		

<sup>1</sup> Davies, A., Huxley, P., Tarrier, N. (University of Manchester) & Lyne, D. (Making Space) (2000) Family support workers of carers of people with schizophrenia.

<sup>2</sup> Netten, A. (1999) Family Support Workers: Costs of Services and informal care, Discussion Paper 1634, Personal Social Services Research Unit, University of Kent.

## **11. Health and social care teams**

- 11.1 NHS community multidisciplinary mental health team  
key worker for elderly people with mental health  
problems
- 11.2 Community mental health team
- 11.3 NHS child clinical psychiatry team member
- 11.4 NHS child clinical psychology team member
- 11.5 Educational psychology team member
- 11.6 Educational social work team member
- 11.7 Behaviour support service team member
- 11.8 Learning support service team member
- 11.9 Counselling services in primary medical care

### Schema 11.1 NHS community multidisciplinary mental health team key worker for elderly people with mental health problems

The information in the schema reflects the operation of two specialist multidisciplinary teams for elderly people with mental health problems.<sup>1</sup>

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£28,388 per year	Weighted to reflect input of psychiatrists, OTs, CPNs, psychologists and social workers. Analysis of time use information identified two types of team member: core and extended role. When those activities of extended role team members which reflected responsibilities outside the teams were excluded, both types of team member operated in a similar key worker role.
B. Salary oncosts	£3,319 per year	Based on employers' national insurance contribution, and employers' superannuation at 4.5 per cent.
C. Qualifications		Information not available for all care staff.
D. Overheads: Direct and indirect	£5,552 per year	Comprises £2,381 for indirect overheads and 10 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£1,713 per year	Based on the new build and land requirements of an NHS office and shared facilities for waiting, interviews and clerical support. <sup>2, 3</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,643.
F. Travel	£1.17 per visit	Taken from Netten <sup>4</sup> and inflated using the retail price index.
Working time	42 wks p.a., 37 hrs p.w.	Includes 25 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave.
<i>Ratios of direct to indirect time on:</i> client-related work direct outputs  face-to-face contact	1:0.3 1:0.85  1:2.45	Ratios are used to estimate the full cost of direct and indirect time required to deliver each output. The study found that 77 per cent of time was spent on all client-related work. Fifty-four per cent of time was spent on activities which generated direct outputs for clients either in the form of face-to-face contact or service liaison on their behalf. Direct face-to-face contact is not a good indicator of input to clients, but it is often the only information available. The study found that direct face-to-face contact with clients and carers occupied 29 per cent of working time.
Frequency of visits Length of visits	8 60 minutes	Average number of visits per week per worker and average length of visits overall in teams.
Caseload per worker	17 cases	The low caseload reflects the characteristics of the experimental scheme.
London multiplier	1.13 x (A to D); 1.53 x E	Relative London costs are drawn from the same source as the base data for each cost element.
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003</b>		
£25 per hour; £33 per hour of client-related work; £46 per hour of direct output activity; £55 per case per week; £87 per hour of face-to-face contact (includes A to E); £48 per home visit (includes A to F).		

<sup>1</sup> von Abendorff, R., Challis, D. & Netten, A. (1995) Case managers, key workers and multidisciplinary teams, Discussion Paper 1038, Personal Social Services Research Unit, University of Kent.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Netten, A. (1992) Some cost implications of Caring for People: interim report, Discussion Paper 809/4, Personal Social Services Research Unit, University of Kent.

### Schema 11.2 Community mental health team

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£27,024 per year	Based on Onyett et al., <sup>1</sup> who report a national survey of CMHTs, from which the mean full-time equivalent members of an 'average' CMHT were derived. The teams included CPNs, social workers, nurses, occupational therapists, support workers, doctors, psychologists and specialist therapists. Weighted average salaries for each type of worker were multiplied by the proportion of that type of worker in the team to produce a generic CMHT worker salary. <sup>2</sup>
B. Salary oncosts	£3,122 per year	Employers' national insurance plus 4.5 per cent of salary for employers' contribution to superannuation.
C. Qualifications		Information not available for all care staff.
D. Overheads: Direct and indirect	£5,125 per year	Regional health authority overheads estimated to be 17 per cent.
E. Capital overheads	£1,713 per year	Based on the new build and land requirements of an NHS office and shared facilities for waiting, interviews and clerical support. <sup>3,4</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,643.
F. Travel	£1.17 per visit	Taken from Netten <sup>5</sup> and inflated using the retail price index.
Working time	42 wks p.a., 37 hrs p.w.	Includes 25 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave.
Ratio of direct to indirect time on: patient-related work face-to-face contact	1:0.28 1:1.50	Estimates were taken from Jackson et al. <sup>6</sup> who studied patterns of work in a CMHT. Patient-related activity comprised 75 per cent of social workers' time, 79 per cent of CPNs' time; 70 per cent of occupational therapists' time, 61 per cent of psychologists' time and 90 per cent of psychiatrists' time. Face to face contact comprised 38 per cent of social workers' and CPNs' time, 31 per cent of occupational therapists' time, 22 per cent of psychologists' time and 44 per cent of psychiatrists' time. For support workers, specialist therapists and 'others', client contact was estimated to take 54 per cent and patient-related work 75 per cent of working time. On this basis, patient-related work took 78 per cent, and face to face contact 40 per cent of time overall.
London multiplier	1.13 x (A to D); 1.53 x E	Relative London costs are drawn from the same source as the base data for each cost element.
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003</b>		
£24 per hour; £30 per hour of patient-related work; £59 per hour of patient contact (includes A to E). Travel £1.17 per visit.		

<sup>1</sup> Onyett, S., Pillinger, T. & Muijen, M. (1995) *Making Community Mental Health Teams Work*, The Sainsbury Centre for Mental Health, London.

<sup>2</sup> Beecham J., Chisholm D. & O' Herlihy. (2001) *The costs of child and adolescent psychiatric inpatient units*. See pages 21-23 of this volume.

<sup>3</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>5</sup> Netten, A. (1992) Some cost implications of Caring for People: interim report, Discussion Paper 809/4, Personal Social Services Research Unit, University of Kent.

<sup>6</sup> Jackson, G., Percival, C., Gater, R. & Goldberg, D. (1996) Patterns of work in a multidisciplinary community mental health team, unpublished.



**Schema 11.3 NHS child clinical psychiatry team member**

The information in this schema is based on a national survey of child and adolescent mental health services in England.<sup>1</sup> The hourly rates reflect the average salary of team members. On occasions where the whole team meets to discuss a case, the appropriate hourly unit cost would be for the team.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£35,620 per year	The salary costs reflect the weighted average of psychiatrists, <sup>2</sup> nurses and other care staff employed in 139 teams.
B. Salary oncosts	£4,262 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications		Information not available for all care staff.
D. <i>Overheads:</i> Direct Indirect	£8,375 £4,786 per year	Overhead costs are based on the costing of a sample of 29 of these teams. <sup>3</sup> Direct overheads reflect the additional costs associated with other staff employed in the teams and training and other staff costs. These were found to be 21 per cent of care staff costs. Indirect overheads include administration, general services and so on, and were estimated as 12 per cent of care staff salary costs.
E. Capital overheads	£1,713 per year	Based on the new build and land requirements of an NHS office and shared facilities for waiting, interviews and clerical support. <sup>4, 5</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,643.
F. Travel	£798 per year	Reflects the level of expenditure associated with the care staff salaries (2 per cent of salary plus on-costs) in the teams.
Working time	43 wks p.a., 36 hrs p.w.	Includes 20 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave.
<i>Ratio of direct to indirect time on: client contact</i>	1:0.85	Time use is assumed to be similar to that reported in the study of specialist community mental health teams by von Abendorff et al. <sup>6</sup>
London multiplier	1.13 x (A to D); 1.53 x E	Relative London costs are drawn from the same source as the base data for each cost element.
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003</b>		
£35 per hour per team member; £65 per hour of client contact per team member; £330 per hour of team working/meeting (includes A to E).		

<sup>1</sup> Kurtz, Z., Thornes, R. & Wolkind, S. (1994) *Services for the Mental Health of Children and People in England: a National Review*, Report to the Department of Health, London.

<sup>2</sup> Review Body on Doctors' and Dentists' Remuneration, Thirty First Report 2002, Cm 5340, TSO, London.

<sup>3</sup> Beecham, J., Knapp, M. & Asbury, M. (1994) The cost dimension, in Z. Kurtz, R. Thornes & S. Wolkind (eds) *Services for the Mental Health of Children and People in England: a National Review*, Report to the Department of Health, London.

<sup>4</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>5</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>6</sup> von Abendorff, R., Challis, D. & Netten, A. (1994) Staff activity patterns in a community mental health team for older people, *International Journal of Geriatric Psychiatry*, 9, 897-906.

### Schema 11.4 NHS child clinical psychology team member

The information in this schema is based on a national survey of child and adolescent mental health services in England.<sup>1</sup> The hourly rates reflect the average salary of team members. On occasions where the whole team meets to discuss a case, the appropriate hourly unit cost would be for the team.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£28,654 per year	The salary costs reflect the weighted average of psychologists, <sup>2</sup> nurses and other care staff (who were assumed to receive average social worker salaries) employed in 138 teams.
B. Salary oncosts	£3,262 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications		Information not available for all care staff.
D. <i>Overheads:</i> Direct Indirect	£1,915 £3,670 per year	Overhead costs are based on the costing of a sample of 14 of these teams. <sup>3</sup> Direct overheads reflect the additional costs associated with other staff employed in the teams and training and other staff costs. These were found to be 6 per cent of care staff costs. Indirect overheads include administration, general services and so on, and are estimated as 11.5 per cent of care staff salary costs.
E. Capital overheads	£1,713 per year	Based on the new build and land requirements of an NHS office and shared facilities for waiting, interviews and clerical support. <sup>4,5</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,643.
F. Travel	£958 per year	Reflects the level of expenditure associated with the care staff salaries (3 per cent of salary plus on-costs) in the teams.
Working time	43 wks p.a., 36 hrs p.w.	Includes 20 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave.
<i>Ratios of:</i> professional outputs to support activities client to non-client contact	1:0.25 1:0.55	Based on a study <sup>6</sup> which found that psychologists who specialise in working with children and their families spent 64.5 per cent of their time on clinical work with individual patients and families, and 80 per cent of their time on professional outputs.
London multiplier	1.13 x (A to D); 1.53 x E	Relative London costs are drawn from the same source as the base data for each cost element.
Non-London multiplier	0.93 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. Building Cost Information Service and Department of the Environment, Transport and the Regions.
<b>Unit costs available 2002/2003</b>		
£25 per hour per team member; £39 per hour of client contact per team member; £32 per professional chargeable hour per team member; £120 per hour of team working/meeting (includes A to E). Costs exclude travel and subsistence.		

<sup>1</sup> Kurtz, Z., Thornes, R. & Wolkind, S. (1994) *Services for the Mental Health of Children and People in England: a National Review*, Report to the Department of Health, London.

<sup>2</sup> Review Body on Doctors' and Dentists' Remuneration, Thirty First Report 2002, Cm 5340, TSO, London.

<sup>3</sup> Beecham, J., Knapp, M. & Asbury, M. (1994) The cost dimension, in Z. Kurtz, R. Thornes & S. Wolkind (eds) *Services for the Mental Health of Children and People in England: a National Review*, Report to the Department of Health, London.

<sup>4</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>5</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>6</sup> Cape J., Pilling, S. & Barker, C. (1993) Measurement and costing of psychology services, *Clinical Psychology Forum*, October.

**Schema 11.5 Educational psychology team member**

The information in this schema is based on a study of unit costs of children's services in York, by Anna Semlyen in 1997-8.<sup>1</sup> The work was funded by the NHS Maternal & Child Health Research and Development Programme. The aim of the study was to measure the additional, marginal costs of behaviour problem children compared to a 'normal child' for a year. The components of support for the children were identified and detailed costing completed. The estimated unit costs of resources used form the basis of information in this schema. Costs have been inflated to 2002-2003 value and adjusted for consistency. The educational psychology team comprises six full-time equivalent staff members and works with children aged 5-16.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£37,702 per year	Median salary taken from the City of York Council budget and uprated using the HCHS Pay inflator.
B. Salary oncosts	£4,676 per year	Employers' national insurance plus employers' contribution to superannuation.
C. Training	£275 per year	Taken from City of York Council budget for staff training.
D. <i>Overheads:</i> Direct	£2,119	5 per cent of salary costs added for equipment, management and administrative overheads.
Indirect	£2,599 per year	Indirect overheads include office expenses and secretarial staff costs uprated using the HCHS Pay and Prices inflator.
E. Capital overheads	£1,672 per year	Building Cost Information Service <sup>2</sup> and Department of the Environment, Transport and the Regions <sup>3</sup> . Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,581.
F. Travel	£1,368 per year	Travel is based on an annual car allowance plus mileage.
Working time	42 wks p.a., 37 hrs p.w.	Includes 34 days annual leave and 8 statutory leave days, 7 study/training days, and 2 days sickness leave.
<i>Ratio of:</i> Individual client to all working time	1:0.25	Based on management estimates. 80 per cent of all time is spent on individual client-related activities. 25 per cent of time is spent on face-to-face client contact. 55 per cent of time is spent on non-face-to-face client contact.
Face-to-face to non-face-to-face client contact.	1:1.2	
London multiplier		These are non-London costs. No London multiplier is available.
<b>Unit costs available 2002/2003</b>		
£31 per hour; £39 per hour of individual client-related activity; £69 per hour face-to-face client contact (includes A to E). Costs exclude travel and subsistence.		

<sup>1</sup> Semlyen, A. (1998) Unit costs of children's services in York, Centre for Health Economics, University of York, York.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

### Schema 11.6 Educational social work team member

The information in this schema is based on an unpublished study of unit costs of children's services in York, by Anna Semlyen in 1997-8.<sup>1</sup> The work was funded by the NHS Maternal & Child Health Research and Development Programme. The aim of the study was to measure the additional, marginal costs of behaviour problem children compared to a 'normal child' for a year. The components of support for the children were identified and detailed costing completed. The estimated unit costs of resources used form the basis of information in this schema. Costs have been inflated to 2002-2003 value and adjusted for consistency. The core educational social work team comprises eight full-time equivalent staff members and works with children aged 5-16.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£18,701 per year	Median salary taken from the City of York Council Budget and uprated using the HCHS Pay inflator.
B. Salary oncosts	£1,989 per year	Employers' national insurance plus employers' contribution to superannuation.
C. Training	£460 per year	City of York Council Budget for staff training and uprated using the HCHS Pay Inflator.
D. <i>Overheads:</i> Direct	£1,035	5 per cent of salary costs added for equipment, management and administrative overheads.
Indirect	£1,949 per year	Indirect overheads include office expenses and secretarial staff costs uprated using the HCHS Pay and Prices inflator.
E. Capital overheads	£1,672 per year	Building Cost Information Service <sup>2</sup> and Department of the Environment, Transport and the Regions <sup>3</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,581.
F. Travel	£2,643 per year	Travel is based on an annual car allowance plus mileage.
Working time	41.4 wks p.a., 37 hrs p.w.	Includes 26 days annual leave and 8 statutory leave days, 15 study/training days, and 5 days sickness leave.
<i>Ratio of:</i> Individual client to all working time	1:0.39	Based on service plan information. 71.7 per cent of time is spent on individual client-related activities.
London multiplier		These are non-London costs. No London multiplier is available.
<b>Unit costs available 2002/2003</b>		
£18 per hour; £25 per hour of individual client-related activity (includes A to E). Costs exclude travel and subsistence.		

<sup>1</sup> Semlyen, A. (1998) Unit costs of children's services in York, Centre for Health Economics, University of York, York.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

**Schema 11.7 Behavioural support service team member**

The information in this schema is based on an unpublished study of unit costs of children's services in York, by Anna Semlyen in 1997-8.<sup>1</sup> The work was funded by the NHS Maternal & Child Health Research and Development Programme. The aim of the study was to measure the additional, marginal costs of behaviour problem children compared to a 'normal child' for a year. The components of support for the children were identified and detailed costing completed. The estimated unit costs of resources used form the basis of information in this schema. Costs have been inflated to 2002-2003 value and adjusted for consistency. This team is a peripatetic service to schools working with children aged 5-16 and has six full-time equivalent staff.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£28,816 per year	Median salary taken from the City of York Council budget and uprated using the HCHS Pay inflator.
B. Salary oncosts	£3,284 per year	Employers' national insurance plus employers' contribution to superannuation.
C. Training	£151 per year	Taken from City of York Council Budget for staff training uprated using the HCHS Pay inflator.
D. <i>Overheads:</i> Direct	£1,605	5 per cent of salary costs added for equipment, management and administrative overheads.
Indirect	£1,225 per year	Indirect overheads include office expenses and secretarial staff costs uprated using the HCHS Pay and Prices inflator.
E. Capital overheads	£1,672 per year	Building Cost Information Service <sup>2</sup> and Department of the Environment, Transport and the Regions. <sup>3</sup> Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,581.
F. Travel	£1,040 per year	Travel is based on an annual car allowance plus mileage.
Working time	37.2 wks p.a., 32.4 hrs p.w.	Staff work 3 terms each of 13 weeks. Within this time there are 6 study/training days, and 3 days sickness leave.
<i>Ratio of:</i> Individual client to all working time	1:0.18	Manager estimates based on recent staff time diary information. 85 per cent of time is spent on client-related activities.
London multiplier		These are non-London costs. No London multiplier is available.
<b>Unit costs available 2002/2003</b>		
£30 per hour; £36 per hour of client-related activity (includes A to E). Costs exclude travel and subsistence.		

<sup>1</sup> Semlyen, A. (1998) Unit costs of children's services in York, Centre for Health Economics, University of York, York.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

### Schema 11.8 Learning support service team member

The information in this schema is based on an unpublished study of unit costs of children's services in York, by Anna Semlyen in 1997-8.<sup>1</sup> The work was funded by the NHS Maternal & Child Health Research and Development Programme. The aim of the study was to measure the additional, marginal costs of behaviour problem children compared to a 'normal child' for a year. The components of support for the children were identified and detailed costing completed. The estimated unit costs of resources used form the basis of information in this schema. Costs have been inflated to 2002-2003 value and adjusted for consistency. The team comprises six full-time equivalent members including a manager and works with children aged 5-16.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£28,816 per year	Median salary taken from the City of York Council budget uprated using the HCHS Pay inflator.
B. Salary oncosts	£3,284 per year	Employers' national insurance plus employers' contribution to superannuation.
C. Training	£335 per year	Taken from City of York Council Budget for staff training uprated using the HCHS Pay inflator.
D. <i>Overheads:</i> Direct	£1,605	5 per cent of salary costs added for equipment, management and administrative overheads.
Indirect	£2,599 per year	Indirect overheads include office expenses and secretarial staff costs uprated using the HCHS Pay and Prices inflator.
E. Capital overheads	£1,672 per year	Building Cost Information Service <sup>2</sup> and Department of the Environment, Transport and the Regions <sup>3</sup> Capital has been annuitised at a rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,581.
F. Travel	£1,295 per year	Travel is based on an annual car allowance plus mileage.
Working time	36.6 wks p.a., 32.4 hrs p.w.	Staff work three terms of 13 weeks. Within this time are 10 study/training days, and 2 days sickness leave.
<i>Ratio of:</i> Individual client to all working time	1:0.25	Based on management estimates. 80 per cent of time is spent on individual client-related activities. 25 per cent of time is spent on face-to-face client contact. 55 per cent of time is spent on non-face-to-face client contact.
Face-to-face to non-face-to-face client contact.	1:1.2	
London multiplier		These are non-London costs. No London multiplier is available.
<b>Unit costs available 2002/2003</b>		
£32 per hour; £40 per hour of client-related activity; £71 per hour face-to-face client contact (includes A to E). Costs exclude travel and subsistence.		

<sup>1</sup> Semlyen, A. (1998) Unit costs of children's services in York, Centre for Health Economics, University of York, York.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

**Schema 11.9 Counselling services in primary medical care**

The information in this schema is based on nine GP practices in Derby.<sup>1</sup> Each practice employed BAC accredited counsellors for a total of 1535 hours per year. The cost for a qualification of this nature is wide-ranging and covers different levels. In 1999/2000 the basic certificate cost £145 and an advanced diploma £3,795. In order to incorporate training costs into unit costs, information is needed about distribution of the qualification and expected working life of people with the qualification.

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£38,534 per year	Based on Senior Clinical Grade 3 Band 19 taken from the Grading Criteria and Pay Scale for Counsellors in the NHS. This is the nearest equivalent to the hourly rate paid in the study of GP practices.
B. Salary oncosts	£ 4,619 per year	Employers' national insurance plus 4 per cent of salary to employers' superannuation.
C. <i>Overheads:</i> Direct	£ 4,315 per year	10 per cent of salary costs added for equipment, management and administrative overheads.
D. Capital overheads	£ 984 per year	Based on new build and land requirements for a Practice Nurse non-treatment space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,581.
E. Travel	£0	All appointments were on-site in the GP surgery.
<i>Ratio of direct to indirect time on: client contact</i>	1:0.30	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.
Working time	1535 hours per year	Each practice employed counsellors for between 6 and 49 hours per week. In total, they worked on average 1535 hours per year
<b>Unit costs available 2002/2003</b>		
£32 per hour (includes A to D).		

<sup>1</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.

## **IV. HOSPITAL-BASED HEALTH CARE STAFF**

### **12. Professionals allied to medicine**

- 12.1 Hospital physiotherapist
- 12.2 Hospital occupational therapist
- 12.3 Hospital speech and language therapist
- 12.4 Dietitian
- 12.5 Radiographer
- 12.6 Hospital Pharmacist
- 12.7 Hospital therapy support worker



**Schema 12.1 Hospital physiotherapist**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£25,958 per year	National average salary for a senior 1 grade hospital physiotherapist, based on the mid-point of the April 2002 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance. It also includes an allowance of £1,073 for supervising students.
B. Salary oncosts	£2,788 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£3,796 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See Schema 7.5 for more details on cost of qualifications.
D. Overheads	£2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Capital overheads	£3,422 per year	Based on the new build and land requirements of NHS facilities, <sup>2, 3</sup> but adjusted to reflect shared used of both treatment and non-treatment space. No allowance has been made for the cost of equipment. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £5,280.
F. Travel	£2.24 per visit	Based on expenditure provided by community trust.
Working time	42 wks p.a., 36 hrs p.w.	Includes 25 days annual leave and 10 days statutory leave. <sup>4</sup> Assumes 5 study/training days, and 10 days sickness leave. <sup>5</sup>
<i>Ratio of direct to indirect time on:</i> patient contacts clinic contacts home visits	1:0.54 1:0.46 1:0.96	Assuming 10 per cent of time in patient's own home, 50 per cent in clinics, 5 per cent in other settings, 30 per cent on non-clinical activity and 5 per cent on travel. Information derived from consultation with NHS Trusts.
London multiplier	1.13 x (A to D); 1.64 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>6</sup>
Non-London multiplier	0.98 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>6</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£23 (£25) per hour; £35 (£39) per hour of client contact; £33 (£37) per hour in clinic; £45 (£50) per hour in home visiting (includes A to E). Travel £2.24 per visit.		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Whitley Councils for the Health Services (Great Britain) (1995) *Pay and Conditions of Service Handbook, Professions allied to medicine and related grades of staff*. (PTA) Council, Department of Health, Leeds.

<sup>5</sup> Williams, J. (1991) *Calculating Staffing Levels in Physiotherapy Services*, Pampas, Rotherham.

<sup>6</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

## Schema 12.2 Hospital occupational therapist

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£25,449 per year	National average salary for a senior 1 grade hospital occupational therapist, based on the mid-point of the April 2002 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance. It also includes an allowance of £1,073 for supervising students.
B. Salary oncosts	£2,726 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£3,664 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See Schema 7.5 for more details on cost of qualifications.
D. Overheads	£2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Capital overheads	£3,422 per year	Based on the new build and land requirements of NHS facilities, <sup>2, 3</sup> but adjusted to reflect shared use of both treatment and non-treatment space. No allowance has been made for the cost of equipment. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £5,280.
Working time	42 wks p.a., 36 hrs p.w.	Includes 25 days annual leave and 10 days statutory leave. <sup>4</sup> Assumes 5 study/training days, and 10 days sickness leave. <sup>5</sup>
Ratio of direct to indirect time on: patient contacts	1:0.67	Assuming 60 per cent of time in clinics and 40 per cent on non-clinical activity. Information derived from consultation with NHS Trusts.
London multiplier	1.14 x (A to D); 1.25 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>6</sup>
Non-London multiplier	0.98 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>6</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£22 (£25) per hour; £37 (£41) per hour of client contact (includes A to E).		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Whitley Councils for the Health Services (Great Britain) (1995) *Pay and Conditions of Service Handbook, Professions allied to medicine and related grades of staff*. (PTA) Council, Department of Health, Leeds.

<sup>5</sup> Williams, J. (1991) *Calculating Staffing Levels in Physiotherapy Services*, Pampas, Rotherham.

<sup>6</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

**Schema 12.3 Hospital speech and language therapist**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£23,778 per year	National average salary for a grade 2 speech and language therapist, based on the April 2002 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance.
B. Salary oncosts	£2,520 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£3,931 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See Schema 7.5 for more details on cost of qualifications.
D. Overheads	£2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Capital overheads	£3,331 per year	Based on the new build and land requirements of NHS facilities, <sup>2, 3</sup> but adjusted to reflect shared used of both treatment and non-treatment space. No allowance has been made for the cost of equipment. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £5,140.
Working time	42 wks p.a., 36 hrs p.w.	Includes 25 days annual leave and 10 days statutory leave. <sup>4</sup> Assumes 5 study/training days, and 10 days sickness leave. <sup>5</sup>
Ratio of direct to indirect time on: patient contacts	1:0.67	Assuming 60 per cent of time in clinics and 40 per cent on non-clinical activity. Information derived from consultation with NHS Trusts.
London multiplier	1.14 x (A to D); 1.25 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>6</sup>
Non-London multiplier	0.98 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>6</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£21 (£24) per hour; £35 (£40) per hour of client contact (includes A to E).		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Whitley Councils for the Health Services (Great Britain) (1995) *Pay and Conditions of Service Handbook, Professions allied to medicine and related grades of staff*. (PTA) Council, Department of Health, Leeds.

<sup>5</sup> Williams, J. (1991) *Calculating Staffing Levels in Physiotherapy Services*, Pampas, Rotherham.

<sup>6</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula

**Schema 12.4 Dietitian**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£25,958 per year	National average salary for a senior 1 grade hospital dietitian, based on the mid-point of the April 2002 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance. It also includes an allowance of £1,073 for supervising students.
B. Salary oncosts	£2,788 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£4,007 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See Schema 7.5 for more details on cost of qualifications.
D. Overheads	£2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Capital overheads	£2,857 per year	Based on the new build and land requirements of NHS facilities, <sup>2, 3</sup> but adjusted to reflect shared used of both treatment and non-treatment space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £4,409.
F. Travel	£2.24 per visit	Taken from Netten <sup>4</sup> and inflated using the retail price index.
Working time	42 wks p.a., 37 hrs p.w.	Includes 25 days annual leave and 10 days statutory leave. <sup>5</sup> Assumes 5 study/training days, and 10 days sickness leave. <sup>6</sup>
<i>Ratio of direct to indirect time on:</i> face-to-face contacts clinical settings home visits	1:0.33 1:0.27 1:1.27	Assuming 5 per cent of time in patient's own home, 35 per cent in clinics, 30 per cent in hospital wards, 5 per cent in other settings, 20 per cent on non-clinical activity and 5 per cent on travel. Information derived from consultation with NHS Trusts.
London multiplier	1.13 x (A to D); 1.26 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>7</sup>
Non-London multiplier	0.98 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>7</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£22 (£24) per hour; £29 (£33) per hour client contact; £28 (£31) per hour in clinic; £50 (£55) per hour of home visiting (includes A to E). Travel £1.17 per visit.		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Netten, A. (1992) Some cost implications of Caring for People: interim report, Discussion Paper 809/4, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>5</sup> Whitley Councils for the Health Services (Great Britain) (1995) *Pay and Conditions of Service Handbook, Professions allied to medicine and related grades of staff. (PTA) Council*, Department of Health, Leeds.

<sup>6</sup> Williams, J. (1991) *Calculating Staffing Levels in Physiotherapy Services*, Pampas, Rotherham.

<sup>7</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

**Schema 12.5 Radiographer**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£25,921 per year	National average salary for a senior 1 grade radiographer, based on the mid-point of the April 2002 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance. It also includes an allowance of £1,073 for supervising students.
B. Salary oncosts	£2,784 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£4,522 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See Schema 7.5 for more details on cost of qualifications.
D. Overheads	£2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Capital overheads	£5,480 per year	Based on the new build and land requirements of NHS facilities, <sup>2,3</sup> but adjusted to reflect shared used of both treatment and non-treatment space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £3,440.
Working time	42 wks p.a., 35 hrs p.w.	Includes 25 days annual leave and 10 days statutory leave. <sup>4</sup> Assumes 5 study/training days, and 10 days sickness leave.
Ratio of direct to indirect time on: patient contacts	1:0.67	Assuming 60 per cent of time spent on face-to-face contact, 20 per cent on other clinical activity, and 20 per cent on non-clinical activity. Information derived from consultation with NHS Trusts.
London multiplier	1.13 x (A to D); 1.27 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>5</sup>
Non-London multiplier	0.98 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>5</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£25 (£28) per hour; £41 (£47) per hour of client contact; £14 (£16) per 20 minute clinic visit (includes A to E).		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Whitley Councils for the Health Services (Great Britain) (1995) *Pay and Conditions of Service Handbook, Professions allied to medicine and related grades of staff*. (PTA) Council, Department of Health, Leeds.

<sup>5</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

### Schema 12.6 Hospital pharmacist

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£31,422 per year	National average salary for a D grade pharmacist based on the mid-point of the April 2002 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance. Pharmacists who commit to working in Emergency also receive an emergency duty commitment allowance of £2,297 per annum.
B. Salary oncosts	£ 3,474 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£ 5,170 per year	The equivalent annual cost of pre-registration and postgraduate education. The investment costs of a 4 year masters degree plus one year pre-registration training plus a two year postgraduate course have been annuitised over the expected working life. <sup>1/2</sup> The investment costs for pre-registration are borne partly by the HEFCE and partly by practitioners provided by the NHS. The Multi-Professional Education and Training (MPET) Levy covers the cost for the Pre-registration training year.
Post graduate training:	£ 400 per year	Costs for postgraduate training are mainly borne by the NHS but are sometimes self funded. Hospital pharmacists may have up to 20 days per year study time over this two year period. Some however participate in distant learning programmes. There are also further training programmes available for senior pharmacists; however, no information is currently available on the proportion of pharmacists who undergo this training. This therefore has not been taken into account in this costing exercise. Those costing exercises which are concerned with narrowly defined costs to the provider organisation would not want to incorporate qualification costs. See schema 7.5 for further details on training costs for health professionals.
D. Overheads	£ 2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Capital overheads	£ 1,445 per year	Based on the new build and land requirements of a pharmacy, <sup>3/4</sup> plus additional space for shared facilities. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,229.
F. Travel	£1.17 p. visit	Taken from Netten <sup>5</sup> and inflated using the retail price index.
Working time	42 wks p.a, 39 hrs p.w.	Includes 25 days annual leave and 10 statutory leave days. Assumes 5 study/training days, and 10 days sickness leave.
Ratio of direct to indirect time on: Direct clinical patient time Patient related activities	1:1 1.0.43	Ratios are estimated on the basis that 50 per cent of time is spent on direct clinical patient activities, 20 per cent of time on dispensary activities and 30 per cent on non clinical activity.
London multiplier	1.08 x A 1.50 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>5</sup> Building Cost Information Service and Department of the Environment.
Non-London multiplier	0.98 x A 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>5</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£24 (£27) per hour; £47 (£54) per cost of direct clinical patient time (includes travel); £34 (£39) per cost of patient related activities.		

<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>2</sup> Research carried out by the Royal Pharmaceutical Society of Great Britain.

<sup>3</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>5</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

**Schema 12.7 Hospital therapy support worker**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£11,429 per year	National average salary for a therapy helper aged 19 and over, based on the mid-point of the April 2002 pay scale. The sum includes an element to reflect the proportion of staff who receive a London allowance. This does not include lump sum allowances or unsocial hours pay enhancements.
B. Salary oncosts	£1,001 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£0	Training costs are assumed to be zero, although many take NVQ courses.
D. Overheads	£2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Capital overheads	£2,229 per year	Based on the new build and land requirements of NHS facilities, <sup>1, 2</sup> but adjusted to reflect shared use of both treatment and non-treatment space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £3,440.
Working time	44 wks p.a., 36 hrs p.w.	Includes 20 days annual leave and 10 days statutory leave. <sup>3</sup> Assumes 10 days sickness leave. No study/training days have been assumed.
Ratio of direct to indirect time on: face-to-face contacts	1:0.25	Assuming 80 per cent of time on hospital wards and 20 per cent on non-clinical activity. Information derived from consultation with NHS Trusts.
London multiplier	1.13 x (A to D); 1.25 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>4</sup>
Non-London multiplier	0.98 x (A to D) 0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>4</sup>
<b>Unit costs available 2002/2003</b>		
£11 per hour; £13 per hour of client contact (includes A to E).		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> Whitley Councils for the Health Services (Great Britain) (1995) *Pay and Conditions of Service Handbook, Professions allied to medicine and related grades of staff*. (PTA) Council, Department of Health, Leeds.

<sup>4</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

## **13. Nurses**

- 13.1 Ward manager, day ward
- 13.2 Ward manager, 24-hour ward
- 13.3 Staff nurse, day ward
- 13.4 Staff nurse, 24-hour ward
- 13.5 Health care assistant



**Schema 13.1 Ward manager, day ward**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£25,015 per year	National average salary for a staff nurse, based on the April 2002 scale mid-point for a G grade nurse. The sum includes an element to reflect the proportion of staff who receive a London allowance. It does not include any lump sum allowances and it is assumed that no unsocial hours are worked.
B. Salary oncosts	£2,635 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£3,851 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See schema 7.5 for further details on training for health professionals.
D. Overheads	£2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Capital overheads	£1,802 per year	Based on the new build and land requirements of NHS facilities, <sup>2/3</sup> but adjusted to reflect shared use of office space for administration, and recreational and changing facilities. Treatment space has not been included. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,781.
Working time	42 wks p.a., 37.5 hrs p.w.	Includes 25 days annual leave and 10 statutory leave days. <sup>4</sup> Assumes 5 study/training days, and 10 days sickness leave.
Ratio of direct to indirect time on: face-to-face contacts	1:1.22	Assuming 45 per cent of time spent on face-to-face contact, 35 per cent on other clinical activity, and 20 per cent on non-clinical activity. Information derived from consultation with NHS Trusts.
London multiplier	1.14 x (A to D); 1.26 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>5</sup>
Non-London multiplier	0.97 x (A to D) 0.98 x E	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>5</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£20 (£23) per hour; £45 (£50) per hour of patient contact; £152 (£170) per shift (includes A to E)		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Nursing and Midwifery Staffs Negotiating Council (1992) *Nursing and Midwifery Staffs Conditions of Service and Rates of Pay*, Department of Health, Leeds.

<sup>5</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

**Schema 13.2 Ward manager, 24-hour ward**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£28,235 per year	National average salary for a staff nurse, based on the April 2002 scale mid-point for a G grade nurse. The sum includes an element to reflect the proportion of staff who receive a London allowance. It assumes that the hours include working 13.2 hours a week evening and Saturdays at 1.3 of basic rate, and 4.8 hours a week on Sundays at 1.6 of basic rate.
B. Salary oncosts	£3,026 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£3,851 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See schema 7.5 for further details on training for health professionals.
D. Overheads	£2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Capital overheads	£1,802 per year	Based on the new build and land requirements of NHS facilities. <sup>2,3</sup> but adjusted to reflect shared used of office space for administration, and recreational and changing facilities. Treatment space has not been included. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £2,781.
Working time	42 wks p.a., 37.5 hrs p.w.	Includes 25 days annual leave and 10 statutory leave days. <sup>4</sup> Assumes 5 study/training days, and 10 days sickness leave.
Ratio of direct to indirect time on: face-to-face contacts	1:1.22	Assuming 45 per cent of time spent on face-to-face contact, 35 per cent on other clinical activity, and 20 per cent on non-clinical activity. Information derived from consultation with NHS Trusts.
London multiplier	1.14 x (A to D); 1.26 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>5</sup>
Non-London multiplier	0.97 x (A to D) 0.98 x E	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>5</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£23 (£25) per hour; £50 (£55) per hour of patient contact; £169 (£187) per shift (includes A to E)		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Nursing and Midwifery Staffs Negotiating Council (1992) *Nursing and Midwifery Staffs Conditions of Service and Rates of Pay*, Department of Health, Leeds.

<sup>5</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

**Schema 13.3 Staff nurse, day ward**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£18,974 per year	National average salary for a staff nurse, based on the April 2002 scale mid-point for an E grade nurse. The sum includes an element to reflect the proportion of staff who receive a London allowance. It does not include any lump sum allowances and it is assumed that no unsocial hours are worked.
B. Salary oncosts	£1,901 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£3,851 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See schema 7.5 for further details on training for health professionals.
D. Overheads	£2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Capital overheads	£1,036 per year	Based on the new build and land requirements of NHS facilities. <sup>2/3</sup> but adjusted to reflect shared used of office space for administration, and recreational and changing facilities. Treatment space has not been included. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £1,599.
Working time	42 wks p.a., 37.5 hrs p.w.	Includes 25 days annual leave and 10 statutory leave days. <sup>4</sup> Assumes 5 study/training days, and 10 days sickness leave.
Ratio of direct to indirect time on: face-to-face contacts	1:0.82	Assuming 55 per cent of time spent on face-to-face contact, 25 per cent on other clinical activity, and 20 per cent on non-clinical activity. Information derived from consultation with NHS Trusts.
London multiplier	1.14 x (A to D); 1.25 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>5</sup>
Non-London multiplier	0.97 x (A to D); 0.98 x E	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>5</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£15 (£18) per hour; £28 (£32) per hour of patient contact; £116 (£134) per shift (includes A to E)		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Nursing and Midwifery Staffs Negotiating Council (1992) *Nursing and Midwifery Staffs Conditions of Service and Rates of Pay*, Department of Health, Leeds.

<sup>5</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula

**Schema 13.4 Staff nurse, 24-hour ward**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£21,761 per year	National average salary for a staff nurse, based on the April 2002 scale mid-point for an E grade nurse. The sum includes an element to reflect the proportion of staff who receive a London allowance. It assumes that the hours include working 13.2 hours a week evenings and Saturdays at 1.3 of basic rate, and 4.8 hours a week on Sundays at 1.6 of basic rate.
B. Salary oncosts	£2,240 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£3,851 per year	The equivalent annual cost of pre-registration education after the total investment cost has been annuitised over the expected working life. <sup>1</sup> See schema 7.5 for further details on training for health professionals.
D. Overheads	£2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Capital overheads	£1,036 per year	Based on the new build and land requirements of NHS facilities, <sup>2,3</sup> but adjusted to reflect shared used of office space for administration, and recreational and changing facilities. Treatment space has not been included. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £1,599.
Working time	42 wks p.a., 37.5 hrs p.w.	Includes 25 days annual leave and 10 statutory leave days. <sup>4</sup> Assumes 5 study/training days, and 10 days sickness leave.
Ratio of direct to indirect time on: face-to-face contacts	1:1	Assuming 50 per cent of time spent on face-to-face contact, 40 per cent on other clinical activity, and 10 per cent on non-clinical activity. Information derived from consultation with NHS Trusts.
London multiplier	1.14 x (A to D); 1.25 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>5</sup>
Non-London multiplier	0.97 x (A to D) 0.98 x E	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>5</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£17 (£20) per hour; £35 (£40) per hour of patient contact; £131 (£149) per shift (includes A to E)		

<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>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Nursing and Midwifery Staffs Negotiating Council (1992) *Nursing and Midwifery Staffs Conditions of Service and Rates of Pay*, Department of Health, Leeds.

<sup>5</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

**Schema 13.5 Health care assistant**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£14,705 per year	National average salary for an auxiliary nurse working in a hospital, based on the April 2002 scale mid-point for a B grade nurse. The sum includes an element to reflect the proportion of staff who receive a London allowance. It assumes that the hours include working 13.2 hours a week evening and Saturdays at 1.3 of basic rate, and 4.8 hours a week on Sundays at 1.6 of basic rate.
B. Salary oncosts	£1,382 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Overheads	£2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
D. Capital overheads	£1,036 per year	Based on the new build and land requirements of NHS facilities. <sup>1/2</sup> but adjusted to reflect shared used of office space for administration, and recreational and changing facilities. Treatment space has not been included. It is assumed that auxiliary nurses use one-sixth of an office. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £1,599.
Working time	44 wks p.a., 37.5 hrs p.w.	Includes 20 days annual leave and 10 statutory leave days. <sup>3</sup> Assumes 10 days sickness leave. No study/training days have been assumed.
Ratio of direct to indirect time on: face-to-face contacts	1:0.67	Assuming 60 per cent of time spent on face-to-face contact, 15 per cent on other clinical activity, and 25 per cent on non-clinical activity. Information derived from consultation with NHS Trusts.
London multiplier	1.14 x (A to C); 1.25 x D	Allows for the higher costs associated with London compared to the national average cost. <sup>4</sup>
Non-London multiplier	0.97 x (A to C) 0.98 x D	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>4</sup>
<b>Unit costs available 2002/2003</b>		
£12 per hour; £20 per hour of patient contact; £89 per shift (includes A to D)		

<sup>1</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>2</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> Nursing and Midwifery Staffs Negotiating Council (1992) *Nursing and Midwifery Staffs Conditions of Service and Rates of Pay*, Department of Health, Leeds.

<sup>4</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

## **14. Doctors**

14.1 Pre-registration house officer

14.2 Senior house officer

14.3 Specialist registrar

14.4 Consultant: medical

14.5 Consultant: surgical

14.6 Consultant: psychiatric

**Schema 14.1 Pre-registration house officer**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£26,394 per year	Based on payment for 40.7 basic hours per week on duty (of which 88.7 per cent are actually worked), and 31.7 additional hours per week (of which 59.6 per cent are actually worked at a rate of 50 per cent of basic rate). <sup>1</sup> It does not reflect payments for London allowances.
B. Salary oncosts	£2,577 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£16,921 per year	The equivalent annual cost of pre-registration medical education. The investment in training has been annuitised over the expected working life of the doctor. <sup>2</sup> See schema 7.5 for further details on training for health professionals.
D. Overheads	£2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Ongoing training	£2,317 per year	Ongoing training is calculated using (provisional) budgetary information provided by the Medical Education Funding Unit of the NHS Executive relating to allocation of Medical and Dental Education Levy funds. Adjustment has been made to reflect assumed usage of educational facilities by this grade of doctor.
F. Capital overheads	£2,240 per year	Based on the new build and land requirements of NHS facilities. <sup>3/4</sup> Adjustments have been made to reflect shared use of administration and recreational facilities, including accommodation for night-time duties. Treatment space has not been included. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £3,457.
Working time	44 wks p.a.	Includes 25 days annual leave and 10 statutory leave days. Assumes 5 days sickness leave. No study/training days have been assumed.
London multiplier	1.14 x (A to E); 1.26 x F	Allows for the higher costs associated with London compared to the national average cost. <sup>5</sup>
Non-London multiplier	0.97 x (A to E) 0.97 x F	Allows for the lower costs associated with working outside London compared to the national average cost <sup>5</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£11 (£17) per hour on duty; £14 (£22) per hour worked (includes A to F).		

<sup>1</sup> Review Body on Doctors' and Dentists' Remuneration, Thirty First Report 2002, The Stationery Office, London.

<sup>2</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>3</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>5</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

**Schema 14.2 Senior house officer**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£36,381 per year	Based on payment for 38.9 basic hours per week on duty (of which 87 per cent are actually worked), and 33.6 additional hours per week (of which 48 per cent are actually worked at a rate of 50 per cent of basic rate). <sup>1</sup> It does not reflect payments for London allowances.
B. Salary oncosts	£ 3,938 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£18,134 per year	The equivalent annual cost of pre-registration medical training and post-graduate medical education. See schema 7.5 for further details on training for health professionals.
D. Overheads	£ 2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Ongoing training	£ 2,930 per year	Ongoing training is calculated using (provisional) budgetary information provided by the Medical Education Funding Unit of the NHS Executive relating to allocation of Medical and Dental Education Levy funds. Adjustment has been made to reflect assumed usage of educational facilities by this grade of doctor.
F. Capital overheads	£ 2,240 per year	Based on the new build and land requirements of NHS facilities <sup>2/3</sup> Adjustments have been made to reflect shared use of administration and recreational facilities, including accommodation for night-time duties. Treatment space has not been included. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £3,457.
Working time	38 wks p.a.	Includes 25 days annual leave and 10 statutory leave days. Assumes 30 study/training days, and 5 days sickness leave.
London multiplier	1.14 x (A to E); 1.26 x F	Allows for the higher costs associated with London compared to the national average cost. <sup>4</sup>
Non-London multiplier	0.97 x (A to E) 0.97 x F	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>5</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£16 (£24) per hour on duty; £24 (£35) per hour worked (includes A to F).		

<sup>1</sup> Review Body on Doctors' and Dentists' Remuneration, Thirty First Report 2002, The Stationery Office, London.

<sup>2</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Provisional and published analysis using data from the Department of Health's weighted capitation formula.



**Schema 14.3 Specialist registrar**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£39,995 per year	Based on payment for 39.9 basic hours per week on duty (of which 89 per cent are actually worked), and 30.7 additional hours per week (of which 43 per cent are actually worked at a rate of 50 per cent of basic rate). <sup>1</sup> It does not reflect payments for London allowances.
B. Salary oncosts	£ 4,508 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£19,949 per year	The equivalent annual cost of pre-registration medical training and post-graduate medical education. The investment in training of a medical degree, one year spent as a pre-registration house officer and two years as a senior house officer have been annuitised over the expected working life of the doctor. <sup>2</sup> See schema 7.5 for further details on training for health professionals.
D. Overheads	£ 2,381 per year	Comprises £2,381 for indirect overheads. No allowance has been made for direct overheads because it is not possible to separate these from the cost of treatment.
E. Ongoing training	£ 2,930 per year	Ongoing training is calculated using (provisional) budgetary information provided by the Medical Education Funding Unit of the NHS Executive relating to allocation of Medical and Dental Education Levy funds. Adjustment has been made to reflect assumed usage of educational facilities by this grade of doctor.
F. Capital overheads	£ 2,240 per year	Based on the new build and land requirements of NHS facilities. <sup>3/4</sup> Adjustments have been made to reflect shared use of administration and recreational facilities, including accommodation for night-time duties. Treatment space has not been included. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £3,457.
Working time	37 wks p.a.	Includes 30 days annual leave and 10 statutory leave days. Assumes 30 study/training days, and 5 days sickness leave.
London multiplier	1.14 x (A to E); 1.26 x F	Allows for the higher costs associated with London compared to the national average cost. <sup>5</sup>
Non-London multiplier	0.97 x (A to E) 0.97 x F	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>5</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£19 (£28) per hour on duty; £27 (£40) per hour worked (includes A to F).		

<sup>1</sup> Review Body on Doctors' and Dentists' Remuneration, Thirty First Report 2002, The Stationery Office, London.

<sup>2</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>3</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>5</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

### Schema 14.4 Consultant: medical

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£69,093 per year	Average salary for a consultant physician based on the April 2002 scale midpoint including £8,235 corresponding to the third discretionary point. <sup>1</sup> The sum also includes £558 to reflect the national level of distinction award payments. It does not reflect payments for London allowances.
B. Salary oncosts	£ 9,382 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£24,399 per year	The equivalent annual cost of pre-registration medical training and post-graduate medical education. The investment in training of a medical degree, one year spent as a pre-registration house officer, two years as a senior house officer and four years as a specialist registrar have been annuitised over the expected working life of the consultant. <sup>2</sup> See schema 7.5 for further details on training for health professionals.
D. Overheads	£26,970 per year	Comprises £6,007 for indirect overheads and £20,963 for secretarial staff costs.
E. Ongoing training	£1,430 per year	Ongoing training is calculated using (provisional) budgetary information provided by the Medical Education Funding Unit of the NHS Executive relating to allocation of Medical and Dental Education Levy funds. Adjustment has been made to reflect assumed usage of educational facilities by this grade of doctor.
F. Capital overheads	£3,272 per year	Based on the new build and land requirements of NHS facilities. <sup>3/4</sup> Includes shared use of consultation and examination areas, and designated secretarial office space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £5,048.
Working time	41 wks p.a., 48.2 hrs p.w.	Includes 30 days annual leave and 10 statutory leave days. Assumes 10 study/training days, and 5 days sickness leave. Research carried out in 2000-01 involving 300 consultants showed that they worked an average of 51.5 hours a week in the NHS. They spent an average 3.3 hours per week on private practice or other non-NHS work, such as medico-legal reports. <sup>5</sup>
Ratio of direct to indirect time on: patient-related activity	1:0.33	Assuming 69 per cent of consultant time spent on patient-related activity. <sup>6</sup> Time spent teaching has been disregarded, and non-contact time has been treated as an overhead on time spent in patient contact.
London multiplier	1.02 x (A to E); 1.27 x F	Allows for the higher costs associated with London compared to the national average cost. <sup>7</sup>
Non-London multiplier	0.97 x (A to E) 0.97 x F	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>7</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£66 (£82) per hour; £88 (£109) per patient-related hour (includes A to F).		

<sup>1</sup> NHS Executive (2002), Advance letter (MD) 1/02.

<sup>2</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>3</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>5</sup> Consultants survey, BMA. *Health Service Journal* (February, 2002).

<sup>6</sup> Audit Commission (1996) *The Doctors' Tale Continued*, HMSO, London.

<sup>7</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

**Schema 14.5 Consultant: surgical**

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£69,064 per year	Average salary for a consultant surgeon based on the April 2002 scale midpoint including £8,235 corresponding to the third discretionary point. <sup>1</sup> The sum also includes £529 to reflect the national level of distinction award payments. It does not reflect payments for London allowances.
B. Salary oncosts	£9,380 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£24,399 per year	The equivalent annual cost of pre-registration medical training and post-graduate medical education. The investment in training of a medical degree, one year spent as a pre-registration house officer, two years as a senior house officer and four years as a specialist registrar have been annuitised over the expected working life of the consultant. <sup>2</sup> See schema 7.5 for further details on training for health professionals.
D. Overheads	£26,970 per year	Comprises £6,007 for direct overheads and £20,963 for secretarial staff costs.
E. Ongoing training	£1,430 per year	Ongoing training is calculated using (provisional) budgetary information provided by the Medical Education Funding Unit of the NHS Executive relating to allocation of Medical and Dental Education Levy funds. Adjustment has been made to reflect assumed usage of educational facilities by this grade of doctor.
F. Capital overheads	£3,272 per year	Based on the new build and land requirements of NHS facilities. <sup>3/4</sup> Includes shared use of consultation and examination areas, and designated secretarial office space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £5,048.
Working time	41 wks p.a., 48.2 hrs p.w.	Includes 30 days annual leave and 10 statutory leave days. Assumes 10 study/training days, and 5 days sickness leave. Research carried out in 2000-01 involving 300 consultants showed that they worked an average of 51.5 hours a week in the NHS. They spent an average 3.3 hours per week on private practice or other non-NHS work, such as medico-legal reports. <sup>5</sup>
Ratio of direct to indirect time on/in: patient-related activity operating theatre	1:0.35 1:2.17	Assuming 68 per cent of consultant time spent on patient-related activity and 29 per cent in theatre. <sup>6</sup> Time spent teaching has been disregarded, and non-contact time has been treated as an overhead on time spent in patient contact.
London multiplier	1.14 x (A to E); 1.27 x F	Allows for the higher costs associated with London compared to the national average cost. <sup>7</sup>
Non-London multiplier	0.97 x (A to E) 0.97 x F	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>7</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£66 (£82) per hour; £210 (£260) per hour operating; £90 (£111) per patient-related hour (includes A to F).		

<sup>1</sup> NHS Executive (2002), Advance letter (MD) 1/02.

<sup>2</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>3</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>5</sup> Consultants survey, BMA. *Health Service Journal* (February, 2002).

<sup>6</sup> Audit Commission (1996) *The Doctors' Tale Continued*, HMSO, London.

<sup>7</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

**Schema 14.6 Consultant: psychiatric**

Costs and unit estimation	2002/2003 value	Notes
A. Wages/salary	£68,959 per year	Average salary for a consultant psychiatrist based on the April 2002 scale midpoint including £8,235 corresponding to the third discretionary point. <sup>1</sup> The sum also includes £424 to reflect the national level of distinction award payments. It does not reflect payments for London allowances.
B. Salary oncosts	£9,376 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£24,399 per year	The equivalent annual cost of pre-registration medical training and post-graduate medical education. The investment in training of a medical degree, one year spent as a pre-registration house officer, two years as a senior house officer and four years as a specialist registrar have been annuitised over the expected working life of the consultant. <sup>2</sup> See schema 7.5 for further details on training for health professionals.
D. Overheads	£26,970 per year	Comprises £6,007 for indirect overheads and £20,963 for secretarial staff costs.
E. Ongoing training	£1,430 per year	Ongoing training is calculated using (provisional) budgetary information provided by the Medical Education Funding Unit of the NHS Executive relating to allocation of Medical and Dental Education Levy funds. Adjustment has been made to reflect assumed usage of educational facilities by this grade of doctor.
F. Capital overheads	£3,272 per year	Based on the new build and land requirements of NHS facilities. <sup>3/4</sup> Includes shared use of consultation and examination areas, and designated secretarial office space. Capital costs have been annuitised over sixty years at a discount rate of 3.5 per cent. See editorial. At 6 per cent, the cost would be £5,048.
Working time	41 wks p.a. 48.2 hrs p.w.	Includes 30 days annual leave and 10 statutory leave days. Assumes 10 study/training days, and 5 days sickness leave. Research carried out in 2000-01 involving 300 consultants showed that they worked an average of 51.5 hours a week in the NHS. They spent an average 3.3 hours per week on private practice or other non-NHS work, such as medico-legal reports. <sup>5</sup>
Ratio of direct to indirect time on: face-to-face contacts patient-related activity	1:2.17 1:0.37	Assuming 29 per cent of consultant time spent in face-to-face contact and 67 per cent on patient-related activity. <sup>6</sup> Time spent teaching has been disregarded, and non-contact time has been treated as an overhead on time spent in patient contact.
London multiplier	1.14 x (A to E) 1.27 x F	Allows for the higher costs associated with London compared to the national average cost. <sup>7</sup>
Non-London multiplier	0.97 x (A to E) 0.97 x F	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>7</sup>
<b>Unit costs available 2002/2003 (costs including qualifications given in brackets)</b>		
£66 (£82) per hour; £91 (£113) per patient-related hour; £210 (£260) per hour patient contact (includes A to F).		

<sup>1</sup> NHS Executive (2002), Advance letter (MD) 1.2.

<sup>2</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>3</sup> Building Cost Information Service (2003) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2003) *Housing and Construction Statistics 1991-2001*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>5</sup> Consultants survey, BMA. *Health Service Journal* (February, 2002).

<sup>6</sup> Watson, J.P. (1985) *Psychiatric Manpower and the Work of the Consultant*, Bulletin of the Royal College of Psychiatrists, Vol. 9, September.

<sup>7</sup> Provisional and unpublished analysis using data from the Department of Health's weighted capitation formula.

## **V. MISCELLANEOUS**

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## Inflation indices

Year	BCIS/ABI <sup>1</sup>		Gross Domestic Product Deflator <sup>2</sup>		Retail Price <sup>3</sup>	
	Rebuilding Cost Index (1988=100)	% increase	Market Prices Index	% increase	Index (1986/87= 100)	% increase
1993	115.3	-1.4	102.5	2.5	140.5	3.0
1994	118.7	2.9	103.8	1.3	143.8	2.3
1995	126.0	6.1	106.8	2.9	147.9	2.9
1996	129.2	2.5	110.3	3.2	152.3	3.0
1997	134.6	4.2	113.7	3.1	156.5	2.8
1998	143.3	6.5	116.9	2.7	160.6	2.6
1999	148.9	3.9	119.7	2.4	164.3	2.3
2000	154.6	3.8	122.4	2.3	168.1	2.1
2001	165.7	7.2	125.5	2.5	172.1	2.4
2002	176.6	6.6	129.3	3.0	177.6	3.2

Hospital and community health services (HCHS) pay and price inflation is a weighted average of two separate inflation indices: the pay cost index (PCI) and the health service cost index (HSCI). The PCI measures pay inflation in the HCHS. The PCI is itself a weighted average of increases in unit staff costs for each of the staff groups within the HCHS sector. Pay cost inflation tends to be higher than pay settlement inflation because of an element of pay drift within each staff group. Pay drift is the tendency for there to be a gradual shift up the incremental scales, and is additional to settlement inflation. The estimate of pay inflator for the current year is based on pay awards. The HSCI is calculated monthly to measure the price change for each of 40 sub-indices of goods and services purchased by the HCHS. The sub-indices are weighted together according to the proportion of total expenditure which they represent to give the overall HSCI value. The pay cost index and the health service cost index are weighted together according to the proportion of HCHS expenditure on each. This provides an HCHS combined pay and prices inflation figure.

Personal Social Services (PSS) pay and prices indices are based on information supplied by the Department of Health using New Earnings Survey data. A three-year average of the Pay variable real terms increases is used to obtain a trend estimate of the annual growth which is then applied to the Pay index in real terms to obtain its estimated value for 2002/03.

Year	Hospital & Community Health Services (HCHS)				Personal Social Services (PSS)			
	Pay and Prices Index (1987/8=100)	Annual percentage increases			Pay and Prices Index (1992/3=100)	Annual percentage increases		
		Pay and Prices	Pay <sup>4</sup>	Prices <sup>5</sup>		Pay and Prices	Pay <sup>6</sup>	Prices <sup>7</sup>
1993/94	155.5	3.4	4.2	1.4	103.5	3.5	4.0	2.5
1994/95	159.6	2.6	3.4	0.9	103.5	0.0	-0.6	1.3
1995/96	166.0	4.0	4.4	3.2	106.8	3.2	3.3	2.9
1996/97	170.6	2.8	3.3	1.5	111.4	4.3	4.8	3.2
1997/98	173.5	1.7	2.5	0.4	116.2	4.3	4.8	3.1
1998/99	180.4	4.0	4.9	2.5	121.7	4.7	5.6	2.7
1999/00	188.5	4.5	6.9	1.2	125.8	3.4	3.8	2.4
2000/01	196.4	4.2	7.1	-0.3	131.7	4.7	5.7	2.3
2001/02	201.1	2.4	4.0	0.1	137.5	4.4	5.2	2.5
2002/03	206.5	2.7E	3.6E	1.3	144.1	4.8E	5.5E	3.0

<sup>1</sup> Building Cost Information Service (2003) Indices and Forecasts, BCIS, London.

<sup>2</sup> Prices obtained from HMT GDP Deflator as updated 30/06/03.

<sup>3</sup> Source [www.statistics.gov.uk/statbase](http://www.statistics.gov.uk/statbase).

<sup>4</sup> Estimated figures provided by PSSRU, based on NHS pay awards.

<sup>5</sup> Provided by the Department of Health

<sup>6</sup> Prices obtained from relevant years of the New Earnings Survey - ONS

<sup>7</sup> Prices obtained from HMT GDP Deflator as updated 30/06/03

## Glossary

*Agency overheads.* Overhead costs borne by managing agency.

*Annuitying.* Converting a capital investment (such as the cost of a building) into the annual equivalent cost for the period during which the investment is expected to last.

*Capital overheads.* Buildings, fixtures and fittings employed in the production of a service.

*Care package costs.* Total cost of all services received by a patient per week.

*Cost function analysis.* Statistical analysis using a multivariate technique 'designed to simultaneously tease out the many influences on cost'.

*Direct overheads.* Day-to-day support for a service, such as immediate line management, telephone, heating and stationery.

*Discounting.* Adjusting costs using the time preference rate spread over a period of time in order to reflect their value at a base year.

*Durables.* Items such as furniture and fittings.

*Indirect overheads.* Ongoing managing agency costs such as personnel, specialist support teams and financial management.

*Long-term.* The period during which fixed costs such as capital can be varied.

*Marginal cost.* The cost of an additional unit of a service.

*Multiplier.* The figure by which a unit cost should be multiplied to reflect the resource implications of non-measured activities, such as administration.

*Oncosts.* Essential associated costs such as employer's national insurance contributions on salaries.

*Opportunity cost.* The value of the alternative use of the assets tied up in the production of the service.

*Per average stay.* Cost per person of a typical stay in a residential facility or hospital.

*Per client hour.* Cost of providing the service for one hour of patient attendance. This allows for costs of time not spent with clients and allocates the costs of this time to the time spent with clients.

*Per clinic visit.* Cost of attending to one client in a clinic. This allows for overall time spent on non-clinical activity and allocates this to the total time spent with clients in any setting.

*Per consultation.* Cost per attendance in a clinic or surgery. This also allows for overall time spent on non-clinical activity and allocates this to the total time spent with clients.

*Per example episode.* Cost of a typical episode of care, comprising several hours of a professional's time.

*Per home visit.* Cost of one visit to a client at home. This includes the cost of time spent travelling to the visit. It also allows for overall time spent on non-clinical activity and allocates this to the total time spent with clients in any setting.

*Per hour in clinic.* Cost of one hour spent by a professional in a clinic. This allows for overall time spent on non-clinical activity and allocates this to the total time spent with clients in any setting.

*Per hour of client contact.* Cost of one hour of professional time spent attending to clients. This also allows for the costs of time not spent with clients and allocates the costs of this time to the time spent with clients.

*Per hour of client-related work.* Hourly cost of time spent on activities directly related to the client. This is not necessarily time spent in face-to-face contact with the client.

*Per hour of direct outputs (teams).* Cost of one hour of team activity which results in a measurable activity by any member(s) of the team.

*Per hour of face-to-face contact.* Hourly cost of time spent in face-to-face contact with clients. This also allows for the costs of time not spent with clients and allocates the costs of this time to the time spent with clients.

*Per hour of home visiting.* Cost of one hour spent by a professional undertaking visits to clients at home. This includes the cost of time spent travelling. It also allows for overall time spent on non-clinical activity and allocates this to the total time spent with clients in any setting.

*Per hour of patient-related work or per patient-related hour.* Hourly cost of time spent on activities directly related to the patient. This is not necessarily time spent in face-to-face contact with the patient.

*Per hour on duty.* Hourly cost of time spent by a hospital doctor when on duty. This includes time spent on-call when not actually working.

*Per hour worked.* Hourly cost of time spent by a hospital doctor when working. This may be during the normal working day or during a period of on-call duty.

*Per inpatient day.* Cost per person of one day in hospital.

*Per patient day.* Cost per person of receiving a service for one day.

*Per permanent resident week.* Total weekly cost of supporting a permanent resident of a residential facility.

*Per place per day (nursery).* Cost of one child attending a nursery for one day.

*Per procedure.* Cost of a procedure undertaken in a clinic or surgery. This also allows for overall time spent on non-clinical activity and allocates this to the total time spent with clients.

*Per professional chargeable hour.* Hourly cost of services provided when paid for by the client. This also allows for the costs of time not spent with clients and allocates the costs of this time to the time spent with clients.

*Per resident week.* Cost per person per week spent in a residential facility.

*Per session (day care).* Cost per person of each morning or afternoon attendance in a day care facility.

*Per session per client.* Cost per person of one treatment session.

*Per short-term resident week.* Total weekly cost of supporting a temporary resident of a residential facility.

*Price base.* The year to which cost information refers.

*Ratio of direct to indirect time spent on: client-related work/direct outputs/face-to-face contact/clinic contacts/home visits.* The relationship between the time spent on direct activities (such as face-to-face contact) and time spent on other activities. For example, if the ratio of face-to-face contact to other activities is 1:1.5, each hour with a client requires 2.5 paid hours.

*Revenue costs.* Supplies and services other than salaries incurred in the production of a service.

*Revenue overheads.* Variable support services, supplies and other expenditure incurred in the production of a service.

*Schema.* Framework and contents of cost synopsis for each service.

*Short-term.* The period during which durable assets cannot be immediately added to or removed from the existing stock of resources.

*SSMSS. Social Services Management and Support Services:* Overhead costs incurred by a local authority as defined by CIPFA guidelines. These include indirect overheads such as finance and personnel functions.

*Time preference rate.* The rate at which future costs or benefits are valued in comparison to current or base years costs or benefits.



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