Editorial

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In this section, traditionally we have introduced new information and identified improvements and other changes that have been made to the Unit Costs publication since the previous year. However, given that we have reached the end of a decade, it is a timely opportunity to look back at improvements over the past ten years – to see how we have improved our estimates and how the volume has expanded in response to government policy initiatives. We begin with a summary of what we have always aimed to do in this publication and then continue in more detail with an overview of how our information sources have changed and how we have improved the quality and accuracy of our costs in specific areas. We then address new inclusions in this year’s volume and provide a brief outline of all new schemata and information.

The aims of the publication

The publication, funded by the Department of Health and now in its eighteenth year was first developed with the aim of bringing together information about the costs of health and social care in a way that, as far as possible, is transparent and compatible. Supported by an Advisory Group comprising Department of Health personnel, SCIE representatives as well as some of the foremost academics working in health and social care economics, we have been able to bring together information from a variety of sources to estimate the most up-to-date nationally-applicable unit costs for a wide range of health and social care services in England. Based in economic theory, the volumes present the unit costs and the estimation methods used, provide references for data sources and other cost-related research, as well as short articles and commentaries. The basis has always been to identify, as closely as possible the economic cost (long run marginal opportunity cost), by drawing on research and occasional specific analyses. Wherever data are available bottom-up estimates have been provided allowing users to tailor the costs calculations to suit the perspective and purposes of their particular costing exercise. The transparency of the estimates has also meant that the information can be used to interpret other costs: identifying whether variations are attributable to differential wage rates or overhead costs for example. Moreover, long-term components have been included which are not appropriate to establish on a local level, such as costs of qualification for health service workers.
We have always favoured research and specific surveys as a source of cost information in which the data are collected, analysed and investigated in more depth than is possible in routine data collections. However, the problem with research and occasional survey sources is that they get out of date as practice changes and so it has been an important exercise every year to check whether the costs and services from such sources are still representative of current service providers. Clearly services change and develop over time and likewise the roles and titles of staff may change, perhaps to meet national or local policy requirements. Our rule has always been that if a service or professional role is still available, but the costs are out of date, current salary information and inflators are employed to adjust the costs to the present year. However, if a schema is ten or more years old and the service is no longer relevant, we delete the schema from the publication until new research or other data are available.

Another important exercise where direct information is not available is to test the sensitivity of results of any cost estimation to changes in assumptions. For example one important assumption made with respect to capital costs is the level of the expected rate of return on that capital (discussed later in this editorial).

At the beginning of 2000, the Unit Costs volume included about 82 service types which at the end of the decade have risen to more than 130. Circulation figures have increased and a measure of the volumes' use is shown by the fact that a search on the Web of Science database showed that more than half (56 per cent) of all economic evaluations or cost-effectiveness studies published in English journals between 2003 and 2008 cited the Unit Cost of Health and Social Care as a source for their unit cost estimates.

Below we have taken the opportunity to review our information sources over the years in specific areas and then discuss new inclusions in this year’s volume. The volumes have traditionally been divided into subsections, section I which covers services used by a particular client group and sections II, III and IV which deal with the unit costs of professionals. Section V is a miscellaneous section which presents information on inflation indices, Agenda for Change salary bands and other useful information such as a list of articles provided in previous volumes and also a list of other useful sources of information. This section is not discussed in any more detail in this editorial.

Section 1

Services for older people

Estimates for nursing homes and residential care homes have traditionally been drawn from Laing and Buisson. These have been supplemented each year, as are many of the services, by the Personal Social Services Expenditure Information (PSS EXI) data provided by the NHS Information Centre. We have also drawn on specific studies, for example the information on day care includes the results of a survey carried out by Age Concern.

Services for people with mental health problems

Since Chisholm et al.’s Mental Health Residential Care Study was published in 1997, we have continued to draw on this information over the years and to update it to current values. The Survey of Day Activity Settings for People with Mental Health Problems (Beecham et al., 1998) has been the main source of information for day care. This year schemata on both residential and day care have been supplemented by PSS EX1 data or the NHS Reference Cost data discussed below in more detail. Other schemata include sheltered work schemes,
cognitive behaviour therapy and counselling services all of which have been drawn from specific surveys.

**Services for people who misuse drugs/alcohol**

Based on the National Treatment Outcome Research Study: NTORS (1997), we have continued through the decade to include information on people who misuse drugs/alcohol. This year, we are providing updated costs for residential rehabilitation, inpatient detoxification and specialist prescribing using information provided by the National Treatment Agency (NTA) (Personal communication with the NTA, 2010).

**Services for people with learning disabilities**

Throughout the decade until 2009, we have drawn on estimates for people with learning disabilities which were provided by Emerson and colleagues (1999). In last year's publication, this information was replaced with new estimates using information from a study carried out by Felce and colleagues (2005) and funded by the Wellcome Trust.

**Services for disabled adults**

The 2002 Unit Costs report saw the introduction of costs of services for disabled adults, an area of increasing policy importance. With the National Service Framework for Long-term Conditions focusing on the needs of people with neurological conditions and brain and spinal injury, we took the opportunity to include cost estimates for a variety of rehabilitation and independent living services, as well as nurse-led rehabilitation wards.

**Services for children**

In 2001, the Children in Need (CiN) Census provided some of the first information on how social services money was spent on children. Although data on looked after children had been available for many years, there had previously been no reliable information on the number of children living with families or independently who received support. The Census also had the signal advantage of combining information on the needs of children, the service responses and expenditure data. Analyses of these data provided information such as social services costs per child per week by region, by need category, by placement type and also by child protection register status. Iterations of this have allowed us to update the information in the Unit Costs volumes on a regular basis. Unfortunately since 2005, the unit costs of services children receive have not been collected and information in this publication has been uprated where appropriate.

In the 2004 volume, we introduced several new children’s services as well as including four articles on children’s services (adoption, cost of undertaking core assessments, home-start and costs of family support services). In 2007, when responsibility for many children’s services and routine data collections was transferred to the Department for Children, Schools and Families (DCSF), unit costs for these services had to be excluded from these volumes. For this volume (2010), some funding was provided by the Department for Children and Families (now the Department for Education) and several new services have been included and are discussed later in this editorial.
**Hospital costs and other services**

This section has always been headed with a table of information taken from the NHS Reference Costs. This shows details of unit cost, average length of stay and activity levels of a wide range of hospital services and describes how and on what NHS expenditure is used. Reporting over the last decade has become more reliable and the Department of Health, in partnership with the Audit Commission, is currently reviewing its Reference Cost collection process, with the objectives of improving the accuracy of submissions and increasing the usefulness of the information provided.

In this section too, we have continued to add other information relating to services used by all client groups. These include intermediate care, discussed in the 2000/01 NHS Plan as ‘the bridge between hospital and home’ which would ultimately eliminate ‘bed blocking’, and more recently the costs of the Expert Patients Programme research carried out by the University of York. Other schemata such as those providing equipment costs have been regular items over the past decade.

**Care packages**

In 2007, national policies such as the NHS Plan (Department of Health, 2000), the NHS Improvement Plan (Department of Health, 2004) and Our Health, Our Care, Our Say (Department of Health, 2006) placed an emphasis on self directed care using Direct Payments and Individual Budgets/Personal Budgets and consequently there was an increasing interest in the cost of care packages. Whereas our usual approach in this publication is to present unit costs as the cost of providing a particular service or professional, for self-directed care the unit of interest should be the individual and the combination of services they use, rather than a single service. For the last few years, therefore we have included cost information for community care packages for older people. Each care package schema reports service inputs identified in specific research studies and combines these with unit costs drawn from this publication or estimated as part of the research. Information on accommodation and living costs for those living in their own homes is taken from the most recent Family Expenditure surveys and is included so a comprehensive picture is provided of the costs of supporting individuals with specific characteristics.

The coalition government has since placed further emphasis on personalisation in outlining its vision for personalised social services with the announcement that the aim is to ‘extend the greater roll-out of personal budgets to give people and their carers more control and purchasing power’ (HM Government, 2010).

This year, these ‘care packages costs’ have been presented in a new chapter.

**Sections II, III & IV**

These sections present the costs for professionals and teams of professionals who can provide support for all client groups and are divided in the volume according to whether staff are health or social care professionals and whether they are hospital or community based. There is also a chapter (12) which provides information on multi-disciplinary teams for adults with mental health problems. All these sections provide the costs associated with salaries, direct and indirect overheads and capital. All unit costs are desegregated to hourly costs and care is taken to keep the number of working days current by deducting the correct
number of days for annual, statutory and sick leave using survey data from the Information Centre for NHS staff and the Local Government Association for local authority professionals.

Our basic unit cost for health and social care professionals is the cost per working hour, however for many purposes, in both research and commissioning, other ‘units’ are more useful, perhaps an hour of patient contact or for all-patient-related activity. To calculate these costs, we need a breakdown of the professional’s time. Wherever possible this information has been drawn from specific research studies, or from national data collections such as the Child and Adolescent Mental Health Service (CAMHS) or the Social Workers’ Workload Survey (Baginsky et al., 2010) discussed in more detail below.

Below, we review our current and past sources over the last decade for these sections.

Data sources

Salary and oncosts (NI contributions and employers contribution to superannuation)

At the beginning of the decade, salaries of NHS staff were set by The Whitley Councils but these were phased out and in 2006 the Unit Cost volume included the Agenda for Change data for the first time. The aim of this new system was to modernise the NHS pay system and create fair, harmonised conditions of service. Each role was also mapped as closely as possible to new generic profiles created as a result of the Agenda for Change job evaluation. This resulted in many adjustments to salary costs and consequently to the unit costs of the professionals. Also under the Agenda for Change reforms, changes to the working week and annual leave were made. In the same year (2006), the rate the NHS contributed to superannuation rose from 4 per cent to 14 per cent. All these changes in staff policy and practice were reflected in new calculations for the costs of health service professionals.

Prior to the year 2000, salaries for local authority staff were based on information from a survey of English local authorities conducted in 1993 (Local Government Management Board and Association of Directors of Social Services, 1994) and were uprated each year. Concerns about the index used for uprating and length of time since the survey prompted the PSSRU to carry out their own surveys of local authority staff and we used the mid-point of salary ranges and weighted them to reflect the national numbers of social workers in each type of authority. In 2004 however, we were able to use the Social Services Workforce Survey 2003, published by the Employers’ Organisation for Local Government. Currently this and the Local Government Earnings Survey and National Minimum Dataset for Social Care (NMDS-SC) forms the basis of the salary cost component for staff who work for local authorities. Unlike the rate contributed by NHS employers to superannuation which is fixed, the rate for local authorities varies from year to year and from council to council. We therefore carry out a survey each year of around 30 local authorities to determine the average. For both NHS and local authority staff, national insurance contributions have been calculated according to HMS Revenue and Customs guidelines. The Social Workers’ Workload Survey (2009) this year provided detailed information on how social workers (and team leaders) spend their time and using this we have been able to provide multipliers for time spent on client related work and on face-to-face contact.
Qualifications

With the increased demand for health and social care service professionals and increased flexibility in ways of working, training the workforce has become an important issue. To incorporate the resource implications of maintaining a trained and skilled workforce into the costs of care delivery, the costs of training and education have to be valued explicitly. The Ready Reckoner project (Netten et al., 1998b) commissioned by the Department of Health over a decade ago, provided the methods on which to do this. In the past ten years, we have carried out work in order to improve our estimates of training health care staff and also Allied Health Professionals (Curtis & Netten, 2005; 2007), and this year the qualification costs for social workers have been included for the first time. This inclusion has increased the unit costs by 35 per cent. As with all the unit costs of professionals in these volumes, we present the estimate with and without training costs. The calculations are based on a 2008/09 analysis of the working lives of social workers and the cost of qualifying a social worker (Curtis et al., 2010; Curtis et al., forthcoming).

We have also taken account of the major reforms to postgraduate training for medical officers and doctors implemented under the Modernising Medical Careers (MMC) government initiative. Under this scheme, all doctors in training could apply for flexible training after first entering a Foundation Programme for two years, where they gained generic skills in caring for the acutely and critically ill. This meant that there was no longer entry into the Pre-Registration House Officers grade and entry into the Senior House Officer (SHO) grades and Specialist Registrar (SPR) grades were closed. Again the costs of policy and practice changes are reflected in our calculations.

Overheads

In the publication, we have always distinguished between two types of overhead. Direct overheads are those resources required to deliver the service and which are related directly to the level of service activity. Indirect overheads include the costs of support services that are required for services to carry out their main functions, such as human resources and finance departments.

The level of overheads required to support any one type of professional is very difficult to establish with any accuracy. Wherever possible, we have used data from individual research studies however there has been a dearth of information about these costs. Throughout the decade, for NHS staff, we have based our estimates on returns to the Department of Health and information provided by Trusts participating in the Ready Reckoner project mentioned above. For local authority staff, information has been based on a study by Knapp et al. (1984). However long-standing concerns about the limited information available on local authority overheads have been addressed this year.

We have drawn on two new research studies in order to improve estimates for local authority overheads. The first study was carried out at the University of Bristol by Selwyn et al. (2009) and is based on data from seven local authorities. The second study was carried out at the PSSRU at the University of Kent and forms part of our evaluation of re-ablement services and uses data from a further four local authorities.

The estimates have been combined and a weighted average calculated. Total overheads (excluding travel and capital) as a percentage of direct salary costs have been estimated at 45 per cent of direct payroll with a range of 42 per cent to 56 per cent. Indirect overheads
(cost of central functions such as finance, general management and human resources, including indirect running costs) were 16 per cent of direct salary costs (range of 1 to 20 per cent), direct overheads (administration and supervision) were 22 per cent of direct salary costs (range of 14 to 41 per cent) and premises (all office costs, uniforms, stationery etc.) were 7 per cent of direct salary costs (range of 2 to 9 per cent).

Of course this figure is much higher than that used in earlier volumes and has therefore, also raised the unit cost of many social care services compared to previous estimates. The size and sample precluded any analysis of regional variations. As the number of Local Authorities providing these data grows in future years, then so will the confidence in the overhead value.

### Capital overheads

In order to allow for the opportunity cost of buildings and equipment used in the production of services we have to make assumptions about both the length of time that the ‘investment’ will be tied up in the service and the rate of return on that investment. The cost of land is an important element of the capital costs of many services and is also taken into account in the calculation using information provided previously by the Housing Statistics Division of the Office of the Deputy Prime Minister (ODPM) and latterly the Communities and Local Government. Information on the cost of buildings and offices has continued to be taken from the Building Cost Information’s Survey of Tender Prices and annuitized using the discount rate provided on Treasury guidance.

A major shift in assumptions about the rate of return on changes in guidance from the Treasury had implications for the annual capital estimation in 2003, when the different factors comprising the discount rate were ‘unbundled’ in the ‘Green Book’ (HM Treasury, 2003). On the basis of this analysis, Treasury advice has since been to use 3.5 per cent for most purposes. The method we use therefore is either to obtain a valuation of the building when available or in the absence of any specific information, the new build value from data from the Building Cost Information Service (BSIC). These values are then annuitized over 60 years at 3.5 per cent (see Netten, 2003, for discussion about the discount rate).

The period over which equipment and adaptations should be annuitized is open to debate. Ideally it should be annuitized over the useful life of the aid or adaptation and 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. For the purpose of the Unit Costs volumes, wheelchairs have been annuitized over five years and equipment and adaptations have been annuitized over ten years (see Netten, 2003).

### Health and social care teams

In 1992, the Mental Health Service Mapping programme was developed to address an information gap in mental health services and from 2002, Service Mapping data was collected from NSF Local Implementation Teams (LIT) and was used in the Unit Costs report for the first time in 2004. The standardised format allowed local data describing the content and scale of mental health services to be brought together to provide a national picture of provision. This enabled us to include the costs of services aimed to treat adults in their own environments such as Crisis Resolution, Assertive Outreach and Early
Intervention. Similarly the Child and Adolescent Mental Health (CAMHS) Mapping was developed for the Department of Health to contribute to monitoring the expansion and development of mental health service provision for children and adolescents and this enabled us to include information on dedicated, generic, targeted and specialist child and adolescent mental health teams in the report from 2006. This year however the CAMHS mapping cost collection has been discontinued and currently there are no further plans to collect this information.

What's new in the publication this year?

This year as previously mentioned, as a result of some funding provided by the Department for Education for this year's publication, we have been able to include costs for services relating to children and families. We have also included new schemata for individual placement and support and for re-ablement services. These new items are listed in more detail below.

Articles

This year we have included four articles, the first by Lisa Holmes and Samantha McDermid which presents the costs of short break provision for disabled children. This article outlines the need to understand both the costs of services and also the costs of the different referral and assessment routes to access the service.

The second by Karen Windle and colleagues discusses the costs of the Partnerships of Older People Project (POPP) which was launched in 2005 to develop and evaluate services and approaches for older people. It was aimed at promoting health, well-being and independence and preventing or delaying the need for higher intensity or institutional care.

The third article has been written by Nika Fuchkan and colleagues and discusses the cost of a specialised form of cognitive behavioural therapy used to treat post-traumatic stress disorder.

We have also included an article by Adelina Comas-Herrera and Raphael Wittenberg on the costs of funding long term care. This discusses estimates which have been made on life-time costs of care and the methodologies used in their calculation.

New schemata

Individual placement and support (page 79)

A schema for providing evidence-based employment support in a mental health team has been included in this latest volume.

Re-ablement service (page 126)

The need for greater investment in preventative and rehabilitation services was recognised a decade ago and since then we have seen the introduction of various kinds of intermediate care services designed to support people in their own homes. Unlike intermediate care services, which were developed in the context of policy concerns about inappropriate hospital bed use by older people, reablement services are usually available to adults of all
ages. This year, we have included the costs which have been collected as part of a study to evaluate the re-ablement service.

**The costs for young adults with acquired brain injury (page 148)**

This year we have included the costs for young adults with acquired brain injury following research carried out by the PSSRU (Beecham et al., 2009) in response to two policy emphases (transition to adult services and support for long-term conditions). In this schema, we provide estimates of the health and social care costs of supporting young adults with neurological conditions after transition to adult services. Four groups were identified depending on their location at the community care stage. We present the average cost for each group.

**Hospital costs for children (page 105)**

This year we have included a schema which provides a selection of costs for children’s services from the NHS Reference Costs (6.1). As with the hospital costs for adults (7.1), wherever possible we have also provided average costs for groups of services which have been calculated by PSSRU and weighted according to the number of submissions received. For information about the way in which reference cost estimates are constructed, please refer to a previous article in the 2003 volume by Andrew Street (Street, 2003).

**Key worker for disabled children (page 113)**

This year, following the recommendation by the National Service Framework for Children, Young People & Maternity Services (Department of Health & Department for Education and Skills, 2004) for the provision of key workers to help families obtain the services they require, we have included the costs of support for disabled children from a key worker (6.7).

**The Incredible Years (page 115)**

Following the success of the Incredible Years parenting programme developed by Professor Carolyn Webster-Stratton, director of the Parenting Clinic at the University of Washington, we are including a schema (6.9) which provides a bottom up costing provided by the Incredible Years Welsh Office. This programme is designed to help parents deal with problem children.

**Multi-dimensional Treatment Foster Care (page 114)**

Following research carried out by the Centre for Child and Family Research at Loughborough University, we have included information on a programme of intervention designed for young people who display emotional and behavioural difficulties (6.8). This programme provides intensive support in a family setting where foster carers aim to change behaviour through the promotion of positive role models. The schema provides the costs of the multi-dimensional treatment and also comparative costs for other types of provision for young people with similar needs.

**The cost of autism (pages 134-138)**

Given the growing evidence of the high costs of supporting people with autism spectrum disorders (ASD), this year we are able to include information on their current support.
Schema 8.2.1 reports the service and wider societal costs for the six months prior to interview for pre-school children with autism. Taken from Barrett et al. (2010), we include case studies of low and high cost cases. Schemata 8.2.2-8.2.4 are taken from Knapp et al. (2007; 2009) and show the full costs of autism spectrum disorders using data on 146 children and 91 adults.

Finally, we would like to thank all those who have called or e-mailed to comment on estimates or to let us know of new studies or estimates which will help to improve on the accuracy of the unit costs. This information is invaluable and will help to ensure that we are providing information which is as current as possible.

References


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