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## Unit Costs of Health and Social Care 2002

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 United Kingdom 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. The PSSRU was established at the University of Kent at Canterbury in 1974, and from 1996 it has operated from three sites:

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## Foreword

This is the tenth 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 Jennifer Beecham, Frank Brown, Keith Childs and John Corrin. Thanks also to Andrew Fenyo, Helen Friedrichson, Mike Grimshaw, Glen Harrison, Mike Newett, David Newnham, Tony Rees, Gerry Richardson, Ian Riddett, Alistair Rose, Gabriel Serota, Robert Shaw, Peter Simpson and David Wall. 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: [www.ukc.ac.uk/pssru](http://www.ukc.ac.uk/pssru).

## Editorial

# Updating unit costs of health and social care

*Ann Netten*<sup>1</sup>

### 1. Introduction

This is the tenth in an annual series of volumes that brings together information from a variety of sources to estimate unit costs for a wide range of health and social care services. One issue that increasingly raises its head over the years is the degree to which information has become dated. While each year attempts are made to improve the quality and range of estimates, necessarily the passage of time draws into the question the relevance of some of the sources on which we draw. Can information drawn from studies conducted say five or ten years ago still be used as a reasonable basis for current unit costs? While considerable effort goes into updating information each year it is not without problems.

There are three main items of information needed for unit cost estimation: a clear description of service inputs; a financial valuation for each input; and a measurement of service output or activity (Beecham, 1995; Netten and Beecham, 1999). In relation to any service, each of these may change over time. In some cases, such as home care services, changes that have cost implications will be small and implemented slowly; qualitative changes such as a move from domestic work to personal care have little immediate impact of the unit cost per hour of service, for example. For other services, the change will occur quite quickly, perhaps within a year or so. Relatively large pay rises aimed at improving recruitment and retention of healthcare professionals will have an immediate impact on the costs of services. Thus, the speed at which services change and the availability of information influences the 'shelf life' of our unit cost estimates.

As usual, this editorial starts by describing the new developments incorporated in this volume. The approach taken to updating cost information in this series of volumes is then described and areas in which there is a need for better data are identified.

### 2. New developments

The policy emphasis on maximising independence, rehabilitation and intermediate care is reflected in the new schemata included in this volume. The new section on services for disabled people includes rehabilitation and independent living services, and nurse-led rehabilitation wards. Other new costs information covers the patient costs of visiting GPs, a nurse practitioner service for nursing and residential home residents, and social services child care.

#### Services for disabled people

This section is one of the most important new developments in this volume. Little information has been available to date about the costs of services for disabled adults but it is an area of increasing policy importance. The National Service Framework for Long-term Conditions, for example, will focus on the needs of people with neurological conditions and brain and spinal injury.

<sup>1</sup> My thanks once again to Jennifer Beecham for her advice and comments on this editorial.

The new schemata on services for disabled people are:

- A high dependency care home for people with severe physical disabilities for example multiple sclerosis and brain injury. (schema 5.1, page 81)
- A residential home for people with disabilities such as cerebral palsy and brain injury (schema 5.2, page 82)
- Special needs flats for people with varying disabilities. (schema 5.3, page 83)
- A rehabilitation centre for people with and brain and spinal injury check (schema 5.4, page 84)

The cost estimates are based on information provided by John Grooms, a Christian-based charity providing services to over 38,000 people with disabilities and their families. Necessarily, each schema reflects only one or two establishments but even so, this provides us with some very valuable cost information in an area where there is a dearth of detailed data. Each schema includes information about the types and severity of conditions among the people supported, the facility's purpose and the type of service provided. The organisation aims to provide high quality physical accommodation and support that maximises the independence of disabled people. The impact of this overarching ethos is reflected in the services' relatively high capital and revenue costs when compared to ostensibly similar services for other client groups.

### **Hospital based rehabilitative care**

Although there are a number of ongoing studies exploring the cost-effectiveness of intermediate care, there is little unit cost information currently available. For this volume, we have been able to draw on information kindly provided by Gerald Richardson at the Centre for Health Economics at York about the costs of nurse-led rehabilitation wards for older people. The objectives of this service are very much in line with the intermediate care agenda, even if the service is provided in a hospital setting. There is a detailed breakdown of the service's inputs providing us with much better information about the composition of hospital ward costs.

For the rehabilitation wards, the bottom-up estimates (shown in schemata 2.6 and 2.7 on pages 58 to 59) separately identify the capital costs associated with providing the bed and associated treatment space. The approach taken by these researchers is in stark contrast to most publicly available information in which the costs per type of bed day are based on top down data that links expenditure to activity by specialty. For example, the hospital costs on page 95 are derived from the high-level TFR2 returns to the NHS Executive. They exclude any capital element. As we suggest in the introductory paragraphs, these data should only be used if no other data are available. Reference costs, as we have identified previously, are also produced by NHS Trusts, but the estimations are based on mandatory guidance on a wide range of aspects of what is in essence a bottom up costing process ([www.doh.gov.uk/nhsexec/refcosts](http://www.doh.gov.uk/nhsexec/refcosts)). The guidance is that at least 75 per cent of total expenditure as reported in TFR2 returns should be accounted for by reference costs of procedures. Reference cost data include capital costs. However, as discussed in a previous editorial (Netten, 2000) the data should still be treated with considerable caution.

### **Patient costs**

The focus in this series of volumes has always been on the unit costs of providing formal health and social care services. In full economic evaluations, however, best practice recommends taking a societal perspective, which should include the costs to society at large and to those benefiting from the intervention (Knapp, 1993). This information is often difficult to collect, as it should be specifically related to the condition or practice being evaluated. It also generates a time-consuming set of tasks and may make the economic evaluation too expensive for research funders. This year,



to begin to meet these demands for cost information, we have included data from a small-scale study about the cost to patients of attending a GP consultation (schema 9.7, pages 115 to 117).

### **Nurse practitioner costs**

Nurse practitioners are a relatively new development for nursing. They are very experienced nurses and have advanced nursing and clinical decision-making skills. Nurse practitioners are at the forefront of debates about the skill mix required in general practice, the roles and responsibilities of the various professional groups, and nurse prescribing. Nurse practitioners can be found in many service contexts and often, but not solely, work with a specific client group. The short article on pages 17-19 describes the activities and costs of one nurse practitioner service set up to supplement and complement the local GP service by providing health care for older people living in care homes.

### **Child care costs in social services**

The Children in Need (CIN) survey yet again provides a rich source of information on the costs to social services as they carry out their responsibilities towards children in need. Data are taken from the CIN 2000 survey for which local authorities returned summary data to the Department of Health. Local authorities provided data on the number of children receiving different types of support, the reasons why support was provided, and the cost implications. On pages 90 to 91, average costs data for England are presented for children and young people served by different types of authorities (for example, London boroughs, unitary authorities), the different need groups, and the type of placement. One of the most important facets of this survey is that it considers not only children who are looked after (accommodated) by local authorities but also children who are receiving services but living with their families or independently. Within the survey, the cost estimations follow a standardised methodology and all costs to social services are included with the exception of capital costs.

### **Articles**

We include five brief articles in this year's volume. The first two focus on estimation of service unit costs. Jennifer Beecham and colleagues (pages 17-19) have estimated the costs of a nurse practitioner service as described above. The following article (page 21-23) examines the costs of child and adolescent psychiatric inpatient units. The results of this detailed costing exercise of 66 units, including 45 NHS units, show less variation and generally lower costs than indicated by NHS reference costs. Two of the articles focus on developments in data sources. Keith Childs describes the development of the PSS EX1 return that draws together social services expenditure and activity information, replacing previous data collections and forming the basis for performance indicators among other uses. Jennifer Beecham and colleagues describe the *Mental Health Service Mapping* exercise that is likely to provide a very valuable source of information in the future.

The final article to note here provides an important link between forthcoming policy needs for cost information and this volume. Phillip Lee's article (page 33-35) describes how national health accounts are being developed which will enable valid comparisons to be made between OECD countries with respect to expenditure on health. Such exercises in international standardisation are as important as national ones, as typified by this volume and central government initiatives such as *Costing for Contracts* or the *Children in Need Survey*. In England, the development of such health accounts has particular resonance following the publication of the Wanless report (Wanless, 2002). This recommends that policy initiatives and expenditure levels should be influenced by how we compare internationally.

In summary, in this year's *Unit Costs of Health and Social Care* we have included five new schemata and short articles describing the estimation process behind two other services' unit costs. As with other years, these articles are likely to form the basis for schemata in next year's volume. These, together with the articles on data developments make it possible to track back through the volumes for more detail on the estimation procedures employed and the source data for many services.

### 3. Timely and accurate information: updating costs

If we are to draw correct conclusions about the resource implications of a particular innovation or policy, it is essential that the unit costs of services provide an accurate estimate of the opportunity costs. There are two ways of identifying opportunity cost: those that *are* incurred (incorporating inefficiencies of current practice) and those that *should be* incurred (if there were no inefficiencies). It could be argued that for efficient resource distribution we should use the latter definition as otherwise we continue to fund historical inefficiencies (Hutton, 2002). However, this raises a number of estimation and judgement issues; not the least of these is gaining sufficient information to assess the extent to which inefficiencies exist in current practice.

For the most part the information we provide in these volumes reflects the actual costs of services as we draw on assessments of resources used and working practices, or descriptions of expenditure levels and activity. By implication, therefore, the unit costs reflect the practices at the time of data collection. Ideally, therefore, the unit costs should be interpreted with each component of the unit cost examined. When using the data for local purposes, for example, one should ask: Do the inputs described in this volume accurately reflect the local service? Are local prices for the inputs similar? Does the local service provide the same level of activity? So when data from this volume are used to evaluate a new policy or service, they should be adapted to reflect the circumstances of the evaluation. Only where this is not possible can national estimations, as used in this volume, be considered the next best alternative.

Thus the objective of this series of volumes is to provide information that is as close to current national practice as possible. Each year, therefore, the schemata are reviewed to assess the extent to which they meet this criterion and, where sensible, updated by drawing on a wide range of sources. These sources include:

- Sample surveys of local authorities to establish grades and wages for social workers, occupational therapists and home care workers
- Updates of terms and conditions and salary scales
- Routine statistics available in the public domain (for example, PSS Key Indicators)
- Statistical returns (for example, TFR2 returns about expenditure and activity from Healthcare Trusts to NHS Executive)
- Regular surveys (for example, the Laing and Buisson survey of care home prices)
- Special collections (for example, data collected to identify GP remuneration and allowances)
- Data from completed or ongoing research
- Specific inflators for the type of information being updated.

However, a dearth of current data on inputs, financial values and activity measures reduces the accuracy of the unit cost estimates. Where we have no confidence that our data sources reflect current services and practice the schema is withdrawn. For example, data on the cost of meals-on-wheels services were withdrawn in 1997 as they no longer reflected existing practice and the

schema on NHS nursing homes costs was withdrawn in 1996 because this type of provision was no longer commonly available.

Many different sources of information are required to create the data required for these volumes, some of which are more readily accessible than others. The availability of data and the consequences for unit cost estimation are discussed below for four main areas; salary costs, time use, overheads and facility-based services.

### *Salary costs*

The costs of peripatetic services such as district nurses and social workers depend fundamentally on information about salaries (because they commonly absorb around 80 per cent of the total service cost) and time use data that reflect (changing) patterns of service delivery to clients. Adjustments to these data may result in quite a significant change in the unit cost. Information about salary scales is readily available and very helpful when building up a bottom-up cost estimate of a health or social care professional. However, a key piece of information is the point on the scale at which workers are employed. Research in the past has identified that cost differences between authorities – particularly between London and non-London authorities - are often attributable to the fact that similar workers are paid on different scales or sections of spinal points systems (Bebbington and Kelly, 1995).

The importance of grade drift and changes in the composition of the workforce can be illustrated by the difference between the predicted Hospital and Community Health Services (HCHS) price inflation index and the actual figure calculated at the end of the year. For example, based entirely on pay awards we would have expected pay inflation of just 3.4 per cent between 1999/2000 and 2000/2001; the actual pay inflator was 7.1 per cent. Historically the difference between pay awards and pay inflation has not been that great so if this larger difference continues to be found in future years, the best approach to predicting pay inflation for the current year is not yet clear. This year pay awards predict an HCHS pay inflator of around 4 per cent. This is the same as the National Average Earnings increase, which is based on the New Earnings Survey, which in turn is used to predict Personal Social Services (PSS) pay inflation.

This year the PSSRU has carried out a survey of 40 local authorities in order to establish wages for social workers and home care workers. The sample reflected the national distribution of social care workers in each authority type. Six per cent of workers were employed within the Inner London authorities, 8 per cent in Outer London, 30 per cent in the Metropolitan authorities, 19 per cent in the unitary authorities and 37 per cent in the English counties. Forty authorities were selected in order to maintain the weighting as closely as possible.

Information was collected about minimum and maximum salary or wage for each type of staff member. The mid point data were then weighted according to the number of social worker staff for which the calculation was being carried out employed within the authorities.

### *Time use*

The importance of incorporating time use information can be illustrated by comparing the unit costs of health service professionals that are paid very similar salaries but have different patterns of activity. District nurses and health visitors costs are both estimated using the mid point salary for a G grade nurse and are assumed to incur the same level of overhead and qualification costs. However, the unit cost of a patient contact hour is £55 for a district nurse and £75 for a health visitor. This reflects the different distribution of activities; much more of a health visitor's time is spent on activities of benefit to patients that do not involve face-to-face contact. Clearly it is essential that our information about time use is accurate.

Most of our information about community nurse activity is based on an excellent study conducted in the early 1980s (Dunnell and Dobbs, 1982). Much has changed in community health services since that time so ideally we should reflect these changes in the sources of information we use. In practice, however, it has only proved possible to identify a small amount of service-specific time use information from individual trusts and this has tended to confirm the overall distribution of activity in the 1980s study, even if the activities undertaken have changed. In this situation we prefer to use data from the older but larger and more detailed study of the 1980s. Indeed there is remarkable consistency in time use in some instances. For example a recent international study of primary care consultation length found that the length of GP consultations was 9.4 minutes (Deveugele et al., 2002). In 1993 we were using consultation lengths of 9.3 minutes and most recently have been using 9.36 minutes.

There is, however, an obvious need for more up-to-date information about time use of health and social care professionals generally. Potentially there are two sources. The first source is routinely collected data. Many health service professionals record time use as part of their clinical practice or as part of the service's audit or management information system but unfortunately the information is not made available in the public domain or collated at a national level. Collation of routinely reported information would allow a better estimation of time use, facilitating regular updating of this volume to reflect current practice.

The second major source of such information is large-scale descriptive surveys. Costs of teams depend both on this time use information and on the composition of teams; that is the balance of different types of staff working within the team. Information on the composition of community mental health teams is now available from the *Mental Health Service Mapping* exercise. The survey uses web-based technology to gather information on the components of local services. On pages 29 to 31, data from the second annual survey are used to compare the current staffing profile of community mental health teams with the data used in schema 11.2 (page 134) which came from a mid-1990s research survey (Onyett et al, 1996)

## Overheads

One important aspect of the costs of services that is particularly difficult to identify and update is the overhead element. This includes direct overheads such as supervision and clerical support to peripatetic staff and indirect overheads such as financial and human resource services. Under the current funding arrangements, expenditure on direct overheads for most GPs is included in Health Authorities' annual accounts. Although the calculations are not straightforward it is possible to estimate those costs that are not associated with direct care activities (see pages 115 to 117). While the information is up-to-date, variations do reflect the problems associated with data of this kind. For example, the level of overheads estimated is based on deducting from overall expenditure the cost of staff employed to provide direct services, such as practice nurses. This is sensitive to assumptions about the level of salaries paid to such staff.

However, for most services all overheads are estimated on the basis of a percentage add-on to salary or service provision costs based on previous studies. Such studies are often small and dated but there is no other information available. It is possible that in the future some information about overhead costs associated with healthcare staff may emerge from reference cost data collections as these are now extending into community services. However, with these as with social service costs reported in the new PSS EX1 returns cost information is reported centrally with overheads already devolved down to the service level. Disaggregated information is needed for us to really understand the impact of overheads on total unit costs.

## Facility based services

In many instances the costs of facility-based services such as care homes and day centres are based on top-down information, where total expenditure is divided by number of resident days or sessions during the year. This type of information is easier to collect on a routine basis as part of accounting and monitoring procedures, and so costs based on such sources are easier to keep up to date. However, there are many problems associated with such data collections, including appropriate attribution of expenditure to activity, consistent application of definitions, and the range of services included in some expenditure categories. This leads to concerns about whether outliers (authorities where costs are very much higher or lower than most other authorities) reflect real variations in costs of services (perhaps driven by higher staffing ratios) or estimation errors, such as different interpretations of the accounting definitions. As a result we now use the median cost when drawing on routine data collection sources, as this tends to present a more stable picture of the service costs. To provide as much information on the cost variations we always include information on the mean cost and the distribution of costs, again with the most obvious outliers excluded.

In the past we have drawn on Cipfa or Department of Health and Department of Transport and the Regions' statistics about PSS service unit costs, expenditure and activity used to compile Key Indicators. The new PSS EX1 return that replaces these should improve accuracy as it allows those completing the survey to match expenditure to activity and has a higher response rate than was common for CIPFA returns (see Childs, pages 25 to 27).

Price information provides different challenges. The annual Laing and Buisson market survey provides regular up-to-date information about the price of care home places for older people. Expenditure and activity data are collected from local authorities on independent sector provision but local authority accounting practices mean that expenditure data may be aggregated across a whole range of services that fall within the overall heading and may also include different types of contractual arrangement. For example, the rehabilitation service for disabled people shown in schema 5.4 (page 84) is purchased under a block grant for a Brain Injury Rehabilitation Centre. No doubt that authority also commissions other, less costly, day services for disabled people such as employment services. To combine expenditure information on all day care services for disabled people would allow an average price per day to be calculated but it would misrepresent the costs of any of the individual services which, in the example here, provide very different types and intensities of support.

The best source of information about the costs and prices of facility-based services is the large-scale study that collects information about the characteristics of the facilities, services provided and clients or residents. This, together with information about prices, expenditure and activities of such establishments, allows analysis about variation at the facility-level of the effects of different client and facility characteristics on costs and prices. In this volume we have drawn upon surveys of care homes for older people (Netten et al., 2001), facilities for people with learning disabilities (Emerson et al., 1999), domiciliary providers (Forder et al., 2001), and sheltered housing (Ernst and Young, 1993; McCafferty, 1994). The survey of sheltered housing also yielded valuable information about the costs of adaptations to property<sup>1</sup>. However, in the absence of repeat surveys, such information has to be updated using price indices and, as mentioned above, it must be assessed each year to ensure each schema continues to reflect current service provision. Reviewing the material in this volume suggests that new studies are needed to reflect national current practice in sheltered housing, care homes for older people and people with mental health problems, and respite and day services for all client groups.

<sup>1</sup> Results of a study by the Building Cost Information Service suggested that the updated estimates of the costs of adaptations (reported in schema 7.4) are still valid.

## 4. Conclusion

This editorial began by outlining the new sets of costs data included in this, our tenth volume of *The Unit Costs of Health and Social Care*. The developments are considerable. We have responded to forthcoming policy requirements through the inclusion of information on services for disabled people and developments in international health expenditure comparisons. Unit costs for service developments, such as the use of nurse practitioners in care homes and some rehabilitative services are provided, and we begin to address demands linked to economic evaluations by including an estimation of patient-borne costs. We also report and use data from new central government sponsored data collections such as the *Children in Need Survey* and the *Mental Health Service Mapping*.

Adjustments are regularly made to existing schemata to compensate for the absence of an ideal; up-to-date, accurate and comprehensive information on inputs to all services, their financial value, and data on each service's activities (outputs). However, even if such an ideal existed there would still be a need for this series of volumes, for unit cost estimates crucially depend on the purpose to which they will be put. The role of these volumes is to pull together data from a variety of sources to report nationally applicable cost data for a range of existing services, which are comprehensively estimated using a standardised methodology based in economic theory. While every effort is made to update the cost information to reflect current practice, it takes time to establish good quality cost information that can be related to characteristics of services and clients. There are pressing needs for contemporary time use data (activity measures) for peripatetic staff and large-scale surveys for many types of accommodation and day care services.

We end this editorial with our usual plea. If any users of these volumes are aware of any sources of more up-to-date or accurate information that will help us improve our unit cost estimations, please contact Lesley Curtis (L.A.Curtis@ukc.ac.uk).

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# A Nurse Practitioner Service for Nursing and Residential Care Homes

*Jennifer Beecham, Soline Jerram, and Alison While*

## Introduction

An economic component was added retrospectively to an evaluation that sought to discover whether the provision of a Nurse Practitioner service would improve the health of nursing and residential home residents (Jerram, 2001). The residents of 28 homes on the south coast were recruited; 191 residents in 14 study homes and 154 residents in control group homes who would continue to receive routine care. The combined study also aimed to examine whether the nurse practitioner service would improve residents' access to health care and reduce GPs workload, and to estimate the relative cost implications.

An important part of the research was to estimate unit costs for the Nurse Practitioner (NP). NPs have advanced skills in assessment and clinical decision-making and work with many client groups and in different service contexts (Horrocks et al., 2002). It was important therefore that a unit cost was estimated for this study that reflected the resources and working patterns put in place to support this client group. This short article outlines the service-specific estimation work following the four-stage methodology summarised in Netten and Beecham (1999).

## Estimating a unit cost for the Nurse Practitioner

### *Describing the service*

The new service comprised one full-time nurse practitioner offering regular open access clinics within the 14 study group homes. The NP discussed health concerns, provided health education, reviewed and managed chronic diseases, and provided a screening service. The NP also made emergency and follow-up visits between 9am and 5pm on weekdays.

### *Estimating the cost implications*

The employing NHS Trust provided the following data on the costs of the NP service:

- Salary-related costs;
- Direct overhead costs such as mobile phones, office equipment, printing and stationery;
- Rent (used as an approximation of capital costs); and
- NHS Trust organisational overheads.

The first estimation task was to subtract a proportion of these costs equivalent to the NP's non-service duties. These included the costs of one day each week for research, four days on other clinical management duties and six days teaching. The total service cost for the 64-week research period was £45,200<sup>1</sup>.

Information on the NPs working conditions was used to calculate a basic unit cost. The NP had a standard nursing contract allowing 43 days leave over the research period. In addition the NP took 14 days study leave and 4 days sick leave. Thus, over the 64-week research period, the NP service was available to residents for 185 working days.

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<sup>1</sup> All costs have been rounded up; £1999-2000 prices.



As part of her clinical practice the NP recorded which patients were seen during each type of contact, the resident's problem, and the nursing activity. The duration of contact was recorded in 15-minute blocks, and included all patient-related activity such as writing up case notes. The unit cost for this basic activity measure is £8.20. Travel costs were then added for each home. A round trip to each of the 14 homes from the NP's base at a local GP surgery took between 10 and 34 minutes at a cost of £0.50 per minute of NP time. From the mileage costs (supplied by the Trust), a flat rate of £1.30 per trip was calculated.

### ***Activity levels and unit cost estimation***

Across all residents in the study, the NP recorded 1240 contacts during 311 clinics. The total cost per clinic contact of 15 minutes was estimated assuming that all clinic contacts recorded for the same day represented only one trip to that home. The number of clinics held at each home was multiplied by the cost of travel time and the mileage cost per trip added to arrive at the total cost of travel time for holding clinics.<sup>2</sup> The total number of clinic contacts (including patients not in the study, see below) was used to estimate travel costs per contact in each home.

Across the 14 homes in the study (191 patients), between 1 and 18 patients were seen during each clinic (mean = 3.3). Of course, some patients saw the NP for more than one 15-minute contact during one clinic; on average each person received eight clinic contacts over the study period.

A similar approach was taken to estimating home-specific unit costs for the emergency and follow-up visits (n=402 and 525 respectively) using the number of trips made to each home to estimate travel costs. Between 1 and 5 patients (mean = 2) were seen on each of the 452 trips. On average, residents received four emergency contacts and six follow-up visits over the study period. Most people used a combination of each type of contact and only 37 study group members had no contact with the NP.

The total costs associated with the NP contacts with study group members, calculated from the patient-level data amounted to £26,600 over the study period.

### ***Non-patient-related costs***

Some residents who originally had not wanted to take advantage of the new NP service or participate in the research did use the open access clinics so 'non-study' patients (n=123) absorbed some 'study time'. These patients received a total of 775 15-minute contacts over the study period. Using the mean unit cost for each type of contact (the home in which they lived was not always recorded) the total cost associated with these visits was calculated at £10,900.

Together NP visits to study and non-study patients cost £37,500 over the study period. Subtracting these costs from the known total service cost gives the cost of the NP service that is not related to the direct care of individual patients: £7,600. This reflects activities such as organising the NP service or administration and liaison; necessary facets of any service. The costs amount to £40 per study member and can be linked to the contact time by dividing £7,600 by the total number of patient contacts made by the NP over the 64-week period; £2.60 per 15-minute contact.

## **Conclusion**

Estimating service-specific bottom-up costs requires a good deal of researcher time. It also requires good quality and detailed data on the both the financial implications of the service and the

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<sup>2</sup> For example, 22 clinics \*((10 minutes travel time \* £0.50) + £1.30).

working practices or output. The clinical database designed for this service proved an invaluable resource for this study of the service's cost implications.

Type of NP contact	Unit cost <sup>1</sup> : £, 1999-2000 prices	
	Mean across all 14 homes	Min. and Max
Clinic contact	£15.36 for 15-minute contact	£12.13 to £19.94 for 15-minute contact
Emergency/follow-up contact	£18.38 for 15-minute contact	£13.52 to £29.45 for 15-minute contact
Admin' or telephone contact	£8.14 for 15-minute contact	--

#### Notes

1. Includes patient-related costs, and the costs of non patient-related NP activities and NHS Trust overheads.

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## The costs of child and adolescent psychiatric inpatient units

*Jennifer Beecham, Daniel Chisholm and Anne O'Herlihy*

### Background

Inpatient care provides an important source of support for young people with psychiatric disorders and their families. It is a relatively costly service but to date there has been little information on either service levels or costs. The unit costs presented here were estimated for a study conducted alongside the National Inpatient Child and Adolescent Psychiatry Study (NICAPS; O'Herlihy et al., 2001).

In 1999, the NICAPS research team identified 80 child and adolescent psychiatric (CAP) inpatient units in England and Wales. A unit was defined as a ward or unit within a health facility that has a specialist CAP function, so there may be three or four units within a hospital.

### Data collection

Sixty-six units completed the *Unit Survey Questionnaire*, to which a number of questions had been added to gain a clear description of the inputs to each unit and their activity levels. Forty-five NHS units and 13 run by independent sector organisations returned sufficient information for estimations to be made of the closest approximation of long-run marginal opportunity costs (Beecham, 1995).

The scope, format and content of the questions were based on previous large-scale cost estimation exercises (see for example, Knapp et al, 1992; Beecham et al., 1997; Chisholm et al., 1997). Four broad areas of information were requested to ensure a standardised cost estimation approach could be employed across all units.

- The whole time equivalent numbers for all staff working on the CAP inpatient unit (nurses, teachers, doctors, therapists, secretaries, managers, etc).
- The salary-related expenditure for the previous month for each category of staff.
- The unit's allocation per annum for other revenue, overhead and capital costs following definitions provided in the *NHS Costing Manual* (Department of Health, 2000).
- Activity data such as number of inpatient beds and day care capacity.

The response to these questions was good given that providing this type of information requires respondents to balance supporting the research with commercial sensitivity. Twenty-nine CAP units provided a complete set of cost-related information and a further 29 provided less complete but sufficient information for unit costs to be estimated. Unless otherwise stated, all costs relate to the financial year 1999-2000.

### Estimating unit costs

Forty units provided information on nursing expenditure and 32 on other staff expenditure. Where data on staffing levels were not accompanied by expenditure data, the mean observed cost for each type and grade was used. All median staff costs fell within two to five per cent of the mean except for senior registrars (7 per cent difference), and grade A and B psychologists (8 and 14 per cent

difference respectively). For these staff groups, mean costs were re-calculated excluding cases that lay outside commonly employed pay scales.

Across the 58 CAP units for which costs could be estimated, the mean number of inpatient-equivalent places<sup>1</sup> was 14.2 (range 6 to 32; sd 4.9; median 13.3 places). The mean number of inpatient-equivalent days per annum was 4,863 (range 2,184 - 11,680; sd 1,754; median 4,600).

These inpatient-equivalent figures were used to estimate other revenue, overhead and capital costs for the 48 CAP units that provided these data. For the remaining 10 CAP units, the observed median or 'typical' cost was used<sup>2</sup>.

## Comment

Table 1 shows the results of these calculations. The mean cost per inpatient day is £197 (range, £91 - £380). The *NHS Reference Costs 2001* show a wider range (£67 - £2,237) around a mean cost per day of £321. In this study, only two CAP units had costs over £340 per inpatient day: without these units, the mean cost was £191 per inpatient day. Only one CAP unit had a cost per inpatient day under £100.

There is considerable variation on all the cost components. Although some of the observed cost variation will be due to estimation errors the greater part is likely to be due to the staff skills and experiences – reflected in the salaries – and the number of staff working on the unit. In turn, the staffing patterns are likely to be associated with the perceived needs of the patients who are admitted; CAP inpatient units treat young people with a wide range of psychiatric problems such as schizophrenia, mood disorders, eating disorders and conduct disorder.

Using these data we can estimate that on the census day in October 1999, the 663 residents of CAP inpatient units cost around £130,000. If this were also the typical number of residents over the whole year, the total annual cost would be £47.7 million.

## Acknowledgements

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<sup>1</sup> Adjusted for the number of days the unit was open per week and the day care capacity.

<sup>2</sup> These costs are not influenced by the direct care needs of patients but by the capacity and activities of the whole hospital, Trust or organisation.

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**Table 1 Costs per inpatient day for 58 CAP inpatient units (1999-00 prices)**

Unit cost component	Range	Median	Mean	Std. Dev.
Nursing <sup>1</sup>	£6.22 – £220.38	£73.07	£75.70	33.60
Doctors <sup>2</sup>	£0 –£91.06	£20.50	£25.03	15.81
Psychologists <sup>3</sup>	£0 – £15.13	£3.12	£4.07	4.45
Psychotherapists <sup>4</sup>	£0 – £39.81	£5.16	£6.96	7.23
Therapists <sup>5</sup>	£0 – £14.61	£1.85	£3.16	3.46
Admin/other staff <sup>6</sup>	£0 – £33.72	£8.30	£10.28	7.72
Teaching staff <sup>7</sup>	£1.26 – £45.72	£10.91	£12.54	8.98
<i>Total cost of all personnel</i>	<i>£53.57 – £303.40</i>	<i>£119.66</i>	<i>£137.81</i>	<i>52.65</i>
Overheads and capital costs	£17.17 – 167.94	£48.42	£59.14	30.05
<b>Total unit cost</b>	<b>£91.23 – £380.15</b>	<b>£171.61</b>	<b>£197.32</b>	<b>71.61</b>

#### Notes

1. All grades of nursing staff.
2. Consultants, senior registrars, senior house officers. No cost is recorded for doctors for one unit, however, in the 'other staff' category, an adult psychiatrist is listed as working 3wte in the unit.
3. Grades A & B clinical psychologists and psychology assistants.
4. Psychotherapists, family therapists and social workers.
5. Occupational therapists, play and music or art therapists.
6. Unit manager, secretarial and other administrative staff.
7. Teachers and teaching assistants.

## The new PSS EX1 return on expenditure and unit costs

*Keith Childs<sup>1</sup>*

Routine data collections can provide a valuable source of information for estimating unit costs of services. These are regularly used by the government for a variety of purposes including performance assessment and to collect data for Best Value indicators. It is important that activity and expenditure information are matched as closely as possible for this purpose. In the past there were two principal sources for data on social services expenditure, activity and unit costs: central government returns and the Chartered Institute of Public Finance and Accountancy Actuals return. These data collections have now been combined in the PSS EX1 return described below.

### What is PSS EX1?

The PSS EX1 is a new return on Personal Social Services (PSS) expenditure and unit costs that was introduced in 2000-2001. It is now completed annually by the 150 Councils with Social Services Responsibilities (CSSRs) in England, who submit it to the Department of Health.

### Who developed it?

The PSS EX1 was developed by a working group with membership drawn from the Audit Commission, the Chartered Institute of Public Finance and Accountancy (CIPFA), the Department for the Environment, Transport and the Regions (DETR, now the Office of the Deputy Prime Minister), the Department of Health (DH), Joint Reviews and CSSRs.

### Why was it developed and what happened?

The impetus for its development was duplication and inconsistency between the annual Revenue Outturn (RO) 3 form on PSS expenditure, which CSSRs submitted to DETR, and the annual CIPFA Actuals return. This was tackled by reducing the RO3 from 115 rows of service analysis to a summary return, consisting of 8 rows plus a total, and introducing the PSS EX1, as a joint DH/CIPFA return to collect the detailed service analysis removed from RO3 plus all the information from the CIPFA Actuals return that was still required and could still be justified. The 8 rows remaining on RO3 match those on the DETR Revenue Account (RA) return and sub-total rows on the PSS EX1. The CIPFA Estimates return has continued but has been realigned with PSS EX1.

### Service breakdown

The move from the RO3 and CIPFA Actuals to the PSS EX1 meant reconciling the service breakdown from the two sources. The opportunity was taken to move to a new breakdown aligned with the Service Expenditure Analysis (SEA) in the CIPFA Best Value Accounting Code of Practice (BVACoP). Because those involved in compiling and updating this publication were represented on the working group and a review of the SEA was being carried out at the same time, it was possible for the group to influence the revision of the SEA. It was then possible to use the

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<sup>1</sup> Statistics Division 3, Department of Health, London.

service definitions from the SEA and not have to produce another set for PSS EX1. This also meant that the information being collected was aligned with that which councils should hold in their accounts.

### **Validating unit costs**

The CIPFA Actuals collected not only expenditure but also some activity data and derived unit costs. This had the advantage that as councils were entering their expenditure and activity data they could see the resulting unit costs and make any necessary amendments to expenditure or activity data before submitting the return. DH, on the other hand, when calculating unit costs for inclusion in the Key Indicators Graphical System (KIGS) that were not Performance Assessment Framework (PAF) indicators, combined RO3 expenditure data with DH activity data, without councils having had a chance to cross validate the two. PSS EX1, like CIPFA Actuals, collects activity data and derives unit costs, giving councils an opportunity to see the resulting unit costs, and if necessary amend their expenditure or activity data, before submitting their returns.

### **Activity data**

The activity data collected on the CIPFA Actuals return was not all aligned with DH activity returns. With the move to PSS EX1 the opportunity was taken to align the activity data used with DH returns wherever possible. Activity data collected on the CIPFA Actuals return for which DH collected no related item is collected on PSS EX1 if still thought important. PSS EX1 includes additional activity data already collected by DH that can be used to derive further unit cost indicators.

### **Revisions to PAF indicators**

The PSS Performance Assessment Framework (PAF) indicators are a set of 50 high level indicators, 10 of which use expenditure data. Data for these 10 indicators was collected on the Key Statistics return that councils submit annually to DH. When the RO3 expenditure information subsequently became available, DH had to check with councils whether to substitute it for the expenditure data on the Key Statistics return and recalculate the indicator value. Now all the indicators are collected on PSS EX1 and revised versions of PSS EX1 clearly entail revisions to the PAF indicators.

### **Capital charges and adjusted PAF indicators**

From 2000-2001 the PAF indicators were redefined to include capital charges, information on which was newly available from PSS EX1 and RO3, consistent with the CIPFA approach. The opportunity was also taken to collect additional activity data that would enable adjusted versions of the indicators to be calculated that more closely matched activity and expenditure. Examples are the use of respite care by children and care provided to residents in local authority managed homes for adults and older people who are not supported by the local authority. In previous years exclusion of these activities meant that expenditure associated with them was inappropriately allocated to local authority supported residents. For 2000-2001 and 2001-2002 these adjusted indicators are being published alongside the main indicators. From 2002-2003 they will replace the PAF indicators. This was not done earlier because two of the indicators are also Best Value

indicators for which definitions had already been set. These Best Value indicators will also change for 2002-03.

### **Management and support services costs**

The RO3 return had a number of rows for Social Services Management and Support Services (SSMSS) overhead costs. Although accounting guidance was to allocate these costs to specific services whenever possible, the extent to which this happened was variable. The expenditure separately identified in this way was not included in the PAF indicators and so these were influenced by the extent to which SSMSS costs were separately identified. PSS EX1 does not have separate rows for SSMSS costs and insists that they are attributed to specific services, providing for proportional allocation when no better method of allocation is possible.

### **Unit cost comparisons**

PSS EX1 includes a summary unit costs sheet which facilitates comparisons between in house provision and provision by others and between different services and client groups within local authorities.

### **Format of PSS EX1**

PSS EX1 takes the form of an Excel 97 spreadsheet. This enables totals and sub-totals and unit costs to be calculated automatically and a facility to allocate SSMSS costs on a pro-rata basis to be included. Guidance notes and the Social Services SEA accompany the spreadsheet but relevant extracts are also built in to the row and column descriptions using the comment facility; this makes them readily available when completing the spreadsheet. PSS EX1 is also available for completion using the DH Internet Data Collection facility.

### **Timeliness and response**

DH were able to publish 2000-2001 PSS EX1 expenditure data in March 2002, less than 12 months after the end of the year to which it referred. In preceding years there was always a gap of at least fourteen months before data was published. For 2001-2002 we hope to make a further improvement in timeliness. CIPFA also published 2000-2001 data in March 2002, several months closer to the year end than for data for previous years. Furthermore, returns were available for all the 150 CSSRs, apart from one very small one, although not all councils completed all items. In recent preceding years only around two thirds of councils had completed CIPFA Actuals returns.

### **Further information**

The 2000-2001 PSS EX1 return is available at <http://www.doh.gov.uk/public/expand2001.htm>. The 2001-2002 return is available at <http://www.doh.gov.uk/public/expand.htm>. PSS EX1 data for 2000-2001 is available at [http://www.doh.gov.uk/public/pss\\_stat.htm](http://www.doh.gov.uk/public/pss_stat.htm).



# Mapping mental health services in England

*Jennifer Beecham, Gyles Glover and Di Barnes*

## Introduction

Underpinning many of the recent government initiatives in health and health care is an increased need for information. For example, a new vision for services is described in *The National Service Framework for Mental Health* but information on what mental health services currently look like and the extent to which they are meeting central and local policy requirements has been thin on the ground. The Mental Health Service Mapping (MHSM) programme was developed to address this information need. Alongside developments in electronic records, the minimum data set and the electronic libraries it supports the implementation of the NHS *Information Strategy for Health*.

## Mental Health Service Mapping

The MHSM exercise is a huge undertaking. At its core, there is an ostensibly simple question: What services are out there? The aim is to collect information from Local Implementation Teams (LITs) so that local data describing the content and scale of mental health services can be brought together to provide a national picture of provision. In particular it enables:

- The emergent reconfiguration of services in the NSF to be tracked;
- The move towards equity in service provision to be measured;
- Trends in service capacity and staffing to be examined year on year; and
- Comparisons to be made in the way services are provided between localities with similar levels of need (Glover and Barnes, 2002).

In each LIT area, data are returned on every mental health service for working age adults whether they are provided by public, for-profit or non-profit organisations. Every type of service is included, from NHS provision for treating people with acute psychiatric problems through to voluntary organisations running mental health promotion services.

To facilitate collation of all the data, 12 categories of services with similar functions have been identified: Access Services (such as crisis resolution teams, emergency or walk-in clinics); Accommodation; Carers' Services; Clinical Services (inpatient wards and psychiatric liaison, for example); Community Mental Health Teams; Continuing Care Services; Day Services; Home Care Services; Services for Mentally Ill Offenders; Secure Services; Support Services (such as advice, advocacy, self-help); and Therapy Services. Each category is carefully defined and accompanied by a list of service types covered. An "Other" category can be used where innovative services do not fit sensibly in the pre-defined categories.

Standardised data collection forms for each service type have been created. Data-entry is web-based so relies heavily on the level of information technology in local areas. Almost all LITs returned useable data, albeit in some cases using home computers.

The database currently contains information on over 16,000 services and the Atlas for 2001 is available in .pdf format at [www.dur.ac.uk/service.mapping](http://www.dur.ac.uk/service.mapping). Full data for 2002 will be available in December 2002. Gyles Glover and Di Barnes at the Centre for Public Mental Health at the University of Durham are responsible for this work and welcome visitors to the website.

## **Mental Health Financial Mapping**

A financial mapping exercise complements the Service Mapping data. Led by the Mental Health Strategies Group ([www.mentalhealthstrategies.co.uk](http://www.mentalhealthstrategies.co.uk)) its aims are to:

- Identify baseline NHS and local authority investment in adult mental health services;
- Identify investment plans for achieving change in service delivery; and
- Track service developments that should be funded from development monies.

Again, this is an ambitious project. Each LIT is asked to provide costs information for the previous financial year and the current year's budget, for each service category identified above. The data-entry sheets require levels of investment and dis-investment to be documented as well as revenue, capital and overhead costs.

The data from the 2001-02 Financial Mapping exercise, along with a range other mental health data sets, is available at [www.mentalhealthdata.org.uk](http://www.mentalhealthdata.org.uk). Data from the 2002-03 Financial Mapping will be available by Spring of 2003.

### **Why are these data so important?**

The importance of these data lies in their ability to address not just the information needs of central government but also those of commissioners, providers and service users. From the perspective of this volume they hold tremendous potential to estimate unit costs that are based on contemporary service descriptions, activity levels and financial data. Staffing in community mental health teams provides an example. For the current schema 11.2 (p. 134) the staffing composition is estimated as the number and types of full-time equivalent staff in an average team calculated from a 1995 research survey (Onyett, 1996). The table below summarises how the staff composition appears to have changed over time. Of course, the MHSM may include teams that have different roles and responsibilities than included in the 1995 survey but the data suggest that teams are larger today with increased input from nurses, social workers and psychiatrists. This is likely to result in a higher average cost per team member because the balance of team membership has moved towards more highly qualified staff.

### **Conclusion**

Data are now being collected for the third year of the Service Mapping and the second year of the Financial Mapping. The results are already proving to be of considerable use to many people with an interest in mental health care, from central government to researchers, from commissioners to users. The more the data are used the better the incentive to improve the data quality. The better the quality of the data on which planning and implementation decisions are taken, the more likely it is that services - and people's mental health - will improve.

**Table 1 Staffing CMHTs, 1995 and 2001**

Staff group	WTE from the 1995 Onyett survey <sup>1</sup>	WTE from the 2001 Service Mapping data <sup>2</sup>
Nurses (all grades)	4.56	6.85
Social workers	1.53	3.98
Generic MH workers <sup>3</sup>	0.65	0.80
Consultant psychiatrists	0.62	0.93
Other grade doctors	0.59	1.01
Psychologists	0.50	0.60
Psychotherapists/counsellors	-	0.15
Other specialist therapists <sup>4</sup>	0.96	1.06
Others	0.36	-
Volunteer staff	0.07	0.03
Managers	-	0.79
Administrative staff	1.32	2.85
<b>Total</b>	<b>11.16</b>	<b>19.05</b>

## Notes

1. Includes 75 per cent all districts reporting they had CMHTs (n=302 teams).
2. Includes 781 teams.
3. Called support and development workers in the MHSM data.
4. Includes occupational, physio- and speech therapists. Information on art, drama, and music therapists is requested on the MHSM.

**References**

Glover, G. and Barnes, D. (2002) *Mental Health Service Provision for Working Age adults in England, 2001*. Centre for Public Mental Health, University of Durham.

Onyett, S. (1996) The organisation and operation of community mental health teams, in A. Netten and J.Dennett (eds.) *The Unit Costs of Health and Social Care*, PSSRU, University of Kent at Canterbury.

## Developing Health Accounts for the United Kingdom

*Phillip Lee*<sup>1</sup>

A framework of coherent, consistent and integrated accounts based on internationally agreed concepts, definitions, classifications and accounting rules has been developed by the Organisation for Economic Co-operation and Development (OECD) in consultation with member countries, the European Commission, the World Bank and the World Health Organisation, and is set out in the OECD publication *A System of Health Accounts*<sup>2</sup>.

Health Accounts are a tool for organising health information. The confrontation and re-organisation of individual pieces of information within an agreed framework would permit improved analyses of the efficiency and effectiveness of health services and allow us to understand the whole process of health care funding and provision. Health outputs (number of operations performed, beds occupied, hospital episodes, GP consultations,...) and outcomes (health of the nation) can be linked with the various inputs (expenditure, numbers of beds, doctors, nurses, and other professions associated with medicine,...) and systems in place (types of provider, sources of funding,...).

The framework has been developed around a new classification that describes the purpose, or 'function' of health activities. This functional classification distinguishes between goods, services and management of the healthcare system. Within healthcare services, the classification separately identifies preventive, curative, rehabilitative and long term nursing care.

Comparison with other countries' health care systems can be a powerful tool for judging the performance of our own system. The use of the OECD's framework in the compilation of UK Health Accounts will allow more meaningful comparison to be made across countries, as well as over time. The need for comparison was highlighted by a promise in January 2000 by the Prime Minister to bring spending on health in the United Kingdom up to the European Union average.

Compiling Health Accounts will bring further benefits. For example, by investigating information that could feed into the accounts we will pull together and maintain descriptive information on the health care system in the United Kingdom, along with guidance on how this information should be used. The existence of UK Health Accounts will help to promote a consistent treatment of such information, for example, price indices, employment, income redistribution and international trade.

### Availability of information

A great deal of information on the UK's health care system already exists which could be used to compile UK Health Accounts. For example, expenditure by the UK's four health administrations and by consumers, health employment, sources of funding, registers of nursing homes, use of health services, prescribing, outcomes, and so on. There is also a substantial amount of information on health status of the population and on determinants of health.

Much of the information relevant for compiling UK Health Accounts is provided to the OECD for publication in their annual Health database, which contains information for 29 countries. However,

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<sup>2</sup> A System of Health Accounts (OECD, 2000) <http://www.oecd.org/EN/home/0,,EN-home-194-5-no-no--no,00.html>

the United Kingdom information supplied is not always available on a basis that allows the compilation of coherent and consistent figures for the United Kingdom as a whole. The NHS in each of the part of the United Kingdom account for their information in different ways, sometimes resulting in series for Great Britain or England only. In many cases, there is little information available on private sector activities. The Health Accounts will bring together information on health care in the whole of the United Kingdom, including wherever possible the same information from all geographic parts and from both the public and the private sectors.

Initiatives to encourage continuity between health and social care, including enabling local and health authorities to pool budgets to provide seamless care services, means that there is an increasing inability to distinguish between what is defined internationally as expenditure on health and on what is defined internationally as social protection. The Health Accounts will provide the framework to help resolve this.

### **Work carried out so far**

ONS has allocated a small amount of resource to a project to develop experimental UK Health Accounts. This pilot project will initially examine only healthcare expenditure and its incorporation into the Health Accounts framework. If there is user demand for this information, development could then focus on drawing in other variables, for example, health outcomes and employment in the healthcare sector, to help analyse more completely the UK health system.

In the first stage of development of UK Health Accounts, ONS has concentrated on compiling more internationally comparable figures for total UK Health Expenditure, and experimental figures<sup>3</sup> were published in February 2002. These figures added in some expenditure that had previously been excluded – expenditure on health by charities and religious organisations, and non-NHS expenditure on nursing care in nursing homes. The figures also subtracted some expenditure that had previously been included – non-health expenditure by health administrations such as Research & Development (R&D) and Education and Training of health personnel (E&T). The importance of R&D and E&T expenditure to the health care system is recognised in the international framework, which categorises each as health-related expenditure rather than expenditure on health.

The non-NHS expenditure on nursing care in nursing homes component relied on information about average weekly nursing home prices in England from Laing & Buisson, as well as resident numbers from health authorities.

In this stage, ONS has also been researching how to fit public expenditure into the Health Accounts framework, and in particular how to classify this information by the functional classification. The work has benefited greatly from the development of activity costs in the NHS, which analyse expenditure according to the activities being carried out in the NHS, typically in hospital settings.

### **Further work**

The methods for calculating total UK health expenditure will be refined. In particular, expenditure on nursing care in nursing homes, charities and religious organisations expenditure, and non-health expenditure by health administrations components need attention. Also, health expenditure by

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<sup>3</sup> Experimental total UK health expenditure (ONS, 2002) <http://www.statistics.gov.uk/healthaccounts>

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central government outside health administrations, for example in prison and army hospitals, will be examined. This ongoing programme of work to improve the international comparability of total UK health expenditure will also include closely examining the borderline between health and social care.

NHS expenditure not already covered by activity costs work, along with private sector expenditure, needs to be incorporated into the Health Accounts.

A small scoping project to investigate the incorporation of health employment into Health Accounts has been set up, and a similar scoping project on outputs and outcomes will be set up in early summer 2002. Incorporating these additional variables into the framework would allow a better analysis of the productivity, efficiency and effectiveness of the whole of the health system.

ONS would welcome any comments on this work, and invites readers to contact the Project Manager, Phillip Lee.

# **I. SERVICES**

## **1. Services for elderly people**

- 1.1 Independent (private and voluntary) nursing homes for elderly people
- 1.2 Private residential care for elderly people
- 1.3 Voluntary residential care for elderly people
- 1.4 Local authority residential care for elderly people
- 1.5 Nursing-led inpatient unit (NLIU) for intermediate care
- 1.6 Local authority day care for elderly people
- 1.7 Voluntary day care for elderly people
- 1.8 Local authority sheltered housing for elderly people
- 1.9 Housing association sheltered housing for elderly people
- 1.10 Local authority very sheltered housing for elderly people
- 1.11 Housing association very sheltered housing for elderly people

**Schema 1.1 Independent (private and voluntary) nursing homes for elderly people**

Costs and unit estimation	2001/2002 value	Notes
A. Fees	£402 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>1</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>2</sup> March 2001 fee levels have been uprated using the GDP market prices inflator. This inflator is not ideal but more closely reflects price changes rather than input costs, which is what the PSS pay and prices inflator reflects.
<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>3</sup> In the home with the highest level of nursing input, the average weekly cost was £13 (1996 prices). A study <sup>4</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	£ 7.90 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 uprated by the Retail Price Index. The DWP personal allowance for people in residential care or a nursing home is £16.05. 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 2001/2002</b>		
£402 establishment costs per permanent resident week (A); £389 establishment costs per short-term resident week (A); £431 care package costs per permanent resident week (includes A to E); £417 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 at Canterbury.

<sup>2</sup> Laing & Buisson (2001) *Care of Elderly People: Market Survey 2001*, 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 at Canterbury.

<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 1.2 Private residential care for elderly people

Costs and unit estimation	2001/2002 value	Notes
A. Fees	£288 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> March 2001 fee levels have been uprated using the GDP market prices inflator. This inflator is not ideal but more closely reflects price changes in practice which have been remarkably stable over recent years
<i>External services</i> B. Community nursing C. GP services D. Other external services	£ 4.90 £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 £8.40 per week.
E. Personal living expenses	£ 7.90 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 uprated by the Retail Price Index. The DWP personal allowance for people in residential care is £16.05 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 2001/2002</b>		
£288 establishment costs per permanent resident week (A); £305 establishment costs per short-term resident week (A); £313 care package costs per permanent resident week (includes A to E); £331 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 at Canterbury.

<sup>2</sup> Laing & Buisson (2001) *Care of Elderly People: Market Survey 2001*, 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 at Canterbury.

<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 elderly people**

Costs and unit estimation	2001/2002 value	Notes
A. Fees	£288 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 GDP market prices inflator. This inflator is not ideal but more closely reflects price changes rather than input costs, which is what the PSS pay and prices inflator reflects.
<i>External services</i> B. Community nursing C. GP services D. Other external services	£ 6.70 £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 £8.35 per week.
E. Personal living expenses	£7.90 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 2001/2002</b>		
£288 establishment costs per permanent resident week (A); £305 establishment costs per short-term resident week (A); £316 care package costs per permanent resident week (includes A to E); £332 care package costs per short-term resident week (includes A to E).		

<sup>1</sup> Laing & Buisson (2001) *Care of Elderly People: Market Survey 2001*, 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 at Canterbury.

<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 elderly people

This schema is based on a survey and relates to the minority of residents who live in local authority managed accommodation. Using PSS EX1 returns updated using the PSS Pay and Prices Inflater, mean costs per person for supporting older people in own provision residential care (including full cost paying and preserved rights residents) were £410 per week and median costs were £436 per week. Twenty five percent of local authorities had average gross costs of £355 or less and 25 per cent of £556 or more. These costs include social services management and support services (SSMSS) overheads and capital charges on the revenue account of £33.08.

Costs and unit estimation	2001/2002 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£ 83 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>1</sup> Capital costs are discounted at 8 per cent over sixty years. When discounted at 6 per cent, the annual cost is £63 per resident week.
B. Land	£ 6.40 per week	Based on Department of the Environment, Transport and the Regions statistics. Land costs have been discounted at 8 per cent over sixty years.
C. Equipment and durables	£ 8.90 per week	Equipment and durables amount to 10 per cent of capital cost. <sup>2</sup>
<i>Revenue costs</i> D. Salary costs	£364 per week	Based on a PSSRU survey of homes conducted in 1996. <sup>3</sup> Costs and activity data were based on a nationally representative sample of 161 homes. At current prices the standard deviation was £99. Ten per cent of homes had average gross costs of £495 or more and 10 per cent £254 or less. Median costs were £337 per week. Costs have been inflated using the PSS pay and prices inflater.
E. Agency overheads	£ 18 per week	An Audit Commission report found that overheads associated with residential care <sup>4</sup> amounted to 5 percent of revenue costs.
<i>External services</i> F. Community nursing G. GP services H. Other external services	£7.60 £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>5</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	£7.90 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 figure has been updated by the RPI Index.
Use of facility by client	52.18 weeks p.a.	
Occupancy	91%	See <sup>7</sup> and 1996 PSSRU survey <sup>8</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 2001/2002</b>		
£480 establishment costs per permanent resident week (includes A to E); £503 establishment costs per short-term resident week (includes A to E); £503 care package costs per permanent resident week (includes A to I); £527 care package costs per short-term resident week (includes A to I).		

<sup>1</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</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 at Canterbury.

<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 at Canterbury.

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

<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.

<sup>7</sup> Laing, W (2002), Calculating a fair price for care.

<sup>8</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 at Canterbury.

**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.<sup>1</sup> 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>2</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	2000/2002 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£ 7.10	1997/1998 costs updated using the BCIS public sector Output Price Index.
<i>Revenue costs</i> B. Salary and oncosts	£71	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	£38	1997/1998 costs updated using the HCHS Pay and Prices Index.
Other	£ 6.90	Includes diagnostics and ward round updated using the HCHS Pay and Prices Index.
D. Direct overheads	£35	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 2001/2002</b>		
£172 per inpatient day.		

<sup>1</sup> Age & Ageing (2001) *Substitution of a nursing-led inpatient unit for acute services: randomized controlled trial of outcomes and cost of nursing-led intermediate care.*

<sup>2</sup> Griffiths.P., Harris R., Richardson G., Hallett N., Heard S., Wilson-Barnett J.

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

### Schema 1.6 Local authority day care for elderly 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	2001/2002 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£7.00 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 are discounted at 8 per cent over sixty years. When discounted at 6 per cent, the annual cost is £5.35 per session.
B. Land	£0.50 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.
<i>Revenue costs</i> D. Salary and other revenue costs E. Capital charges	£19 per session	Following Netten, <sup>3</sup> the median revenue cost estimate is taken from PSS EX1 2001 <sup>4</sup> uprated using the PSS Pay and Prices Index. Capital charges on the revenue account have been deducted (£1.58). 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 £6 per session or less, and 10 per cent £39 per session or more. Mean costs were £18 per session.
F. Agency overheads		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>5</sup> . More recent figures are not available.
London multiplier	1.17 x A; 4.58 x B; 1.19 x (D to G)	Relative London costs are drawn from the same source as the base data for each cost element. See explanatory note in editorial for high London multiplier.
<b>Unit costs available 2001/2002</b>		
£27 per session (includes A to F).		

<sup>1</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

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

<sup>5</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 elderly 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 £16.60 to £37.40 per client day with an average cost of £26.00 and a median cost of £25.50.

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 uprated using the PSS Pay and Prices inflator, mean and median costs per session for independently provided day care were £15. This is equivalent to £30 per client day.

Costs and unit estimation	2001/2002 value	Notes
<i>Capital costs</i>		
A. Premises	£3.10 per client day	These costs ranged from £2.00 to £4.20 with a mean cost of £3.10 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	£2.70 per client day	Of the 10 Centres, 3 had their own minibus/es and costs ranged from £1.10 per client day to £4.90 per client day. Vehicle costs were high for a rural centre which opens only 2 days per week.
<i>Staffing</i>		
C. Salaries	£14 per client day	Costs ranged from £6.90 to £32. 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 £11.
D. Volunteer costs	£0.30 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	£2.50 per client day	This includes taxi expenses, fuel & oil, vehicle repairs, insurance and contract hire. Costs ranged from £0.90 to £5.00 with a median cost of £2.30.
G. Meals	£1.40 per client day	Seven Centres provided meals.
H. Overheads	£2.00 per client day	Seven Centres provided information on overheads which ranged from £0.90 to £4.10.
I. Other revenue costs	£2.60 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 £6.20 per client day and the median cost was £1.70.
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 2001/2002</b>		
The average cost of the 10 Centres was £26 per client day. A Centre incurring all costs A-I would cost £29 per client day.		

### Schema 1.8 Local authority sheltered housing for elderly 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	2001/2002 value	Notes
<i>Capital costs</i> A. Notional rent	£127 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 an 8 per cent discount rate over sixty years and uprated using the BCIS/ABI house rebuilding Cost Index.
<i>Revenue costs</i> B. Salary and other revenue costs	£ 23 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 to 2001/2002 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	£ 73 £ 8.40	Based on Family Expenditure Survey (2000/01) estimates of household expenditure of a single person retired mainly dependent on state pension inflated to 2001-02 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	£ 24 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 2001/2002</b>		
£150 per week sheltered housing costs (includes A to B); £174 per week service and accommodation (includes A to B and F); £247 (includes all costs borne by care homes (A to D and F)); £256 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 elderly 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	2001/2002 value	Notes
<i>Capital costs</i> A. Notional rent	£141 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 an 8 per cent discount rate over sixty years and uprated using the BCIS/ABI house rebuilding Cost Index.
<i>Revenue costs</i> B. Salary and other revenue costs	£ 30 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 2001/2002 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	£ 73 £ 8.40	Based on Family Expenditure Survey (2001/02) estimates of household expenditure of a single person retired mainly dependent on state pension inflated to 2001/2002 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	£13 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 2001/2002</b>		
£171 per week sheltered housing costs (includes A to B); £184 per week service and accommodation (includes A to B and F); £257 (includes all costs borne by care homes (A to D and F); £266 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 elderly 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	2001/2002 value	Notes
<i>Capital costs</i> A. Notional rent	£141 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 an 8 per cent discount rate over sixty years and uprated using the BCIS/ABI house rebuilding Cost Index.
<i>Revenue costs</i> B. Salary and other revenue costs	£ 68 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 2001/2002 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	£ 73 £ 8.40	Based on Family Expenditure Survey (2000/01) estimates of household expenditure of a single person retired mainly dependent on state pension inflated to 2001-02 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	£ 25 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 2001/2002</b>		
£209 per week sheltered housing costs (includes A to B); £234 per week service and accommodation (includes A to B and F); £307 (includes all costs borne by care homes (A to D and F); £316 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 elderly 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	2001/2002 value	Notes
<i>Capital costs</i> A. Notional rent	£126 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 an 8 per cent discount rate over sixty years and uprated using the BCIS/ABI house rebuilding Cost Index.
<i>Revenue costs</i> B. Salary and other revenue costs	£197 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 2001/2002 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	£ 73 £ 8.40	Based on Family Expenditure Survey (2001/02) estimates of household expenditure of a single person retired mainly dependent on state pension inflated to 2001-02 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	£ 37 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 2001/2002</b>		
£323 per week sheltered housing costs (includes A to B); £360 per week service and accommodation (includes A to B and F); £434 (includes all costs borne by care homes (A to D and F)); £442 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.

## **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

## 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	2001/2002 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£ 33 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 6 per cent. To be consistent with other services in this volume, capital should be annuitised at 8 per cent. This would raise the capital cost by about 10 per cent.
<i>Revenue costs</i> B. Salary costs	£283 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	£ 54 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	£15 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	£16.05 per week	The DWP allowance is used as a proxy for personal consumption.
F. Service use	£ 68 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 2001/2002</b>		
£385 per resident week establishment costs (includes A to D); £469 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	2001/2002 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£38 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 6 per cent. To be consistent with other services in this volume, capital should be annuitised at 8 per cent. This would raise the capital cost by about 10 per cent
<i>Revenue costs</i> B. Salary costs	£8 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	£35 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	£16.05 per week	The DWP allowance is used as a proxy for personal consumption.
F. Service use	£104 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	1.70 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 2001/2002</b>		
£84 per resident week establishment costs (includes A to D); £204 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	2001/2002 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£35 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 6 per cent. To be consistent with other services in this volume, capital should be annuitised at 8 per cent. This would raise the capital cost by about 10 per cent
<i>Revenue costs</i> B. Salary costs	£205 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	£75 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	£27 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	£16.05 per week	The DWP allowance is used as a proxy for personal consumption.
F. Service use	£56 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 2001/2002</b>		
£342 per resident week establishment costs (includes A to D); £414 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	2001/2002 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£39 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 6 per cent. To be consistent with other services in this volume, capital should be annuitised at 8 per cent. This would raise the capital cost by about 10 per cent
<i>Revenue costs</i> B. Salary costs	£82 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	£45 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	£19 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	£16.05 per week	The DWP allowance is used as a proxy for personal consumption.
F. Service use	£73 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 2001/2002</b>		
£185 per resident week establishment costs (includes A to D); £274 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	2001/2002 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£33 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 GDP market prices index. The value of buildings was annuitised over a 60-year period discounted at 6 per cent. To be consistent with other services in this volume, capital should be annuitised at 8 per cent. This would raise the capital cost by about 10 per cent
<i>Revenue costs</i> B. Salary costs	£110 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	£76 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	£16.05 per week	The DWP allowance is used as a proxy for personal consumption.
F. Service use	£63 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 2001/2002</b>		
£229 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	2001/2002 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£ 14 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 are discounted at 6 per cent over sixty years.
B. Land	£ 0.62 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	£111 per day £39 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	1.17 x A; 4.58 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 2001/2002</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 (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 (2002) *Housing and Construction Statistics 1990-2000*, 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 TFR2 returns (see Schema 7.1) or reference costs (<http://www.doh.gov.uk/nhsexec/refcosts.htm>) would be more appropriate.

Costs and unit estimation	2001/2002 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£ 18 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 are discounted at 6 per cent over sixty years.
B. Land	£ 0.71 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	£77 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	£45 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 2001/2002</b>		
£143 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 (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 (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£28 per patient day (ppd)	Annuitised value of an NHS psychiatric ward over a 60-year period discounted at 6 per cent, taking into account occupancy rates. <sup>2</sup>
B. Land	£ 1.10 ppd	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 costs E. Supplies and services – drugs – other F. Overheads	£278 ppd £27 ppd £1.58 ppd £83 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	£3.20 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	1.17 x A; 4.58 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 2001/2002</b>		
£421 per patient day (includes A to G); £5,184 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 (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
<i>Capital costs</i>		
A. Buildings and oncosts	£7.00 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 are discounted at 8 per cent over sixty years. When discounted at 6 per cent, the cost is £5.40 per session.
B. Land	£ 0.50 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.
<i>Revenue costs</i>		
D. Salary 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 was obtained to estimate the revenue costs for 122 settings. These results have been uprated using the PSS pay index. Most of the NHS Trust settings taking part were orientated towards providing treatment and consequently ninety five per cent of these settings had costs between £16-£25 at current prices with a median cost per session of £12.
E. Agency overheads	£1.00 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 is not available.
London multiplier	1.17 x A; 4.58 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 2001/2002</b>		
£29 per session (includes A to E); £58 per day (excluding evenings).		

<sup>1</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

<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 2001, 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	2001/2002 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£7.00 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 are discounted at 8 per cent over sixty years. When discounted at 6 per cent, the cost is £5.40 per session.
B. Land	£0.50 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.
<i>Revenue costs</i> D. Salary 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 was obtained to estimate the revenue costs for 122 settings. These results have been uprated using the PSS Pay 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 gross costs uprated using the PSS Pay Index reported median costs at £22 per session and mean costs at £21 per session. Capital costs charged to the revenue account are included (£1.61).
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> . No later statistics are available.
London multiplier	1.17 x A; 4.58 x B 1.02xD	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 2001/2002</b>		
£20 per session (includes A to E); £40 per day (excluding evenings).		

<sup>1</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

<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.

### 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	2001/2002 value	Notes
<i>Capital costs</i> A. Buildings and oncosts	£7.00 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 are discounted at 8 per cent over sixty years. When discounted at 6 per cent, the cost is £5.40 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	£0.50 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.
<i>Revenue costs</i> D. Salary 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 was obtained to estimate the revenue costs for 122 settings. These results have been updated using the PSS pay index. Ninety five per cent of the settings managed by voluntary/non-profit organisations had costs between £8-£15 at current prices with an 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	1.17 x A; 4.58 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 2001 <sup>6</sup> statistics.
<b>Unit costs available 2001/2002</b>		
£20 per session (includes A to E); £40 per day (excluding evenings).		

<sup>1</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

<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 2001, 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)<sup>4</sup>, page 28-31, 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	2001/2002 value	Notes
A. Total annual expenditure	£ 7,825	Average gross expenditure for the seven work schemes ranged from £5,239 to £10,984.
B. Total annual income	£ 1,673	Average gross expenditure minus average net expenditure. Income ranged from £316 to £3,370.
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 2001/2002</b>		
£7.40 gross cost per hour; £5.80 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.

### **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 £348 per resident week to a maximum of £1,262 per resident week. Costs have been inflated to 2001/2002 prices.

Costs and unit estimation	2001/2002 value	Notes
<i>Capital costs</i>		
A. Buildings	£21 per resident week	Based on property valuation information received for 1994/95, inflated using the BCIS public sector building index.
B. Land		
C. Equipment and durables	£0.25 per res. week	1994/95 costs inflated using the PSS Prices Index.
<i>Revenue costs</i>		
D. Salary costs	£348 per res. week	1994/95 costs inflated using the PSS Pay Index.
E. Other revenue costs	£226 per res. Week	1994/95 costs inflated using the PSS Prices Index.
F. Agency overheads	£43 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 2001/2002</b>		
£638 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 £82 per patient day, while the most expensive was £225 per patient day (1994/95 prices updated to 2001/2002).

Costs and unit estimation	2001/2002 value	Notes
<i>Capital costs</i>		
A. Buildings	£18 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 discounted at 6 per cent over sixty years.
B. Land	£0.70 per patient day	Based on Department of the Environment, Transport and the Regions <sup>3</sup> statistics. Land costs have been discounted at 6 per cent over sixty years.
C. Equipment and durables	£0.80 per patient day	1994/95 costs inflated using the HCHS prices index
<i>Revenue costs</i>		
D. Salary costs	£86 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	£40 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 2001/2002</b>		
£158 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 (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 (2002) *Housing and Construction Statistics 1988-98*, 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 GPs 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 £7 per week to a maximum of £104 per week (1995/96 prices updated to 2001/2002).

Costs and unit estimation	2001/2002 value	Notes
A. Capital and revenue costs	£38 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.
B. Methadone 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 2001/2002</b>		
£58 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**

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	2001/2002 value	Notes
A. Capital costs	£ 80 per week	Capital costs of buildings and land were calculated using market valuations of property and/or construction costs. Capital costs are discounted at 8 per cent over 60 years. 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	£676 per week £ 74 per week	Calculated using facility-specific accounts information.
D. Agency overheads	£ 90 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	£ 8.20 per week £ 28 per week £140 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	£ 57.00 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 2001/2002</b>		
£921 establishment costs per resident week (includes A to D); £1,153 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 at Canterbury.

<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	2001/2002 value	Notes
A. Capital costs	£ 86 per week	Capital costs of buildings and land were calculated using market valuations of property and/or construction costs. Capital costs are discounted at 8 per cent over 60 years. 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	£ 384 per week £ 58 per week	Calculated using facility-specific accounts information. Costs relate to staffing within the individual setting/house.
D. On-site administration	£117 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	£ 49 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	£ 5.90 per week £ 19 per week £140 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	£ 20.00 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 2001/2002</b>		
£695 establishment costs per resident week (includes A to E); £879 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 at Canterbury.

<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	2001/2002 value	Notes
A. Capital costs	£ 76 per week	Capital costs of buildings and land were calculated using market valuations of property and/or construction costs. Capital costs are discounted at 8 per cent over 60 years. 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	£682 per week £ 93 per week	Calculated using facility-specific accounts information. Costs relate to staffing within the individual setting/house.
D. On-site administration	£105 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	£ 83 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	£ 3.50 per week £ 16 per week £ 77 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	£24 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 2001/2002</b>		
£1,040 establishment costs per resident week (includes A to E); £1,161 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 at Canterbury.

<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	2001/2002 value	Notes
A. Capital costs	£ 84 per week	Capital costs of buildings and land were calculated using market valuations of property and/or construction costs. Capital costs are discounted at 8 per cent over 60 years. 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	£ 773 per week £ 47 per week	Calculated using facility-specific accounts information.
D. Agency overheads	£ 138 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	£ 5.90 per week £ 26 per week £ 48 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	£113 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 2001/2002</b>		
£1,043 establishment costs per resident week (includes A to D); £1,235 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 at Canterbury.

<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	2001/2002 value	Notes
<i>Capital costs</i>		
A. Buildings and oncosts	£ 6.80 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 are discounted at 8 per cent over sixty years. When discounted at 6 per cent, the cost is £5.21 per session.
B. Land	£ 0.50 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		
<i>Revenue costs</i>		
D. Salary and other revenue costs	£26 per client per session	PSS EX1 2001 <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. Capital charges on the revenue account have been deducted (£2.65). Ten per cent of authorities had average gross costs of £16 per session or less and 10 per cent £51 per session or more. Mean costs were £16 per session.
E. Capital charges		
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. <i>Other costs</i>		
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	1.17 x A; 4.58 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 2001/2002</b>		
£33 per session (includes A to E).		

<sup>1</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> PSS EX1 2001, 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	2001/2002 value	Notes
A. Coordinator wages/salary	£19,994 per year	1994/95 costs inflated by the PSS Pay Index.
B. Salary oncosts	£1,352 per year	Employers' national insurance.
C. Worker/volunteer costs of sessions	£17,399 per year	1994/95 costs inflated by the PSS Pay Index.
D. Expenses associated with sessions	£5,845 per year	1994/95 costs inflated by the PSS Pay and Prices Index.
E. Training	£1,962 per year	1994/95 costs inflated by the PSS Pay and Prices Index.
F. Capital costs of equipment and transport	£2,226 per year	Discounted at 8 per cent over ten years. 1994/95 costs inflated by the retail prices index.
G. Direct overheads		
Revenue	£8,452 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	£967	Discounted at 8 per cent over sixty years.
- office equipment	£920 per year	Discounted at 8 per cent over five years.
H. Indirect overheads	£2,828 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 2001/2002</b>		
£67 per session per client; £15 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 at Canterbury.

<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> 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 amongst 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.

<b>Costs and unit estimation</b>	<b>2001/2002 value</b>	<b>Notes</b>
<i>Capital Costs</i>		
A. Buildings	£256 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 8 per cent.
B. Land costs	£15 p.w	Land costs have been discounted at 8 per cent over 60 years.
C. Equipment/ durables. Wheelchairs Furnishings/fittings	£7.00 p.w £6.50 p.w	Cost of powered chair Depreciation on furniture/fittings. Calculated using facility specific accounts.
D. Vehicles	£4.50 p.w	
<i>Revenue costs</i>		
E. Salary costs	£620 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.
F. Training	£13 p.w	
G. Maintenance	£15 p.w	
H. Medical costs	£9.70 p.w	
I. Other revenue costs	£150 p.w	
J. Overheads	£39 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 2001/2002</b>		
£1,136 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> 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 ensuite 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 whilst 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 and unit estimation	2001/2002 value	Notes
<i>Capital Costs</i>		
A. Buildings	£119 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 8 per cent.
B. Land costs	£7.10 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.
C. Equipment/ durables. Wheelchairs Furnishings/fittings	£7.00 p.w £5.50 p.w	Cost of powered chair. Depreciation on furniture/fittings. Calculated using facility specific accounts.
D. Vehicles	£1.60 p.w	
<i>Revenue costs</i>		
E. Salary costs	£379 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, medical, premises and household and laundry costs. Calculated using facility specific accounts information.
F. Training	£6.50 p.w	
G. Maintenance	£24 p.w	
H. Other revenue costs	£56 p.w	
I. Overheads	£19 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 2001/2002</b>		
£625 per resident week.		

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

### Schema 5.3 Special needs flats for disabled people

This schema is based on information received from John Grooms<sup>1</sup> 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 and unit estimation	2001/2002 value	Notes
<i>Capital Costs</i> A. Buildings	£186 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 8 per cent.
B. Land costs	£12 p.w	Land costs have been discounted at 8 per cent over 60 years.
C. Equipment/ durables. Wheelchairs Furnishings/fittings	£7.00 p.w £6.70 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	£307 p.w £0.70 p.w £1.60 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	£7.00 p.w	Charges incurred by national organisation.
<i>Personal Living Expenses</i> I. Basic Living Costs J. Other Living Costs	£84 p.w £17 p.w	Based on Family Expenditure Survey (2000/01) estimates of household expenditure of a one person non-retired household in the lowest income group inflated to 2001/02 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).
<i>K. External services</i> Client A  Client B  Clients C&D  Client E	£156 p.w  £180 p.w £315 p.w  £5.30 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. Time to time requests 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 2001/2002</b>		
£533 per week's accommodation and on site support (includes A to G); £664 per week all service and accommodation costs (includes A to G and K); £755 per week accommodation, support services and basic living (equivalent to care home costs) (A to I and K); £772 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> 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 and unit estimation	2001/2002 value	Notes
<i>Capital Costs</i>		
A. Buildings	£19 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 8 per cent.
B. Land costs	£0.70 per day	Based on actual statistics of 1,053 square metres provided by John Grooms and discounted at 8% over sixty years.
C. Equipment/ durables. Furnishings/fittings	£1.30 per day	Depreciation on furniture/fittings. Calculated using facility specific accounts.
D. Capital Costs of transport		
<i>Revenue costs</i>		
E. Salary costs	£39 per day	Costs of direct management, administrative, maintenance, medical and staff. Calculated using facility specific accounts information.
F. Travel	£1.10 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 2001/2002</b>		
£80 per place per day; £3,796 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



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

Costs and unit estimation	2001/2002 value	Notes
Capital costs A. Buildings	£113 per resident week capital	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 8 per cent over sixty years. When discounted at 6 per cent, the cost is £87 per resident week.
B. Land	£7.80 per res. week	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		
Revenue costs D. Salary and other revenue costs	£1,966 per res. week	Median gross revenue costs are based on Department of Health Key Indicators for 2000-01 <sup>3</sup> updated using the PSS Pay and Prices Index. Capital charges on the revenue account have been deducted (£44). Local authorities reporting costs of below £450 and above £5,000 per resident week were excluded. Two local authorities were excluded because the distribution of costs suggested that these authorities provided services of a different nature. Ten per cent of authorities reported costs of £1,387 or less; and 10 per cent £2,956 or more per week. The mean was £2,099.
E. Agency overheads		Social Services Management and Support Services overheads (SMSS) overhead costs are included in Key Indicators so no additional agency overheads have been included in unit costs below.
F. Other costs Social work Other services	£181 £139 per res. week	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 social work and other services (including education, health and social services) added about 15 per cent to running costs of community homes (9 per cent due to social work and 6 per cent to other services). There is no reason to believe that this would not apply to current estimates of revenue cost. 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	1.17 x A; 4.58 x B; 1.30 x (D to F)	Relative London costs are drawn from the same source as the base data for each cost element. The increase in the inflator for land is due to a revision of price trends by the DTLR. 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 2001/2002</b>		
£2,087 establishment costs per resident week (includes A to D); £2,407 care package costs per resident week (includes A to D and F).		

<sup>1</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>3</sup> Department of Health (2000-01) Key Indicators Graphical System, Updates.

<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	2001/2002 value	Notes
<i>Capital costs</i> A. Buildings	£1.40 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 8 per cent over sixty years. When discounted at 6 per cent, the cost is £1.00 per session.
B. Land	£0.10 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	£25 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 £16 per session or less and 10 per cent £35 per session or more. Median costs were £25 per session. Local authorities reporting costs of less than £1 or more than £40 per session were excluded.
E. Agency overheads	£1.23	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>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	1.20 x A; 4.60 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. 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 2001/2002</b>		
£26 per place per session (includes D to E). See note on D about treatment on capital.		

<sup>1</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, Royal Institute of Chartered Surveyors, Kingston-upon-Thames, Surrey.

<sup>2</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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**

Costs and unit estimation	2001/2002 value	Notes
A. Boarding out allowances and administration	£282 per child per week	Median costs using Department of Health Key Indicators for 2000-01 <sup>1</sup> updated using the PSS pay and prices index. The lower quartile is £232 and the upper quartile is £387.
B. Care		
C. Social work support	£316 per child per week	The costs of providing support is based on work by Beecham and Knapp. <sup>2</sup> Social work support of children in foster placements was found to be 131 per cent of the level of the boarding-out allowance. The figures do not separate out the element for boarding out. Prior to 1998 boarding out costs were in the region of 85 per cent of the total, so we have assumed the cost of social work support to be about 112 per cent of boarding out allowances and administration.
D. Other services, including education	£141 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	1.32	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 2001/2002</b>		
£739 per child per week (includes A to D).		

<sup>1</sup> Department of Health (2000-01) Key Indicators Graphical System, Updates.

<sup>2</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. More up-to-date information will be available in future from the Children in Need Census (see pp. 13-17).

## Schema 6.4 Social Services support for children

### The costs of social services support for children: results from the CIN 2000 survey

The Department of Health *Children in Need (CIN) Survey* aims to provide good quality data about children who are looked after by social services and children in need who are living with their families or independently and receive assistance from social services departments. Information is collected locally during a one-week survey and can assist local authorities to manage services and compare performance with other similar authorities. Local information is then aggregated to provide national figures. More information on the CIN Survey can be found at <http://www.doh.gov.uk/cin/>

#### Children in Need 2000

The CIN survey is designed to link needs, services and costs of children's social services. Local authorities returned summary data to the Department of Health on the number of children seen by all social services child care services during the survey week, the needs of the children as categorized into nine discrete groups, the hours of staff time absorbed and the costs of providing support. One hundred and thirty-nine local authorities returned data reporting 51,696 children looked after with a total weekly cost of £22.3m, - on average £435 per child week. For the 153,062 children supported in their families or independently, the total cost was £13.5m, or £85 per child week.

Here we present data on the weekly costs of supporting children taken from the CIN 2000 survey. The costs of supporting a child during their episode of care can be estimated by multiplying the relevant cost by the number of weeks they were supported. Mean weekly costs for England are estimated by dividing the cost of supporting children in any of the groups indicated, by the total number of children in that group. Unless otherwise stated, all costs falling to the social services department are included; placement costs and other regular payments, commissioned and directly provided services, social work and other fieldworkers, group work and individual work in centres and teams, and other miscellaneous and one-off costs. Direct and overhead costs are included and the guidance notes at <http://www.doh.gov.uk/cin/cin2001.htm> provide a full explanation of the cost estimations.

#### Children in Need 2001

The 2001 national results are also available at <http://www.doh.gov.uk/cin/cin2001.htm>. The executive summary reports the following comparisons with the CIN 2000 data.

- The number of children receiving services fell by 3 per cent. The number of Children Looked After receiving services rose by 8 per cent but this was offset by a fall of 6 per cent in the numbers of children supported in their families and receiving a service.
- The cost of providing services to Children in Need rose by about 26 per cent from £40.1m per week in 2000 to £50.4m per week in 2001.
- The average amount spent per child per week on Children in Need rose by just under 30 per cent; the increase for Children Looked After was 15 per cent from £435 per week to £500 per week, and for children supported in their families up 33 per cent from £90 per week to £120 per week.

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

Location	Children supported in families or Independently.		Children looked after	
	Total no. children	Mean cost per child £	Total no. children	Mean cost per child £
Inner London	12554	113	3989	619
Outer London	11386	107	4997	479
Metropolitan Districts	34332	86	14953	415
Unitary Authorities	33147	81	11176	408
Shire Counties	48001	75	17307	408

**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 no. children	Mean cost per child £	Total no. children	Mean cost per child £
Abuse/neglect	42,539	94	28,654	405
Disability	21,720	105	5,342	396
Parental illness	9,338	85	2,985	233
Family stress	21,503	68	2,322	305
Family dysfunction	21,698	82	6,118	407
Socially unacceptable behaviour	10,442	102	2,100	644
Low income	12,391	80	280	178
Absent parenting	4,048	121	2,505	296
Cases other than children in need	9,383	66	1,390	347

**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 no. children	Mean cost Per child £	Total no. children	Mean cost per child £
Residential home	1,239	612	7,135	1,202
Foster home	2,870	126	30,919	220
Adoption	3,811	104	1,423	186

**Notes**

1. Placement costs only.

**Table 4 Social services costs<sup>1</sup> per child per week by child protection register status (CPR)**

Type of placement	Children supported in families or independently.		Children looked after	
	Total no. children	Mean cost per child £	Total no. children	Mean cost per child £
Registered on CPR	14,639	108	6,365	218
Not registered on CPR	138,681	57	45,315	84

**Notes**

1. Excludes placement and one-off 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

## Schema 7.1 Hospital costs

Unit costs for hospital inpatient, outpatient and day care services have been derived from analysis of the TFR2 speciality and programme cost returns to the Department of Health by Trusts for the year ending 31 March 1999. The returns provide data on the total number of units of work (e.g. inpatient days, outpatient attendances) and the total net revenue expenditure for that service provision (excluding capital). The expenditure returns incorporate an overheads element to reflect the cost of support services in the provision of specialised hospital services. Overhead costs are allocated according to the appropriate unit of work measurement or, where this is not possible, apportionment in proportion to gross expenditure can be used.<sup>1</sup>

There is some debate about methods of allocating overheads, and these figures should be treated with caution. In future editions, it is hoped to draw on reference costs (<http://www.doh.gov.uk/nhsexec/refcosts.htm>) as these are becoming more comprehensive and reliable. Unit costs have been derived by dividing the total expenditure in a given speciality by the number of work units provided. These unit costs are 2000/2001 figures inflated using the HCHS pay and prices index. The DWP personal allowance figure of £14.50 (2000/2001) can be added as a proxy for personal consumption for long-stay patients.

Patient group/speciality	Cost per inpatient day	Cost per outpatient attendance	TFR2 subcode	Cost per day hospital attendance	TFR2 subcode
Elderly people with mental health problems	£148	£145 <sup>2</sup>	406	£88	909,912
People with mental health problems <sup>3</sup>	£177	£136	402-406	£73	907,910
People with learning disabilities	£196	£157 <sup>2</sup>	401	£61	906
Paediatrics	£398	£111	101	£104	913
Geriatrics	£145	£118	102	£110	905
Cardiology	£460	£86	103		
Dermatology	£232	£60	104		
Infectious diseases	£325	£348	105		
Medical oncology	£354	£120	106		
Neurology	£272	£128	107	£169 <sup>2</sup>	903
Rheumatology	£241	£86	108	£191	904
Gastroenterology	£256	£83	109		
Haematology	£356	£73	110		
Clinical Immunology	£560	£169	111		
Thoracic medicine	£241	£105	112		
Nephrology	£307	£93	114		
Rehabilitation medicine	£192	£344	115		
Surgery	£368	£71	299		
Generic <sup>4</sup>	£273	£82	199+299+599	£86	950
Accident & emergency	£310	£75	505	£57	801

<sup>1</sup> NHS Management Executive (1993) *Cost Allocation General Principles and Approach for 1993/1994*, NHS Management Executive, Leeds.

<sup>2</sup> Costs have been updated from last year as those reported were vastly different from last year.

<sup>3</sup> See also Schemata 2.8 and 2.9.

<sup>4</sup> Generic hospital costs are the average costs of a wide variety of specialties for use when precise information about the nature of the hospital contact is not available.

## 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	£111	£111	£111	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	£3.60	£3.60	£3.60	Capital costs associated with the buildings and land invested in the ambulance service were estimated by discounting their capital value over 60 years at 6 per cent.
Ambulances and equipment	£15	£13	£12	PU and EAs use exactly the same type of vehicle with similar equipment on board. The ambulances cost £44,584 new and standard equipment including defibrillators costs £11,146 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 £1,672 and is replaced annually. PTSs use a different type of ambulance which costs £30,094 and is expected to last seven years. Discounting at 6 per cent the annual cost of a PU is £14,847; an EA is £13,230 and a PTS £5,390. The average number of journeys per emergency ambulance was 1152 and the average number of journeys per transport ambulance 520.
Crew salaries and wages	£106	£103	£80	A crucial distinguishing characteristic of the different services is the type of crew. A PU carries one paramedic (average salary £23,472 pa) and one technician (average salary £22,091). An EA is crewed by two technicians and a PTS by two care assistants (average salary £12,065). Once national insurance and pension payments are included the average annual crew cost is £51,031 for a PU; £49,484 for an EA; and £27,025 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	£236	£231	£206	
Cost per minute	£5.30	£5.20	n.a.	Based on the average length of an emergency journey: 44.4 minutes.
Average cost per patient journey	£263 <sup>1</sup>	£201	£41	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 £167 to £892 for active user chairs and £947 to £1,672 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 2001/2002	Annual cost 2001/2002	Notes
<i>Capital costs</i> Self or attendant propelled Active user Powered	£231 £576 £1,151	£56 £137 £274	Capital value has been discounted over five years to allow for the expected life of a new chair. In practice, 50 per cent of wheelchairs supplied have been reconditioned, not having been worn out by the time their first users ceased to need them. 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 £93	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 2001/2002</b>			
£79 per self or attendant propelled chair per year; £161 per active user per chair per year; £367 per powered chair per year.			

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

## Schema 7.4 Local authority aids and adaptations

Information about the capital cost of installing aids 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> suggests that the uprated figures are in line with current building costs.

The period over which aids and adaptations should be discounted is open to debate. Ideally it should be discounted 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. As there is a competitive market in providing these aids and adaptations, it could be argued that 8 per cent is a more appropriate discount rate. This table shows the items discounted over ten years at both 6 per cent and 8 per cent.

Aid or adaptation	Mean	Median	Range		Median annual cost	
			Minimum	Maximum	6% discount	8% discount
Additional heating	£305	£282	£103	£3,510	£38	£42
Electrical modifications	£312	£364	£41	£2,714	£49	£54
Joinery work (external door)	£360	£428	£186	£885	£58	£64
Entry phones	£255	£346	£153	£2,170	£47	£52
Individual alarm systems	£271	£317	£150	£681	£43	£47
Grab rail	£67	£37	£3	£300	£5	£6
Hoist	£664	£1,855	£272	£5,779	£252	£276
Low level bath	£377	£473	£255	£1,036	£64	£71
New bath/shower room	£5,529	£10,594	£2,721	£24,492	£1,439	£1,578
Redesign bathroom	£1,012	£2,370	£340	£5,443	£322	£353
Redesign kitchen	£2,043	£2,809	£499	£4,762	£382	£418
Relocation of bath or shower	£753	£1,439	£128	£7,591	£196	£214
Relocation of toilet	£614	£1,227	£122	£2,925	£167	£183
Shower over bath	£672	£625	£150	£1,715	£85	£93
Shower replacing bath	£1,837	£1,730	£336	£3,120	£235	£258
Graduated floor shower	£1,703	£2,103	£918	£4,790	£286	£313
Stairlift	£1,857	£2,342	£1,633	£5,234	£318	£349
Simple concrete ramp	£459	£273	£47	£1,966	£37	£41

<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.

## **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

**Schema 8.1 Community physiotherapist**

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£24,013 per year	National average salary for a senior 1 grade physiotherapist, based on the mid-point of the April 2001 pay scale. It includes an element to reflect the proportion of staff who receive a London allowance and an allowance of £1,035 for supervising students.
B. Salary oncosts	£ 2,670 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£ 5,291 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> 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.
D. Overheads	£ 3,675 per year	Comprises £2,341 for indirect overheads and 5 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£ 2,920 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.
F. Travel	£2.17 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>
<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-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	1.11 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 2001/2002 (costs including qualifications given in brackets)</b>		
£22 (£26) per hour; £37 (£43) per hour of client contact; £29 (£34) per hour in clinic; £38 (£44) per hour of home visiting; £40 (£46) per home visit; £15 (£17) per clinic visit (includes A to E). Example episode £191 (£221).		

<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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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> Department of Health (1997) *Labour Market Forces Factor*, Department of Health, London.

### Schema 8.2 Community occupational therapist (health authority)

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£24,013 per year	National average salary for a senior 1 grade occupational therapist, based on the mid-point of the April 2001 pay scale. The sum includes an element to reflect the proportion of staff who receive a London allowance and an allowance of £1,035 for supervising students.
B. Salary oncosts	£ 2,670 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£ 5,089 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> 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.
D. Overheads	£ 3,675 per year	Comprises £2,341 for indirect overheads and 5 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£ 2,920 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.
F. Travel	£2.17 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>4</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	1.11 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> 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 2001/2002 (costs including qualifications given in brackets)</b>		
£22 (£25) per hour; £37 (£42) per hour of client contact; £29 (£34) per hour in clinic; £38 (£44) per hour of home visiting; £40 (£46) per home visit; £15 (£17) per clinic visit (includes A to E). £191 (£220) per care episode.		

<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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

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

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

**Schema 8.3 Community speech and language therapist**

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£21,220 per year	National average salary for a grade 2 speech and language therapist, based on the April 2001 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance.
B. Salary oncosts	£ 2,310 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£ 5,648 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> 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.
D. Overheads	£ 3,517 per year	Comprises £2,341 for indirect overheads and 5 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£ 2,920 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.
F. Travel	£2.17 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	1.11 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> 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 2001/2002 (costs including qualifications given in brackets)</b>		
£20 (£24) per hour; £33 (£39) per hour of client contact; £26 (£31) per hour in clinic; £34 (£41) per hour of home visiting; £37 (£43) per home visit; £13 (£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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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> Department of Health (1997) *Labour Market Forces Factor*, Department of Health, London.

**Schema 8.4 Community chiropodist**

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£20,554 per year	National average salary for a grade 2 chiropodist, based on the April 2001 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance.
B. Salary oncosts	£ 2,224 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications		Training costs have not yet been estimated.
D. Overheads	£ 3,480 per year	Comprises £2,341 for indirect overheads and 5 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£ 2,920 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.
F. Travel	£1.13 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	1.11 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> 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 2001/2002</b>		
£19 per hour; £17 per home visit; £9 per clinic visit (includes A to E).		

<sup>1</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>2</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

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

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

**Schema 8.5 Clinical psychologist**

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£31,651 per year	National average salary for a clinical psychologist, based on the mid-point of the April 2001 pay scale.
B. Salary oncosts	£ 3,708 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications		Training costs have not yet been estimated.
D. Overheads	£ 4,109 per year	Comprises £2,341 for indirect overheads and 5 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£ 2,518 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.
F. Travel	£1.13 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	1.11 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 2001/2002</b>		
£28 per hour; £65 per hour of client contact; £37 per professional chargeable hour (includes A to E). Travel £1.13 per visit.		

<sup>1</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>2</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

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



## **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 Community auxiliary nurse
- 9.6 Practice nurse
- 9.7a General practitioner – cost elements
- 9.7b General practitioner – unit costs
- 9.7c General practitioner - commentary

**Schema 9.1 District nurse**

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£23,712 per year	National average salary, based on the April 2001 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	£2,631 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£6,776 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> Investment costs of education should always be included when evaluating the cost-effectiveness of different approaches to using health service staff. However, those costing exercises which are concerned with narrowly defined costs to the provider organisation would not want to incorporate these investment costs.
D. Overheads	£4,975 per year	Comprises £2,341 for indirect overheads and 10 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£2,518 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.
F. Travel	£1.13 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	1.11 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	0.93 x (A to D) 0.98 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 2001/2002 (costs including qualifications given in brackets)</b>		
£21 (£26) per hour; £45 (£54) per hour spent with a patient; £34 (£41) per hour in clinic; £48 (£57) 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

<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	2001/2002 value	Notes
A. Wages/salary	£24,145 per year	National average salary, based on the April 2001 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	£2,687 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£6,460 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> 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.
D. Overheads	£5,024 per year	Comprises £2,341 for indirect overheads and 10 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£2,518 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.
F. Travel	£1.13 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.
Ratio of direct to indirect time on: 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	1.11 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	0.93 x (A to D) 0.98 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 2001/2002 (costs including qualifications given in brackets)</b>		
£22 (£26) per hour; £61 (£72) per hour of client contact; £48 (£57) per hour of clinic contact; £66 (£79) per hour spent on home visits (includes A to E); £23 (£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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

<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**

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£23,712 per year	National average salary for a health visitor, based on the April 2001 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	£2,631 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£6,776 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> 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.
D. Overheads	£4,975 per year	Comprises £2,341 for indirect overheads and 10 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£2,518 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.
F. Travel	£1.13 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	1.11 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, Transport and the Regions.
Non-London multiplier	0.93 x (A to D) 0.98 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 2001/2002 (costs including qualifications given in brackets)</b>		
£21 (£26) per hour; £61 (£74) per hour of client contact; £52 (£62) per hour of clinic contact; £74 (£89) per hour spent on home visits (includes A to E); £26 (£31) 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

<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	2001/2002 value	Notes
A. Wages/salary	£25,634 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	£2,879 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£6,776 per year	Based on the training costs of a district nurse.
D. Overheads: direct and indirect	£5,192 per year	Comprises £2,341 for indirect overheads and 10 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£1,798 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.
F. Travel	£1.13 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	1.11 x (A to D) 1.35 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) 0.98 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 2001/2002 (costs including qualifications given in brackets)</b>		
£23 (£27) per hour; £56 (£67) per hour of client contact (includes A to E). Travel £1.13 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 Community auxiliary nurse**

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£12,011 per year	National average salary for an auxiliary nurse, based on the April 2001 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	£1,122 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	£2,998 per year	Comprises £2,341 for indirect overheads and 5 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£1,020 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.
F. Travel	£1.13 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	1.11 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	0.93 x (A to D) 0.98 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 2001/2002</b>		
£10 per hour; £17 per hour spent with a patient; £14 per hour in clinic contacts; £18 per hour spent on home visits; £7 per home visit (includes A to F).		

<sup>1</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>2</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

<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	2001/2002 value	Notes
A. Wages/salary	£20,300 per year	Based on the April 2001 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	£2,191 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£6,356 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> Investment costs of education should always be included when evaluating the cost-effectiveness of different approaches to using health service staff. However, those costing exercises which are concerned with narrowly defined costs to the provider organisation would not want to incorporate these investment costs.
D. Overheads	£4,590 per year	Comprises £2,341 for indirect overheads and 10 per cent of salary costs for direct revenue overheads.
E. Capital overheads	£4,065 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.
F. Travel	£0.56 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.
<i>Ratio of direct to indirect time on:</i> 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	1.11 x (A to D); 1.41 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) 0.98 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 2001/2002 (costs including qualifications given in brackets)</b>		
£20 (£27) per hour; £24 (£32) per hour of client contact; £22 (£30) per hour in clinic; £8 (£10) per consultation; £7 (£9) per procedure; £29 (£39) 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes (for further clarification see Commentary)
A. Net remuneration	£62,205 per annum	Intended average net income for 2001/2002 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	£14,166 p.a. £ 3,928 p.a.  £40,196 p.a.	On average in 2001/2002, each wte principal employed 0.33 of a practice nurse and 0.06 of other direct care staff. Travel costs are estimated using the car allowance for GP registrars. <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 1995/6 and 1996/7, 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 £19.96 <sup>3</sup> .
C. Qualifications	£33,555 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.
D. Ongoing training	£ 820 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	£ 9,261 p.a. £ 1,933 p.a.	Based on new build and land requirements for a GP practitioner suite. Expenditure on computer equipment is currently used as proxy for discounted capital costs (see Commentary).
F. Overheads	£ 5,681 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 £1.60 per head (3,017 per GP), strategy and development £0.65 (£1,216), and supporting primary care-led purchasing £0.77 (£1,448). <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:</i> surgery/clinic/phone contact home visits	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 2001/2002 are given in the table overleaf</b>		

<sup>1</sup> Information provided by Department of Health.<sup>2</sup> Department of Health, Family Health services letter FHSL(97)30.<sup>3</sup> Due to a very large increase this year in the number of items per consultation, the same number as last year has been used.<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 GMSC.<sup>6</sup> Review Body on Doctors' and Dentists' Remuneration, Thirtieth Report 2001, CM 4998 TSO, London.



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

Unit cost 2001/2002	Including direct care staff costs		Excluding direct care staff costs	
	With qualification costs	Without qualification costs	With qualification costs	Without qualification costs
Annual	£171,745	£138,190	£157,578	£124,023
*Per hour of GMS activity	£81	£65	£74	£58
*Per hour of patient contact	£118	£92	£116	£91
*Per surgery/clinic minute	£2.12	£1.70	£1.94	£1.52
*Per home visit minute	£3.31	£2.65	£3.03	£2.37
*Per surgery consultation lasting 9.36 minutes	£20	£16	£18	£14
*Per clinic consultation lasting 12.6 minutes	£27	£21	£24	£19
*Per telephone consultation lasting 10.8 minutes	£23	£18	£21	£16
Per home visit lasting 13.2 minutes **(plus 12 minutes travel time)	£61	£49	£56	£44
Prescription costs per consultation	£17.82			
Average Costs incurred by patient when attending a G.P. surgery.	£6.70 <sup>1</sup> (Includes weighted average loss of waged time and non-waged time plus oncosts 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?* British Journal of General Practice, May 2000.

### 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 28,910 unrestricted principals in 2000/01<sup>1</sup>. On the basis of previous information about proportion of part time GPs, it was estimated that this was the equivalent of 27,145 wte GPs.

**Direct care staff.**<sup>2</sup> On average in 2001 each wte principal employed 0.38 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 last year's estimate. This may well result from last year's estimates being low or this year's 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 a discounted 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.**<sup>3</sup> These are based on information about annual numbers of consultations per GP (9,738 in 1998), number of prescriptions per GP (16,659 in 1998), (the most recent date for which reliable estimates are available) and the average total cost per prescription (£10.42 at 2001/2002 prices). The number of prescriptions per consultation (1.71) probably reflects repeat prescriptions arising from initial consultations.

**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>4</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, October 2001.

<sup>2</sup> NHS Executive, General and Personal Medical Services Statistics, England and Wales. October 2001.

<sup>3</sup> DH Statistical Bulletin 1998/24. Department of Health website: [www.doh.gov.uk/prescriptionsstatistics/index.htm](http://www.doh.gov.uk/prescriptionsstatistics/index.htm).

<sup>4</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 GMSC.

### **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 elderly people
- 10.9 Adolescent support worker
- 10.10 Family support worker

**Schema 10.1 Social work team leader**

Costs and unit estimation	2001/2002 value	Notes
A. Salary	£28,189 per year	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 39 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 £19,014-£45,000 and the median salary was £26,599 outside London and £29,241 in London.
B. Salary oncosts	£3,350 per year	Employers' national insurance plus 4.5 per cent of salary for contribution to superannuation.
C. Qualifications		
D. Overheads	£4,731 per year	15 per cent of salary costs for management and administrative overheads. <sup>1</sup>
E. Capital overheads	£2,347 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>
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 recent 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	1.10 x A 1.43 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 2001/2002</b>		
£25 per hour; £32 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 at Canterbury.

<sup>2</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
A. Salary	£21,362 per year	Information taken from a telephone survey carried out by PSSRU of 40 authorities during 2002. 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 £15,741-£34,000. The median salary was £20,403 outside London and £25,062 in London.
B. Salary oncosts	£2,435 per year	Employers' national insurance plus 4.5 per cent of salary for employers' contribution to superannuation.
C. Qualifications		
D. Overheads	£3,570 per year	15 per cent of salary costs for management and administrative overheads. <sup>1</sup>
E. Capital overheads	£2,347 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>
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	1.21 x A 1.43 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 2001/2002</b>		
£19 per hour; £25 per hour of client-related work; £35 per hour of direct outputs; £92 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 at Canterbury.

<sup>2</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

<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 at Canterbury.

<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	2001/2002 value	Notes
A. Salary	£21,549 per year	Information taken from a telephone survey carried out by PSSRU of 40 authorities during 2002. 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 £15,741-£34,000. The median salary was £20,403 outside London and £25,062 in London.
B. Salary oncosts	£2,460 per year	Employers' national insurance plus 4.5 per cent of salary for employers' contribution to superannuation.
C. Qualifications		
D. Overheads	£3,601 per year	15 per cent of salary costs for management and administrative overheads. <sup>1</sup>
E. Capital overheads	£2,347 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>
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: client-related work</i>	1 hr p.w.  1:0.3	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 in 1998. This was less than previous works that found one hour per week direct contact and 190 minutes per week for client related activity. Tibbitt and Martin <sup>5</sup> found that 77 per cent of a 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	1.21 x A 1.43 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 2001/2002</b>		
£19 per hour; £25 per hour of client-related work; £25 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 at Canterbury.

<sup>2</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>4</sup> Carr-Hill R et al (1999). *The determinants of expenditure on children's personal social services*, British Journal of Social Work.

<sup>5</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.

**Schema 10.4 Social work assistant**

Costs and unit estimation	2001/2002 value	Notes
A. Salary	£15,276 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 29 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 £11,817-£25,000. The median salary was £14,411 outside London and £19,487 in London.
B. Salary oncosts	£1,620 per year	Employers' national insurance plus 4.5 per cent of salary for contribution to superannuation.
C. Overheads	£2,534 per year	15 per cent of salary costs for management and administrative overheads. <sup>1</sup>
D. Capital overheads	£2,347 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>
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.
Ratios of direct to indirect time on: client-related work face-to-face contact	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	1.34 x A 1.43 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 2001/2002</b>		
£14 per hour; £16 per hour of client-related work; £51 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 at Canterbury.

<sup>2</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 2001/2002 prices. This can be compared with a mean hourly cost of LA home care of £16 based on PSS EX1 2001<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 £12 per hour.

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£5.65 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 31 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.
B. Salary oncosts	£0.55 per hour	Employers' national insurance plus 4.5 per cent of salary for employers' contribution to superannuation.
C. Direct overheads	£1.68 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	£0.80 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	£0.49 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 2001/2002</b>		
£8.69 per weekday hour (£10.42 per hour weekday evenings; £13.03 per hour Saturdays; £17.37 per hour Sundays); £10.08 per hour face-to-face weekday contact (£12.09 per hour weekday evenings; £15.11 per hour Saturdays; £20.15 per hour Sundays) (Includes A to D). £84.38 typical home care package if all hours are provided by the LA.		

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

<sup>2</sup>Department of Health (2001) <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 (Forder et al, 2001 and pages 19-23 in this volume). 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 £7.29. 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 2001/2002 levels using the PSS Pay Index.

	N	Mean	Minimum	Maximum	Std. Deviation
<b>Prices by timing of visit</b>					
Weekday, daytime	122	8.55	5.45	16.41	1.69
Weekday, night-time	82	9.27	5.76	17.23	2.10
Weekend, daytime	112	9.71	5.47	20.52	2.23
Weekend, night-time	85	10.11	6.12	20.52	2.57
<b>Prices by location</b>					
<i>North</i>					
Weekday, daytime	61	7.89	5.45	16.41	1.59
Weekday, night-time	39	8.06	5.76	13.13	1.45
Weekend, daytime	55	8.64	6.13	16.41	1.70
Weekend, night-time	41	8.73	6.13	15.32	1.69
<i>South</i>					
Weekday, daytime	61	9.20	5.47	14.28	1.59
Weekday, night-time	43	10.35	6.77	16.54	2.11
Weekend, daytime	57	10.75	5.47	19.69	2.28
Weekend, night-time	44	11.40	8.21	19.69	2.71

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

Characteristic	Predicted weekday price per hour
Staff have nursing qualification	£9.29
Live-in service constitutes over 50 per cent of hours delivered	£9.39
Over 25 per cent of clients incontinent	£9.36
Over 75 per cent of clients have special needs	£10.31
No client is over the age of 65	£9.89

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

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£22,669 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 2001 pay scale was £22,588.
B. Salary oncosts	£2,610 per year	Employers' national insurance plus 4.5 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£5,089 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.
D. Overheads	£3,792 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	£2,347 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>
F. Travel	£1.13 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 1.43 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 2001/2002 (costs including training given in brackets)</b>		
£20 (£23) per hour; £40 (£46) per hour of client contact (includes A to E); £28 (£32) 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

<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 elderly 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	2001/2002 value	Notes
A. Wages/salary	£29,458 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	£4,268 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	£5,396 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	£2,347 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>
F. Travel	£1.13 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	9	Average number of visits per week per worker and average length of visits overall in teams.
Length of visits	45 minutes	
Caseload per worker	14	Number of cases per care manager. Limited turnover
London multiplier	1.07 x (A to D) 1.43 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 2001/2002</b>		
£27 per hour; £34 per hour of client-related work; £52 per hour of direct output activity; £148 per hour of face-to-face contact; £69 per case per week (includes A to E); £35 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 at Canterbury.

<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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 2001-2002 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	2001/2002 value	Notes
A. Wages/salary	£20,021 per year	Median salary taken from the City of York Council budget.
B. Salary oncosts	£4,005 per year	Employers' national insurance plus employers' contribution to superannuation.
C. Training		No information available.
D. <i>Overheads:</i> Direct	£1,201	5 per cent of salary costs added for equipment, management and administrative overheads.
Indirect	£3,069 per year	Indirect overheads include office expenses and secretarial staff costs.
E. Capital overheads	£1,968 per year	Building Cost Information Service <sup>2</sup> and Department of the Environment, Transport and the Regions <sup>3</sup>
F. Travel	£1,317 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 2001/2002</b>		
£18 per hour; £24 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
A. Wages/salary	£18,857 per year	1996/1997 costs inflated by the PSS Pay Index. Information taken from a survey of 14 Family Support Workers.
B. Salary oncosts	£2,760 per year	Includes employers' national insurance plus employers' contribution to superannuation (8 per cent).
C. Training	£1,725 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 £33,447 or £2,393 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 £1,703`.
D. Overheads	£6,107 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 2001/2002 (costs including training given in brackets)</b>		
£27 (£29) for a contact hour; £16 (£17) for a basic 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 at Canterbury.

## **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	2001/2002 value	Notes
A. Wages/salary	£27,045 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	£3,268 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	£5,372 per year	Comprises £2,341 for indirect overheads and 10 per cent of salary costs for direct revenue overheads
E. Capital overheads	£2,518 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>
F. Travel	£1.13 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); 1.35 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 2001/2002</b>		
£25 per hour; £32 per hour of client-related work; £45 per hour of direct output activity; £54 per case per week; £85 per hour of face-to-face contact (includes A to E); £47 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 at Canterbury.

<sup>2</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

### Schema 11.2 Community mental health team

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£25,922 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	£3,104 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	£4,934 per year	Regional health authority overheads estimated to be 17 per cent.
E. Capital overheads	£2,518 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>
F. Travel	£1.13 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); 1.35 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 2001/2002</b>		
£23 per hour; £30 per hour of patient-related work; £59 per hour of patient contact (includes A to E). Travel £1.13 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 at Canterbury.

<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	2001/2002 value	Notes
A. Wages/salary	£34,178 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	£4,207 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	£8,061 £4,606 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	£2,518 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>
F. Travel	£768 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); 1.35 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 2001/2002</b>		
£35 per hour per team member; £64 per hour of client contact per team member; £323 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, Thirtieth Report 2001, Cm 4243, 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>5</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
A. Wages/salary	£27,623 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 salary costs) employed in 138 teams.
B. Salary oncosts	£3,251 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	£1,852 £3,551 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	£2,518 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>
F. Travel	£926 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); 1.35 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 2001/2002</b>		
£25 per hour per team member; £39 per hour of client contact per team member; £31 per professional chargeable hour per team member; £119 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, Thirtieth Report 2001, Cm 4998, 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>5</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 2001-2002 value and adjusted for consistency with other of methodology with other services. The educational psychology team comprises six full-time equivalent staff members and works with children aged 5-16.

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£36,150 per year	Median salary taken from the City of York Council budget and uprated using the HCHS Pay inflator.
B. Salary oncosts	£4,604 per year	Employers' national insurance plus employers' contribution to superannuation.
C. Training	£264 per year	Taken from City of York Council budget for staff training.
D. <i>Overheads:</i> Direct	£2,038	5 per cent of salary costs added for equipment, management and administrative overheads.
Indirect	£2,466 per year	Indirect overheads include office expenses and secretarial staff costs uprated using the HCHS Pay and Prices inflator.
E. Capital overheads	£1,968 per year	Building Cost Information Service <sup>2</sup> and Department of the Environment, Transport and the Regions <sup>3</sup>
F. Travel	£1,326 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 2001/2002</b>		
£30 per hour; £38 per hour of individual client-related activity; £67 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 2001-2002 value and adjusted for consistency with other of methodology with other services. The core educational social work team comprises eight full-time equivalent staff members and works with children aged 5-16.

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£17,932 per year	Median salary taken from the City of York Council Budget and uprated using the HCHS Pay inflator.
B. Salary oncosts	£1,975 per year	Employers' national insurance plus employers' contribution to superannuation.
C. Training	£441 per year	City of York Council Budget for staff training and uprated using the
D. <i>Overheads:</i> Direct	£995	5 per cent of salary costs added for equipment, management and administrative overheads.
Indirect	£1,850 per year	Indirect overheads include office expenses and secretarial staff costs uprated using the HCHS Pay and Prices inflator.
E. Capital overheads	£1,968 per year	Building Cost Information Service <sup>2</sup> and Department of the Environment, Transport and the Regions <sup>3</sup>
F. Travel	£2,561 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 2001/2002</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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 2000-2001 value and adjusted for consistency with other of methodology with other services. 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	2001/2002 value	Notes
A. Wages/salary	£27,630 per year	Median salary taken from the City of York Council budget and uprated using the HCHS Pay inflator.
B. Salary oncosts	£3,275 per year	Employers' national insurance plus employers' contribution to superannuation.
C. Training	£145 per year	Taken from City of York Council Budget for staff training uprated using the HCHS Pay inflator.
D. <i>Overheads:</i> Direct	£1,545	5 per cent of salary costs added for equipment, management and administrative overheads.
Indirect	£1,163 per year	Indirect overheads include office expenses and secretarial staff costs uprated using the HCHS Pay and Prices inflator.
E. Capital overheads	£1,968 per year	Building Cost Information Service <sup>2</sup> and Department of the Environment, Transport and the Regions <sup>3</sup>
F. Travel	£1,008 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 2001/2002</b>		
£29 per hour; £35 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 2001-2002 value and adjusted for consistency with other of methodology with other services. The team comprises six full-time equivalent members including a manager and works with children aged 5-16.

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£27,630 per year	Median salary taken from the City of York Council budget uprated using the HCHS Pay inflator.
B. Salary oncosts	£3,275 per year	Employers' national insurance plus employers' contribution to superannuation.
C. Training	£321 per year	Taken from City of York Council Budget for staff training uprated using the HCHS Pay inflator.
D. <i>Overheads:</i> Direct	£1,545	5 per cent of salary costs added for equipment, management and administrative overheads.
Indirect	£2,466 per year	Indirect overheads include office expenses and secretarial staff costs uprated using the HCHS Pay and Prices inflator.
E. Capital overheads	£1,968 per year	Building Cost Information Service <sup>2</sup> and Department of the Environment, Transport and the Regions <sup>3</sup>
F. Travel	£1,255 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 2001/2002</b>		
£31 per hour; £39 per hour of 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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.

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£37,195 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 the hourly rate paid in the study of GP practices.
B. Salary oncosts	£ 3,711 per year	Employers' national insurance plus 4 per cent of salary to employers' superannuation.
C. <i>Overheads:</i> Direct	£ 4,091 per year	10 per cent of salary costs added for equipment, management and administrative overheads.
D. Capital Overheads	£ 1,495 per year	Based on new build and land requirements for a Practice Nurse non-treatment space.
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 2001/2002</b>		
£30 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 therapy support worker



**Schema 12.1 Hospital physiotherapist**

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£24,013 per year	National average salary for a senior 1 grade hospital physiotherapist, based on the mid-point of the April 2001 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance. It also includes an allowance of £1,035 for supervising students.
B. Salary oncosts	£2,543 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£5,291 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> 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.
D. Overheads	£2,341 per year	Comprises £2,341 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	£5,143 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.
F. Travel	£2.17 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	1.14 x (A to D); 1.26 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>6</sup>
Non-London multiplier	0.97 x (A to D) 0.94 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 2001/2002 (costs including qualifications given in brackets)</b>		
£23 (£26) per hour; £35 (£40) per hour of client contact; £33 (£38) per hour in clinic; £44 (£51) per hour in home visiting (includes A to E). Travel £2.17 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
A. Wages/salary	£24,013 per year	National average salary for a senior 1 grade hospital occupational therapist, based on the mid-point of the April 2001 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance. It also includes an allowance of £1,035 for supervising students.
B. Salary oncosts	£2,543 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£5,089 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> 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.
D. Overheads	£2,341 per year	Comprises £2,341 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	£5,143 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.
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: patient contacts</i>	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); 1.26 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>6</sup>
Non-London multiplier	0.97 x (A to D) 0.96 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 2001/2002 (costs including qualifications given in brackets)</b>		
£23 (£26) per hour; £38 (£43) 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
A. Wages/salary	£22,952 per year	National average salary for a grade 2 speech and language therapist, based on the April 2000 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance.
B. Salary oncosts	£2,499 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£5,648 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> 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.
D. Overheads	£2,341 per year	Comprises £2,341 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	£5,017 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.
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); 1.26 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>6</sup>
Non-London multiplier	0.97 x (A to D) 0.96 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 2001/2002 (costs including qualifications given in brackets)</b>		
£22 (£25) per hour; £36 (£42) 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
A. Wages/salary	£24,013 per year	National average salary for a senior 1 grade hospital dietitian, based on the mid-point of the April 2000 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance. It also includes an allowance of £1,035 for supervising students.
B. Salary oncosts	£2,543 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£5,613 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> 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.
D. Overheads	£2,341 per year	Comprises £2,341 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	£4,298 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.
F. Travel	£1.13 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	1.14 x (A to D); 1.29 x E	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 D) 0.96 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 2001/2002 (costs including qualifications given in brackets)</b>		
£21 (£25) per hour; £28 (£33) per hour client contact; £27 (£32) per hour in clinic; £48 (£57) per hour of home visiting (includes A to E). Travel £1.10 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
A. Wages/salary	£24,013 per year	National average salary for a senior 1 grade radiographer, based on the mid-point of the April 2000 pay scales. The sum includes an element to reflect the proportion of staff who receive a London allowance. It also includes an allowance of £1,035 for supervising students.
B. Salary oncosts	£2,543 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£6,358 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> 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.
D. Overheads	£2,341 per year	Comprises £2,341 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	£8,130 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.
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	1.14 x (A to D); 1.29 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) 0.96 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 2001/2002 (costs including qualifications given in brackets)</b>		
£25 (£30) per hour; £42 (£49) 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 therapy support worker**

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£11,022 per year	National average salary for a therapy helper aged 19 and over, based on the mid-point of the April 2000 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	£978 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	£2,341 per year	Comprises £2,341 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	£3,367 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.
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	1.14 x (A to D); 1.29 x E	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 D) 0.96 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 2001/2002</b>		
£11 per hour; £14 per hour of client contact (includes A to E).		

<sup>1</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>2</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 Hospital auxiliary nurse

**Schema 13.1 Ward manager, day ward**

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£23,712 per year	National average salary for a staff nurse, based on the April 2001 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	£2,593 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£5,231 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> 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.
D. Overheads	£2,341 per year	Comprises £2,341 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	£2,730 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.
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.
<i>Ratio of direct to indirect time on: face-to-face contacts</i>	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) 0.94 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 2001/2002 (costs including qualifications given in brackets)</b>		
£20 (£23) per hour; £44 (£52) per hour of patient contact; £149 (£174) 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
A. Wages/salary	£26,695 per year	National average salary for a staff nurse, based on the April 2001 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	£2,973 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£5,231 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> 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.
D. Overheads	£2,341 per year	Comprises £2,341 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	£2,730 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.
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) 0.96 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 2001/2002 (costs including qualifications given in brackets)</b>		
£22 (£25) per hour; £49 (£56) per hour of patient contact; £165 (£190) 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
A. Wages/salary	£17,979 per year	National average salary for a staff nurse, based on the April 2001 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	£1,863 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£5,231 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> 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.
D. Overheads	£2,341 per year	Comprises £2,341 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	£1,592 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.
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.
<i>Ratio of direct to indirect time on: face-to-face contacts</i>	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); 1.26 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); 0.96 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 2001/2002 (costs including qualifications given in brackets)</b>		
£15 (£18) per hour; £27 (£33) per hour of patient contact; £113 (£138) 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
A. Wages/salary	£20,632 per year	National average salary for a staff nurse, based on the April 2001 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	£2,201 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£5,231 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> 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.
D. Overheads	£2,341 per year	Comprises £2,341 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	£1,592 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.
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.
<i>Ratio of direct to indirect time on: face-to-face contacts</i>	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); 1.26 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) 0.96 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 2001/2002 (costs including qualifications given in brackets)</b>		
£17 (£20) per hour; £34 (£41) per hour of patient contact; £127 (£152) 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>3</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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 Hospital auxiliary nurse**

Costs and unit estimation	2001/2002 value	Notes
A. Wages/salary	£14,058 per year	National average salary for an auxiliary nurse working in a hospital, based on the April 2001 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	£1,364 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Overheads	£2,341 per year	Comprises £2,341 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	£1,592 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.
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); 1.26 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) 0.96 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 2001/2002</b>		
£12 per hour; £20 per hour of patient contact; £88 per shift (includes A to D)		

<sup>1</sup> Building Cost Information Service (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>2</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
A. Wages/salary	£24,702 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	£2,512 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£24,480 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> 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.
D. Overheads	£2,341 per year	Comprises £2,341 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	£2,279 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	£3,336 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.
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); 1.31 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) 0.94 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 2001/2002 (costs including qualifications given in brackets)</b>		
£10 (£19) per hour on duty; £14 (£25) per hour worked (includes A to F).		

<sup>1</sup> Review Body on Doctors' and Dentists' Remuneration, Thirtieth Report 2001, 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2000/2001 value	Notes
A. Wages/salary	£34,128 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	£ 3,782 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£26,159 per year	The equivalent annual cost of pre-registration medical training and post-graduate medical education. The investment in training of a medical degree and one year spent as a pre-registration house officer have been annuitised over the expected working life of the doctor. <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.
D. Overheads	£ 2,341 per year	Comprises £2,360 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	£ 2,954 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	£ 3,336 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.
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); 1.31 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) 0.94 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 2001/2002 (costs including qualifications given in brackets)</b>		
£16 (£26) per hour on duty; £23 (£38) per hour worked (includes A to F).		

<sup>1</sup> Review Body on Doctors' and Dentists' Remuneration, Thirtieth Report 2001, 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, The Stationery Office, London. The appropriate inflator is provided by the DETR on request.

<sup>5</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	2001/2002 value	Notes
A. Wages/salary	£38,602 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	£ 4,483 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£28,706 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> 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.
D. Overheads	£ 2,341 per year	Comprises £2,341 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	£ 2,954 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	£ 3,336 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.
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); 1.31 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) 0.94 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 2001/2002 (costs including qualifications given in brackets)</b>		
£19 (£31) per hour on duty; £27 (£45) per hour worked (includes A to F).		

<sup>1</sup> Review Body on Doctors' and Dentists' Remuneration, Thirtieth Report 2001, 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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
A. Wages/salary	£70,203 per year	Average salary for a consultant physician based on the April 2001 scale midpoint including £7,935 corresponding to the third discretionary point. <sup>1</sup> The sum also includes £4,068 to reflect the national level of distinction award payments. It does not reflect payments for London allowances.
B. Salary oncosts	£ 9,354 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£34,951 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> 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.
D. Overheads	£26,087 per year	Comprises £5,852 for indirect overheads and £20,234 for secretarial staff costs.
E. Ongoing training	£1,391 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	£4,860 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.
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); 1.29 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) 0.94 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 2001/2002 (costs including qualifications given in brackets)</b>		
£67 (£90) per hour; £90 (£119) per patient-related hour (includes A to F).		

<sup>1</sup> NHS Executive (2001), Advance letter (MD) 1.4.01 April.

<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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	£67,328 per year	Average salary for a consultant surgeon based on the April 2001 scale midpoint including £7,935 corresponding to the third discretionary point. <sup>1</sup> The sum also includes £1,193 to reflect the national level of distinction award payments. It does not reflect payments for London allowances.
B. Salary oncosts	£9,239 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£34,951 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> 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.
D. Overheads	£26,087 per year	Comprises £5,852 for direct overheads and £20,234 for secretarial staff costs.
E. Ongoing training	£1,391 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	£4,860 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.
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); 1.29 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) 0.94 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 2001/2002 (costs including qualifications given in brackets)</b>		
£66 (£88) per hour; £208 (£278) per hour operating; £89 (£119) per patient-related hour (includes A to F).		

<sup>1</sup> NHS Executive (2001), Advance letter (MD) 1.4.01 April.

<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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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	2001/2002 value	Notes
A. Wages/salary	£66,796 per year	Average salary for a consultant psychiatrist based on the April 2001 scale midpoint including £7,935 corresponding to the third discretionary point. <sup>1</sup> The sum also includes £661 to reflect the national level of distinction award payments. It does not reflect payments for London allowances.
B. Salary oncosts	£9,218 per year	Employers' national insurance plus 4 per cent of salary for employers' contribution to superannuation.
C. Qualifications	£34,951 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> 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.
D. Overheads	£26,087 per year	Comprises £5,852 for indirect overheads and £20,234 for secretarial staff costs.
E. Ongoing training	£1,391 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	£4,860 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.
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>
<i>Ratio of direct to indirect time on: face-to-face contacts patient-related activity</i>	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) 1.29 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) 0.94 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 2001/2002 (costs including qualifications given in brackets)</b>		
£65 (£87) per hour; £90 (£120) per patient-related hour; £207 (£277) per hour patient contact (includes A to F).		

<sup>1</sup> NHS Executive (2001), Advance letter (MD) 1.4.01 April.

<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 (2002) *Surveys of Tender Prices*, February, BCIS, London.

<sup>4</sup> Department of the Environment, Transport and the Regions (2002) *Housing and Construction Statistics 1990-2000*, 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. CARE PACKAGES**

15. Elderly people
16. People with mental health problems leaving long stay psychiatric hospital

## Care Package Costs

The following tables bring together information about unit costs of services, levels of service receipt, accommodation and living costs to provide estimates of the comprehensive costs of care. Information on service receipt is based in research studies which were described in the 1998 volume of *Unit Costs of Health and Social Care* and references given below.

The Care Package Costs of the Elderly described in Schemata 15.1 to 15.5 illustrate five percentiles from a total of 243 cases for whom there was adequate information regarding the receipt of both health and social care services. These cases have not been chosen as 'typical' or representative of other packages with similar costs, but rather provide some examples of how resources are combined to support individual users.

Schemata 16.1 to 16.4 identify the full costs of providing care for four former long-stay patients during their fifth year after leaving Friern Hospital. One of these people receives a service package which is among the most costly examined; a second was costly to support during the first year after leaving the hospital but has subsequently been able to move to a less highly supported environment. The other two people are not in the difficult-to-place group, although they left hospital at the same time. One of these people is now living independently and receiving one of the least expensive care packages; the fourth was selected because the cost of his care was closest to the average.

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<sup>1</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.

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<sup>1</sup> In this book, Chapter 8 deals with costs, and Appendix 8.1 provides details on unit costs, explaining when these were taken from Netten & Dennett (1995), and, when these were not available, how the unit costs were estimated. On page 135 of the 1998 report, second paragraph, it states that "The study is longitudinal, and users continue to be tracked in 1998." In fact tracking has continued since then, with the last batch of tracking data available, having been collected at the end of 1999.

## **15. Elderly people**

- 15.1 ECCEP community care package: very low cost
- 15.2 ECCEP community care package: low cost
- 15.3 ECCEP community care package: median cost
- 15.4 ECCEP community care package: high cost
- 15.5 ECCEP community care package: very high cost

**Schema 15.1 ECCEP community care package: very low cost**

<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	£21	Two hours per week. Visits take place on weekdays before 5 p.m. SSD is the provider.
<b>Health services</b> GP	£9.80	Visits the GP surgery once every four weeks.
Accommodation	£174	Private rented property, 2 bedrooms.
Living expenses	£77	Main income from pension and interest from savings. Had savings of between £20,000 and £50,000. Living expenses taken from Family Expenditure Survey (2000/01 uprated to 2001/02 price levels). Based on 1 adult retired household, mainly dependent on state pensions.
<b>Total weekly cost of health and social care package, 2001/2002</b>	<b>£31</b> <b>£283</b>	Excludes accommodation and living expenses. Total including accommodation and living expenses.

**Schema 15.2 ECCEP community care package: low cost**

<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	£51	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>1</sup>
Frozen meals	£4.80	Two per week.
<b>Total</b>	<b>£56</b>	
<b>Health services</b>		
GP	£9.60	Visits estimated at once every eight weeks based on GHS data. <sup>2</sup>
Accommodation	£137	Based on the annuitised value of a terraced house. Taken from the Halifax Price Index 3 <sup>rd</sup> quarter 2000.
Living expenses	£77	Taken from Family Expenditure Survey (2000/01, uprated to 2001/02 price levels). Based on 1 adult retired household, mainly dependent on state pensions.
<b>Total weekly cost of health and social care package, 2001/2002</b>	<b>£66</b>	Excludes accommodation and living expenses.
	<b>£280</b>	Total including accommodation and living expenses.

<sup>1</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>2</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 15.3 ECCEP community care package: median cost**

<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	£61	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>1</sup> SSD is the provider.
<b>Health services</b> Community nursing visits GP	£61 £9.60	2 visits per week (each 45 minutes) by a district nurse. Visits estimated at once every eight weeks based on GHS data. <sup>2</sup>
<b>Total</b>	<b>£71</b>	
Accommodation	£89	Based on the annuitised value of a bungalow. Taken from the Halifax Price Index, 3 <sup>rd</sup> quarter 2001.
Living expenses	£140	Living expenses taken from the Family Expenditure Survey (2000/01, uprated to 2001/02 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, 2001/2002</b>	<b>£132</b> <b>£361</b>	Excludes accommodation and living expenses. Total including accommodation and living expenses.

<sup>1</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>2</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 15.4 ECCEP community care package: high cost**

<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	£27	2.5 hours per week. Visits occur Monday to Friday before 5pm. SSD is the provider.
Day care	£84	Two visits per week to an SSD day centre.
Respite care	£63	Two visits since referral (one 7 days, one 14 days) to an SSD residential care home.
<b>Total</b>	<b>£174</b>	
<b>Health services</b>		
Community nursing visits	£3.40	One visit per quarter from a district nurse.
GP	£9.60	Visits estimated at once every eight weeks based on GHS data. <sup>1</sup>
Chiropody	£1.70	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	£136	Local authority sheltered housing, one bedroom.
Living expenses	£78	Living expenses taken from the Family Expenditure Survey (2000/01, uprated to 2001/02 price levels). Based on 1 adult retired household, mainly dependent on state pensions.
<b>Total weekly cost of health and social care package, 2001/2002</b>	<b>£188</b>	Excludes accommodation and living expenses.
	<b>£402</b>	Total including living expenses.

<sup>1</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 15.5 ECCEP community care package: very high cost**

<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	£216	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>1</sup> SSD is the provider.
Day care	£42	One day per week at an Age Concern day centre.
<b>Total</b>	<b>£258</b>	
<b>Health services</b>		
Community nursing visits	£20	One visit per week (30 minutes) from a district nurse.
GP	£9.60	Visits estimated at once every eight weeks based on GHS data. <sup>2</sup>
Chiropody	£1.70	One visit per quarter.
<b>Total</b>	<b>£32</b>	
Accommodation	£276	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 2001.
Living expenses	£139	Living expenses taken from the Family Expenditure Survey (2000/01, uprated to 2001/02 price levels). Based on one person retired households not mainly dependent on state pension.
<b>Total weekly cost of health and social care package, 2001/2002</b>	<b>£290</b>	Excludes accommodation and living expenses.
	<b>£705</b>	Includes accommodation and living expenses.

<sup>1</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>2</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.

## **16. Services for people with mental health problems leaving long-stay psychiatric hospital**

- 16.1 Psychiatric reprovion package: independent living
- 16.2 Psychiatric reprovion package: assessment centre
- 16.3 Psychiatric reprovion package: care home
- 16.4 Psychiatric reprovion package: nursing home placement

**Schema 16.1 Psychiatric reprovion package: independent living**

<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	£18	Social worker and link worker visit once every two weeks for 30 minutes.
<b>Total</b>	<b>£18</b>	
<b>Health services</b> GP Chiroprapist Hospital outpatients	£1.80 £0.40 £17	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>£19</b>	
<b>Other services</b> Housing officer	£6.30	Visits once every two weeks for 15 minutes.
Accommodation	£128	Includes local taxes forgone by the local authority, and capital, management and maintenance costs borne by the housing association.
Living expenses	£120	Income support, invalidity benefit and disability allowances.
<b>Total weekly cost of care package, 2001/2002</b>	<b>£293</b>	

**Schema 16.2 Psychiatric reprovision package: assessment centre**

<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	£1.10	Social worker has visited twice during the past year for one hour each time.
<b>Total</b>	<b>£1.10</b>	
<b>Health services</b> Depot injection Chiropodist  Dentist Optician	£6.30 £1.70  £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>£8.50</b>	
<b>Other services</b> Day centre	£4.20	Drops in approximately one hour per week.
<b>Accommodation</b> Staff costs Non-staff costs Agency overheads Capital costs	£1,182 £97 £70 £91	Per resident week. Per resident week. Per resident week. Per resident week.
<b>Total</b>	<b>£1,440</b>	
Living expenses	£32 £2.90	Personal expenses. Bus pass.
<b>Total</b>	<b>£35</b>	
<b>Total weekly cost of care package, 2001/2002</b>	<b>£1,488</b>	

**Schema 16.3 Psychiatric reprovision package: care home**

<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	£0.13	One visit by field social worker during the past year. Two residents seen during visit.
<b>Total</b>	<b>£0.13</b>	
<b>Health services</b> GP Psychiatrist  Chiropodist	£1.60 £2.00  £1.70	Three visits during the past year. Two visits during the past year seeing two residents on each occasion. Four 30-minute visits per year.
<b>Total</b>	<b>£5.30</b>	
<b>Other services</b> Resource centre	£83	Attends five days a week, four hours per day.
Accommodation	£1,054	Per resident week. Includes personal expenses.
Living expenses		Included in accommodation costs.
<b>Total weekly cost of care package, 2001/2002</b>	<b>£1,142</b>	

**Schema 16.4 Psychiatric reprovision package: nursing home placement**

<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	£1.40	Four 30-minute visits during the past year.
Optician	£2.30	Two visits and new spectacles.
Physiotherapist	£1.50	Four visits during the past year.
Occupational therapist	£3.10	Visits twice a week and sees ten residents.
Music therapist and art therapist	£6.60	Visit weekly to see ten residents.
<b>Total</b>	<b>£15</b>	
<b>Aids and adaptations</b>		
Wheelchair and zimmer frame	£4.10	Equivalent weekly cost when annuitised over a five-year period.
Accommodation	£1,037	Per resident week. Includes personal expenses.
Living expenses		Personal expenses included in accommodation costs.
<b>Total weekly cost of care package, 2001/2002</b>	<b>£1,057</b>	



## **VI. MISCELLANEOUS**

Inflation indices

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## Inflation indices

Year	BCIS/ABI <sup>1</sup>		Gross Domestic Product <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	2.8	160.6	2.6
1999	148.9	3.9	119.7	2.4	164.3	2.3
2000	154.6	3.8	122.3	2.2	168.1	2.1
2001	165.7	7.2	125.1	2.3	172.1	2.4

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 and GDP deflator estimates. Estimated figures based on previous three-year averages.

Year	Hospital & Community Health Services (HCHS) <sup>4</sup>				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	Prices		Pay and Prices	Pay	Prices <sup>5</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	0.1	-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	111.3	4.2	4.8	3.2
1997/98	173.5	1.7	2.5	0.4	116.1	4.3	4.8	3.1
1998/99	180.4	4.0	4.9	2.5	121.4	4.6	5.6	2.8
1999/00	188.5	4.5	6.9	1.2	125.4	3.2	3.7	2.4
2000/01	196.4	4.2	7.1	-0.3	130.9	4.5	5.7	2.2
2001/02	203.1E	3.4E	4.0E	2.5E	136.5E	4.1E	5.0E	2.3

<sup>1</sup> Building Cost Information Service (2001) Indices and Forecasts, BCIS, London.

<sup>2</sup> ONS Statistics as published on 28 June 2002.

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

<sup>4</sup> From NHS Executive.

<sup>5</sup> ONS Statistics as published on 28 June 2002.

## 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 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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