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Compiled by Lesley Curtis
and Amanda Burns

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Personal Social Services Research Unit
Cornwallis Building
The University of Kent
Canterbury
Kent CT2 7NF
Telephone: 01227 827773
Email: pssru@kent.ac.uk

PSSRU website: <http://www.pssru.ac.uk>

The PSSRU also has branches at:

London School of Economics and Political Science
Department of Social Policy and Administration
Houghton Street
London WC2A 2AE
Telephone: 0207 955 6238
Email: pssru@lse.ac.uk

PSSRU
Crawford House (2nd Floor)
Precinct Centre
University of Manchester
Booth Street East
Manchester M13 9QS

Tel: +44 (0)161 275 5250
Fax: +44 (0)161 275 5790
Email: PSSRU@manchester.ac.uk

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email pssru@kent.ac.uk. Website address: <http://www.pssru.ac.uk/intranet/index.php>

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Preface

Lesley Curtis

The latest Government mandate for NHS England sets out its objectives and ambitions to 2020 and acknowledges the need to balance the NHS budget (Department of Health, 2017, p10). The *Unit Costs of Health and Social Care* publication supports these challenges by providing information required to put large amounts of money into context; they enable us to more accurately compare the cost of different types of expenditure with their benefits, and therefore make more cost-efficient use of available resources. We also provide unit costs for most Agenda for Change staff grades, which can support decision-makers as they make modifications to the skill mix within services.

While keeping our estimates of service and staff costs current is an important part of this work, another aspect is to identify information gaps, with a view to drawing on the knowledge of experts. Frequently we review published literature to produce new schema, often consulting with authors to obtain additional information to provide estimates as close as possible to the full cost. Every year during our advisory group meetings with our government liaisons, SCIE and NICE representatives, and senior academics, we identify research and policy areas that would benefit from more description and discussion.

Sometimes topics are identified which are appropriate for a Guest Editorial as they focus on overarching and timely policy issues. We also commission short articles. In the main, these are research-based and discuss approaches taken when estimating the costs of new or specific services, or methods used and challenges faced when costing services. This year we are acknowledging their importance, and highlighting the depth of work, through the creation of a database of previous articles, accessible through a dedicated page on our website <http://www.pssru.ac.uk/ucarticles/>. There is also a search facility that allows readers to find articles and editorials for particular client groups or by focus – e.g. policy-related or methods-based.

This new section of our website provides a wealth of information and advice from previous *Unit Costs of Health and Social Care* volumes, and we will continue to look for ways to improve this facility over the coming years. Here are some examples of what can be found there.

Recent policy-focused Guest Editorials. In 2013 John Appleby and colleagues from The King's Fund discussed approaches to health and social care in response to the Department of Health's commitment to sustainable practices in service delivery. This set the scene for some of our subsequent estimates that include carbon costs. In last year's volume, Katja Grasic, from the Centre for Health Economics at the University of York, outlined the full costs of providing agency nurses following an announcement that spending on agency staff was increasing, and nurses were leaving the NHS. Similarly, in 2014, NICE's Pavaranj Jessal explored the use of Big Data, to look at increases in productivity and decreases in costs, at a time when the potential of Big Data in the health and social care sector was just being realised. The following year Steve Allan discussed the implications of the Care Act on social care markets for older people following new legislation which came into force in April 2015.

Recent articles on cost estimation cover many services, including the Well-London programme (2016), vision rehabilitation services (2015), a comparison of published data on the costs of CBT (2013), telecare and telehealth (2013), and multi-site interventions (2012). There are also articles on implementing the Laming recommendations, discussing the costs of a range of accommodation and support environments, as well as on measuring resource use and exploring the cost implications of informal care.

What's new this year?

Guest editorial and articles

For our guest editorial this year, Anita Patel, Margaret Heslin and Oluwagbemisola Babalola discuss different approaches to estimating the costs of medication in economic evaluation, and the impact these might have on the final cost-effectiveness results. Our two articles are also research based: the first by Miqdad Asaria from the Centre for Health Economics, who describes how to calculate average health care costs by age, sex and neighbourhood using routinely-collected data such as Hospital Episode Statistics (HES). This illustrates how NHS spending is distributed across different subgroups within the

population. The second article describes a survey of English dental practices carried out at PSSRU in collaboration with the General Dental Council and the Department of Health. This work was commissioned to inform the new National Health Service (NHS) dentistry contract expected to be rolled out in 2018, supplementing the information available from NHS Digital.

Progress on new work identified as part of last year's consultation with readers

Sexual health services

In searching the literature for studies to help estimate unit costs for sexual health services, it was useful to find a guide which listed sexual health services and how they are commissioned (Public Health England, 2015, p10-15) and statistics on the levels of transmission of sexually transmitted infections (PHE, 2017). We also looked at a report by Development Economics (2013) which includes information on NHS costs of unintended pregnancies, public sector costs, longer-term economic consequences and the financial costs of wider impacts of sexually transmitted infections.

We have now included some unit costs of sexual health services in section 7, and we hope to add to this as additional studies are published. Table 7.8 provides some Department of Health reference cost information for the provision of a variety of sexual health-related services (see page 120). These include the provision of HIV and Aids treatments and related support services, family planning services and the treatment of genito-urinary (GUM) conditions. Table 7.9 provides costs drawn from a study carried out in 2013 and led by Louise Jackson and colleagues (2014) which explored the costs and outcomes of sexually transmitted infection (STI) screening interventions targeting men in football club settings.

Video consultations

For many people, having a remote consultation with a healthcare professional using the telephone or online technology, offers a much more convenient way of accessing NHS services (NHS, 2011, p.27). In October 2013, the Prime Minister announced a new £50 million Challenge Fund to help improve access to general practice *and* stimulate innovative ways of providing primary care services (<https://www.england.nhs.uk/gp/gp/v/redesign/improving-access/gp-access-fund/>). Six pilot sites introduced video consultations; next year we will be able to report on the costs of video and skype consultations.

Other new items

Self-management programmes

Empowering patients and targeted prevention are key priorities for the Five Year Forward View (5YFV) (NHS, 2014, p. 10-13) and there are a number of self-management programmes which aim to help people improve their own health (<https://www.kingsfund.org.uk/projects/gp-commissioning/ten-priorities-for-commissioners/self-management>). To support this policy, chapter 7 includes costs for the following programmes:

- self-management support using a digital health system for chronic obstructive pulmonary disease (COPD)
- a nurse-facilitated self-management support for people with heart failure and their family carers
- The Diabetes Education and Self-Management Programme (DESMOND).

Advocacy and counselling for children

A collaboration with a national children's charity has resulted in two new schema to add to chapter 6 on children's services. The advocacy and counselling services (6.17 and 6.18) are targeted at young people aged between ten and twenty-one who have additional/multiple needs, are in need of immediate care and protection, are looked after, or a care leaver. Although the services vary and can be delivered in various locations, these are considered to be typical models.

Positive behavioural support for adults

Positive behavioural support (PBS) is the best way of supporting people who display, or who are at risk of displaying, behaviour which challenges (Skills for Care, 2017; Public Health England, 2013). Drawn from a study conducted by Valentina Lemmi in 2016, we show the costs of positive behaviour support for adults (4.5).

Costs of perinatal anxiety and depression

Research carried out by Bauer and colleagues (2016) focuses on the economic consequences of perinatal anxiety and depression. Table 2.9 and 2.10 itemises public sector costs incurred per mother and child, as well as the wider societal costs which include productivity losses, health-related quality of life losses, and out-of-pocket costs.

Supported living homes for adults with autism and complex needs

In 2015, we discussed some work we had carried out in collaboration with the Autism Alliance and included a new table on residential care for adults with autism and complex needs. We have continued to keep in touch with the Alliance, and this year have included some new costs on supported-living homes for adults with autism and complex needs (see 4.4.1).

Routine data

Local authority overheads

In last year's preface, we discussed the work we were undertaking with the Chartered Institute of Public Finance and Accountancy (CIPFA) to update local authority overheads, currently drawn from two studies: Selwyn et al. (2009) and Glendinning et al. (2010). This year, using CIPFA's social care benchmarking activities, we have included some overhead information on children's homes which was based on returns from 50 authorities, and also adoption, drawn from the returns of 30 local authorities. Two years' returns have been compared to ensure consistency of the information, and the average of the two referred to in the relevant schema: 6.2 and 6.8. We will continue to monitor the CIPFA annual returns with a view to reflecting our findings in local authority-provided services.

Superannuation rates

Every year we verify and update where necessary the employers' superannuation contribution rate for local authorities and the NHS, which is then reflected in our unit cost estimates. Although the rate paid by employers of NHS staff has remained at 14 per cent for a number of years, regardless of pay level, the rate for 2016/17 to 2017/18 has increased to 14.3 per cent of pensionable pay. In addition, in March 2017, the Department of Health introduced a levy on employers to pay for the administration of the NHS Pension Scheme. This levy is 0.08 per cent of pensionable pay and is collected at the same time and in the same way as normal employer contributions. In practical terms, this means that employers will pay 14.38 per cent of pensionable pay (<http://www.nhsemployers.org/your-workforce/pay-and-reward/pensions/pension-contribution-tax-relief>).

We have also searched the actuarial valuations produced by the administrators of the Local Government Pension Scheme (LGPS) to establish the rate employers contribute to superannuation for local government employees. Based on 43 valuations, the average contribution rate for employers (the primary rate) is 17 per cent and will remain at this rate until March 2020, when the administrators of the fund carry out the next valuation. Employee contributions have been excluded.

Land costs

In 2013, we commissioned the Valuation Office Agency to provide estimates of the cost of a hectare of residential land in ten regions in England and to provide a weighted average cost for England. As these estimates are now out of date, we have replaced them with residential land value estimates published by the Department for Communities and Local Government in 2015. Normally, for this publication, we would inflate these values to current prices; however, this year we have not been able to find a suitable inflator, and therefore have based our land calculation on the values shown: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf.

Although the estimate for England (including London) has formed the basis for our unit cost land calculations - £6,900,000 per hectare or £690 per m² - we have also included a non-London multiplier which can be used to obtain a land cost for services not based in London. A London multiplier has also been included, and through further analysis of the report, we have calculated a cost per hectare and a multiplier for inner and outer London (see table 1).

Table 1

	Cost per hectare	Multipliers
England including London	£6,900,000	
England excluding London	£2,100,000	0.3
London (including inner and outer)	£26,443,939	3.83
Inner London	£46,196,154	6.70
Outer London	£13,605,000	1.97

Conclusion and acknowledgements

I would like to thank readers who have assisted in improving estimates this year and those who have engaged with our activities on social media via Twitter and our blogs. Once again, the volume has benefited enormously from the contributions of the Working Group members: Jennifer Beecham (chair), Amanda Burns, Ross Campbell, Maura Lantrua, Adriana Castelli, Ciara Donnelly, Jennifer Francis, Ruth Hancock, Sebastian Hinde, Tracey Sach, James Shearer and Jonathan White. I would also like to thank the production team: Alan Dargan, Jane Dennett and Ed Ludlow and my co-author Amanda Burns and programme leader Jennifer Beecham. I would be most grateful if you could keep emailing any cost information to me: L.A.Curtis@kent.ac.uk or Amanda Burns: A.L.Burns@kent.ac.uk.

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Guest Editorial

Estimating medication costs for economic evaluation

Anita Patel, Margaret Heslin and Oluwagbemisola Babalola

Introduction

Medications are a key component of care for many health conditions, consuming £15.5 billion of the National Health Service budget in England in 2014-15 (Health and Social Care Information Centre, 2015). Giving proper consideration to their role in treatment and treatment costs is thus an important aspect of assessing the cost-effectiveness of alternative approaches to care.

For the purposes of cost-effectiveness assessments at a national level in England, the National Institute for Health & Care Excellence (NICE) recommends the use of public list prices (or the Drug Tariff for medicines predominantly prescribed in primary care), including any negotiated discounts, in reference-case analyses presented for their consideration (NICE, 2013). However, the extent to which the detail of such price lists is utilised within economic evaluations is subject to variation, and decisions about if and how to account for medication costs may be complex due to the multiple dimensions to their costs: for example, research and development; production; distribution and storage; transaction costs including regulatory approval and price negotiations; user contributions to costs; and individual-level variations in use not only in terms of type of medication used, but also in terms of specific preparations, mode of administration, dosage, length and frequency of use, etc.

While there are now several methods guidelines and reporting standards for economic evaluations (e.g. Husereau et al., 2013), these largely refer to measuring and valuing resources in general, without any particular focus on medication costs. The most specific guidance is provided by the ISPOR Drug Cost Task Force Report (Hay et al., 2010), which set out to create drug costs standards from societal, managed care, US government, industry, and international perspectives. This highlights the importance of the perspective taken, since this determines the cost value assigned to medications, and details the need for: transparency in measurements and values; sensitivity analyses around the drug costs used; consideration of actual prices paid by payers; consideration of future trends in prices (particularly around the time that patents end); recommendations to be kept up to date in light of new information; consideration of medication adherence; consideration of user payments; standardised drug units; and context-specific costs.

It is unclear to what extent such nuances are considered in evaluations, and approaches to both measurement and valuation of medication range from individual-patient-level micro-costing approaches that aim to collect detailed information on medication use and apply unit costs which reflect individual-level variations, to macro-costing approaches, whereby some form of general or aggregate costs (such as an average prescription cost or a general prescription charge) are applied to medication use. The latter is naturally less time-consuming in terms of data collection and processing, but less accurately reflects differences in medication usage and costs between individuals. In part, such variations in approaches merely reflect context-specific judgements on the relevance of a micro-costing approach to the decision problem, but there can often be a lack of transparency surrounding such considerations.

The scope for methodological variations is naturally greater when conducting trial-based economic evaluations based on individual-level data rather than, for example, models based on over-arching assumptions applied across summary data. For other types of health care resources, it has been shown that divergent approaches to estimating costs can result in differences in cost estimates sufficiently large to influence funding decisions (Clement et al., 2009). It remains unclear whether this can also be the case when estimating medication costs. We thus recently examined the potential impact of alternative approaches to medication costing in a prospective trial-based economic evaluation of alternative medication strategies for treatment of rheumatoid arthritis (Patel et al., submitted; Heslin et al., 2017) and seek here to highlight the issues raised by that work.

Methods

The TACIT trial

The TACIT trial (Scott et al., 2015) examined alternative approaches for the treatment of established rheumatoid arthritis (RA), a common long-term inflammatory disorder that affects 0.5-1 per cent of adults in industrialised countries (Scott et al., 2010). It was an open-label, multicentre, randomised controlled trial conducted over 12 months, with patients recruited from 24 clinics across the UK. The trial was driven by economic questions arising from the availability of newer, and more expensive, medications (biological drugs such as Tumour Necrosis Factor inhibitors (TNFis)) which show promise of cost-effectiveness in the longer term but carry concerns about short-term cost-effectiveness (Losina & Katz, 2017) and affordability. The TACIT trial therefore compared a treatment strategy of starting treatment with TNFis or with combinations of the cheaper conventional Disease-Modifying Anti-Rheumatic Drugs (cDMARDs), with the option to switch treatments either way after a given period.

We assessed the costs of TNFi and cDMARDs ('trial medications'), plus costs of other concomitant prescribed medications ('non-trial medications'; any cause) as part of a comprehensive economic evaluation that assessed cost-effectiveness from both health and social care, and societal, perspectives. Trial medications for all 205 participants in the trial were recorded prospectively by clinicians for the entire year of follow-up, using specifically designed proformas; non-trial medication use was measured within an adapted version of the Client Service Receipt Inventory (CSRI) administered with participants at baseline, 6 months and 12 months. It requested retrospective participant self-reports of prescription medication use in terms of medication name, dose, frequency of use and number of days taken during the previous three months. For the purposes of the economic evaluation, all cost estimates from CSRI data relating to 3-month periods were doubled to extrapolate costs to 6-month periods so that cost estimates could be linked with outcomes data collected at 6 and 12 months. Participant follow-up rates were over 90 per cent for various components of the data, thus offering a detailed dataset and good opportunity to examine both micro and macro approaches to estimating medication costs.

Medication costing approaches

Since trial medications formed the core interventions of interest in this trial, we implicitly took a micro-costing approach to their cost estimation as recommended for interventions examined in an economic evaluation (Weinstein et al., 1996; Drummond et al., 2015) – this aspect of the study presented few feasibility issues because trial medications were limited to a handful of different medications. The more common and problematic situation in economic evaluations is when the number of medications used across all participants runs into tens or hundreds, requiring more care and time to collect data, collate unit costs and process data, including addressing the potentially multiple missing-data scenarios that could exist across the relevant variables. In this respect, handling data for the non-trial medications in the TACIT trial was more challenging, so we focused attention on these additional medications, rather than trial medications, for our comparison of alternative costing approaches.

We examined the impact on the trial results when taking four alternative medication costing approaches that have been used in previous economic evaluations, demonstrating the variability in approaches used. These are all detailed in Table 1 but can be summarised as follows: detailed micro-costing approach for all medications (base case); costing only medications used by at least 1.5 per cent of patients; costing medications based on their chemical name; and applying an average prescription cost rather than medication-specific cost. Table 1 also sets out the approaches we took to handle any associated missing data under each approach, and importantly illustrates another aspect of methodological variation when estimating medication costs.

We obtained medication unit costs from two very commonly-used resources. First, the British National Formulary (BNF) (Joint Formulary Committee, 2010) which provides key information and net ingredient costs for medications available from the NHS. Second, the NHS Prescription Cost Analysis (PCA) (Health & Social Care Information Centre, 2011) which provides information on national primary care prescription data dispensed in England, organised by the same therapeutic classes used in the BNF. The net ingredient cost (NIC) is the basic price of a drug, excluding Value Added Tax, as listed in national standard price lists. This is useful for comparative purposes but does not necessarily reflect any discounts negotiated by specific payers (Health and Social Care Information Centre, 2015). We applied costs of generic preparations (wherever

available) over branded versions to ensure cost estimations were conservative (although we acknowledge that for some medications this may have had the effect of under-estimating costs when more expensive branded preparations were used, and that for others costs may have been over-estimated since generic preparations may rarely be more expensive).

We examined the impact of these alternative approaches 2-4 by comparing resulting trial findings against those derived from the base case approach 1. We examined quantitative changes to estimates of mean total non-trial medication costs and mean total health and social care costs using (a) paired sample t-tests (confirmed by Wilcoxin Rank-Sum tests to account for non-normal distribution) and (b) overall agreement as measured using Lin's concordance correlation coefficient (CCC) and limits of agreement (Lawrence & Lin, 1989)). We also examined qualitative changes to the conclusions of the economic evaluation, as interpreted from incremental cost-effectiveness ratios based on comparisons of total health and social costs and health and quality of life outcomes between treatment arms. We held all other health and social care costs constant for these comparisons.

We limited our analysis samples to those cases which had relevant data for each analysis; of the 205 participants recruited, all (100%) had all CSRI data (and therefore non-trial medication data) available at baseline, 191 (93%) at 6 months, and 188 (92%) at 12 months. The sample used in the comparison of incremental cost-effectiveness ratios was limited to 186 (91%) due to missing outcomes data. All costs are reported in £ sterling at 2010/11 prices. Data were analysed using STATA 11 (StataCorp LP, 2011).

Results

The different costing approaches naturally led to different estimates of non-trial medication costs (Table 2):

Mean at baseline: £172, £144, £132 and £133 based on approaches 1, 2, 3 and 4 respectively.

Mean at 6 months: £95, £63, £89 and £99 based on approaches 1, 2, 3 and 4 respectively.

Mean at 12 months: £236, £200, £127 and £101 for approaches 1, 2, 3 and 4 respectively.

In comparing estimates obtained by costing approaches 1 and 2, there was good agreement in non-trial medication costs, and excellent agreement in total health and social care costs. Approaches 3 and 4 had poor agreement with approach 1 on non-trial medication costs but good agreement on total health and social care costs. Moving from approach 1 to approaches 2, 3 and 4 resulted in a progressively narrower distribution of medication costs across the sample, given that applying general costs per prescription item imposes a cap on costs. Of note, the different approaches had little impact on total health and social care costs, with non-trial medication costs constituting 11-13 per cent, 2-3 per cent and 3-6 per cent of total mean health and social care costs at baseline, 6 months and 12 months respectively. Given such small contributions to total care costs in this sample, the small variations in non-trial medication costs under the different costing approaches had negligible impact on the trial's cost-effectiveness conclusions (Heslin et al., in press).

Discussion

While our analysis shows that alternative approaches to costing medications have no impact on the conclusions of the TACIT trial due to the small contribution of non-trial medication costs to total care costs, there were nevertheless notable effects on the estimates of medication costs; such differences, and their consequences for decision-making, could be more pronounced for other treatments/patient groups for which medications are a dominant constituent of care.

Usefully, we have demonstrated that approach 2 – estimating costs for only those medications used by at least 1.5 per cent of the sample – provides similar estimates to a gold-standard micro-costing approach. This could thus offer a lower-effort methodological alternative when necessary, although it does risk excluding high-cost medications that might be used by only a few participants but may potentially cost more than the total costs of more commonly-used low-cost medications. Our results also suggest that the more macro-costing approaches 3 and 4 may be inappropriate if a particular patient group is likely to make use of high-cost medications, since the loss of detail could potentially lead to a significant under-estimation of care costs. Conversely, where medication costs are a small component of care, macro-costing approaches could alleviate some of the data collection and analysis burden without impacting on results, although the importance of estimating these costs at all then needs further consideration. Overall, the results demonstrate a need for greater attention

to medication costing in economic evaluations, including greater emphases on early-stage work to explore the importance of medication costs to the decision problem and the ability to collate necessary data reliably.

There are, of course, caveats to these interpretations, the main being that similar comparisons for other patient populations and areas of care may suggest different conclusions about the relative impacts of different approaches. Also, we collected medication use data every six months but, to minimise risks of recall bias, restricted participants' retrospective reports to only the previous three months. This then necessitated data extrapolations to estimate medication costs for the intervening periods that lacked data, and our simple approach to extrapolation may not accurately reflect medication usage for those intervening periods. Finally, we have not covered here some of the broader contextual issues that contribute further challenges for accurate estimation of medication costs. For example:

Standardised price lists based on net ingredient costs are convenient and commonly-used unit cost sources, but true economic costs, or even prices actually paid, can deviate from these. For example, the NICE guide to methods of technology appraisal (NICE, 2013) notes that price reductions, such as those available through patient access schemes, may be associated with further costs which should be accounted for to reflect true costs (NICE, 2013; paragraph 5.5.2). While the proprietary, confidential and localised nature of some medication purchasing contracts may prevent access to relevant information, NICE (2013) specifies that "The Commercial Medicines Unit publishes information on the prices paid for some generic drugs by NHS trusts...Analyses based on price reductions for the NHS will only be considered when the reduced prices are transparent and consistently available across the NHS, and if the period for which the specified price is available is guaranteed." (NICE, 2013; paragraph 5.5.2)

User prescription charges may partially offset some costs, but accounting for these presents yet further complexities.

Recent interest and challenges in operationalising a value-based pricing approach to medications (Sussex et al., 2013), under which prices are set and adjusted according to value based on patient outcomes, would potentially present even greater uncertainty about what cost values should be used in economic evaluations.

Conclusions

As for all potential resource items to include in an economic evaluation, a well-informed judgement is required to determine the importance of medication costs to a decision question to inform the level of attention to give to their measurement and valuation in an economic evaluation (Drummond et al., 2015). Where medications make up a small proportion of total costs, macro-costing approaches are unlikely to lead to any biases in cost effectiveness results, and thus may not require the additional analytical effort associated with micro-costing approaches. If a micro-costing approach is deemed appropriate, our analyses demonstrate the extensive need for (1) reliably accurate details on medication usage (name, dose, mode of administration, length of use, etc.); (2) assumptions for the calculation of medication unit costs even when detailed cost information (e.g. from the BNF, PCA or Drug Tariff) is available; and (3) specific strategies for handling any missing details. Much of this requires particular attention right at the design, rather than analysis, stage to establish feasibility and strategies for collecting sufficiently reliable and complete data.

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Table 1: Details of the four costing approaches applied to non-trial medications in the TACIT trial

Costing approaches	Approach to estimating costs of prescribed medications	Protocol for handling partially missing medication data
<p>Approach 1: Cost per milligram (base case against which other approaches are compared) This gold-standard micro-costing approach (Drummond et al., 2015) was used for the economic evaluation in the TACIT trial. The protocol for costing was determined prior to analyses.</p>	<ul style="list-style-type: none"> • Unit cost calculated per milligram (mg) based on most efficient pack size. <ul style="list-style-type: none"> ○ Based on recommended dose in the BNF, choosing rheumatoid arthritis-relevant recommended doses where available. ○ Maintenance prices chosen. ○ Generic prices chosen. • Unit cost per mg applied to individual-level data according to dose, number of doses taken per day, and number of days taken during follow-up period. <ul style="list-style-type: none"> ○ Used route/preparation stated by patient. ○ For all creams/ointments, assumed 1 tube lasts a month and use the smallest tube. ○ For dual medications, if both doses were in mg, we added them together. If one dose was in mg but the other was in micrograms, we only counted the mg. 	<ul style="list-style-type: none"> • If medication name was missing but other information was available: applied average prescription costs reported in PCA data. • If unit was missing but medication name was available: applied cost based on lowest cost chemical name for that medication from PCA; or based on PCA item cost where chemical name was unavailable. • If medication dose was missing: applied the PCA average cost for that medication, assuming each prescription lasts 1 month or use average item cost if specific medication not available. • If route/preparation was missing: applied what seemed most appropriate based on dose, but prioritised tablets and capsules. • If number of days used medication was missing: used a PCA item cost and assumed patient obtained the item once in that period. • If frequency was 'as necessary': number of days used in each period were missing so applied a PCA cost for that medication and assumed one prescription was obtained during each follow-up period.
<p>Approach 2: Focusing only on medications used by at least 1.5 per cent of sample This involved the same micro-costing approach as for approach 1 but with an emphasis on the more commonly-used non-trial medications across the sample. Previously deployed as a practical approach: for example, by McCrone et al. (2011) for a study in which service users recorded approximately 1000 medication names. Costs are estimated for only those medications used by at least 1.5% of the sample.</p>	<ul style="list-style-type: none"> • Micro-costing only undertaken for medications used by >1.5 per cent of sample. • Approach to unit cost estimation and application as per approach 1. 	<p>As per approach 1 except that, for obvious reasons, medication resource use with missing medication name was ignored.</p>

<p>Approach 3: Estimating unit costs according to chemical (rather than brand) name</p> <p>The third approach, as previously used by Powell et al. (2013), involves estimating costs of all medications, but calculating unit costs differently. Unit costs were calculated for each medication by looking up the cost of a prescription for that medication's chemical name, according to the PCA.</p>	<ul style="list-style-type: none"> • Unit cost calculated according to PCA cost per item based on chemical name as recorded in BNF. <ul style="list-style-type: none"> ○ Where there were different costs attached to the chemical names, we took a weighted average. ○ Assumed any PCA cost is 1 month's worth of medication. • Number of PCA item costs assigned to each medication was based on the number of days of use reported by the patient. E.g. if patient took a medication for ≤ 30 days, we took this to indicate one prescription and thus applied one prescription item cost. Accordingly, we applied 2 prescription item costs for 31-60 days' use and 3 for 61-90 days' use. 	<ul style="list-style-type: none"> • If medication brand was needed but was unspecified and there were multiple chemical name options in the PCA: applied a weighted average. • If medication name was missing but other information was available: applied average PCA item cost. • If unit was missing but medication name was available: applied cost based on lowest cost chemical name for that medication from PCA; or based on average PCA item cost where chemical name was unavailable. • If number of days used medication was missing: assumed patient obtained the item once in that time period. • If frequency was 'as necessary': number of days used in each period was missing so assumed one prescription was obtained during each follow-up period.
<p>Approach 4: Prescription cost analysis</p> <p>The final approach, which we have used in another trial-based economic evaluation (Ismail et al., submitted), is the most macro approach we examined.</p>	<ul style="list-style-type: none"> • Unit cost was calculated as the net ingredient cost average for all medications listed in the PCA (£9.16). • Number of PCA item costs assigned to each medication was as per approach 3. 	<ul style="list-style-type: none"> • If number of days medication was used was missing: assumed patient obtained the item once in that time period. • If frequency was 'as necessary': number of days used in each period was missing so assumed one prescription was obtained during each follow-up period.

Table 2: Mean cost estimates and comparisons from the alternative medication costing approaches applied in the TACIT trial*

	Mean cost (SD) (£, for 3 months)		Mean difference	95% Confidence interval for difference	Paired sample t-test	Correlation Concordance Coefficient**	95% Limits of agreement
	Approach 1	Approach 2					
Prescribed medications (over 3 months)							
Baseline (n=205)	172 (211)	144 (167)	28	12, 43	3.521, P< 0.001	0.815	-249, 194
6 months*** (n=191)	95 (226)	63 (176)	33	16, 49	3.962, P< 0.001	0.819	-264, 199
12 months (n=188)	236 (898)	200 (891)	35	18, 53	3.907, P<0.001	0.989	-290, 219
Health & social care (over 6 months, including trial medication)							
Baseline (n=205)	1335 (1665)	1279 (1639)	56	24, 87	3.521, P< 0.001	0.990	-499, 388
6 months (n=191)	3417 (2570)	3348 (2542)	69	35, 104	3.925, P< 0.001	0.995	-548, 410
12 months (n=188)	3781 (2798)	3705 (2788)	76	37, 115	3.829, P< 0.001	0.995	-606, 455
	Approach 1	Approach 3					
Prescribed medications (over 3 months)							
Baseline (n=205)	172 (211)	132 (120)	40	17, 63	3.453, P< 0.001	0.520	-365, 285
6 months*** (n=191)	95 (226)	89 (158)	7	-14, 28	0.647, P= 0.518	0.700	-303, 290
12 months (n=188)	236 (898)	127 (265)	108	-3, 220	1.913, P= 0.057	0.246	-1699, 1482
Health & social care (over 6 months, including trial medication)							
Baseline (n=205)	1335 (1665)	1255 (1644)	80	34, 125	3.453, P< 0.001	0.979	-729, 569
6 months (n=191)	3417 (2570)	3403 (2623)	14	-31, 59	0.615, P= 0.539	0.993	-628, 600
12 months (n=188)	3781 (2798)	3544 (2300)	236	-7, 480	1.914, P= 0.057	0.778	-3556, 3083
	Approach 1	Approach 4					
Prescribed medications (over 3 months)							

Baseline (n=205)	172 (211)	133 (85)	39	13, 64	3.0122, P= 0.003	0.333	-400, 322
6 months*** (n=191)	95 (226)	99 (85)	-3	-32, 25	-0.234, P= 0.815	0.258	405, 412
12 months (n=188)	236 (898)	101 (85)	135	13, 257	2.179, P= 0.031	0.033	-1873, 1603
Health & social care (over 6 months, including trial medication)							
Baseline (n=205)	1335 (1665)	1257 (1645)	78	27, 128	3.0122, P= 0.003	0.974	-800, 645
6 months (n=191)	3417 (2570)	3423 (2573)	-6	-67, 56	-0.185, P= 0.854	0.986	-841, 852
12 months (n=188)	3781 (2798)	3484 (2247)	297	31, 563	2.202, P= 0.029	0.729	-3923, 3329

*Intervention and control arms combined for the purpose of comparing estimates from the alternative approaches

**CCC of 1 indicates perfect agreement and -1 indicates perfect inverse agreement; less than 70 per cent agreement is poor, 70-79 per cent is fair, 80-89 per cent is good and 90- 100 per cent is excellent (Cicchetti, 2001).

*** 6 month figures are broadly lower for all approaches as a result of the medication strategies examined in the trial.

Health care costs in the English NHS: reference tables for average annual NHS spend by age, sex and deprivation group

Miqdad Asaria – Centre for Health Economics, University of York, UK

Introduction

Economic evaluation of health technologies is routinely applied in the English NHS to assess whether new technologies represent a cost-effective use of health care resources. The current health technology assessment (HTA) process, as implemented by the National Institute for Health and Care Excellence (NICE), considers in its assessment all future health benefits following treatment, whether these benefits flow directly from the treatment of the condition targeted by the technology being assessed or are incidental to this treatment. NICE's most recent methodological guidance for HTA, however, indicates that only future health care costs pertaining directly to the condition targeted should be considered in the economic evaluation of the technology, rather than all future health care costs (NICE, 2013)

“Costs related to the condition of interest and incurred in additional years of life gained as a result of treatment should be included in the reference-case analysis. Costs that are considered to be unrelated to the condition or technology of interest should be excluded.”

This uncomfortable asymmetry in the evaluation process has been recognised by the academic health economics community, and recent literature suggests a consensus emerging among health economists that costs and health benefits be dealt with in a similar manner (Morton et al., 2016). Put simply, in order to be coherent, economic evaluation should consider either all future costs and all future health benefits or alternatively consider only disease-specific future costs and disease-specific future health benefits (van Baal et al., 2016). Deciding and demarcating what should and should not count as unrelated is rarely straightforward, hence of the two options it would seem that considering all future costs and all future health benefits is to be preferred.

It is well recognised that health care costs vary across the life-course, with greater health care use by the very young, women during their child-bearing years and all people towards the end of their lives (Kelly et al., 2016). There is also increasing evidence that health care use varies by deprivation, with people living in more deprived neighbourhoods making greater use of health care at any given age than those living in more affluent neighbourhoods (Asaria et al., 2016). Both of these are important factors to consider when estimating future health care costs for the purpose of economic evaluation.

This paper describes how average health care costs were calculated by age, sex and neighbourhood deprivation quintile group using the distribution of health care spending by the English NHS in the financial year 2011/12. The results presented here can be used by cost-effectiveness analysts to populate their extrapolation models when estimating future health care costs. The results will also be of interest to the broader community of health researchers as they illustrate how NHS spending is distributed across different subgroups within the population.

Methods

Data

Hospital admissions in England are recorded in the Hospital Episode Statistics (HES) dataset used to reimburse hospitals for the care they provided to patients admitted to hospital. This dataset contains details on every episode of care, and a new finished consultant episode (FCE) record is created for every new hospital admission and every time responsibility for the care of a patient passes from one consultant to another. The HES FCE records data about the patient (age, sex, and place of residence) and their hospital stay (diagnoses, procedures, length of stay). Using this information, the FCE is allocated to a healthcare resource group (HRG), which collates hospital stays that use similar levels of resources. Hospitals are reimbursed by the NHS through the payments by results (PbR) system based on the HRG, adjusted for the specifics of the case – e.g. more complicated cases with longer than usual lengths of stay attract additional reimbursement. The costs that are attached to each HRG for each year and the variations in payments for more complex cases are given in the NHS national reference costs (Department of Health, 2012). Details of how to derive costs from HES data are available in the PbR

documentation (Department of Health, 2012), and their use in health economic analysis is discussed in Asaria et al. (2015). We used HES inpatient data for financial year 2011/12 and associated reference costs in this study.

Hospitals also provide a range of services to patients that do not require admission; these include visits to see specialists and various programmes of follow-up care. These are collected in the HES outpatient dataset. Outpatient visits are not currently part of the PbR system and so cannot be as easily micro-costed in the same way as inpatient admissions. For the purpose of this analysis, we therefore assume that there is no systematic variation in the costs of outpatient visits and hence use the total NHS spend on outpatient care and the count of the total number of outpatient visits to calculate an average cost per outpatient visit. The total cost of outpatient visits was calculated using the Department of Health's reported budget for hospital and community health services from which total inpatient admissions costs were subtracted (Department of Health, 2012).

The other key area of NHS spending is on primary care. We split primary care spending into two parts for the purpose of this analysis. The first part consists of visits to general practitioners, prescriptions and pharmaceutical services. The second consists of spending on dental and ophthalmology services. Detailed administrative data covering primary care are not currently collected in the same way that they are for secondary care. There are, however, various pieces of research looking at demographic patterns in visits to general practitioners, and we used research by Q Research (NHS Digital, 2011), together with our analysis of outpatient hospital data, to estimate the distribution of primary care use in the first part of the primary care budget. The second part of the primary care budget was assumed to be equally distributed across the population for the purposes of this analysis. Figures for total NHS spending on the various sub-categories of primary care were taken from the Department of Health's published accounts (Department of Health, 2012).

The basic geographical unit of analysis used in this study was the lower layer super output area (LSOA). The country is divided into 32,482 LSOAs based on the 2001 census, each containing on average 1,500 people (range 1,000 to 3,000). Population data for 2011/12 were taken from the ONS mid-year population estimates split by LSOA, sex and age (ages 0-84 in single year estimates and then 85+). Area deprivation for LSOAs is measured using the index of multiple deprivation (IMD) for 2010. We grouped LSOAs into deprivation quintiles based on their IMD overall rank, ranging from Q1 (the most deprived fifth of LSOAs) to Q5 (the least deprived fifth of LSOAs).

Analysis

HES inpatient data were grouped into age, sex and IMD quintile categories. The total cost for each age, sex and IMD quintile group was calculated by combining the HRG associated with each admission with the relevant reference cost. This aggregated cost was then divided by the ONS population estimate for each age, sex and IMD quintile group to calculate average inpatient costs for each group:

$$average_inpatient_cost_{age,sex,imd} = \frac{\sum inpatient_costs_{age,sex,imd}}{\sum population_{age,sex,imd}}$$

HES outpatient data were grouped into age, sex and IMD quintile categories. The total number of outpatient visits for each age, sex and IMD quintile group were counted. These counts were multiplied by the average cost of an outpatient visit and divided by the ONS population estimate for each age, sex and IMD quintile group to calculate average outpatient costs for each group:

$$average_outpatient_cost_{age,sex,imd} = \frac{\sum outpatient_visits_{age,sex,imd}}{\sum population_{age,sex,imd}} \times \frac{total_outpatient_budget}{\sum outpatient_visits}$$

Total numbers of visits to general practitioners were calculated by combining utilisation rates by age and sex with ONS population data. The deprivation gradient from outpatient visits was applied to these totals to get the age, sex and IMD group breakdown of GP visits. These were then divided by the overall total number of GP visits to derive primary care weights which were applied to the budget for GP, prescription and pharmaceutical services to get total NHS spend on these categories by age, sex and deprivation group. This spend was then divided by the ONS population estimate for each age, sex and IMD quintile group to calculate average costs for each group:

$$\begin{aligned} & \text{average_gp_pharma_cost}_{age,sex,imd} \\ &= \frac{gp_utilisation_rate_{age,sex} \times population_{age,sex}}{\sum \sum gp_utilisation_rate_{age,sex} \times population_{age,sex}} \times \frac{\sum outpatient_visits_{age,sex,imd}}{\sum outpatient_visits_{age,sex}} \\ & \times \frac{total_gp_pharma_budget}{\sum population_{age,sex,imd}} \end{aligned}$$

The dental and ophthalmic services budget was assumed to be equally allocated to each subgroup and so just averaged across the total population:

$$\text{average_dental_ophthalmic_cost} = \frac{total_dental_ophthalmic_budget}{\sum population}$$

Finally total average NHS spend by age, sex and IMD quintile group was calculated as a sum of the averages of these subcategories of NHS spend:

$$\begin{aligned} & \text{average_nhs_cost}_{age,sex,imd} \\ &= \text{average_inpatient_cost}_{age,sex,imd} + \text{average_outpatient_cost}_{age,sex,imd} \\ & + \text{average_gp_pharma_cost}_{age,sex,imd} + \text{average_dental_ophthalmic_cost} \end{aligned}$$

The analysis was performed using Oracle 11g, R 3.2.3 and MS Excel 2013 - the analysis code is available at https://github.com/miqdadasaria/hospital_costs

Results

The breakdown of average annual NHS spend by age and deprivation quintile group is illustrated for females and males in figures 1 and 2 respectively. Both figures display a clear deprivation gradient, with costs for people living in more deprived neighbourhoods being higher than for those living in more affluent neighbourhoods at any given age. It is also evident from the figures that costs rise steeply after the age of 60, and continue to rise with age beyond this point. Finally, figure 1 shows a spike in health care costs for women of child-bearing age, with this spike occurring at a younger age for those living in more deprived neighbourhoods. A full breakdown of these results in tabular format can be found on our website at www.pssru.ac.uk/projectpages/unit-costs/2017.

Figure 1: Average annual NHS spend by age and neighbourhood deprivation quintile group for females in England 2011/12

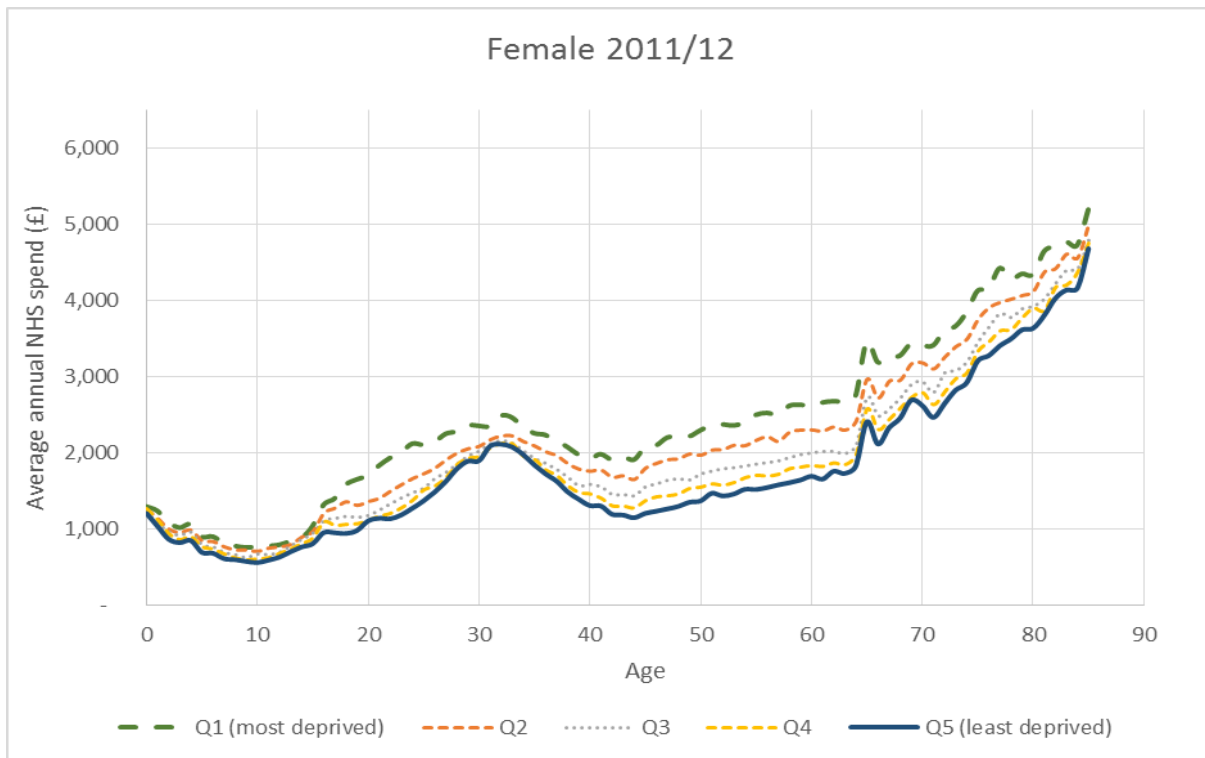
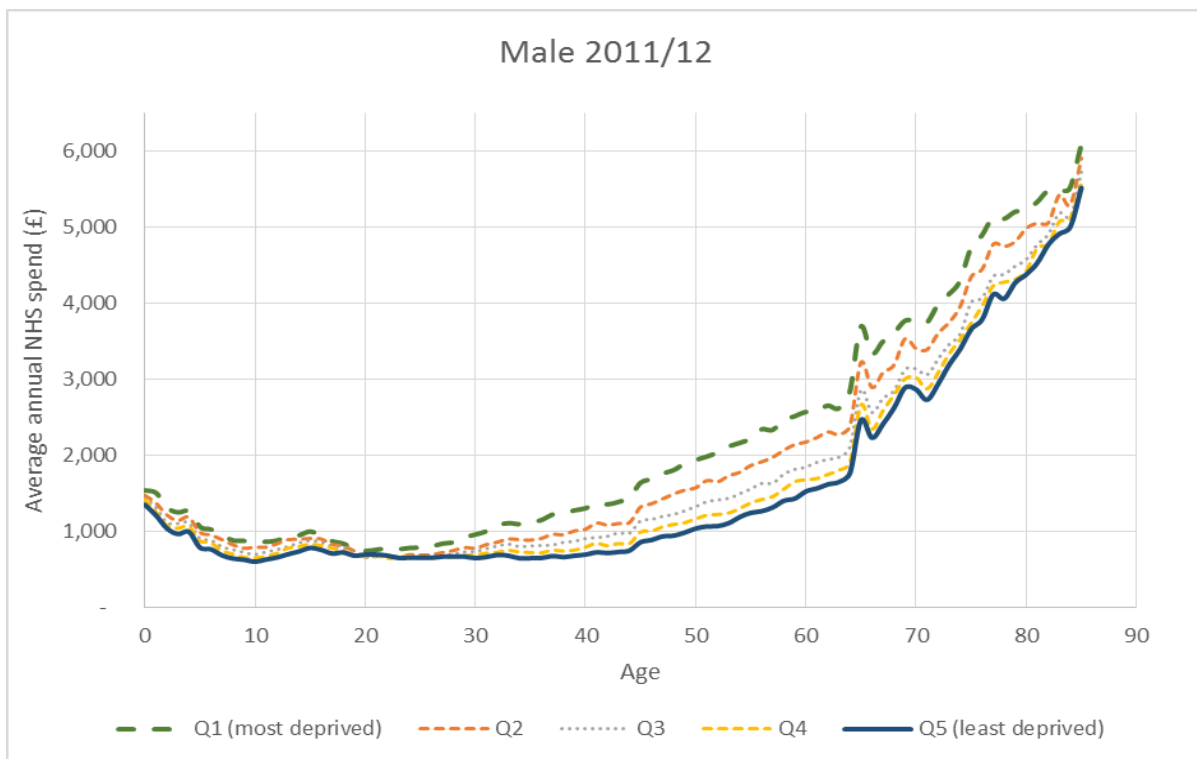


Figure 2: Average annual NHS spend by age and neighbourhood deprivation quintile group for males in England 2011/12



We also use these results to calculate the total cost borne by the NHS associated with inequality. This is calculated as the difference between observed costs and the costs if we assume those living in more deprived neighbourhoods had similar average costs to those living in the most affluent fifth of neighbourhoods. This total cost associated with inequality for year 2011/12 was £12.52 billion.

Discussion

The analysis presented here indicates that health care costs at any given age are higher for those living in more deprived neighbourhoods than those living in more affluent neighbourhoods. Research looking at the social distribution of health has found that quality of life is also lower at any given age for those living in more deprived neighbourhoods than for those living in more affluent neighbourhoods (Love-Koh et al., 2015). Taken together, these results when applied in health technology assessment mean that new technologies, even if equally effective across the deprivation gradient, will have less chance of being deemed cost-effective for those living in more deprived areas than for those living in more affluent areas when we take into consideration the variation in remaining lifetime health care cost and quality-adjusted health gain. Health care provision is not just about maximising aggregate health in the population but also has the reduction of health inequalities as one of its key objectives; this is reflected in the high levels of health inequality aversion demonstrated by members of the public in England (Robson et al., 2016). Standard cost-effectiveness analysis can be extended to account for these differential lifetime health care cost and quality of life trajectories as well as incorporating the notion of health inequality aversion by using novel methods such as distributional cost effectiveness analysis (DCEA) (Asaria et al., 2015, 2016).

There are a number of limitations that should be considered when using the results presented here in the context of cost-effectiveness analysis. The first is that these estimates are based on data for the financial year 2011/12. When using these results to extrapolate costs for other years, care must be taken to understand how best to adjust these costs to reflect how they will change over time. This is no different to other costs used in cost-effectiveness analysis, and similar approaches can be applied to deal with the extrapolation of these costs. The second is what is to be assumed about neighbourhood deprivation over time. For example, are people who currently live in the most deprived fifth of neighbourhoods likely to remain living in similarly deprived neighbourhoods throughout their lives? If deprivation specific costs are to be used, then a view needs to be taken on the degree of social mobility over time. Finally, the costs presented here are average costs; to reflect the uncertainty in these average costs - for example, for use in probabilistic sensitivity analysis of a cost-effectiveness model - some measure of their distribution would need to be calculated.

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A survey of English dental practices with costs in mind

Lesley Curtis

Background

In 2010, the Department of Health (2010, p.6) announced their commitment to introducing a new National Health Service (NHS) dentistry contract to be based on 'registration, capitation and quality', rather than remunerating for units of dental activity. In 2014, PSSRU was asked by the Department of Health to explore the cost information available on dentists in England and to undertake a new study that would fill in any gaps in their knowledge about unit costs for Performer-Only and Providing-Performer dentists (pages 168-9) to inform the new contract. Potentially, this work could assist in setting remuneration rates and ensure resources are fairly allocated within the General Dental Services (GDS).

The dental publications produced by NHS Digital provide a detailed study of the self-employed earnings and expenses of GDS dentists in England and Wales, derived from anonymised tax data. The data are shown by business arrangement (e.g. sole trader, partnership) for Performer-Only dentists, who may undertake NHS activity if the practice owner holds an NHS contract (see Box 1), and for Providing-Performer dentists who can undertake NHS and/or private dental activity (see Box 1). The NHS Digital data exclude Provider-Only dentists as they have no NHS activity recorded against them. The data are not shown for England and Wales separately. Only a total cost is shown for England which includes expenses for office and general business, premises, employees, car and travel, 'other' (laboratory and material costs as well as advertising and promotion) for both Performer-Only and Providing-Performer dentists.

Box 1 Types of dentists

Provider

A Provider is a person or authorised body (including certain companies and NHS trusts) which has entered into a contract with NHS England to provide primary dental services.

Performer

A performer is a dentist who carries out dental activity.

Provider-Only

A Provider-Only is a Provider who sub-contracts all dental activity to other performers and does not perform NHS dentistry on the contract themselves.

Performer-Only

A performer-only delivers dental services but does not hold a contract with NHS England. They will be employed by a Provider-Only or a Providing-Performer.¹

Providing-Performer

A Providing-Performer is a Provider who holds a contract and who also acts as a performer, delivering dental services themselves.

Source: HSCIC (2014) *NHS Dental Statistics for England: 2014-15*, p19. <http://content.digital.nhs.uk/catalogue/PUB15901/nhs-dent-stat-eng-2014-15-gui.pdf>

¹ In many practices the NHS contract holder (the Provider) will be the practice owner. In other situations associates may hold their own NHS contract or bid for an NHS contract. (https://www.bda.org/dentists/advice/career/Documents/a17_associate_contracts_england_and_wales_-_apr11.pdf)

Our exploration of the NHS Digital data also showed that the value of capital items such as x-ray machines, dental chairs and dental mirrors are excluded from the total cost figure but represented in the item 'net capital allowances' which dentists are able to deduct from profits before paying tax. There is some concern, however, that their cost is being underestimated, which could indicate that dentists are not maximising their tax relief (<http://www.dentax.co.uk/capital-allowances-tax-relief-for-your-dental-practise/>). These capital costs, as well as 'employee expenses' which are shown at a practice level for a Providing-Performer dentist, were therefore the focus of the new study.

Method

Survey/sample

In collaboration with the Chief Dental Officer for England and the Department of Health, a set of questions was developed and piloted with two local dentists and a dental hygienist. Contact was made with the GDC via the Department of Health, to secure access to a mailing list: the same list used by NHS Digital to generate data for their Earnings and Expenses reports. This list contained over 30,000 addresses of dentists, but was reduced to 7,500 by excluding all suspended dentists as well as those who qualified to practice before 1975 as we assumed that they would no longer be practising. We included those with an e-mail address and who lived in England. Additionally, only those practices undertaking at least some NHS activity were to be included in the analysis, as identified from the survey. A Data Sharing Agreement was signed with the GDC and a password encrypted list (Excel file) was transmitted to PSSRU. An e-mail with the survey link described the role of the survey in formulating the New Dental Contract, and one response was requested per practice. A reward for responding was offered and organised so that confidentiality of the practice was maintained. We ensured that the survey and cover e-mail could be accepted by all internet providers, and it was forwarded in batches with a request to reply within three weeks.

The survey included questions about the number of dentists, dental nurses, hygienists and hygienists-therapists, practice managers and other staff such as receptionists/technicians that were working within the practice, and the number of sessions (4 hours) usually worked by each professional per week. Respondents were also asked to identify how many of the dentists in the practice were 'Providing-Performers', and whether the practice worked solely on NHS dental activity, treated both NHS and private patients, or treated only private patients. With this information, it was possible to estimate how many full-time equivalent (FTE; 35.8 hours per week for Performer-only dentists and 41.4 hours per week for Providing-Performers) dentists and other staff were working within practices, and also the number of FTE staff employed per dentist.

The survey also requested an approximate value for items of equipment (for example, dentist chairs, cabinetry, dental compressors and all dental technology) used in the practice and how often the larger items of equipment needed replacing. Finally, to be consistent with NHS Digital publications and to see whether costs differed between business arrangements, the survey asked whether the practice operated as a limited company, limited liability partnership, true partnership, expenses-sharing group, sole trader without help, sole trader with help, or in any other category.

Costs

Employee expenses

Providing-Performer dentists take responsibility for employing support and other clinical staff such as dental nurses and hygienists (British Dental Association, 2011), and this is reflected in their expenses. However, for the purpose of estimating a unit cost for a Providing-Performer dentist, we have assumed that support and other clinical staff are equally distributed between Performer-Only and Providing-Performer dentists. For example, all dentists may require the services of a dental nurse and practice manager regardless of funding arrangements.

To calculate these employee costs, we multiplied the FTE for each professional per dentist by the appropriate Agenda for Change (AfC) band for April 2017 (<https://www.healthcareers.nhs.uk/explore-roles/dental-team/pay-dental-team-nhs>) and added on-costs. Where the response to the survey was 'other staff', we used AfC band 2.

The total FTE employee cost per dentist was calculated, first for all practices who undertook only NHS dental activity and then for practices that undertook both NHS and private dental activity. Costs were also calculated per business arrangement using a weighted cost based on the number of practices working in each business arrangement. A sensitivity analysis was performed using different combinations of staff and AfC bands.

Equipment costs

We calculated the total and annual cost of equipment per dentist by dividing the total value provided by each practice for equipment items by the number of FTE dentists within the practice. The average cost per business arrangement per dentist was calculated, weighted by the number of practices within each business arrangement. An *annual* cost per dentist was estimated using responses to a survey question asking how often equipment was replaced and a discount rate of 3.5 per cent was applied (HM Treasury, 2015).

Results

Employee expenses

Responses were received from 251 practices employing 820 dentists, a response rate of 11 per cent (820/7500). Thirty-three practices undertook only NHS dental activity, and 168 carried out both NHS and private dentistry (Providing-Performers). The 50 practices that provided only private sector dental activities (Performer-Only) were excluded, as were those with incomplete responses. Many staff work part-time in dentist practices. The 201 practices included in our analysis employed 710 dentists, equivalent to 492 full-time dentists. On average, there were 3.4 (2.3 FTE) dentists per practice, 67 per cent of whom were Providing-Performer dentists. Table 1 shows the average number of FTE staff, including dentists, by the practice business arrangement. On average, there were 5.37 staff other than dentists in practices, which undertook both NHS and private dentistry, and 4.65 in those providing only NHS dental activities.

Table 2 shows the average FTE staff per FTE dentist by business arrangement, and the average cost per annum for those staff. These data support our calculation of the unit cost per dentist. Thus, for each dentist working in a practice that undertakes NHS and private activity, there were 1.4 FTE dental nurses, 0.17 hygienists, 0.23 practice manager and 0.50 other staff such as receptionists, technicians etc. The total staff cost is £55,834 per FTE dentist, within a range of £43,978 for business arrangements classed as 'other', to £67,556 for limited companies that provide NHS and private dentistry.

Equipment

Table 3 shows that there were 152 responses to the questions on equipment. A weighted average cost of £56,256 per FTE dentist was calculated, which when annuitised over ten years (the most commonly-stated period at which equipment is replaced) produced an annual cost of £6,762. Again there are some cost differences, ranging from £33,972 for dentists working in practices labelled as 'other', to £64,402 for limited companies or those with limited liability.

Discussion

This survey of English dental practices was carried out in 2014 at the PSSRU in collaboration with the Department of Health and the General Dental Council. There were two main aims: first to identify direct employee costs for Performer-Only and Providing-Performer dentists by business arrangement, and second to identify spending on equipment and the replacement rate. The latter set of information would provide some guidance as to whether the net capital allowances recorded by dental practices on their tax returns are adequate to cover their costs. The findings could assist policy makers in setting remuneration levels for the New Dental Contract, expected to be rolled out in 2018 (Evans, 2017).

Employee expenses

The Dental Earnings and Expenses publication shows that, in 2014/15, an average of £6,900 was recorded for employee expenses for Performer-Only dentists, and £86,400 for Providing-Performers (assumed to be practice level expenses; NHS Digital, 2016, p.32-33). To gauge whether these expenses adequately cover practice staffing costs, we have estimated costs for all staff working within dental practices (dental nurses, hygienists, therapists, practice managers, receptionists, technicians etc.) using national pay scales, and assumed that both Providing-Performers and Performer-Only dentists require equal access to them.

To enable a comparison of published expenses with this work, we weighted employee expenses' recorded by NHS Digital (NHS Digital, 2016, p.32-33) by the proportion of dentists who are Providing-Performers or Performer-Only dentists found in this study (67% were Performer-Providers). Using the NHS Digital data, we found that each FTE dentist was supported by 2.32 FTE staff, at a total cost of £59,946 for all practices with NHS activity; a figure which is strikingly similar to our own (Table 2; £59,254). For NHS-only practices, this cost is lower (£55,662), although no data for comparison were found in the NHS Digital Dental Earnings and Expenses publications. Our survey also allows costs to be identified by business arrangement, adding to the information currently provided by current NHS Digital, and thus could assist policy makers in assessing the usefulness of a single contract. Inevitably, however, the comparison is sensitive to assumptions about

salaries, and some caution should be exercised. Our sensitivity analysis showed that if, for example, we had assumed dental nurse specialists were employed (AfC band 5) and 'other' staff were graded as a mix of band 2 and band 7 (dental technician advanced), our costs could rise to nearly £73,000 for practices with NHS activity. This figure exceeds the expenses recorded in the Dental Earnings and Expenses publication by around £12,500.

Equipment costs

When plant and machinery are purchased, dentists are able to deduct some or all of the items from profits before paying tax (Gov.UK, 2016). This study has attempted to gain some insight into whether dental practices are maximising their claims. In 2014/2015, Providing-Performer dentists allowed £7,100 and Performer-Only dentists £1,100, a weighted average of £5,108. Table 4 shows that 39 per cent of dentists replace major items of equipment every ten years, at an annual cost of £6,762 per FTE dentist. This is £1,654 higher than the average claim reported in the Dental Earnings and Expenses submission. The results of this survey show that 46 per cent of dentists replace their equipment more frequently than every ten years. The data suggest a larger discrepancy of £3,077 for those replacing equipment every eight years, and £7,353 for those replacing it every five years. It would appear that only those replacing equipment every 15 years are maximising their full claims.

Conclusion

This study shows that when routinely collected Performer-Only and Providing-Performer employee expenses are combined (NHS Digital, 2016, p. 32-33), they are highly comparable with the staffing expenses calculated for this study, although this is dependent on assumptions made about staff grade and salaries.

However, we found that dental practices may not be maximising their claim to capital allowances. Most dental practices replace large items of equipment at least every ten years, and the average annuitised values for all business arrangements are greater than those for which they are claiming a capital allowance.

Table 1: Average number of FTE staff per practice by business arrangement

Business type (number of practices)	Performer-Providers	Performer dentists	Total dentists	Dental Nurses	Hygienist/therapist	Practice Manager	Other staff
Sole trader (with and without help)							
NHS only activity (n=20)	1.12	1.02	2.14	2.94	0.06	0.44	0.95
NHS/Private activity (n=82)	1.23	0.66	1.89	2.88	0.31	0.49	1.01
Expenses-sharing							
NHS only activity (n=4)	1.24	0.74	1.98	2.40	0.27	0.08	1.28
NHS/Private activity (n=23)	2.34	0.16	2.50	3.04	0.60	0.46	1.02
True partnership							
NHS only activity (n=7)	1.61	0.65	2.26	3.70	0.07	0.50	1.26
NHS/Private activity (22)	1.96	0.92	2.88	3.72	0.52	0.50	1.05
Limited company							
NHS only activity (n=2)	1.31	0.09	1.40	2.03	0.46	0.93	1.06
NHS/Private activity (n=31)	1.56	1.33	2.89	4.72	0.63	0.69	1.54
Other							
NHS/Private activity (n=10)	2.55	1.28	3.44	2.85	0.50	0.72	1.94
All business arrangements with NHS activity							
NHS only activity (n=33)	1.25	0.85	2.10	3.00	0.11	0.44	1.10
NHS/Private activity (n=168)	1.57	0.80	2.35	3.30	0.40	0.52	1.15

Table 2: Average FTE employees and employee expenses per FTE dentist, by business arrangement

Business type (number of practices)	Dental nurses per FTE dentist and cost		Hygienists per FTE dentist and cost		Practice manager per FTE and cost		Other staff per FTE dentist and cost		Weighted average costs
Sole trader (with and without help)									
NHS-only activity (n=20)	1.37	£35,916	0.03	£866	0.21	£6,373	0.44	£8,916	£52,073
NHS/private activity (n=82)	1.52	£39,836	0.16	£5,068	0.26	£8,036	0.53	£10,732	£63,689
Expenses sharing									
NHS-only activity (n=4)	1.21	£31,688	0.14	£4,214	0.04	£1,252	0.65	£12,983	£50,150
NHS/private activity (n=23)	1.21	£31,789	0.24	£7,416	0.18	£5,703	0.41	£8,194	£53,126
True partnership									
NHS-only activity (n=7)	1.63	£42,800	0.03	£957	0.22	£6,857	0.55	£11,197	£61,814
NHS/private activity (n=22)	1.29	£33,768	0.18	£5,579	0.17	£5,381	0.36	£7,322	£52,067
Limited company									
NHS-only activity (n=2)	1.45	£37,707	0.33	£10,153	0.66	£20,590	0.76	£15,206	£83,887
NHS/private activity (n=31)	1.63	£42,697	0.28	£6,736	0.24	£7,400	0.53	£10,702	£67,556
Other									
NHS/private activity (n=10)	0.83	£21,659	0.14	£4,491	0.21	£6,487	0.56	£11,326	£43,978
All business arrangements with NHS activity									
NHS-only activity (n=33)	1.41	£37,274	0.06	£1,854	0.22	£7,057	0.51	£9,984	£59,438
NHS/private activity (n=168)	1.43	£36,984	0.17	£5,107	0.23	£6,717	0.50	£10,274	£55,834

Table 3 Equipment costs by business arrangement (annuitised over ten years)

Business arrangement	No. of practices (n=152)	Equipment cost per FTE dentist	Annuitised cost (discounted at 3.5%)
Sole trader with/without help	73	£59,343	£7,133
Expenses-sharing groups	24	£49,888	£5,997
True partnership	19	£43,412	£5,218
Limited company/Limited liability partnerships	32	£64,402	£7,741
Other	4	£33,972	£4,083
Weighted average cost	152	£56,256	£6,762

Table 4 Sensitivity analysis of annual equipment costs per FTE dentist

	Average total cost per FTE dentist : £56,256			
Average life of equipment/ percent of practices	39%: 10 years	26%: 8 years	20%: 5 years	16%: 15 years
Average annuitised cost per FTE dentist	£6,762: 10 years	£8,185: 8 years	£12,461: 5 years	£4,805: 15 years

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I. SERVICES

1. Services for older people

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1.1 Private sector nursing homes for older people

Using Adult Social Care Finance Return (ASC-FR)¹ returns for 2016/17, the median cost per person for supporting older people in all nursing homes was £596 per week [using unique identifiers: 8713501 8714101 8714701 8715301 8715901 (numerators in thousands of pounds), 8713502 8714102 8714702 8715302 8715902 (denominators)]. The mean cost was £606 per week. The standard NHS nursing care contribution is £156.25 and the higher rate is £215.04.² When we add the standard NHS nursing care contribution to PSS expenditure, the total expected median cost is £752 and the mean cost is £762.

Costs and unit estimation	2016/2017 value	Notes
A. Fees	£806 per week	The direct unit cost of private sector nursing homes is assumed to be the fee. Where a market is fairly competitive, such as that for private sector nursing homes, it is reasonable to assume that the fee will approximate the societal cost of the service. ^{3,4,5,6,7} A weighted average fee for England reflecting the distribution of single and shared rooms was taken from Laing & Buisson Care Homes Complete Dataset 2016/17. ⁸ Care home fees have been split into their component parts by Laing & Buisson (2016). ⁹ For nursing care for frail elderly people, direct costs (staff: ancillary support, and non-staff: repairs and maintenance at home level and other non-staff current costs) form 68 per cent of care staff costs, and indirect costs (corporate overheads) form 8.7 per cent.
External services B. Community nursing C. GP services D. Other external services		No current studies indicate how external services are used by nursing home residents. See previous editions of this volume for sources of information.
E. Personal living expenses	£24.90 per week	The Department for Work and Pensions (DWP) personal allowance for people in residential care or a nursing home is £24.90. ¹⁰ This has been used as a proxy for personal consumption.
Short-term care		No current information is available on whether residents in short-term care are less costly than those who live full-time in a nursing home. See previous editions of this volume for sources of information.
Dependency		No current information is available on the relationship of dependency with cost. See previous editions of this volume for sources of information.
Occupancy	90.1 per cent	The occupancy level in England for private and voluntary care homes for older people in 2016/17 was 91 per cent. ¹¹ The occupancy rate for care homes (for-profit sector) with nursing was 89.2 per cent (provisional). ⁶ A report published by the Registered Care Providers Association (2016) reported that the occupancy rate for specialist care homes was 88 per cent in 2016. ¹²
London multiplier	1.05 x A	Fees in London nursing homes were 5 per cent higher than the national average. ⁶
Unit costs available 2016/2017		
£806 establishment cost per permanent resident week (A); £831 establishment cost plus personal living expenses per permanent resident week (A and E); £115 establishment cost per permanent resident day (A); £119 establishment cost plus personal living expenses per permanent resident day (A and E).		

¹ Calculated using NHS Digital (2017) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital, Leeds. <http://digital.nhs.uk/catalogue/PUB30102> [accessed 30 November 2017], in collaboration with the Department of Health.

² Department of Health (2016) *NHS-funded nursing care rate for 2016 to 2017*, Department of Health, London. <https://www.gov.uk/government/news/nhs-funded-nursing-care-rate-for-2016-to-2017> [accessed 13 September 2017].

³ Forder, J. & Allen, S. (2011) *Competition in the care homes market*, <https://www.ohe.org/sites/default/files/Competition%20in%20care%20home%20market%202011.pdf> [accessed 29 November 2016].

⁴ Institute of Public Care (2014) *The stability of the care market and market oversight in England*, Institute of Public Care, London. <http://www.cqc.org.uk/sites/default/files/201402-market-stability-report.pdf> [28 November 2016].

⁵ Drummond, M. & McGuire, A. (2001, p.71) *Economic evaluation in health care*, Oxford University Press.

⁶ Laing & Buisson (2015) *Care of older people: UK market report 2014/2015*, Laing & Buisson, London.

⁷ Laing & Buisson (2012) *'Fair Fees' for care placements left behind amidst council cuts*, Laing & Buisson, London. http://www.laingbuisson.co.uk/Portals/1/PressReleases/FairPrice_12_PR.pdf [accessed 29 November 2016].

⁸ Laing & Buisson (2016) *Laing & Buisson Care Homes Complete Dataset 2016/17*, Laing & Buisson, London.

⁹ Laing & Buisson (2013) *Councils rely on a 'hidden tax' on older care home residents*, Laing & Buisson, London.

¹⁰ Department for Work and Pensions (2017) *Proposed benefit and pension rates*, Department for Work and Pensions, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/572844/proposed-benefit-and-pension-rates-2017-to-2018.pdf [accessed 13 September 2017].

¹¹ Laing, W. (2017) *Care homes for Older People market analysis and projections*, <http://www.laingbuisson.com/wp-content/uploads/2017/05/William-COP.pdf> [accessed 17 October 2017].

¹² Registered Care Providers Association Ltd (2016) *Care Home Benchmarking Report 2016/17*, http://www.rcpa.org.uk/wp-content/uploads/2016/12/NAT00339_Healthcare_Report_Midres.pdf [accessed 10 October 2017].

1.2 Private sector residential care for older people

Using Adult Social Care Finance Return (ASC-FR)¹ returns for 2016/17, the median cost per person for supporting older people in a residential care home provided by non-local authority organisations was £548 per week, with a mean cost of £549 per week [using unique identifiers: 8713801 8714401 8715001 8715601 8716201 (numerators in thousands of pounds), 8713802 8714402 8715002 8715602 8716202 (denominators)].

Costs and unit estimation	2016/2017 value	Notes
A. Fees	£632 per week	The direct unit cost of private sector residential homes is assumed to be the fee. Where a market is fairly competitive, such as that for private sector residential homes, it is reasonable to assume that the fee will approximate the societal cost of the service. ^{2,3,4,5,6} A weighted average fee for England reflecting the distribution of single and shared rooms was taken from Laing & Buisson Care Homes Complete Dataset 2016/17. ⁷ Care home fees have been split into their component parts by Laing & Buisson (2015). ⁸ For residential care for frail elderly people, direct costs (staff: ancillary support, and non-staff: repairs and maintenance at home level and other non-staff current costs) form 68 per cent of care staff costs, and indirect costs (corporate overheads) form 8.7 per cent.
External service B. Community nursing C. GP services D. Other external services		No current studies indicate how external services are used by residential care home residents. See previous editions of this volume for sources of information.
E. Personal living expenses	£24.90 per week	The Department for Work and Pensions (DWP) personal allowance for people in residential care or a nursing home is £24.90. ⁹ This has been used as a proxy for personal consumption.
Short-term care		No current information is available on whether residents in short-term care are less costly than those who live full-time in a residential care home. See previous editions of this volume for sources of information.
Dependency		No current information is available on the relationship of dependency with cost. See previous editions of this volume for sources of information.
London multiplier	1.40 x A	Fees in London residential homes were 40 per cent higher than the national average. ⁵
Occupancy	90.1 per cent	The occupancy level in England for private and voluntary care homes for older people in 2016/17 was 91 per cent. ¹⁰ The occupancy rate for care homes (for-profit sector) without nursing was 89.7 per cent (provisional). ⁵
Unit costs available 2016/2017		
£632 establishment cost per permanent resident week (A); £656 establishment cost plus personal living expenses per permanent resident week (A and E); £90 establishment cost per permanent resident day (A); £94 establishment cost plus personal living expenses per permanent resident day (A and E).		

¹ Calculated using NHS Digital (2017) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital, Leeds. <http://digital.nhs.uk/catalogue/PUB30102> [accessed 30 November 2017], in collaboration with the Department of Health.

² Forder, J. & Allen, S. (2011) *Competition in the care homes market*, <https://www.ohe.org/sites/default/files/Competition%20in%20care%20home%20market%202011.pdf> [accessed 29 November 2016].

³ Institute of Public Care (2014) *The stability of the care market and market oversight in England*, Institute of Public Care, London. <http://www.cqc.org.uk/sites/default/files/201402-market-stability-report.pdf> [28 November 2016].

⁴ Drummond, M. & McGuire, A. (2001, p.71) *Economic evaluation in health care*, Oxford University Press.

⁵ Laing & Buisson (2015) *Care of older people: UK market report 2014/2015*, Laing & Buisson, London.

⁶ Laing & Buisson (2012) *'Fair Fees' for care placements left behind amidst council cuts*, Laing & Buisson, London. http://www.laingbuisson.co.uk/Portals/1/PressReleases/FairPrice_12_PR.pdf [accessed 29 November 2016].

⁷ Laing & Buisson (2016) *Laing & Buisson Care Homes Complete Dataset 2016/17*, Laing & Buisson, London.

⁸ Laing & Buisson (2013) *Councils rely on a 'hidden tax' on older care home residents*, Laing & Buisson, London.

⁹ Department for Work and Pensions (2017) *Proposed benefit and pension rates*, Department for Work and Pensions, London.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/572844/proposed-benefit-and-pension-rates-2017-to-2018.pdf [accessed 13 September 2017].

¹⁰ Laing, W. (2017) *Care homes for Older People market analysis and projections*, <http://www.laingbuisson.com/wp-content/uploads/2017/05/William-COP.pdf> [accessed 17 October 2017].

1.3 Local authority own-provision residential care for older people

This table uses the Adult Social Care Finance Return (ASC-FR) ¹ return for 2016/17 for local authority expenditure.

Costs and unit estimation	2016/2017 value	Notes
Capital costs		
A. Buildings and oncosts	£90 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. ² Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
B. Land	£31 per week	Based on a report published by the Department for Communities and Local Government. ³ The cost of land has been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
C. Other capital costs		Capital costs not relating to buildings and oncosts are included in the local authority expenditure costs, therefore no additional cost has been added for items such as equipment and durables.
D. Total local authority expenditure (minus capital)	£987 per week	The median estimate is taken from ASC-FR 2016/17. ¹ Capital charges relating to buildings and oncosts have been deducted. The mean cost is £813 per week [using unique identifiers: 8713701 8714301 8714901 8715501 8716101 (numerators in thousands of pounds), 8713702 8714302 8714902 8715502 8716102 (denominators)].
E. Overheads		Social services management and support services (SSMSS) costs are included in ASC-FR total expenditure figures, therefore no additional overheads have been added.
External services		
F. Community nursing		No current studies indicate how external services are used by residential care home residents. See previous editions of this volume for sources of information.
G. GP services		
H. Other external services		
I. Personal living expenses	£24.90 per week	The Department for Work and Pensions (DWP) personal allowance for people in residential care or a nursing home is £24.90. ⁴ This has been used as a proxy for personal consumption.
Use of facility by client	52.18 weeks p.a.	
Occupancy	92.6 per cent	Based on information reported by Laing & Buisson, occupancy rates for the not-for-profit sector care homes without nursing in 2015 (provisional) were 92.6 per cent. ⁵
Short-term care		No current information is available on whether residents in short-term care are less costly than those who live full-time in a residential care home. See previous editions of this volume for sources of information.
Dependency		No current information is available on the relationship of dependency with cost. See previous editions of this volume for sources of information.
London multiplier	2.09 x (A&B) 1.45 x (D)	Allows for the higher costs for London. ^{1,2,3}
Unit costs available 2016/2017		
£1,108 establishment cost per permanent res. week (includes A to E); £1,133 establishment cost plus personal living expenses per permanent res. week (includes A to D and I). £158 establishment cost per permanent res. day (includes A to E); £162 establishment cost plus personal living expenses per permanent res. day (includes A to D and I).		

¹ Calculated using NHS Digital (2017) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital, Leeds. <http://digital.nhs.uk/catalogue/PUB30102> [accessed 30 November 2017], in collaboration with the Department of Health.

² Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

³ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

⁴ Department for Work and Pensions (2017) *Proposed benefit and pension rates*, Department for Work and Pensions, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/572844/proposed-benefit-and-pension-rates-2017-to-2018.pdf [accessed 13 September 2017].

⁵ Laing & Buisson (2015) *Care of older people: UK market report 2015*, twenty-seventh edition, Laing & Buisson, London.

1.4 Local authority own-provision day care for older people

As day care expenditure is now combined with other expenditure in the ASC-FR data collection,¹ this table uses data from the Personal Social Services Expenditure return (PSS EX1) for 2013/14,² which has been updated using the PSS pay & prices inflator. The median and mean cost was £140 per client week (including capital costs). These data do not report on the number of sessions clients attended each week.

To determine the best unit of activity, we submitted a Freedom of Information request to ask local authorities the duration of a 'unit of activity' and to provide approximate guidance on how many times a week clients attend.

Based on information provided by ten local authorities,³ we have calculated an average cost per client attendance and also a cost per client hour. We have then used this information to calculate the cost of a client session lasting 3.5 hours, which is a typical standard unit of day care for most local authorities responding to our information request.

Costs and unit estimation	2016/2017 value	Notes
Capital costs		
A. Buildings and oncosts	£6.00 per client attendance	Based on the new-build and land requirements for local authority day care facilities (which do not distinguish client group). ⁴ Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
B. Land	£2.40 per client attendance	Based on a report published by the Department for Communities and Local Government. ⁵ These allow for 33.4 square metres per person. Land costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
C. Other capital costs		Capital costs not relating to buildings and oncosts are included in the local authority expenditure figures, therefore no additional cost has been added for items such as equipment and durables.
D. Total local authority expenditure (minus capital)	£54 per client attendance	The median and mean cost per week is taken from PSS EX1 2013/14 and has been updated using the PSS pay & prices index. ² Based on PSSRU research, ³ older people attend on average 2.5 times per week (4.6 hours in duration) resulting in a median and mean cost per day care attendance of £54. Capital charges relating to buildings have been deducted.
E. Overheads		Social services management and support services (SSMSS) costs are included in PSS EX1 total expenditure figures, therefore no additional overheads have been added.
Use of facility by client		Assumes clients attend 2.5 times per week. ³
Occupancy		
London multiplier	3.83 x B 1.07 x D	Relative London costs are drawn from the same source as the base data for each cost element. ^{2,4,5}
Unit costs available 2016/2017		
£63 per client attendance (includes A to D); £14 per client hour; £48 per client session lasting 3.5 hours.		

¹ NHS Digital (2016) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital, Leeds.

² NHS Digital (2014) *PSS EX1 2013/14*, NHS Digital, Leeds.

³ Based on research carried out by PSSRU in 2014.

⁴ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁵ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

1.5 Home care for older people

In past editions of this volume, we have taken information from the PSS expenditure return. Unit costs for home care have been based on the total expenditure on home care services divided by the total number of hours delivered, but this is not reflective of the actual hourly rate paid to providers of external home care services.

The new ASC-FR return currently provides two rates for home care: one for the hourly rate of in-house home care provision and one for the average hourly rate paid to external providers of home care services. The rates should be based on the cost of an hour of personal care. NHS Digital do not analyse the rate by primary support reason or age group.¹

For home care, the average standard hourly rate was £25.62 for services provided in-house, compared to £15.52 for provision by external providers.¹

See schema 11.6 and 11.7 for more information on home care.

¹ NHS Digital (2017) *Adult Social Care Finance Return (ASC-FR) Activity and Finance report* (reference data table T39), NHS Digital, Leeds, <https://digital.nhs.uk/catalogue/PUB30121> [accessed 28 November 2017].

1.6 Extra-care housing for older people

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

Extra-care housing is primarily for older people, and the accommodation is (almost always) self-contained. Care can be delivered flexibly, usually by a team of staff on the premises for 24 hours a day. Domestic care and communal facilities are available. For more information, see the Bäumker & Netten article in the 2011 edition of this report, <http://www.pssru.ac.uk/project-pages/unit-costs/2011/index.php>.

All costs have been updated from 2008 to current prices using the appropriate inflators. The mean cost of living in extra-care housing was estimated at £490 per resident per week, with a standard deviation of £203 and a range of £197 to £1,396. The median cost was £407 per resident per week.

Costs and unit estimation	2016/2017 value	Notes
A. Capital costs		
Building and land costs	£123 per resident per week	Based on detailed valuations for the buildings and the land provided by the housing associations operating the extra-care schemes. For properties constructed before 2008, capital values were obtained from the BCIS, and adjusted using the All-In Tender Price Index. Includes the cost of land, works including site development and landscaping, equipment and furniture, professional fees (architects, design and surveyors' fees). ¹
B. Housing management and support costs		
Housing management	£59 per resident per week	Information taken from the annual income and expenditure accounts for each individual scheme after at least one full operational year. Average running costs were calculated by dividing the adjusted total running cost by the number of units in the scheme. The cost includes management staff costs (salary and oncosts including national insurance and pension contributions, and office supplies), property maintenance and repairs, grounds maintenance and landscaping, cleaning of communal areas, utilities, and appropriate central establishment costs (excluding capital financing).
Support costs	£11 per resident per week	
C. Personal living expenses	109 per resident per week	As significant variability existed in the approaches to meal provision in the schemes, items related to catering costs were removed from the financial accounts, and the cost of food and other consumables were estimated using the Family Expenditure Survey (2015), table 3.4 ² and updated using the Retail Price Index.
D. Health and social service costs		
Health services	£74 per resident per week	Estimates of health and social service costs were made combining resource use information reported by 465 residents six months after admission, with the appropriate unit costs taken from the respective local authorities or, where appropriate, from national sources. ³ Health care estimates ranged from £0-£747.
Social services	£115 per resident week	Social care estimates ranged from £0-£730
Use of facility by client	52.18 weeks per year	
Unit costs available 2016/2017		
£193 accommodation, housing management and support costs; £302 accommodation, housing management, support and living expenses; £490 total cost (A to D).		

¹ Darton, R., Bäumker, T., Callaghan, L. & Netten, A. (2011) *The PSSRU evaluation of the extra-care housing initiative: Technical Report*, Personal Social Services Research Unit, University of Kent, Canterbury.

² Office for National Statistics (2015) *Family spending 2015 edition*, Office for National Statistics, London, available at [accessed 10 October 2016]. http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/datasets-and-tables/index.html?newquery=*%&newoffset=350&pageSize=50&content-type=Reference+table&content-type=Dataset&content-type-orig=%22Dataset%22+OR+content-type+original%3A%22Reference+table%22&sortBy=pubdate&sortDirection=DESCENDING&applyFilters=true [accessed 18 October 2016]

³ Curtis, L. (2008) *Unit Costs of Health and Social Care 2008*, Personal Social Services Research Unit, University of Kent, Canterbury.

1.7 Dementia memory service

Memory assessment services support the early identification and care of people with dementia. They offer a comprehensive assessment of an individual's current memory abilities and attempt to determine whether they have experienced greater memory impairment than would be expected for their age. Memory assessment services are typically provided in community centres by community mental health teams, but also are available in psychiatric and general hospitals. Some commissioners consider locating services (or aspects of such services) in primary care, where they are provided by practitioners with a special interest in dementia.¹ The goal is to help people, from the first sign of memory problems, to maintain their health and their independence. See *Commissioning a memory assessment service for the early identification and care of people with dementia*² for more information on this service.

Information for this service has been provided by the South London and Maudsley (SLAM) NHS Foundation Trust. Based in the Heavers Resource Centre, Croydon, the service provides early assessment, treatment and care for people aged 65 and over who have memory problems that may be associated with dementia. The initial assessment is provided in the client's own home wherever possible. The average annual cost per client is £1,240. Two further dementia memory services provided by SLAM (but not providing assessments) had average annual costs per client of £1,037 (Lambeth and Southwark) and £1,021 (Lewisham). The costs of another London dementia memory service can be found in <http://www.londonhp.nhs.uk/wp-content/uploads/2011/03/Dementia-Services-Guide.pdf>.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£447,339 per year	Based on mean salaries for Agenda for Change (AfC) bands. ³ Weighted to reflect the input of 1 FTE associate specialist, 0.40 FTE consultant, 2 FTE occupational therapists (bands 6 & 7), 2.8 FTE psychologists (bands 5, 7 & 8) and nurses (band 6 & two nurses on band 7).
B. Salary oncosts	£115,954 per year	Employer's national insurance is included plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Overheads Management and administration	£116,523 per year	Provided by the South London and Maudsley NHS Foundation Trust and based on median salaries for Agenda for Change (AfC) administrative and clerical grades. ³ Includes 3 FTE administrative and clerical assistants (bands 3, 4 & 5) and management provided by 0.2 FTE psychologist (band 8).
Non-staff	£193,551 per year	Provided by the South London and Maudsley NHS Foundation Trust. This includes expenditure to the provider for travel/transport and telephone, education and training, office supplies and services (clinical and general), as well as utilities such as water, gas and electricity.
D. Capital overheads	£4,325 per year	Based on the new-build and land requirements of 4 NHS offices and a large open-plan area for shared use. ^{4,5} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
Working time	50.4 weeks per year 40 hours per week	Unit costs are based on 2,016 hours per year: 260 working days (8 hours per day) minus bank holidays.
Caseload	708 clients per year	Provided by the South London and Maudsley NHS Foundation Trust.
Unit costs available 2016/2017		
Total annual cost £877,693; total cost per hour £435; cost per client £1,240.		

¹ Department of Health (2011) *Commissioning services for people with dementia*, Department of Health, London.

http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/Browsable/DH_127381 [accessed 9 October 2014].

² National Institute for Health and Clinical Excellence (NICE) (2007) *Commissioning a memory assessment service for the early identification and care of people with dementia*, NICE, London. <http://dementianews.wordpress.com/2011/05/12/nice-commissioning-guide-memory-assessment-services/> [accessed 9 October 2014].

³ NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2015 to June 2017* (not publicly available), NHS Digital, Leeds.

⁴ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁵ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

1.8 Geriatric Resources for Assessment and Care of Elders (GRACE)

The GRACE model is a US-based intervention that integrates health and social care professional input into the assessment, care planning and service delivery process to meet the health and social care needs of community-dwelling older people aged 65 years and over. In the US study, it targeted low-income individuals with multiple chronic conditions. Eligible individuals are those with a 40 per cent or higher predicted probability of hospital admission (Counsell et al., 2007, 2009).^{1,2}

On assessment, the individual's needs are linked to the 'GRACE' protocol, a standardised checklist and response to 12 common geriatric conditions: advance care planning, health maintenance, medication management, difficulty walking/falls, chronic pain, urinary incontinence, depression, hearing loss, visual impairment, malnutrition or weight loss, dementia, and caregiver burden. There are weekly meetings among the multidisciplinary team and the case managers to discuss the successes and barriers in implementing the GRACE protocols.^{1,2} The intervention has been costed using current salary levels.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£85,650 per year	Based on mean basic salaries for Agenda for Change (AfC) bands and information taken from the National Minimum Data Set (NMDS-SC) ^{3,4} The multidisciplinary team included two FTE case managers (nurse and social worker) and a physiotherapist, pharmacist, community organiser, mental health social worker and geriatrician, all at 0.05 FTE, for a caseload of 125 older people. ¹
B. Salary oncosts	£22,832 per year	Employer's national insurance is included plus employer's contribution to superannuation.
C. Qualifications	£39,850 per year	
D. Overheads		
Direct staffing costs	£21,435 per year	Direct overheads: this includes the costs (salary costs) for practice manager (0.25 FTE) and an administrative assistant (0.25 FTE) (Agenda for change band 8A and AFC Band 2).
Other direct and indirect overheads	£57,654 per year	Other direct overheads include non-staff costs: office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity. Indirect overheads include general management and support services such as finance and human resource departments.
E. Capital overheads	£5,166 per year	Based on the new-build and land requirements of NHS offices and shared facilities for waiting, interviews and clerical support. ^{5,6} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years. Nurses and social workers are reported to share office space.
Working time	41.7 weeks per year 37.5 hours per week	Unit costs are based on 1,565 hours per year: 225 working days minus sickness absence and training/study days as reported for NHS staff groups. ⁷
Frequency of visits		The intervention comprises an initial and annual in-home comprehensive geriatric assessment from the case managers to create an individualised care plan that is discussed with the multidisciplinary team. Weekly meetings are held thereafter to discuss the successes and barriers in implementing the GRACE protocols. Individuals receive ongoing support from the case managers at least once a month (either face-to-face or by telephone). ²
Length of intervention	2 years	
Caseload	125	Based on a caseload of 125 older people.
Unit costs available 2016/2017 (costs with qualifications in brackets)		
£192,737 (£232,690) annual cost of service; £1,691 (£2,041) annual cost per case, £3,083 (£3,723) annual cost per intervention per case.		

1 Counsell, S., Callahan, C., Clark, D., Tu, W., Buttar, A., Stump, T., et al. (2007). Geriatric care management for low-income seniors. *Journal of American Medical Association*, 298, 22, 2623–33.

2 Counsell, S., Callahan, C., Tu, W., Stump, T., & Arling, W. (2009). Cost analysis of the geriatric resources for assessment and care of elders care management intervention. *Journal of American Geriatrics Society*, 57, 8, 1420–26.

3 Skills for Care (2017) *National Minimum Data Set*, Skills for Care, London, [https://www.nmds-sc-online.org.uk/content/view.aspx?id=Adult social care workforce reports - estimates](https://www.nmds-sc-online.org.uk/content/view.aspx?id=Adult+social+care+workforce+reports+-+estimates) [accessed 10 October 2017].

4 NHS Digital (2017) *NHS staff earnings estimates to June 2017*, NHS Digital, Leeds.

5 Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

6. Department for Communities and Local Government (2015) Land value estimates for policy appraisal, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

7 NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17*, NHS Digital, Leeds. [accessed 13 October 2017].

2. Services for people with mental health problems

2.1 NHS reference costs for mental health services

2.2 Local authority own-provision care homes for people requiring mental health support

2.3 Local authority own-provision social services day care for people requiring mental health support

2.4 Private and voluntary sector day care for people requiring mental health support

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2.7 Mindfulness-based cognitive therapy: group-based intervention

2.8 Interventions for mental health promotion and mental illness prevention

2.9 Lifetime costs of perinatal depression

2.10 Lifetime costs of perinatal anxiety

2.1 NHS reference costs for mental health services

We have drawn on the NHS reference costs for selected mental health services.¹ All costs have been updated to 2016/17 prices using the HCHS pay & prices inflators. Only services with more than ten data submissions have been included, but weighted costs have been provided for service groups which do include services with fewer than ten submissions. Children's services have only been included in the group averages, and the costs of selected mental health care services for children can be found in table 6.1.

As the first step towards the introduction of a national tariff for mental health services, the Department of Health mandated the use of the mental health care clusters as the currencies for adult mental health services for working-age adults and older people. The care clusters cover most services for working-age adults and older people, and replace previous reference cost currencies for adult and elderly mental health services. They also replace some currencies previously provided for specialist mental health services or mental health specialist teams. The mental health care cluster for working-age adults and older people focuses on the characteristics and needs of a service user, rather than the individual interventions they receive or their diagnosis. See *NHS reference costs guidance* for 2015-2016¹ for more information on care clusters and the method used to allocate drugs to services.

Each reported unit cost includes:

- (a) direct costs – which can be easily identified with a particular activity (e.g. consultants and nurses)
- (b) indirect costs – which cannot be directly attributed to an activity but can usually be shared among a number of activities (e.g. laundry and lighting)
- (c) overheads – which relate to the overall running of the organisation (e.g. finance and human resources).

	Mean £	Lower quartile £	Upper quartile £
MENTAL HEALTH SERVICES			
Mental health care clusters (per bed day)	£404	NA	NA
Mental health care clusters (per bed day), including carbon emissions 64 kgCO ₂ e	£407		
Mental health care clusters (initial assessment)	£319	£192	£391
Mental health care clusters (initial assessment), including carbon emissions 50 kgCO ₂ e	£321		
All drug and alcohol services (adults and children)	£120	£76	£154
Alcohol services – admitted (per bed day)	£417	£360	£412
Alcohol services – community (per care contact)	£98	£68	£124
Drug services – admitted (per bed day)	£489	£360	
Drug services – community (per care contact)	£120	£87	£160
Drug services – outpatient (per attendance)	£105		£143
Mental health specialist teams (per care contact)	£172	£125	£203
A&E mental health liaison services	£196	£156	£229
Criminal justice liaison services	£176		£248
Prison health adult and elderly	£98	£62	£124
Forensic community, adult and elderly	£251	£192	£288
Secure mental health services (per bed day)	£545	£488	£593
Low-level secure services	£443	£381	£469
Medium-level secure services	£515	£465	£579
Specialist mental health services (per bed day)	£364	£289	£406
Eating disorder (adults) – admitted	£474	£373	£528
Specialist perinatal – admitted	£736	£664	£883

¹ Department of Health (2016) *NHS reference costs 2015-2016*, Department of Health, London. <https://www.gov.uk/government/publications/nhs-reference-costs-2015-to-2016> [accessed 10 October 2017].

2.2 Care homes for people requiring long-term mental health support

This table uses the Adult Social Care Finance Return (ASC-FR)¹ returns for 2016/17 for expenditure costs. The median establishment cost per resident week in long-term residential care for adults over the age of 65 is £538, and the mean establishment cost is £540 [using unique identifier: 8716001 (numerator in thousands of pounds), 8716002 (denominator)].

Costs and unit estimation	2016/2017 value	Notes
Capital costs		
A. Buildings and oncosts	£115 per resident week	Based on the new-build and land requirements for homes for people with mental health problems. ² Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
B. Total local authority expenditure (minus capital)	£646 per resident week	The median revenue weekly cost estimate (£646) for adults age 18-64 requiring long-term mental health support [using unique identifier: 8713001 (numerator in thousands of pounds), 8713002 (denominator)]. ¹ Capital costs have been deducted. The mean cost per client per week is £675 ¹ after deducting capital costs.
C. Overheads		Social services management and support services (SSMSS) costs are included in ASC-FR expenditure figures, so no additional overheads have been added.
Other costs		
D. Personal living expenses	£24.90 per week	The DWP personal allowance for people in residential care or a nursing home is £24.90. ³ This has been used as a proxy for personal consumption.
E. External services		No information is available.
Use of facility by client	365.25 days per year	
Occupancy	100 per cent	No statistics available, therefore 100 per cent occupancy assumed.
London multiplier		Insufficient data to provide a London multiplier
Unit costs available 2016/2017		
£761 per resident week establishment costs (includes A to B); £786 per resident week (includes A to D). £109 per resident day establishment costs (includes A to B); £112 per resident day (includes A to D).		

¹ Calculated using NHS Digital (2017) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital, Leeds. <http://digital.nhs.uk/catalogue/PUB30102> [accessed 30 November 2017], in collaboration with the Department of Health.

² Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

³ Department for Work and Pensions (2016) *Proposed benefit and pension rates*, Department for Work and Pensions, London.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/572844/proposed-benefit-and-pension-rates-2017-to-2018.pdf [accessed 13 September 2017].

2.3 Local authority own-provision social services day care for people requiring mental health support

As day care expenditure is now combined with other expenditure in the ASC-FR data collection,¹ this table uses the Personal Social Services Expenditure return (PSS EX1)² for 2013/14 for local authority expenditure costs, which have been uprated using the PSS pay & prices inflator. Councils reporting costs of more than £500 per client week have been excluded from these estimates. The median cost was £107 and mean cost was £111 per client week (including capital costs). These data do not include the number of sessions clients attended each week.

To determine the best unit of activity, we submitted a Freedom of Information request to ask local authorities the duration of a 'unit of activity' and to provide approximate guidance on how many units a week clients attend.

Based on information provided by ten local authorities,³ we have calculated an average cost per client attendance and also a cost per client hour. We have then used this information to calculate the cost of a client session lasting 3.5 hours, which is a typical standard unit of day care for most local authorities responding to our information request.

For day care for people requiring mental health support, the average number of sessions attended per week was 3, which is also the number of sessions recommended as part of a total recovery programme.⁴

Costs and unit estimation	2016/2017 value	Notes
Capital costs		
A. Buildings and oncosts	£6.00 per client attendance	Based on the new-build and land requirements for local authority day care facilities (which do not distinguish client group). Capital and land costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
B. Land	£2.40 per client attendance	Based on Department for Communities and Local Government land estimates. ⁵ These allow for 33.4 square metres per person. ⁶
C. Other capital		Capital costs not relating to buildings and oncosts are included in the local authority expenditure figures, so no additional cost has been added for other items such as equipment and durables.
D. Total local authority expenditure (minus capital)	£27 per client attendance	The median cost per client week has been taken from PSS EX1 2013/14 ¹ and uprated using the PSS pay & prices index. Assuming people requiring mental health support attend on average 3 times per week (4.1 hours in duration), the median and mean cost per day care attendance is £27.
E. Overheads		Capital charges relating to buildings have been deducted. Social services management and support services (SSMSS) costs are included in PSS EX1 expenditure figures so no additional overheads have been added.
Use of facility by client		Assumes clients attend 3 times per week. ³
London multiplier	3.83 x B 1.09 x D 1.09 x D	Relative London costs are drawn from the same source as the base data.
Unit costs available 2016/2017		
£35 per client attendance (includes A to D); £9.00 per client hour; £30 per client session lasting 3.5 hours.		

¹ NHS Digital (2016) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital, Leeds.

² Health & Social Care Information Centre (2014) *PSS EX1 2013/14*, Health & Social Care Information Centre, Leeds.

³ Based on research carried out by PSSRU in 2014.

⁴ Salford City Council (2011) *Mental health*, Salford City Council. <http://www.salford.gov.uk/mentalhealth.htm> [accessed 9 October 2014].

⁵ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

⁶ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

2.4 Private and voluntary sector day care for people requiring mental health support

This table uses the Personal Social Services Expenditure return (PSS EX1)¹ for 2013/14 for expenditure costs, which have been uprated using the PSS pay & prices inflator. The median cost was £104 per client week and the mean cost was £91 (including capital costs).

To determine the best unit of activity, we submitted a Freedom of Information request to ask local authorities the duration of a 'unit of activity' and to provide approximate guidance on how many times a week clients attend.

Based on information provided by ten local authorities,² we have calculated an average cost per client attendance and also a cost per client hour. We have then used this information to calculate the cost of a client session lasting 3.5 hours, which is a typical standard unit of day care for most local authorities responding to our information request.

For day care for people requiring mental health support, the average number of sessions attended per week was 3, which is also the number of sessions recommended as part of a total recovery programme.³

Costs and unit estimation	2016/2017 value	Notes
Capital costs		
A. Buildings and oncosts	£6.00 per client attendance	Based on the new-build and land requirements for local authority day care facilities (which do not distinguish client group). Capital and land costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
B. Land	£2.40 per client attendance	Based on Department for Communities and Local Government land estimates. ⁴ These allow for 33.4 square metres per person. ⁵
C. Other capital		Capital costs not relating to buildings are included in the local authority expenditure figures, so no additional cost has been added for other items such as equipment and durables.
D. Total local authority expenditure (minus capital)	£26 per client attendance	The median cost per client week has been taken from PSS EX1 2013/14 ¹ and uprated using the PSS pay & prices index. Assuming people with mental health problems attend on average 3 times per week (4.1 hours in duration), ² the median cost per day care attendance per day is £26. Capital charges relating to buildings have been deducted.
E. Overheads		Social services management and support services (SSMSS) costs are included in PSS EX1 expenditure figures so no additional overheads have been added.
Use of facility by client		Assumes clients attend 3 times per week. ²
Occupancy		
London multiplier	3.83 x B 1.05 x D	Relative London costs are drawn from the same source as the base data.
Unit costs available 2016/2017		
£34 per client attendance (includes A to D); £8 per client hour; £29 per client session lasting 3.5 hours.		

¹ Health & Social Care Information Centre (2014) *PSS EX1 2013/14*, Health & Social Care Information Centre, Leeds

² Based on research carried out by PSSRU in 2014.

³ Salford City Council (2011) *Mental health*, Salford City Council. <http://www.salford.gov.uk/mentalhealth.htm> [accessed 9 October 2014].

⁴ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

⁵ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

2.5 Behavioural activation delivered by a non-specialist

Behavioural activation (BA) provides a simple, effective treatment for depression which can be delivered in a group setting or to individuals. This schema provides the costs for group-based BA which is delivered over 12 one-hour sessions by two mental health nurses on post-qualification pay bands with no previous formal therapy training. They received 5 days training in BA and 1 hour clinical supervision fortnightly from the principal investigator.¹ Sessions are usually attended by 10 people. Costs are based on Agenda for Change (AFC) band 7, the grade normally used for this service. However, if we base the costs on AFC band 5, the cost per session per person is £11 (£13 with qualifications) and for 12 sessions £127 (£150 with qualifications).¹ Another study² provides information on BA delivered on a one-to-one basis by a grade 5 AFC band mental health nurse. This costs £32 per hour or £59 per hour of face-to-face contact.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£77,602 per year	Based on the mean full-time equivalent basic salary for two mental health nurses on AFC band 7 of the July 2016-June 2017 NHS staff earnings estimates. ³
B. Salary oncosts	£19,644 per year	Employer's national insurance is included plus 14.38 per cent of salary for contribution to superannuation.
C. Qualifications	£20,998 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). ⁴ This cost is for 2 mental health nurses.
D. Training for behavioural activation	£668 per year	Training costs were calculated by facilitators' hourly rate for the duration of the training (35 hours) divided by the number of participants attending (n=10) (£235 per therapist). Supervision costs were based on 1-hour fortnightly contact for 40 weeks (£3,056 per therapist); 12 session behavioural protocol (£228 per therapist). These costs have been annuitised over the working life of the nurse.
E. Overheads		
Management, administration and estates staff	£23,825 per year	Taken from the 2013/14 financial accounts for 10 community trusts. Management and other non-care staff costs were 24.5 per cent of direct care salary costs and included administration and estates staff.
Non-staff	£37,148 per year	Non-staff costs were 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.
F. Capital overheads	£8,534 per year	Based on the new-build and land requirements of NHS facilities (2 offices) but adjusted to reflect shared use of both treatment and non-treatment space. ^{5,6} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
Working time	42 weeks per year 37.5 hours per week	Unit costs are based on 1,573 hours per year: 210 working days minus sickness absence and training/study days as reported for all NHS staff groups. ⁷
Duration of contact		One-hour sessions included direct treatment time of 40-50 minutes and administration.
Unit costs available 2016/2017 (costs including qualifications given in brackets)		
Cost per session per person £16 (£17); Cost per 12 sessions per person £186 (£208)		

¹ Ekers, D., Godfrey, C., Gilbody, S., Parrott, S., Richards, D., Hammond, D. & Hayes, A. (2011) Cost utility of behavioural activation delivered by the non-specialist, *British Journal of Psychology*, 199, 510-511.

² Richards, D., Ekers, D., McMillan, D. Taylor, R., Byford, S., Warren, F., Barrett, B. Farrand, P., Gilbody, S., Kuyken, O'Mahen, H., Watkins, E., Wright, K., Hollon, S., Reed, N., Rhodes, S., Fletcher, E. & Finning, K. (2016) Cost and outcome of behavioural activation versus cognitive behavioural therapy for depression (COBRA): a randomised, controlled, non-inferiority trial, *The Lancet*, 388, 10047, p871-880.

³ NHS Digital (2015) *NHS staff earnings estimates to June 2017* (not publicly available), NHS Digital, Leeds.

⁴ 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.

⁵ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁶ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

⁷ Contracted hours are taken from NHS Careers (2017) *Pay and benefits*, National Health Service, London, <https://www.healthcareers.nhs.uk/about/careers-nhs/nhs-pay-and-benefits> [accessed 9 October 2017]. Working days and sickness absence rates as reported in NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17* [accessed 13 October 2017].

2.6 Deprivation of liberty safeguards in England: implementation costs

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

In 2009, a study was carried out to estimate the costs likely to be incurred with the implementation of the DoLS in England, and data on resource utilisation was collected from professionals conducting the six formal assessments required.¹ These are: age assessment, mental health assessment, mental capacity assessment, best-interest assessment, eligibility assessment and no refusal assessment, the latter of which establishes whether authorisation of deprivation of liberty would conflict with other authorities (for example, power of attorney) for decision-making for that individual.

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

The average cost for a single DoLS assessment across the five DoLS offices was £1,437. The standard deviation around the estimated cost of a single DoLS assessment was £429, and the 95 per cent confidence interval was £553 to £2,238. All costs have been updated to 2014/2015 prices using the appropriate inflators.

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

All assessments include travel time	DoLS office 1	DoLS office 2	DoLS office 3	DoLS office 4	DoLS office 5	Average of the five offices
Assessments by mental health assessor	£512	£233	£596	£296	£254	£378
Assessments by best-interest assessor	£719	£432	£303	£1,052	£586	£619
Secretarial costs	£335	£188	£133	£604	£317	£316
Independent mental capacity advocates assessments	£116	£89	£63	£61	£75	£81
Court protection costs	£44	£44	£44	£44	£44	£44
Total costs	£1,726	£986	£1,139	£2,057	£1,276	£1,438

¹ Shah, A., Pennington, M., Heginbotham, C. & Donaldson, C. (2011) Deprivation of liberty safeguards in England: implementation costs, *British Journal of Psychiatry*, 199, 232-238.

2.7 Mindfulness-based cognitive therapy – group-based intervention

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

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

A study by Geoffrey Hammond and colleagues (2012)² compared the costs of providing cognitive therapies delivered face-to-face and over the telephone. In this study, the mean session cost of a session over the telephone was £79.20 compared with £119 face-to-face at 2009/2010 prices. At current prices, these costs are £89 and £134 respectively.

Costs and unit estimation	Unit cost 2016/2017	Notes
A. Wages/salary	£38,412 per year	Based on the mean full-time equivalent basic salary for Agenda for Change band 7 of the July 2016-June 2017 NHS staff earnings estimates. ³ See section V for further information on salaries.
B. Salary oncosts	£9,712 per year	Employer's national insurance is included plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Qualifications		No information available
D. Overheads		Taken from the 2013/14 financial accounts for 10 community trusts.
Management, administration and estates staff	£11,790 per year	Management and other non-care staff costs were 24.5 per cent of direct care salary costs and included administration and estates staff.
Non-staff	£18,384 per year	Non-staff costs were 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.
E. Capital overheads	£4,999 per year	Based on the new-build requirements of NHS facilities, but adjusted to reflect shared use of both treatment and non-treatment space. ^{4,5}
Working time	42.4 weeks per year 37.5 hours per week	Unit costs are based on 1,590 hours per year: 225 working days minus sickness absence and training/study days as reported for all NHS staff groups. ⁶
Face-to-face time	1:0.67	Based on data from the 3 MBCT therapists who took part in the study.
Length of sessions	2 hours	Therapy sessions lasted 2 hours with 12 people attending each session.
Unit costs available 2016/2017		
£52 per hour, £88 per hour of direct contact, £175 per session, £15 per service user.		

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

² Hammond, G., Croudace, T., Radhakrishnan, M., Lafortune, L., Watson, A., McMillan-Shields, F. & Jones, P. (2012) Comparative Effectiveness of Cognitive Therapies, *PLoS ONE*, 7,9, e42916. <http://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0042916&type=printable>.

³ NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

⁴ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁵ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

⁶ Contracted hours are taken from NHS Careers (2017) *Pay and benefits*, National Health Service, London. <http://www.nhs.gov.uk/working-in-the-nhs/pay-and-benefits/> [accessed 9 October 2017]. Working days and sickness absence rates as reported in NHS Digital (2016) *Sickness absence rates in the NHS: April 2011 – April 2016*, NHS Digital, Leeds.

2.8 Interventions for mental health promotion and mental illness prevention

Information has been drawn from Knapp et al. (2011)¹ and explores the economic case for mental health promotion and prevention, based on a detailed analysis of costs and benefits for 15 different interventions. All costs have been updated using the appropriate inflators.

The full report can be downloaded at:

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_126085/.

Parenting interventions for the prevention of persistent conduct disorders

Context: Conduct disorders are the most common childhood psychiatric disorders, with a UK prevalence of 4.9 per cent for children aged 5-10 years. The condition leads to adulthood anti-social personality disorder in about 50 per cent of cases, and is associated with a wide range of adverse long-term outcomes, particularly delinquency and criminality. The costs to society are high, with average potential savings from early intervention previously estimated at £150,000 (2011 prices) per case.

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

Cost: The median cost of an 8-12 week group-based parenting programme is estimated at £1,091 per family, while that of individual interventions is £2,382. Assuming 80 per cent of people receive group-based interventions and 20 per cent individual interventions, in line with NICE guidance, the average cost of the intervention can be estimated at £1,349 per family.

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

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

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

Cost: The costs of a representative intervention, including teacher training, programme co-ordinator and materials, were estimated at £151 per child per year at current prices.

School-based interventions to reduce bullying

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

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

Cost: Information is limited on the cost of anti-bullying programmes, but one study estimates this at £19 per pupil per year at current prices.

¹ Knapp, M., McDaid, D. & Parsonage, M. (2011) *Mental health promotion and mental illness prevention: the economic case*, Department of Health, London.

² Ofsted (2008) *Children on bullying*, Ofsted, <http://www.ofsted.gov.uk/resources/children-bullying> [accessed 9 October 2014].

Early detection for psychosis

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

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

Cost: One year of an early detection intervention has been estimated to cost £3,380 per patient, compared with £852 for standard care (2009 prices).

Early intervention for psychosis

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

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

Cost: The annual direct cost per patient of this type of service, plus other community psychiatric services and inpatient care, has been estimated at £12,298 at current prices. The first year of the early intervention team's input is estimated to cost £2,568 per patient.

Screening and brief intervention in primary care for alcohol misuse

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

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

Cost: The total cost of the intervention averaged over all those screened was £20 at current prices.

Workplace screening for depression and anxiety disorders

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

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

Cost: It is estimated that £36 covers the cost of facilitating the completion of the screening questionnaire, follow-up assessment to confirm depression, and care management costs. For those identified as being at risk, the authors estimated that the cost of six sessions of face-to-face CBT is £280.

Promoting well-being in the workplace

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

Intervention: There are a wide range of approaches: flexible working arrangements; career progression opportunities; ergonomics and environment; stress audits; and improved recognition of risk factors for poor mental health by line

managers. A multi-component health promotion intervention consists of personalised health and well-being information and advice; a health-risk appraisal questionnaire; access to a tailored health-improvement web portal; wellness literature, and seminars and workshops focused on identified wellness issues.

Cost: The cost of a multi-component intervention is estimated at £93 per employee per year.

Debt and mental health

Context: Only about half of all people with debt problems seek advice, and without intervention almost two-thirds of people with unmanageable debt problems will still face such problems 12 months later. Research has demonstrated a link between debt and mental health. On average, the lost employment costs of each case of poor mental health are £12,866 per year, while the annual costs of health and social service use are £1,697.

Intervention: Current evidence suggests that there is potential for debt advice interventions to alleviate financial debt, and hence reduce mental health problems resulting from debt. For the general population, contact with face-to-face advice services is associated with a 56 per cent likelihood of debt becoming manageable, while telephone services achieve 47 per cent.

Cost: The costs of this type of intervention vary significantly, depending on whether it is through face-to-face, telephone or internet-based services. The Department for Business, Innovation and Skills suggests expenditure of £292 per client for face-face-debt advice; telephone and internet-based services are cheaper.

Population-level suicide awareness training and intervention

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

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

Cost: The authors estimated that a course of CBT in the first year costs around £450 per person. Further ongoing pharmaceutical and psychological therapy is estimated to cost £1,330 a year. The cost of suicide prevention training for GPs, based on the Applied Suicide Intervention Skills Training (ASIST) course, is £225.

Bridge safety measures for suicide prevention

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

Intervention and cost: Following the installation of a safety barrier in 1998, at a cost of £337,639 at current prices, the number of suicides reduced from an average of 8.2 per year in the five years before the barrier, to 4 per year in the five years after it was installed.

Collaborative care for depression in individuals with Type II diabetes

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

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

Cost: It is estimated that the total cost of six months of collaborative care is £768, compared with £389 for usual care.

Tackling medically unexplained symptoms

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

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

Cost: A course of CBT may last for 10 sessions at £99 per session. Costs are associated with the need to raise the awareness of GPs to the potential role of CBT treatment for somatoform conditions, either through e-learning or face-to-face training.

Befriending older adults

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

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

Cost: The contact is generally for an hour per week or fortnight. The cost to public services of 12 hours of befriending contact is estimated at £97, based on the lower end of the cost range for befriending interventions.

2.9 Lifetime costs of perinatal depression

The World Health Organisation recognises perinatal mental health as a major public health issue; at least one in ten women has a serious mental health problem during pregnancy or in the year after birth (WHO, 2014¹). The pre-and post-natal periods have a significant impact on future physical, mental and cognitive development of offspring: children of mothers with perinatal mental illness are exposed to higher risks of low birth-weight, reduced child growth, intellectual behavioural and socio-emotional problems. Research carried out at PSSRU at LSE estimated the total lifetime costs of perinatal anxiety and depression (see Bauer & colleagues, 2016)².

This study has used a decision-modelling approach, based on data from previous longitudinal studies to determine incremental costs associated with adverse effects, discounted to present value at time of birth. These costs are summarised in schema 2.10 and 2.11 and have been updated from 2012/13 values to current prices. Estimates for the impact on mothers were based on mean probabilities of developing perinatal depression, its persistence in subsequent years, annual costs of health and social care and health disutility for people with depression in the general population. Work days lost were calculated, distinguishing again between remitted and non-depression. Data on costs, health disutility and work days lost, all referred to the general adult population with depression. Estimates for impact on children were based on mean probabilities that children exposed to perinatal depression developed adverse outcomes (emotional, behavioural and physical health problems), and evidence of long-term economic consequences linked to such outcomes. Economic consequences referred to additional use of health and social care, education and criminal justice services and wider societal costs such as productivity losses and health-related quality of life losses out-of-pocket expenditure.

Public sector costs	Perinatal depression		Notes
	Mother	Child	
Health and Social Care	£1,769	£2,979	The child's health and social care costs related in similar proportions to pre-term birth, emotional problems and conduct problems.
Education	£0	£4,169	85 per cent of education costs are a result of conduct problems, with the remainder due to emotional problems.
Criminal	£0	£2,198	All child criminal justice costs were incurred because of conduct problems.
Subtotal public sector costs	£1,769	£9,346	All mother's public sector cost relate to health and social care expenditure. Seventy per cent of the child's public sector costs relate to conduct problems.
Wider societal perspective costs	Perinatal depression Mother	Perinatal depression Child	
Productivity losses	£3,371	£6,303	42 per cent of child productivity losses are related to emotional problems.
Health-related quality of life losses	£19,108	£9,742	84 per cent of the mother's costs to the wider perspective are due to health related quality of life. These costs form 73 per cent of total costs.
Lost life	£308	£24,670	Based on the mean probability of postnatal depression and risk to sudden death for infants of mothers who suffered from post-natal depression.
Out-of-pocket	£0	£16	
Victim of crime	£0	£7,836	12 per cent of total child costs are related to becoming a victim of crime.
Total wider societal perspective costs	£22,788	£48,567	Costs to the wider perspective for mother and child were £71,355.
Grand total	£24,557	£57,913	Mother and child costs of perinatal depression totalled £78,907. 42 per cent of child problems relate to loss of life, 35 per cent to conduct problems, 19 per cent to emotional problems and 6 per cent to pre-term birth and special educational needs.

¹ World Health Organisation (2014) *Social determinants of mental health*, World Health Organisation and Calouste Gulbenkian Foundation, Geneva.

² Bauer, A., Knapp, M., & Parsonage, M. (2016) Lifetime costs of perinatal anxiety and depression, *Journal of Affective Disorders*, 192, 83-90. http://eprints.lse.ac.uk/64685/2/Bauer_Lifetime%20costs_2015.pdf [accessed 17 October 2017].

2.10 Lifetime costs of perinatal anxiety

The World Health Organisation recognises perinatal mental health as a major public health issue; at least one in ten women has a serious mental health problem during pregnancy or in the year after birth (WHO, 2014¹). The pre-and post-natal periods have a significant impact on future physical, mental and cognitive development of offspring: children of mothers with perinatal mental illness are exposed to higher risks of low birth-weight, reduced child growth, intellectual behavioural and socio-emotional problems. Research carried out at PSSRU at LSE estimated the total lifetime costs of perinatal anxiety and depression (see Bauer & colleagues, 2016)².

This study has used a decision-modelling approach, based on data from previous studies to determine incremental costs associated with adverse effects, discounted to present value at time of birth. These costs are summarised in schema 2.10 and 2.11 and have been updated from 2012/13 values to current prices. Estimates were based on mean probabilities of developing perinatal anxiety (without co-existing depression), its persistence in subsequent years, annual costs of health and social care and health disutility for people with anxiety disorder in the general population. Work days lost were calculated distinguishing again between remitted and non-remitted anxiety. Data on costs, health disutility and work days lost all referred to the general adult population with anxiety. Potential life years lost due to anxiety-caused suicide were not valued. Estimates for impact on children were based on mean probabilities that children exposed to perinatal anxiety developed adverse outcomes (emotional, behavioural and physical health problems), and evidence of long-term economic consequences linked to such outcomes. Economic consequences referred to additional use of health and social care, education and criminal justice services and wider societal costs such as productivity losses and health related quality of life losses out-of-pocket expenditure.

Public sector costs	Perinatal anxiety		Notes
	Mother	Child	
Health and Social Care	£4,844	£4,709	20 per cent/32 per cent of the mother/child's costs were associated with health and social care expenditure.
Education	£0	£346	Over half of child education costs were associated with conduct problems, with a smaller amount associated with chronic abdominal pain.
Criminal	£0	£587	
Public sector costs	£4,844	£5,643	All mother's public sector costs relate to health and social care expenditure.
Wider societal perspective			
Productivity losses	£6,123	£1,935	Productivity losses account for 28 per cent of total mother costs and 13 per cent of child costs.
Health-related quality of life losses	£11,549	£2,672	Health-related quality of life losses were the largest share of total expenditure for the mother.
Out-of-pocket expenditure		£424	
Unpaid care		£2,107	Chronic abdominal pain was associated with unpaid care costs.
Victim of crime		£2,344	Conduct problems were associated with victim of crime costs.
Wider societal perspective costs	£17,672	£9,482	Costs to the wider societal perspective for mother and child were £27,154 and accounted for 72 per cent of total costs.
Grand total	£22,516	£15,124	Mother and child costs totalled £37,640.

¹ World Health Organisation (2014) Social determinants of mental health, World Health Organisation and Calouste Gulbenkian Foundation, Geneva.

² Bauer, A., Knapp, M., & Parsonage, M. (2016) Lifetime costs of perinatal anxiety and depression, *Journal of Affective Disorders*, 192. pp. 83-90. ISSN 0165-0327, http://eprints.lse.ac.uk/64685/2/Bauer_Lifetime%20costs_2015.pdf [accessed 17 October 2017].

3. Services for people who misuse drugs or alcohol

3.1 Residential rehabilitation for people who misuse drugs or alcohol

3.2 Inpatient detoxification for people who misuse drugs or alcohol

3.3 Specialist prescribing

3.4 Alcohol health worker/Alcohol liaison nurse/Substance misuse nurse

Services for people who misuse drugs or alcohol

Using data from the NHS reference costs 2015/16,¹ the mean average cost for an outpatient attendance (adult) is estimated to be £128 and for a community contact (adult) for drug services £134. Admitted patient stays for rehabilitating adults cost on average £470 for alcohol services (range: £298-£590). These costs have been uprated using the Hospital and Community Health Services (HCHS) inflator.

In 2014-15, 295,224 individuals were in contact with drug and alcohol services. The average age of people in treatment is rising. These people require a wide range of support, including social care. The number of people presenting for alcohol problems in 2014-15 was 150,640. Of these, 89,107 were treated for problematic drinking alone, and 61,533 for alcohol alongside other substances. While the overall numbers accessing treatment for alcohol have increased by 3 per cent since 2009-2010 (86,385 to 88,904), the number aged 40 and over accessing services has risen by 21 per cent, and the number aged 50 and over by 44 per cent. See *Adult Substance Misuse Statistics from the National Drug Treatment Monitoring System (NDTMS)* for more details on the prevalence of people who misuse drugs or alcohol.²

The information presented in schema 3.1 to 3.3 was provided by the National Treatment Agency³ and gives the unit costs of three treatment interventions: (a) residential rehabilitation, (b) inpatient detoxification and (c) specialist prescribing. These interventions are described fully in *Business Definition for Adult Drug Treatment Providers* (National Treatment Agency, 2010)⁴ and on the National Treatment Agency for Substance Misuse website, www.nta.nhs.uk.

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

¹ Department of Health (2016) *NHS reference costs 2015-2016*, Department of Health, London. <https://www.gov.uk/government/publications/nhs-reference-costs-2014-to-2015> [accessed 10 October 2016].

² Public Health England (2015) *Adult substance misuse statistics from the National Drug Treatment System (NDTMS)*, Department of Health, London. <http://www.nta.nhs.uk/uploads/adult-statistics-from-the-national-drug-treatment-monitoring-system-2014-2015.pdf>.

³ Personal communication with the National Treatment Agency, 2010.

⁴ National Treatment Agency for Substance Misuse (2010) *NDTMS dataset G, definition, business definition for adult drug treatment providers*, <http://www.nta.nhs.uk/core-data-set.aspx/> [accessed 9 October 2014].

3.1 Residential rehabilitation for people who misuse drugs or alcohol

Residential rehabilitation consists of a range of treatment delivery models or programmes to address drug and alcohol misuse, including abstinence-orientated drug interventions within the context of residential accommodation. Other examples include inpatient treatment for the pharmacological management of substance misuse, and therapeutic residential services designed to address adolescent substance misuse.

Information has been drawn from a sample of 34 residential rehabilitation programmes to produce a unit cost per resident week of £688 at 2016/17 prices. The Gross Domestic Product (GDP) index has been used to uprate from 2007/08 prices, as suggested by the NTA. It was not possible to provide details of costs for this service due to the method of data collection.

3.2 Inpatient detoxification for people who misuse drugs or alcohol

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

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

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

Based on information provided by the National Treatment Agency in 2010, the average cost for inpatient detoxification (NHS and voluntary organisations) is £154 per patient day, which is equivalent to £1,076 per patient week.

Costs and unit estimation	2016/2017 value	Notes
A. Direct pay	£89 per patient day	Salaries plus oncosts for care staff.
B. Direct overheads	£17 per patient day	Includes drugs, pharmacy and dispensing costs. Also includes other treatment materials, toxicology and drug testing, medical supplies, rent and rates, staff travel, training, service user travel costs, volunteer expenses, contingency management, office costs specifically attributed to the provision of the service and non-pay administration (for example, telephones and information technology).
C. Indirect costs and overheads	£49 per patient day	Includes capital charges, expenditure on refurbishment, property and buildings, housekeeping, catering, portage, transport, waste disposal, security, finance, human resources, personnel, communications and corporate charges.
Unit costs available 2016/2017		
£154 per patient day or £1,076 per patient week		

¹ National Treatment Agency for Substance Misuse (2010) *NDTMS dataset G, definition, business definition for adult drug treatment providers*, <http://www.nta.nhs.uk/core-data-set.aspx> [accessed 9 October 2014].

3.3 Specialist prescribing

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

The teams include specialist doctors who are usually consultant addiction psychiatrists 'with a Certificate of Completion of Training (CCT) in psychiatry, with endorsement in substance misuse working exclusively to provide a full range of services to substance misusers'. See *Business Definition for Adult Drug Treatment Providers*¹ for more detailed information on this intervention.

Based on information provided by the National Treatment Agency,² the average cost for specialist prescribing is £56 per patient week. All costs have been updated from 2007/08 using the Gross Domestic Product (GDP) index, as suggested by the NTA.

NHS reference costs show that the mean cost per client contact in a NHS and PCT combined drugs and alcohol mental health team was £126 per face-to-face contact and £54 per non-face-to-face contact. These costs have been updated from reference costs 2015-2016³ (no later costs are reported) using the Hospital and Community Health Services (HCHS) inflator.

Costs and unit estimation	2016/2017 value	Notes
A. Direct pay	£27 per patient week	Salaries plus oncosts for care staff.
B. Direct overheads	£19 per patient week	Includes drugs, pharmacy and dispensing costs. Also includes other treatment materials, toxicology and drug testing, medical supplies, rent and rates, staff travel, training, service user travel costs, volunteer expenses, contingency management, office costs specifically attributed to the provision of the service, non-pay administration (for example, telephones and information technology).
C. Indirect costs and overheads	£10 per patient week	Includes capital charges, capital on refurbishment, property and buildings, housekeeping, catering, portering, transport, waste disposal, security, finance, human resources, personnel, communications and corporate charges.
Unit costs available 2016/2017		
£56 per patient week		

¹ National Treatment Agency for Substance Misuse (2010) *NDTMS dataset G, definition, business definition for adult drug treatment providers*, <http://www.nta.nhs.uk/core-data-set.aspx> [accessed 9 October 2014].

² Personal communication with the National Treatment Agency, 2010.

³ Department of Health (2016) *NHS reference costs 2015-2016*, Department of Health, London. <https://www.gov.uk/government/publications/nhs-reference-costs-2015-to-2016> [accessed 10 October 2017].

3.4 Alcohol health worker/Alcohol liaison nurse/Substance misuse nurse

In the majority of hospitals, alcohol health workers are qualified nurses: however, they can also be staff with alternative qualifications (NVQ in health and social care, counselling skills) or experience in substance misuse. They work predominantly in non-emergency admission units followed by A&E, specialist gastroenterology/liver wards, and general medical wards.¹

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£32,342 per year	Based on the mean full-time equivalent basic salary for Agenda for Change band 6 of the July 2016-June 2017. ² See <i>NHS terms and conditions of service handbook</i> for information on payment for unsocial hours and shift work. ³ See section V for further information on salaries.
B. Salary oncosts	£8,002 per year	Employer's national insurance contribution is included, plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Qualifications	£10,499 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). ⁴ Current cost information has been provided by the Department of Health and Health Education England (HEE). ⁵ It has been assumed that this health worker requires the same qualifications as a staff nurse/ward manager.
D. Overheads		<p>Taken from <i>NHS foundation trusts accounts: consolidated (FTC) files 2014/15</i>.⁶</p> <p>Management, administration and estates staff £9,763 per year</p> <p>Non-staff £17,388 per year</p> <p>Management and other non-care staff costs were 24.2 per cent of direct care salary costs and included administration and estates staff.</p> <p>Non-staff costs were 43.1 per cent of direct care salary costs. They include costs to the provider for drugs, office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), utilities such as water as well as gas and electricity.</p>
E. Capital overheads	£3,327 per year	Based on the new-build and land requirements of NHS facilities, but adjusted to reflect shared office space for administration, and recreational and changing facilities. ^{7,8} Treatment space has not been included.
Working time	41.7 weeks per year 37.5 hours per week	Unit costs are based on 1,565 hours per year: 225 working days minus sickness absence and training/study days as reported for all NHS staff groups. ⁹
Ratio of direct to indirect time on: clinic contacts		No current information available. See previous editions of this volume for sources of information.
Length of contact		
Unit costs available 2016/2017 (costs including qualifications given in brackets)		
£45 (£50) per hour of clinic consultation		

¹ Baker, S., & Lloyd, C. (2012) *A national study of acute care Alcohol Health Workers*, Alcohol Research UK. http://alcoholresearchuk.org/downloads/finalReports/FinalReport_0115.pdf.

² NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

³ NHS Employers (2016) *NHS Terms and Conditions of Service Handbook (Agenda for Change)*, <http://www.nhsemployers.org/your-workforce/pay-and-reward/nhs-terms-and-conditions/nhs-terms-and-conditions-of-service-handbook>.

⁴ 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.

⁵ Personal communication with the Department of Health and Health Education England (HEE), 2014.

⁶ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415>.

⁷ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

⁸ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁹ Contracted hours are taken from NHS Careers (2017) *Pay and benefits*, National Health Service, London. <https://www.healthcareers.nhs.uk/about/working-health/pay-and-benefits/> [accessed 9 October 2017]. Training days as recommended by professional bodies. Working days and sickness absence rates as reported in NHS Digital (2016) *Sickness absence rates in the NHS: April 2011 – April 2016*, NHS Digital, Leeds.

4. Services for people requiring learning disability support

- 4.1 Local authority own-provision day care for people requiring learning disability support
- 4.2 Advocacy for parents requiring learning disability support
- 4.3 Residential care homes for people requiring learning disability support
- 4.4 Care homes for adults with autism and complex needs

4.1 Local authority own-provision day care for people requiring learning disability support

As day care expenditure is now combined with other expenditure in the ASC-FR data collection,¹ this table uses the Personal Social Services Expenditure return (PSS EX1)² for 2013/14 for expenditure costs, which have been uprated using the PSS pay & prices inflator. The median cost was £327 per client week and the mean cost was £340 per client week (including capital costs). These data do not report on the number of sessions clients attended each week.

To determine the best unit of activity, we submitted a Freedom of Information request to ask local authorities the duration of a 'unit of activity' and to provide approximate guidance on how many times a week clients attend.

Based on information provided by ten local authorities,³ we have calculated an average cost per client attendance and also a cost per client hour. We have then used this information to calculate the cost of a client session lasting 3.5 hours, which is a typical standard unit of day care for most local authorities responding to our information request.

Costs and unit estimation	2016/2017 value	Notes
Capital costs		
A. Buildings and oncosts	£6.00 per client attendance	Based on the new-build and land requirements for local authority day care facilities (which do not distinguish client group). Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years. ⁴
B. Land	£2.40 per client attendance	Based on Department for Communities and Local Government land estimates. ⁵ The cost of land has been annuitised at 3.5 per cent over 60 years, declining to 3 per cent after 30 years.
C. Other capital		Capital costs not relating to buildings and oncosts are included in the revenue costs so no additional cost has been added for other capital such as equipment and durables.
D. Total local authority expenditure (minus capital)	£77 per client attendance	The median cost per client week has been taken from PSS EX1 2013/14 ¹ and uprated using the PSS pay & prices index. Assuming people requiring learning disability support attend on average 4.8 times per week (4 hours in duration), ² the mean cost per day care attendance is £78. Capital charges relating to buildings have been deducted. Councils reporting costs of over £2,000 per client week have not been included in this estimate.
E. Overheads		Social services management and support services (SSMSS) costs are included in PSS EX1 expenditure figures so no additional overheads have been added.
Use of facility by client		Assumes clients attend 4.8 times per week. ²
Occupancy		No current information is available.
London multiplier	1.5 x (A) 3.83 x (B) 1.42 x (D to E)	Relative London costs are drawn from the same source as the base data for each cost element. ^{1,4,5}
Unit costs available 2016/2017		
£85 per client attendance (includes A to D); £18 per client hour; £62 per client session lasting 3.5 hours.		

¹ NHS Digital (2016) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital, Leeds. <http://www.content.digital.nhs.uk/catalogue/PUB22240> [accessed 28 November 2016].

² Health & Social Care Information Centre (2014) *PSS EX1 2013/14*, Health & Social Care Information Centre, Leeds.

³ Based on research carried out by PSSRU in 2014.

⁴ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁵ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

4.2 Advocacy for parents requiring learning disability support

Advocacy can help service users both to understand their rights and choices and also to support them in resolving issues of great significance to their lives. We have drawn on an article by Bauer et al. (2014)¹ for the costs of providing an advocate for parents with learning disabilities and at risk of having their children taken into care. Based on information provided by two of the four projects and taking mid-points of salary ranges provided, combined with routine data and assumptions made for staff employed by local authorities, the mean cost of an advocacy intervention consuming 95 hours of client-related work (including one-to-one sessions, external meetings, but excluding travel and training costs) was £4,753. Information on the wider costs and benefits of advocacy and early intervention signposted or referred to by the advocate can be found in the referenced paper (Bauer et al., 2014).¹

The costs below are based on the average of two advocacy projects. The first is in rural and urban parts of the country where most service users are in areas of deprivation; and the second in urban regions with large areas of poverty and child protection issues.

Costs and unit estimation	2016/2017 value	Notes (for further clarification see Commentary)
A. Wages/salary	£37,489 per year	Project A: Two part-time advocates (salary range £20,000-£25,000); Project B: Eighty per cent of a service manager (salary range £29,604-£31,766), plus one part-time (3.5 hours per week) advocate (salary range £26,401-£28,031).
B. Salary oncosts	£9,372 per year	Employer's national insurance is included plus 17 per cent of salary for employer's contribution to superannuation.
C. Overheads Management/supervision	£6,905 per year	Project A: supervision from a service manager for 2 hours per month (24 hours per year) Project B: service manager is provided with 4 hours formal supervision and 20 hours informal supervision per month (288 hours per year). Advocate has 3 hours formal and 3 hours informal supervision by manager per month (72 hours per year). Premises costs (office, stationery, utilities etc.) are estimated at 7 per cent of salary costs. ²
Direct overheads	£3,277 per year	Indirect overheads assumed to be 16 per cent of direct care salary costs. ² They include general management and support services such as finance and human resource departments.
Indirect overheads	£7,489 per year	
D. Qualifications	No costs available	Project A: advocates required 20 hours of national advocacy training. Project B: NVQ level 4 management and national advocacy qualification required.
E. Training	No costs available	Project A: further training consisted of 8 hours by Family Rights Group plus additional training to individual requirements. Project B: 5 days per year provided by a range of safeguarding, advocacy, legal and community organisations.
F. Capital overheads	£3,201 per year	It is assumed that one office is used and costs are based on the new-build and land requirements of a local office and shared facilities for waiting, interviews and clerical support. Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
G. Travel	No costs available	Project A: average travel time per intervention = 70 minutes, range (40-120 minutes) Project B: average travel time = 15 minutes.
Working time	41 weeks per year 37 hours per week	Includes 29 days annual leave and 8 statutory leave days. Ten days for study/training and 8.5 days sickness leave have been assumed based on the median average sickness absence level in England for all authorities. ³ Unit costs assume 1,513 working hours.
Ratio of direct to indirect time on client-related work	1:0.13	1,344 hours of client-related work are assumed per year. ¹
Caseload		Project A: Caseload of 8-10 parents. Project B: 10 families.
Time per case	95 hours of client related work.	On average, an advocacy intervention consisted of 95 hours of client-related work (one-to-one sessions, external meetings travelling and preparation time) provided over a 10-month period. Face-to-face time ranged from 3 to 68 hours.
Unit costs available 2016/2017		
Average cost per working hour £30, average cost per client-related hour £50. (Estimates exclude travel costs). Average total cost £67,683; Total cost for project A: £39,815; Total cost for project B: £95,552. Average cost per advocacy intervention (based on 95 hours); £4,784 (Project A £2,814 and Project B £6,754).		

¹ Bauer, A., Wistow, G., Dixon, J. & Knapp, M. (2014) Investing in advocacy for parents with learning disabilities: what is the economic argument? *British Journal of Learning Disabilities*, doi: 10.1111/bld.12089.

² Based on information taken from Selwyn, J., Sempik, J., Thurston, P. & Wijedasa, D. (2009) *Adoption and the inter-agency fee*, University of Bristol, Bristol; and Glendinning, C. et al. (2010). Home care re-ablement services: Investigating the longer-term impacts, Final Report, University of York, PSSRU Kent, Department of Health, London.

³ Skills for Care (2017) *Adult social care workforce estimates*, March 2017, <https://www.nmds-sc-online.org.uk/content/view.aspx?id=Adult Social Care Workforce Reports> [accessed 17 October 2017].

4.3 Residential care homes for adults requiring learning disability support

The following schema draw on research carried out by Laing & Buisson¹ and commissioned by the Department of Health. They provide illustrative cost models in learning disabilities social care provision, first for residential care homes and then for supported living schemes. Using Adult Social Care Finance Returns (ASC-FR)² for 2016/17, the median cost per person for adults (18 to 64) requiring learning disability support in long-term residential care was £1,434 per week and the mean cost was £1,436 per week [using unique identifiers: 8712401 (numerator in thousands of pounds), 8712402 (denominator)].

4.3.1 Residential care homes

The table below provides examples of high-specification care homes in the South East of England, one with 4 bedrooms and one with 8 bedrooms. Twenty four-hour support is provided in both houses; they are well equipped and include en suite bath or shower rooms and good communal spaces. The average fee paid for a place in the 4-bedroom house is £2,098 per week and is £1,832 for a place in the 8-bedroom house.

Costs and unit estimation	2016/17			
	4-bed house	Notes	8-bed house	Notes
Staff costs				
Salaries	£221,018	Based on approximately 7.5 FTE staff providing 257 hours of support per week plus 1 waking night staff member and an additional sleep-in support staff member. There is also a full-time manager earning £29,686 per year.	£320,098	Based on approximately 12.4 FTE staff providing 427 hours of support per week plus 1 waking night staff member (2 additional FTEs to cover the full week). There is also a full-time manager earning £37,108 per year plus one additional deputy manager.
Training	£6,615		£7,167	
Staff overheads	£7,608		£22,493	
Capital costs				
Building	£23,890	The purchase price of the building was £610,760. This has been annuitised over 60 years at 3.5 per cent, declining to 3 per cent after 30 years. Major adaptations cost £244,304. This amount has been annuitised over 60 years at 3.5 per cent, declining to 3 per cent after 30 years.	£33,446	The purchase price of the building was £884,821. This has been annuitised over 60 years at 3.5 per cent, declining to 3 per cent after 30 years. Major adaptations cost £505,611. This amount has been annuitised over 60 years at 3.5 per cent, declining to 3 per cent after 30 years.
Equipment	£9,555		£19,112	
Living expenses				
Personal living expenses	£27,726	Living expenses per person per week cover £49 food, £49 travel, £25 service user activities and £7 for holidays.	£50,172	Living expenses per person per week cover £50 food, £50 travel, £26 service user activities and £7 for holidays.
Utilities	£7,922		£15,844	
Direct overheads				
Maintenance/service	£30,896	Includes the costs of boiler and other equipment maintenance, cleaning materials, maintenance staff costs, and damages and breakages.	£51,230	Includes the costs of boiler and other equipment maintenance, cleaning materials, maintenance staff costs, and damages and breakages.
Indirect overheads				
Head office costs	£19,295	Head office costs are charged at £92 per person per week, on the basis of full occupancy.	£38,592	Head office costs are charged at £92 per person per week, on the basis of full occupancy.
Total cost per year	£354,528		£558,153	
Total cost per person per year	£88,632		£69,769	
Total cost per person per week	£1,699		£1,337	

¹ Laing & Buisson (2011) *Illustrative cost models in learning disabilities social care provision*, Laing & Buisson, London.

² Calculated using NHS Digital (2017) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital, Leeds. <http://digital.nhs.uk/catalogue/PUB30102> [accessed 30 November 2017], in collaboration with the Department of Health.

4.3.2 Supported living homes

The weekly unit costs per service user for both homes in this table are similar. Both homes support service users with, on average, the same level of needs for support hours, although there are some offsetting differences: in particular, staff costs are higher at the two-bedded home, but the manager costs are lower, reflecting input of only five hours a week for both services (i.e. 2.5 hours per service user).¹

Costs and unit estimation	This example is of a two-bedded supported living home in the North West of England, using budgeted costs (average of 94 hours of support)		This example is of a three-bedded supported living home in the North West of England, using budgeted costs (average of 85.7 hours of support)	
Income	Per person fee/cost per week (including oncosts)	2 residents Total per year	Per person fee/cost per week (including oncosts)	3 residents Total per year
INCOME				
Fees	£963	£100,200	£963	£150,300
COSTS				
Direct staff costs				
Senior support staff	£225	£23,390	£282	£44,112
Support staff	£384	£40,008	£312	£49,271
Sub-total	£609	£63,398	£594	£93,383
Waking nights				
Sleep-in staff	£117	£11,578	£74	£11,578
Manager	£41	£4,199	£95	£14,955
Sub-total	£158	£15,777	£169	£26,533
Recruitment	£5	£531	£5	£770
Training	£12	£1,378	£12	£2,121
Other staff overheads	£16	£1,759	£21	£3,092
Total staff support costs	£800	£82,843	£800	£125,899
Total costs (excluding management costs)	£1,567	£162,018	£1,563	£245,315
Management costs-area, division, central	£124	£13,665	£132	£20,690

¹ Laing & Buisson (2011) *Illustrative cost models in learning disabilities social care provision*, Laing & Buisson, London.

4.4 Care homes for adults with autism and complex needs

4.4.1 Supported living homes

This schema was prepared in 2017, in collaboration with the Autism Alliance <http://autism-alliance.org.uk/about-us/the-alliance>, a major UK network of specialist autism charities supporting thousands of people with autism and complex needs. When interpreting the costs, it should be taken into account that these clients have very specific needs, resulting in the necessity for a high level of staff support (usually one-to-one) and more specialist staff training and therefore higher salaries.

Costs and unit estimation	This example is the average of 13 adults with autism and complex needs living in their own rented accommodation. The average hours are 86.75 per person per week. Some of these people share communal facilities in addition to their self-contained flats. Actual hours of support vary from 175 per week to 16 per week.	
Income	Per person fee/cost per week (including oncosts)	Total for all residents
Income		
Fees	£1,515	£1,024,133
Costs		
Senior support staff	944	£637,932
Sub-total	£944	£637,932
Waking nights	£32	£21,420
Sleep in staff	£24	£16,567
Manager	£116	£78,120
Sub-total	£172	£116,107
Recruitment	£9.70	£6,577
Training	£9.20	£6,246
Other staff overheads	£32.50	£21,982
Total staff support costs	£51.40	£34,805
Total costs (excluding management costs)	£1,167.40	£788,844
Management costs – Area and Central	£295	£199,123

4.4.2 Residential care homes for adults with autism and complex needs

This schema was prepared in 2015, in collaboration with three members of the Autism Alliance <http://autism-alliance.org.uk/about-us/the-alliance>, a major UK network of specialist autism charities supporting thousands of people with autism and complex needs. The annual cost per client year has been calculated by taking an average of the per client figures from the three participating agencies. Costs have been updated using the PSS inflators and the Retail Price Index.

When interpreting the costs, it should be taken into account that these clients have very specific needs, resulting in the necessity for a high level of staff support (usually one-to-one) and more specialist staff training and therefore higher salaries. There is also a need for specialist professionals, such as behavioural specialists and psychologists, and speech and language therapists who provide support in response to urgent need and fulfil a function that a LA specialist would be unable to meet. Given that the clients often display challenging behaviour, there is more staff sickness together with additional costs associated with furniture and equipment and the need to recruit specialists. The people these organisations support have problems sharing space, and therefore a cost associated with environment and, specifically, space has to be factored in. The people in question will have specific demands on transport and the costs associated with transport, specialist diets, clothing and bedding. In addition, there must be consideration for the type of activities and specific interests that the person will regularly demand, and the associated costs.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£46,340 per client year	Based on actual salaries of care staff, including support workers, service coordinators, team leaders, waking-night support and sleep-in workers. Therapists are included in this cost (includes positive behaviour and communication therapists).
B. Salary oncosts	£6,601 per client year	Employer's national insurance contribution plus employer's contribution to superannuation.
C. Direct overheads Management and supervision	£9,937 per client year	Support staff and management including administrators, cooks and managers. Staff costs were 19 per cent of direct care salary costs.
Non-staff	£11,325 per client year	Non-staff overheads form in total 21 per cent of direct care salary costs. They include training (2%), supplies and services (5%), maintenance (4%), utilities (3%), staff travel (0.1%), rent (5%) and other (2%).
D. Indirect overheads	£13,187 per client year	Indirect overheads include general management and support services such as finance and human resource departments. On average, these costs comprise 33 per cent of direct care salary costs.
E. Personal living expenses	£3,978 per client year	This includes an amount for groceries, household provisions, clothing and medical expenses, comprising 8 per cent of direct care salary costs.
F. Day Care	£24,183 per client year	This includes the costs for 37.5 hours per week per person of separately-based specialist day care, and assumes a ratio of one member of staff for every two clients attending.
Working time	24 hours per day, 365 days per year.	
Number of clients	65	This cost is based on the expenditure for 65 clients.
Unit costs available 2016/2017		
Average annual cost per client (excluding day care) £91,370; average weekly cost per client £1,751. Average annual cost per client (including day care, ratio one member of staff for every two clients attending) £115,553; average weekly cost per client £2,214.		

4.5 Positive behavioural support for adults with intellectual disabilities and behaviour that challenges

Positive behavioural support is a flexible service that aims to maintain people with intellectual disabilities whose behaviour challenges the community, and to increase the ability of carers and professionals working with them to cope with such behaviours (<http://www.skillsforcare.org.uk/Topics/Learning-disability/Positive-behavioural-support/Positive-behaviour-support.aspx>). The service supports adults (18 years old and over) in four areas of practice: early intervention for high-risk groups (e.g. training workshops for carers and professionals working with people with intellectual disabilities and behaviour that challenges); crisis prevention and management (e.g. early identification of behaviours that may lead to placement breakdowns); technical support for the most complex (e.g. intensive behavioural intervention); and placement development (e.g. returning people in out-of area placements to their 'home borough').

A study carried out by Lemmi & colleagues (2015)¹ found that the service was effective in improving the outcomes (behaviours that challenge, activity engagement, community participation) of individuals at a total cost of services of £2,564 per week (see table 1 overleaf which uses average costs for a sample of three people). The economic analysis adopted a public service perspective, including health and social care services and criminal justice services. The PBS intervention formed nearly 10 per cent of this cost (£251). The total cost of the PBS intervention lasting 15 months is estimated to cost £16,327 per adult. The total cost of services received for adults in receipt of additional support was £133,303 per year. These costs have been updated from 2012/13 using the appropriate inflators.

These costs were calculated using a representative high-intensity case, and the PBS intervention includes staff costs (behaviour analyst, assistant behaviour analyst, support worker), overheads (IT, telephone, photocopy, training, human resources cost, accommodation costs, meetings, analysis and report formulation), travel costs, and clinical supervision. By maintaining people with less severe challenges in the community (£9 to £164 per week) and those with more severe behavioural needs in less service-intensive residential accommodations (£1,213 to £3,696 per week), the service may potentially reduce public services cost in the long term.¹

See Hassiotis et al. (2014)² for a study addressing the clinical and cost effectiveness of staff training in Positive Behaviour Support.

¹ Lemmi, V., Knapp, M., Saville, M., McWade, P., McLennan, K. & Toogood, S. (2015) Positive behavioural support for adults with intellectual disabilities and behaviour that challenges: an initial exploration of the economic case, *International Journal of Positive Behavioural Support*, 5,1, 16-25.

² Hassiotis, A., Strydom, A., Crawford, M., Hall, I., Omar, R., Vickerstaff, V., Hunter, R., Crabtree, J., Cooper, V., Biswas, A., Howie, W. & King, M. (2014) Clinical and cost effectiveness of staff training in Positive Behaviour Support (PBS) for treating challenging behaviour in adults with intellectual disability: a cluster randomised controlled trial, *BMC Psychiatry*, 14: 219.

Table 1 Service use and cost for adults over the first 6 months of PBSS (N=3)

	No. using	No. contacts (mean (SD))	Contact: hours (mean (SD))	Weekly cost (£ - 2016-17) (mean (SD))
Health and social care				
Supported housing (days)	1	182		340 (590)
Other than residential home (days)	1	35.5		102 (177.4)
Total residential care				443 (493)
Community-based care				
Psychiatrist	2	2 (0)	0.9 (0.2)	14.10 (12)
Nurse	3	5 (2.6)	0.8 (0.1)	7.8 (4.1)
Social worker	3	48.3 (17.2)	0.4 (0)	139 (60)
Care worker	1	182	24	1,500 (2599)
Other services (paid through direct payments)	2	78		143 (124)
Total community-based care				1,806 (2,448)
Day care centre	1	78	6	64 (110)
Total health and social care				2,312 (2900)
PBSS				251
Total health and social care (+PBSS)				2,564 (2,582)

5. Services for adults requiring physical support

5.1 Local authority own-provision care homes for adults requiring physical support

5.2 Voluntary, private and independent sector care homes for adults requiring physical support

5.3 Day care for adults requiring physical support

5.4 Home care for adults requiring physical support

5.1 Local authority own-provision care homes for adults requiring physical support

This table uses the ASC-FR data return (ASC-FR) for 2016/17.¹ For residents age 65 and over, the median establishment cost for adults requiring physical support in own-provision residential care is £959 and the median cost is £876 [using unique identifiers: 8713701 (numerator in thousands of pounds), 8713702 (denominator)].

Costs and unit estimation	2016/2017 value	Notes
Capital costs		
A. Buildings and oncosts	£151 per resident week	Based on the new-build and land requirements for local authority residential care establishments. These allow for 57.3 square metres per person. ² Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
B. Land costs	£29 per resident week	Based on Department for Communities and Local Government land estimates. ³ Land costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
C. Total local authority expenditure (minus capital)	£937 per resident week	The median revenue weekly cost estimate (£937) for adults requiring physical support in own-provision residential care. Capital costs relating to buildings and land have been deducted. The mean cost per client per week is reported as being £850 [using unique identifiers: 8710701 (numerator in thousands of pounds), 8710702 (denominator)].
D. Overheads		Social services management and support services (SSMSS) costs are included in PSS EX1 expenditure figures so no additional overheads have been added.
Other costs		
E. Personal living expenses	£24.90 per week	The DWP personal allowance for people in residential care or a nursing home is £24.90. ⁴ This has been used as a proxy for personal consumption.
F. External services		No information is available.
Use of facility by client	365.25 days per year	
Occupancy	100 per cent	No statistics available, therefore 100 per cent occupancy assumed.
London multiplier	1.5 x A 3.83 x B 0.71 x C	Relative London costs are drawn from the same source as the base data for each cost element. ^{1,2,3}
Unit costs available 2016/2017		
£1,117 per resident week establishment costs (includes A to C); £1,142 per resident week (includes A to E). £160 per resident day establishment costs (includes A to C); £163 per resident day (includes A to E).		

¹ NHS Digital (2017) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital, Leeds. <http://www.content.digital.nhs.uk/catalogue/PUB22240> [accessed 28 November 2017].

² Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

³ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

⁴ Department for Work and Pensions (2016) *Proposed benefit and pension rates*, Department for Work and Pensions, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/572844/proposed-benefit-and-pension-rates-2017-to-2018.pdf [accessed 13 September 2017].

5.2 Voluntary and private sector residential care homes for adults requiring physical support

This table uses the ASC-FR data return (ASC-FR) for 2016/17.¹ For residents age 65 and over, the median establishment cost is £527 and the mean cost is £530 [using unique identifiers: 8713801 (numerator in thousands of pounds), 8713802 (denominator)].

Costs and unit estimation	2016/2017 value	Notes
Capital costs		
A. Buildings and oncosts	£151 per resident week	Based on the new-build and land requirements for local authority residential care establishments. These allow for 57.3 square metres per person. ² Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
B. Land costs	£29 per resident week	Based on Department for Communities and Local Government land estimates. ³ Land costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
C. Total expenditure (minus capital)	£714 per resident week	The median weekly expenditure (£714) for adults requiring physical support in residential care provided by others [using unique identifiers: 8710801 (numerator in thousands of pounds), 8710802 (denominator)]. Capital charges relating to buildings and land have been deducted. The mean cost per client per week is reported as being £716 after deducting capital.
D. Overheads		Social services management and support services (SSMSS) costs are included in ASC-FR expenditure figures so no additional overheads have been added.
Other costs		
E. Personal living expenses	£24.90 per week	The DWP personal allowance for people in residential care or a nursing home is £24.90. ⁴ This has been used as a proxy for personal consumption.
F. External services		No information is available.
Use of facility by client	365.25 days per year	
Occupancy	100 per cent	No statistics available, therefore 100 per cent occupancy assumed.
London multiplier	1.5 x A 3.83 x B 1.15 x C	Relative London costs are drawn from the same source as the base data for each cost element. ^{1,2,3}
Unit costs available 2016/2017		
£894 per resident week establishment costs (includes A to C); £919 per resident week (includes A to E). £128 per resident day establishment costs (includes A to C); £131 per resident day (includes A to E).		

¹ Calculated using NHS Digital (2017) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital, Leeds. <http://digital.nhs.uk/catalogue/PUB30102> [accessed 30 November 2017], in collaboration with the Department of Health.

² Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

³ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

⁴ Department for Work and Pensions (2016) *Proposed benefit and pension rates*, Department for Work and Pensions. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/572844/proposed-benefit-and-pension-rates-2017-to-2018.pdf [accessed 13 September 2017].

5.3 Day care for adults requiring physical support

As day care is now combined with other expenditure in the ASC-FR data collection, this table uses the Personal Social Services Expenditure return (PSS EX1)¹ for 2013/14 for expenditure costs which have been uprated using the PSS pay & prices inflator.

The median cost was £224 per client week and the mean cost was £223 per client week (including capital costs). These data do not report on how many sessions clients attended each week.

To determine the best unit of activity, we submitted a Freedom of Information request to ask local authorities the duration of a 'unit of activity' and to provide approximate guidance on how many times a week clients attend.

Based on information provided by ten local authorities,² we have calculated an average cost per client attendance and also a cost per client hour. We have then used this information to calculate the cost of a client session lasting 3.5 hours, which is a typical standard unit of day care for most local authorities responding to our information request.

Costs and unit estimation	2016/2017 value	Notes
Capital costs		
A. Buildings and oncosts	£6.00 per client attendance	Based on the new-build and land requirements for local authority day care facilities (which do not distinguish client group). Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years. ³
B. Land	£2.40 per client attendance	Based on Department for Communities and Local Government land estimates. ⁴ Land costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
C. Other capital		
Revenue costs		
D. Salary and other revenue costs	£83 per client attendance	The median cost per client week has been taken from PSS EX1 2013/14 ¹ and uprated using the PSS pay & prices index. Assuming people with learning disabilities attend on average 2.7 times per week (4.8 hours in duration), ² the median cost per day care attendance is £82 and the mean cost per attendance is £80. Capital charges relating to buildings have been deducted. Councils reporting costs of over £2,000 per client week have not been included in this estimate.
E. Overheads		Social services management and support services (SSMSS) costs are included in PSS EX1 expenditure figures so no additional overheads have been added.
Use of facility by client		Assumes clients attend 2.7 times per week. ²
Occupancy		No current information is available.
London multiplier	1.5 x A 3.83 x B 1.31 x D	Relative London costs are drawn from the same source as the base data for each cost element. ^{1,3,4}
Unit costs available 2016/2017		
£91 per client attendance (includes A to D); £19 per client hour; £66 client per session lasting 4.8 hours.		

¹ Health & Social Care Information Centre (2014) *PSS EX1 2013/14*, Health & Social Care Information Centre, Leeds.

² Based on research carried out by PSSRU in 2014.

³ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁴ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

5.4 Home care for adults requiring physical support

In past editions of this volume, we have taken information from the PSS expenditure return. Unit costs for home care have been based on the total expenditure on home care services divided by the total number of hours delivered, but this is not reflective of the actual hourly rate paid to providers of external home care services.

The ASC-FR return currently provides two rates for home care: one for the hourly rate of in-house home care provision and one for the average hourly rate paid to external providers of home care services. The rates should be based on the cost of an hour of personal care. NHS Digital do not analyse the rate by primary support reason or age group.¹

For home care, the average standard hourly rate was £25.62 for services provided in-house, compared to £15.52 for provision by external providers.¹

See schema 11.6 and 11.7 for more information on home care.

¹ NHS Digital (2017) *Adult Social Care Finance Return (ASC-FR) Activity and Finance report* (reference data table T39), NHS Digital, Leeds, <https://digital.nhs.uk/catalogue/PUB30121> [accessed 28 November 2017].

6. Services for children and their families

- 6.1 NHS reference costs for children's health services
- 6.2 Care home for children—local authority
- 6.3 Voluntary and private sector care homes for children
- 6.4 Foster care for children
- 6.5 End-of-life care at home for children
- 6.6 Multi-systemic therapy (MST)
- 6.7 Cognitive behaviour therapy
- 6.8 Adoption
- 6.9 Decision-making panels
- 6.10 Costs of reunification
- 6.11 Short-break provision for disabled children and their families
- 6.12 Local safeguarding children's boards
- 6.13 Parenting programmes for the prevention of persistent conduct disorder
- 6.14 Parent training interventions for parents of disabled children with sleep or behavioural problems
- 6.15 Independent reviewing officer (IRO)
- 6.16 Early Years Teacher Classroom Management programme
- 6.17 Advocacy for children with additional/multiple needs
- 6.18 Counselling for children with mental or emotional difficulties

6.1 NHS reference costs for children's health services

We have drawn on the *NHS* reference costs to report the costs of selected children's health services.¹ All costs have been updated to 2016/17 levels using the HCHS pay & prices inflator.

Each reported unit cost includes:

- (a) direct costs – which can be easily identified with a particular activity (e.g. consultants and nurses)
- (b) indirect costs – which cannot be directly attributed to an activity but can usually be shared among a number of activities (e.g. laundry and lighting)
- (c) overheads – which relate to the overall running of the organisation (e.g. finance and human resources).

For information on the method used to allocate drugs to services, see *NHS reference costs guidance* for 2015/16.¹

	National average	Lower quartile	Upper quartile
COMMUNITY SERVICES, average cost per group session (one-to-one)			
Therapy services			
Physiotherapy	£86 (£91)	£52 (£66)	£141 (£1,167)
Occupational therapy	£96 (£136)	£51 (£104)	£150 (£149)
Speech therapy services	£98 (£98)	£69 (£75)	£117 (£116)
Community health services – nursing, average cost per care contact/group session			
School-based children's health core (other) services – group multi professional	£63 (£73)	£53 (£62)	£53 (£118)
School-based children's health core (other) services – group single professional	£44 (£35)	£35 (£8)	£45 (£49)
School-based children's health core (other) services – one to one	£56 (£59)	£39 (£34)	£53 (£73)
Elective inpatient (paediatrics), average cost per stay	£2,905	£1,480	£3,847
OUTPATIENT ATTENDANCES, average cost per attendance			
Paediatrics	£261		
Paediatric consultant-led outpatient attendances	£196		
Paediatric non-consultant-led outpatient attendances	£142		
SPECIALIST PALLIATIVE CARE, average cost per bed day			
Hospital specialist palliative care support	£135	£119	£174
CHILD AND ADOLESCENT MENTAL HEALTH SERVICES, average cost per patient contact			
Day care facilities – regular attendances	£339	£229	£382
Admitted patients	£658	£565	£736
Admitted patients – psychiatric intensive care	£863	£628	£840
Community contacts	£252	£194	£272
Community contacts, crisis resolution	£263	£175	£314
Outpatient attendances	£311	£256	£348

¹ Department of Health (2016) *NHS reference costs 2015-2016*, <https://www.gov.uk/government/publications/nhs-reference-costs-2014-to-2015> [accessed 6 September 2016].

6.2 Care home for children — local authority own-provision

This table presents the costs per resident week for a local authority own-provision home for children. Establishment costs are £4,036 per resident week. All costs have been updated using the PSS pay & prices index. Based on returns from 50 own-provision children's homes, which form part of the Chartered Institute of Public Finance & Accountancy (CIPFA) benchmarking clubs (<http://www.cipfa.org/services/benchmarking>), the average spend per authority on own-provision residential care for children in 2016 was £1,081,800 compared with £975,300 in 2015. In 2016, 64 per cent of total spend was attributed to social workers (including agency staff, floating staff, staff on sick leave) and includes pay, overtime, national insurance and any pension contributions. Thirteen per cent was allocated to costs relating to all other own-provision residential care staff, 10 per cent to other direct costs, 6 per cent to service overheads (property costs relating to service provision, cost of head of service and management, business support and procurement, and 7 per cent to corporate overheads.

Costs and unit estimation	2016/2017 value	Notes
Capital costs (A & B)		
A. Buildings	£141 per resident week	Based on the new-build requirements for local authority children's homes. These allow for 59.95 m ² per person. ¹ Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
B. Land	£35 per resident week	Based on Department for Communities and Local Government land estimates. ²
C. Total local authority expenditure (minus capital)	£3,860 per resident week	Mean costs for children looked-after in own-provision children's homes are based on the underlying data of the DfE Section 251 outturn data for 2015/16. ³ The cost for a child for a week in an own-provision residential care home was £3,860. This was calculated by dividing total current expenditure for local authority (LA) provision children's care homes (£298,792,335) by the number of LA provision care days (own-provision and other local authority provision) for children in residential care (residential care homes: R1; children in secure units: K1; children in homes and hostels: K2; residential schools: S1) (532,729). This gives a cost of £561 per day or £3,926 per week, and £4,036 when inflated using the PSS pay and prices inflator. ⁴ Capital charges for buildings and land have been excluded to give a cost per resident week of £3,860. Local authorities reporting costs of less than £400 per week (£57 per day) (3 local authorities) or more than £14,000 per week (£2,000 per day) (15 local authorities) have been excluded.
D. Overheads		No current information available. See previous editions of this volume for sources of information.
E. Other costs	£11.60 per resident week for school support	Using Section 251 data, ³ and dividing total expenditure for 'education of looked-after children' (£36,104,000) by total children looked-after aged 5 and over (59,680), ⁵ a cost per child per year for education was calculated (£605). This cost excludes school spending and relates to additional LA services to promote the education of looked-after children, for example virtual heads.
Use of facility by client	52.18 weeks	
Occupancy	86 per cent	Occupancy rates in local authority run homes was 86 per cent in 2014. ⁶
London multiplier	1.96 x (A to B) 1.12 x C	Relative London costs are drawn from the same source as the base data for each cost element. ^{1,2,3}
Unit costs available 2016/2017		
£4,036 establishment costs per resident week (includes A to C); £577 establishment costs per resident day (includes A to C); £4,047 per resident week (includes A to E); £578 per resident day (includes A to E).		

¹ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

² Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

³ Department for Education (2017) *Underlying data of the section 251 data archive: outturn summary 2016-17*, Department for Education, London. <https://www.gov.uk/guidance/section-251-2016-to-2017#section-251-outturn-guidance-for-local-authorities> [accessed 13 November 2017].

⁴ Department for Education (2017) *Children looked-after in England including adoption and care leavers, year ending 31 March 2016*, Department for Education, London.

⁵ CoramBaaF (2017) *Statistics:England*, <https://www.gov.uk/government/statistics/children-looked-after-in-england-including-adoption-2016-to-2017>. [accessed 13 November 2017].

⁶ Department for Education (2015) *A census of the children's homes workforce*, Research report, Department for Education, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/391529/RR437_-_Children_s_homes_workforce_census_.pdf.

6.3 Voluntary and private sector care homes for children

This table presents the costs per resident week for an independent sector care home for children. Establishment costs are £3,286 per resident week.

Costs and unit estimation	2016/2017 value	Notes
Capital costs (A & B)		
A. Buildings	£141 per resident week	Based on the new-build requirements for local authority children's homes. These allow for 59.95 m ² per person. ¹ Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
B. Land	£35 per resident week	Based on Department for Communities and Local Government land estimates. ²
C. Total expenditure (minus capital)	£3,110 per resident week	<p>Mean costs for children looked-after in externally provided children's homes (e.g. non-local authority (LA) own-provision) are based on the underlying data of the DfE Section 251³ outturn data for 2015/16.</p> <p>The cost for a child for a week in a non-statutory residential care home for children was £3,110. This was calculated by dividing total expenditure for other provision children's care homes (private and voluntary/third sector) (£735,013,721) by the number of care days in non-LA provision for children in residential care (residential care homes: R1; children in secure units: K1; children in homes and hostels: K2; residential schools: S1) (1,620,309). This gives a cost of £454 per day (£3,175 per week, and £3,286 when uprated using the PSS pay and prices inflator).⁴ Capital charges for buildings and land have been excluded to give a cost per resident week of £3,110. Local authorities reporting costs of less than £400 per week (£57 per day) (7 local authorities) or more than £14,000 per week (£2,000 per day) have been excluded (no local authorities had costs in this category).</p>
D. Overheads		No current information available. See previous editions of this volume for sources of information.
E. Other costs External services	£11.60 per resident week for school support	Using Section 251 data, ³ and dividing total expenditure for 'education of looked-after children' (£36,104,000) by total children looked-after aged 5 and over (59,680), ⁴ a cost per child per year for education was calculated (£605). This cost excludes school spending and relates to additional LA services to promote the education of looked-after children, for example virtual heads.
Use of facility by client	52.18 weeks	
Occupancy	79 per cent	Occupancy rates in independent sector homes was 79 per cent in 2014. ⁵
London multiplier	1.96 (A to B) 1.23 x C	Relative London costs are drawn from the same source as the base data for each cost element. ^{1,2,3}
Unit costs available 2016/2017		
£3,286 establishment costs per resident week (includes A to C); £469 establishment costs per resident day (includes A to C)		
£3,298 per resident week (includes A to E); £471 per resident day (includes A to E).		

¹ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

² Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488041/Land_values_2015.pdf [accessed 9 October 2017].

³ Department for Education (2017) *Underlying data of the section 251 data archive: outturn summary 2016-17*, Department for Education, London. <https://www.gov.uk/guidance/section-251-2016-to-2017#section-251-outturn-guidance-for-local-authorities> [accessed 13 November 2017].

⁴ CoramBaaF (2017) *Statistics:England*, <https://www.gov.uk/government/statistics/children-looked-after-in-england-including-adoption-2016-to-2017>. [accessed 13 November 2017].

⁵ Department for Education (2015) *A census of the children's homes workforce*, Research report, Department for Education, London. [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/391529/RR437 - Children s homes workforce census .pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/391529/RR437_-_Children_s_homes_workforce_census_.pdf).

6.4 Foster care for children

This table provides the cost of foster care for children.

Costs and unit estimation	2016/2017 value	Notes
A. Boarding out allowances, administration and the costs of social worker and other support staff who support foster carers	£634 per child per week	Using Section 251 data, and dividing total expenditure for all foster care (including children placed with family and friends, own-provision, private, other public and voluntary foster care) of £1,656,437,398 ¹ by the total number of days of care for children in foster placements with a relative or friend (code Q1), and children in foster placements with other foster carers (code Q2) (18,902,568) ² , the cost per day for all foster care for 2015/16 was £88 (£91 per day and £634 per week when uprated to 2016/17 prices using the Personal Social Services (PSS) pay & prices inflator). Using Section 251 data ² and dividing total expenditure for LA provision foster care (including children placed with family and friends, own-provision and other public provision) of £918,844,043 by the total number of days of care for children in foster placements with a relative or friend (code Q1) and children in foster placements with other foster carers (code Q2) (12,437,940), ³ the cost per day for 2015/16 was £74 (£76 per day or £532 per week when uprated to 2016/17 prices using the PSS pay & prices inflator). Local authorities reporting an average cost of less than £50 per week (1 local authority) or more than £1,500 per week (4 local authorities) have been excluded.
B. Social care support		No current information available on social work costs (teams and centres) directly related to fostered children. See previous editions for the cost of social services support estimated from the Children in Need (CiN) census 2005. ³
C. Overheads		No current information available.
D. Other services, including education	£11.60 per resident week for school support	Using Section 251 data ² and dividing total expenditure for 'education of looked-after children' (£36,104,000) by total children looked-after aged 5 and over (59,680), ⁴ a cost per child per year for education was calculated (£605). This cost excludes school spending and relates to additional LA services to promote the education of looked-after children, for example virtual heads.
Service use by client	52.18 weeks per year	
London multiplier	1.18 x A	Relative London costs are drawn from the same source as the base data. ²
Unit costs available 2016/2017		
£646 per child per week (excluding social care support directly related to fostered children but including education).		

¹ Department for Education (2017) *Underlying data of the section 251 data archive: outturn summary 2015-16*, Department for Education, London. <https://www.gov.uk/guidance/section-251-2015-to-2016> [accessed 13 November 2017].

² Department for Education (2017) *Children looked-after in England including adoption and care leavers, year ending 31 March 2016*, Department for Education, London.

³ Department for Education & Skills (2005) *Children in need in England: results of a survey of activity and expenditure as reported by local authority social services' children and families teams for a survey week in February 2005*, Department for Education & Skills, London.

⁴ CoramBaaF (2017) *Statistics: England*, <https://www.gov.uk/government/statistics/children-looked-after-in-england-including-adoption-2016-to-2017>. [accessed 13 November 2017].

6.5 End-of-life care at home for children

Information for this table has been provided by Rhiannon Edwards and Jane Noyes at Bangor University and was taken from the *My Choices* project report¹ which provided a summary of the proposed *additional costs* associated with providing palliative care at home (assuming care is provided for one week, 24 hours per day).

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£292,121 per year	Based on the mean basic salaries for 5.5 community nurses (band 6), 1 specialist palliative care nurse (band 7), 0.2 medical equipment technician (band 6), 0.5 clinical psychologist (band 7) and 15 band 7 nurses, each working 100 hours per year.
B. Salary oncosts	£72,377 per year	Employer's national insurance plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Overheads Staff costs	£20,750 per year	Includes IT and administrative support, 0.5 WTE band 7 and 0.5 WTE band 5 respectively. <i>Additional overheads</i> are 6 per cent of salary costs. ²
D. Travel costs	£25,450 per year	Based on information provided by a Rapid Response Service in the Unit Costs of Health & Social Care 2013, schema 7.6.
Working time	24 hours per day, 52.18 weeks	Unit costs based on 168 hours per week and 52.18 weeks per year.
Unit costs available 2016/2017		
Cost per week £7,871; cost per hour £46.90 (if working 24/7).		

¹ Noyes, J., Hain, R., Tudor Edwards, R., Spencer, L., Bennett, V., Hobson, L., & Thompson, A. (2010) *My choices project* report, Bangor University, CRC Cymru, Cardiff University School of Medicine, N Warwickshire PCT, Royal College of Paediatrics and Child Health, Public Health Wales NHS Trust, Bath and NE Somerset PCT, <http://public.ukcrn.org.uk/search/StudyDetail.aspx?StudyID=6597> [accessed 9 October 2013].

² Note these overhead costs are lower than used elsewhere in this volume.

6.6 Multi-systemic therapy (MST)

Multi-systemic therapy (MST) is an intensive family- and community-based treatment programme that focuses on addressing all environmental systems that impact on chronic and violent juvenile offenders: their homes and families, schools and teachers, neighbourhoods and friends (<http://mstservices.com/>).

This table is based on costs estimated for a randomised controlled trial of interventions for adolescents aged 11-17 years at risk of continuing criminal activity.¹

Costs and unit estimation	Unit cost 2016/2017	Notes
A. Salary plus oncosts	£47,079 per year	Based on the salary of a chartered counselling psychologist. ¹ Employer's national insurance is included plus 14.38 per cent of salary for employer's contribution to superannuation.
B. Overheads		Taken from the 2013/14 financial accounts for 10 community trusts.
Management, administration and estates staff.	£11,534 per year	Management and other non-care staff costs are 24.5 per cent of direct care salary costs and include administration and estates staff.
Non-staff	£17,984 per year	Non-staff costs are 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.
C. Capital overheads	£5,125 per year	Based on the new-build and land requirements of NHS facilities and adjusted to reflect shared used of both treatment and non-treatment space. Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
Working time	42.4 weeks per year 37.5 hours per week	Unit costs are based on 1,590 hours per year: 225 working days minus sickness absence and training/study days as reported for NHS staff groups. ²
Face-to-face time	1:1.40	The direct: indirect ratio was based on a survey of the three MST therapists who took part in the trial.
Length of sessions	60 minutes	Therapy sessions lasted 60 minutes.
Unit costs available 2016/2017		
£51 per hour; £123 per therapy session.		

¹ Cary, M., Butler, S., Baruch, G., Hickey, N. & Byford, S. (2013) Economic evaluation of multisystemic therapy for young people at risk for continuing criminal activity in the UK, *PLoS One*, 8(4), e61070, doi:10.1371/journal.pone.0061070. <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0061070> [accessed 11 November 2014].

² Contracted hours are taken from NHS Careers (2017) *Pay and benefits, National Health Service*, London, <http://www.nhs.gov.uk/working-in-the-nhs/pay-and-benefits/> [accessed 9 October 2017]. NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17* [accessed 13 October 2017].

6.7 Cognitive behaviour therapy (CBT)

This table is based on costs estimated for a randomised controlled trial of interventions for adolescents with depression. The setting was two Child and Mental Health Services (CAMHS) teams in secondary care where CBT was delivered.¹ Barrett and Petkova summarise CBT costs over 21 studies in a short article in the Unit Costs of Health & Social Care 2013.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£44,175 per year	Based on the full-time equivalent basic salary of the July-June 2015 NHS Staff Earnings estimates ² for a specialty doctor (midpoint), clinical psychologist (band 8 median) and mental health nurse (band 6 median). An average has been taken of these salaries.
B. Oncosts	£5,686 per year	Employer's national insurance is included plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Qualifications		No information available.
D. Overheads		Taken from the 2013/14 financial accounts for 10 community trusts.
Management, administrative and estates staff	£12,066 per year	Management and other non-care staff costs are 24.5 per cent of direct care salary costs and include administration and estates staff.
Non-staff	£21,490 per year	Non-staff costs are 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.
E. Ongoing training		Information not available for all care staff.
F. Capital overheads	£4,651 per year	Based on the new-build and land requirements of an NHS office and shared facilities, capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years. ^{3,4} Based on the assumption that there is one office per team.
Working time	43.4 weeks per year 37.5 hours per week	Unit costs are based on 1,621 hours per year: 225 working days minus sickness absence and training/study days as reported for all NHS staff groups. ⁵
Ratio of direct to indirect time on face-to-face contact	1:1	50 per cent of time is spent on face-to-face contact and 50 per cent on other activities. ⁶
Length of contact	55 minutes	Average duration of CBT session. ⁶
Unit costs available 2016/2017		
£100 cost per CBT session.		

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

² NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

³ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁴ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁵ Contracted hours are taken from NHS Careers (2017) *Pay and benefits*, National Health Service, London, <https://www.healthcareers.nhs.uk/about/careers-nhs/nhs-pay-and-benefits/> [accessed 2 November 2017]. NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17* [accessed 13 October 2017].

⁶ Byford, S., Barrett, B., Roberts, C., Wilkinson, P., Dubicka, B., Kelvin, R.G., White, L., Ford, C., Breen, S. & Goodyer, I. (2007) Cost-effectiveness of selective serotonin reuptake inhibitors and routine specialist care with and without cognitive behavioural therapy in adolescents with major depression, *British Journal of Psychiatry*, 191, 6, 521-527.

6.8 Adoption

In 2013, an overview of the adoption research initiative was published.¹ This draws on studies commissioned by the Department for Education (DfE) as part of the Adoption Research Initiative (ARI) to explore issues relating to the implementation of the Adoption and Children Act 2002 in England and Wales. This table draws mainly on information contained in this overview, providing the costs of various stages of the adoption process, from the fees to post-adoption support for families. It begins with information from a routine source: Section 251 of the Department of Education's financial data collection. It also includes findings from a survey conducted in 2016 to inform the Centre for Child and Family Research's (CCFR's) initial work to extend the Cost Calculator for Children's Services (CCFCS) to include adoption services in England. All costs have been updated using appropriate inflators.

Local authority expenditure – Section 251

Based on the Section 251 budget summary for 2016/17, the total expenditure on adoption services is £286,578,000.² This comprises staff and overhead costs associated with adoption, including the costs of social workers recruiting and assessing prospective adopters, supporting existing prospective adopters, and costs related to post-adoption support services. Support services can include: financial support; services to enable discussion groups for adoptive children/parents and birth parents or guardians; contact and mediation assistance; therapeutic services; counselling, advice and information. Provision of adoption support is based on assessed needs. Financial payments are made depending on the needs of the child and are means-tested. Expenditure on care placements for children with a placement order and waiting to be adopted is excluded, as are any direct social work costs for adopted children.³

Based on returns from 30 local authorities which form part of the Chartered Institute of Public Finance & Accountancy (CIPFA) benchmarking clubs (<http://www.cipfa.org/services/benchmarking>), the average spend per authority on adoption services in 2016 was £2,424,700 compared with £2,919,600 in 2015. In 2016, 25 per cent of total spend was attributed to social workers (including agency staff, floating staff, staff off sick) and includes pay, overtime, national insurance and any pension contributions. Seven per cent was allocated to costs relating to all other adoption-service staff, 19 per cent to other direct costs (including adoption support), 4 per cent to service overheads (property costs relating to service provision, cost of Head of Service and management, business support, the adoption management team and procurement, and 8 per cent to corporate overheads. Thirty eight per cent of expenditure was attributed to the adoption allowance.

At year end 31 March 2017, 4,210 children had a placement order; 40 had a care order and there was a voluntary agreement (S20) in place for 100.⁴ There were 4,350 looked-after children adopted during the year ending 31 March 2017.⁵ A placement order is dispensed by the court and authorises the local authority to find, match and place a child with prospective adopters, and is revoked once the adoption order is made.⁶ Placement Orders replaced Freeing Orders on 30 December 2005.

Inter-agency fees

Local authorities (LAs) and voluntary adoption agencies (VAAs) arrange adoptions in England. LAs place children for adoption with their own approved prospective adopters (an 'internal placement') or with approved prospective adopters provided by another local authority or by a VAA (an 'external placement'). VAAs also place a very small number of children relinquished into their care for adoption. Where an external placement is made, an inter-agency fee is charged. This fee enables an agency that has recruited and approved the prospective adopters to recoup their costs. Current fees (2016) are shown in table 1 below (<https://www.gov.uk/guidance/inter-agency-adoption-fee-grant-for-local-authorities>). This fee was

¹ Thomas, C. (2013) *Adoption for looked-after children: messages from research*, British Association for Adoption & Fostering (BAAF).

² Department for Education (2017) *Underlying data of the section 251 data archive: outturn summary 2016-17*, Department for Education, London. <https://www.gov.uk/guidance/section-251-2016-to-2017#section-251-budget-data> [accessed 13 November 2017].

³ <https://www.gov.uk/guidance/section-251-2016-to-2017#section-251-budget-guidance-for-local-authorities> [accessed 20 November 2017].

⁴ Department for Education (2016) *Children looked-after in England including adoption*, year ending 31 March 2017, Department for Education, London. <https://www.gov.uk/government/statistics/children-looked-after-in-england-including-adoption-2016-to-2017> [accessed 13 November 2017].

⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/359277/SFR36_2014_Text.pdf.

⁶ http://trixresources.proceduresonline.com/nat_key/keywords/placement_order.html

extended until 31 October 2017 (<http://www.first4adoption.org.uk/news/inter-agency-fee-fund-extended-until-april-2017/>). Further information can be found in Dance et al (2017).¹

Table 1 Inter-agency fees

Local authorities	Costs for 2016/2017
Fees for one child	£27,000
Fees for two children	150 per cent of the above fee
Fees for three or more children	200 per cent of the above fee
Voluntary adoption agencies	
Fees for one child	£27,000 comprising £18,000 on placement, and £9,000 when the adoption order is made or 12 months from start of placement, whichever is sooner
Ongoing support	£750 per month

As part of the ARI, the DfE funded a study to establish whether the inter-agency fee was a good reflection of the expenditure incurred by LAs and VAAs in placing a child or sibling group (Selwyn et al., 2009, 2011).² Financial accounts for 2007-08 from ten LAs and 17 VAAs were analysed, and the average cost per adoptive placement was estimated as £37,200 for a VAA and £35,000 for LAs, when expenditure on inter-agency fees had been excluded. The inter-agency fee in 2009 was £24,080 for a VAA, or around three-quarters of the estimated cost per placement in a typical VAA: a shortfall of around £10,000 per placement. 'Accounts submitted to the Charity Commission 2007-08 suggest VAAs contribute about £3.5 million to adoption services from income received from donations, legacies and investments' (Selwyn, 2011, p.427).

Family-finding

We have drawn on research carried out by the Centre for Child and Family Research (CCFR) which was commissioned by Coram Family, as part of one of the DfE's Innovation Programme projects (<https://www.gov.uk/government/publications/childrens-services-innovation-programme>). The remit was to undertake research and development to extend the CCFCs and its underlying conceptual approach to adoption services in England. To calculate the costs, a bottom-up costing methodology is employed, involving the linking of social care time-use and activity data with information about salaries, overheads, and other types of expenditure.

The early stages of this ongoing project involved an online survey of 14 adoption agencies between March and July 2016. Eight local authority agencies and six VAAs participated. Two-hundred and seven personnel provided valid responses. Time-use data were collected from social workers, team managers, agency decision-makers, panel chairs and members, and business support staff and administrators involved in the adoption process.

The average unit costs of five adoption sub-processes are shown in Table 2, for 'standard' cases and 'difficult-to-place'³ cases supported by local authority, voluntary and all adoption agencies.

The sub-processes for which costs are provided begin with the child's journey from care planning, and the adopters' journey from the decision to adopt, through to the child's placement. The average costs for assessments for adoption support are also provided. Table 2 does not include all the costs associated with adoption. It excludes, for instance, staff travel; group training and preparation for prospective adopters; group-based family-finding events such as activity days; and the provision of adoption allowances and adoption support services. CCFR's work involved linking the process unit costs detailed in Table 2 with these other types of expenditure to estimate the total costs of adoption. In late 2016, CCFR

¹ Dance, C., Neil, E. & Rogers, R. (2017) *Inter-agency adoption and the government's subsidy of the inter-agency fee*, Department for Education, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/638885/Inter-agency_Adoption_and_Subsidy_of_the_Inter-Agency_Fee.pdf [accessed 4 December 2017].

² Selwyn, J., Sempik, J., Thurston, P. & Wijedasa, D. (2009) *Adoption and the inter-agency fee*, Centre for Child and Family Research, <http://www.bristol.ac.uk/sps/research/projects/current/rk6582a/rk6582afinalreport.pdf> [accessed 9 October 2013]. See also Selwyn, J. & Sempik, J. (2011) Recruiting adoptive families: the costs of family finding and the failure of the inter-agency fee, *British Journal of Social Work*, 41, 415-431.

³ Cases were classified as 'difficult to place' if the child had a least one of the following characteristics: they were part of a sibling group; from a black and minority ethnic background; living with a disability; were affected by a health condition, and/or were over four years old.

also administered the time-use survey to additional local authorities and VAAs in the North Yorkshire and Humberside region to verify the figures from the initial survey and improve confidence in the data.

Table 2: Average costs (£) of adoption processes at 2016/2017 values

Adoption sub-processes	Local authority adoption agencies		Voluntary adoption agencies		All adoption agencies	
	'Standard' case	'Difficult-to-place' case	'Standard' case	'Difficult-to-place' case	'Standard' case	'Difficult-to-place' case
Adoption planning	£2,028	£2,076	£1,569	£1,504	£2,034	£1,985
Preparation, assessment of adopters	£4,029	£3,364	£3,754	£4,477	£3,952	£4,228
Adoption panel	£1,782	£1,322	£863	£1,636	£1,576	£1,555
Linking & matching	£3,612	£3,591	£1,442	£5,376	£2,595	£4,819
Placement of the child	£1,773	£1,886	£699	£2,373	£1,733	£2,188
Assessment for adoption support	£2,575	£3,130	£1,713	£3,214	£2,092	£3,651

Helping birth families

A study undertaken by Neil & colleagues (2010)¹ and commissioned by the DfE aimed to estimate the cost of providing support services to birth relatives over a 12-month period. Seventy-three birth relatives were interviewed, and 57 (78%) were re-interviewed approximately 15 months later. Case workers completed diaries to record time spent on each of the various services provided to birth relatives, and other agencies provided information about the number and type of services provided for each person in the interview sample over one year. For each type of support, a unit cost was taken from the 2007 volume of the *Unit Costs of Health and Social Care*. The unit costs were combined with each person's use of support services to calculate the total costs of support. Costs have been updated using the PSS pay & prices inflator.

On average, birth relatives were reported to have used 8.35 support services (range 0 to 70) over the 12-month study period at an average cost of £609 (range £0 to £5,437). Services included a telephone line for out-of-hours support, drop-in sessions, duty sessions, following referrals by telephone, providing venues for meetings, and liaison with other service providers. All other services were excluded from the cost estimates. The research was completed before the consultation on the review of contact arrangements

<http://webarchive.nationalarchives.gov.uk/20130123124929/http://www.education.gov.uk/childrenandyoungpeople/families/adoption/a00212027/>.

Supporting direct contact after adoption

A study undertaken by Neil & colleagues (2010)² explored services provided to support post-adoption contact in 'complex' cases, i.e. direct contact where agencies had an ongoing role. They reported that the average adoptive family was

¹ Neil, E., Cossar, J., Lorgelly, P. & Young, J. (2010) *Helping birth families: a study of service provision, costs and outcomes*. <http://www.adoptionresearchinitiative.org.uk/study5.html> [accessed 9 October 2013]. See also consultation on the review of contact arrangements for children in care and adopted children and on the placement of sibling groups for adoption, <http://www.education.gov.uk/childrenandyoungpeople/families/adoption/a00212027/> [accessed 9 October 2013].

² Neil, E., Cossar, J., Jones, C., Lorgelly, P. & Young, J. (2010) *Helping birth relatives and supporting contact after adoption*, Adoption Research Initiative, http://www.adoptionresearchinitiative.org.uk/summaries/ARi_summary_8.pdf [accessed 23 October 2013].

estimated to have used contact support services 12 times over a 12-month period at a mean total cost of £1,190 (range £0-£4,828). On average, birth relatives used contact support services 8.9 times over a 12-month period, at a mean total cost of £860 (range £0-£2,364).

Post-adoption support for adoptive parents

A legal framework for the provision of adoption support is set out in the Adoption and Children Act 2002 and the Statutory Guidance on Adoption 2013 (Department of Health, 2013; Bonin et al., 2013).^{1,2} Families have a right to an assessment of their support needs, and may be entitled to (means-tested) financial support, access to support groups, support for contact with birth relatives, and therapeutic services that support the relationship between children and their adoptive parents. This includes training to meet the child's needs, respite care and assistance in cases of disruption.

Bonin et al. (2013)³ provide the costs of post-adoption services used over a six-month period through data collected from 19 adoptive parents six months after a child (average age 23 months) had been placed with them. Table 3 shows that the total mean public sector cost for support services was £3,273 (uprated from 2007/08 prices), rising to £7,845 if financial support is included.

Table 3 Services received by adoptive parents

Service or support	Mean costs	Range (lower)	Range (upper)
Adoption support & social care	£2,579	£912	£6,943
Health care	£560	£0	£2,159
Education support	£12	£0	£127
Specialist services	£123	£0	£1,423
Total cost of services	£3,273	£1,129	£7,221
Financial support	£4,472	£0	£24,510
Total cost (services and financial support)	£7,845	£1,520	£25,639

Financial support includes adoption allowances (n=6 families), settling-in grants (n=7), reimbursed expenses over the introductory period (n=8), and benefits and tax credits. In a more recent study, 61 adoptive parents caring for 94 children were interviewed: 88 per cent were reimbursed for expenses during introductions, 70 per cent had received a settling-in grant, and 26 per cent received an adoption allowance (Selwyn et al., 2009).⁴

Another study funded through the ARI reported costs of £3,575 (uprated from 2006/07 prices using the PSS pay & prices inflator) for adopters of children with severe behavioural difficulties, estimated over an average of 12 months of the placement (Sharac et al., 2011).⁵ Social work was at the heart of their adoption support, accounting for nearly half (44%) of costs. Use of education support (20% of total costs), health care (13%) and other services such as day care and home help (23%) were also recorded.

¹ Department of Education (2013) Statutory guidance on adoption, For local authorities, voluntary adoption agencies and adoption support agencies, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/270100/adoption_statutory_guidance_2013.pdf [accessed 30 November 2016].

² Bonin, E., Beecham, J., Dance, C. & Farmer, E. (2013) Support for adoption: the first six months, *British Journal of Social Workers*, www.basw.co.uk/social-work-careers/

³ Bonin, E., Beecham, J., Dance, C. & Farmer, E. (2013) Support for adoption: the first six months, *British Journal of Social Workers*, www.basw.co.uk/social-work-careers/

⁴ Selwyn, J., Sempik, J., Thurston, P. & Wijedasa, D. (2009) *Adoption and the inter-agency fee*, University of Bristol, Bristol.

⁵ Sharac, J., McCrone, P., Rushton, A. & Monck, E. (2011) Enhancing adoptive parenting: a cost-effectiveness analysis, *Child and Adolescent Mental Health*, 16, 2, 110-115. See also <http://www.adoptionresearchinitiative.org.uk/study6.html> [accessed 9 October 2013].

6.9 Decision-making panels

A number of studies carried out by the Centre for Child and Family Research at Loughborough University have explored the costs of decision-making panels for the Common Assessment Framework (CAF),¹ short-break services for disabled children and their families,² and joint commissioning for children with additional needs.³ The joint commissioning panels were held in one authority and discussed both looked-after children and children in need cases. Information was gathered from practitioners, managers and administrative staff on the time taken to complete activities prior to, during and after panel meetings. The costs of the Common Assessment Framework and short-breaks panels are based on data provided by two local authorities. The activity times for each personnel type involved in the three panels are shown in the table below.

Table 1 Activity times for three types of decision-making panels by personnel type

Panel	Activity times				
	Panel member	Social worker	Principal manager	Administrator	Lead professional
CAF panel	1 hour 10 minutes	N/A	N/A		5 hours
Short-breaks panel	3 hours 20 minutes	1 hour 45 minutes	N/A	4 hours 40 minutes	N/A
Joint commissioning panel	1 hour 45 minutes	2 hours	1 hour 45 minutes	3 hours 20 minutes	N/A

Unit costs are calculated by multiplying the number of hours taken for each process by each type of personnel, by the relevant unit costs per hour. Unit costs per hour are based on average salaries for each staff type using national salary scales including salary oncosts (national insurance and superannuation). Direct, indirect and capital overheads were applied as outlined in the *Unit Costs of Health and Social Care* (2011). Costs have been updated using the PSS pay and prices index.

Personnel type	Unit cost per hour
Panel member (senior manager)	£52
Family support worker	£32
Social worker	£48
Team manager	£52
Administration	£31

The cost of the CAF panel is based on 12 panel members, discussing eight cases per meeting. The cost of the short-breaks panel is based on five panel members discussing four cases per meeting. The cost of the joint commissioning panel is based on four panel members discussing eight cases per meeting.

¹ Holmes, L., McDermid, S., Padley, M. & Soper, J. (2012) *Exploration of the costs and impact of the Common Assessment Framework*, Department for Education, London.

² Holmes, L., McDermid, S. & Sempik, J. (2010) *The costs of short break provision*, Department for Children, Schools & Families, London.

³ Holmes, L. & McDermid, S. (2012) *Understanding Costs and Outcomes in Child Welfare Services: A Comprehensive Costing Approach to Managing Your Resources*. London: Jessica Kingsley Publishers.

Table 2 Cost per case for CAF, short breaks and joint commissioning panels

Panel	Costs per case considered					Total cost per case
	Panel member	Social worker	Principal manager	Administrator	Lead professional	
CAF panel	£91				£152	£243
Short-breaks panel	£124	£69		£147		£340
Joint commissioning panel	£46	£77	£91	£104		£319

6.10 Costs of reunification

The Centre for Child and Family Research (CCFR) was commissioned by the National Society for the Prevention of Cruelty to Children (NSPCC) to estimate the costs to the public purse of providing services¹ to support successful reunification of all children and families following a care episode (Holmes, 2014).² This table provides the weighted average cost per case, based on estimates that 53 per cent of the children returning home (5,342) will require a high level of support, 16 per cent (1,613) will have medium levels of need, and 31 per cent (3,125) will have low levels of need (adapted from Farmer et al, 2011).³ The cost for a high, medium and low need case are also shown. Two types of costs have been provided here: the cost of providing additional support services for children and families following reunification, and the cost of Children in Need support to children and families when the child returns home. At 2016/17 prices, the weighted average cost was £8,648 per case.

The costs include the provision of parenting support, adult mental health, drug and alcohol and CAMHS services for those with medium and high needs. The proportion of families in each category receiving specific interventions, and the intensity of the interventions, are based on the research evidence (Wade et al., 2011⁴; Farmer et al., 2011³). The cost estimations are based on national data. There will be variations between authorities in terms of the needs and costs of the families they are supporting.

The report acknowledges its limitations: for example, the exclusion of the costs incurred by other agencies to support vulnerable children and their families on reunification. It is also acknowledged that some of the assumptions and categorisations will mask some of the complexities of individual cases and the costs associated with supporting these families.

Services	2016/2017 Cost per case	Notes
High needs Adult mental health (60%; fortnightly); Drug and alcohol services (50%; fortnightly); Parenting support (80%; weekly); CAMHS (45%; fortnightly).	£10,127	Based on Farmer et al. (2011) ³ and Meltzer et al. (2003) ⁵ . Based on Farmer et al. (2011) ³ and Meltzer et al. (2003) ⁵ Based on Farmer et al. (2011) ³ and costs for a family support worker (see Table 11.8). Based on Farmer et al. (2011) ³ and Meltzer et al. (2003). ⁵
Medium needs Parenting support CAMHS	£1,751	80 per cent of parents receive parenting support, fortnightly, for one year (Farmer et al., 2011). ³ 45 per cent of children receive CAMHS services, monthly, for one year (Meltzer et al., 2003). ⁵
Low needs		It has been assumed that any services to meet the needs of the families would have been provided prior to the child returning home and as part of routine service provision.
Social care support		
High needs	£4,128	Comprises 6 months at a high level (8 hours 15 minutes social worker time plus 50 minutes team manager per month); 3 months at medium level (5 hours and 45 minutes social worker time plus 50 minutes team manager per month); and 3 months at a low level (2 hours and 35 minutes social worker time plus 50 minutes team manager per month). ⁶
Medium needs	£2,588	Comprises ongoing support for the family as an open Child in Need case for 9 months; 6 months at medium level followed by 3 months at a low level.
Low needs	£1,288	Comprises ongoing support as an open Child in Need case for 6 months at a low level.
Unit costs available 2016/2017		
£8,648 average weighted cost per case.		

¹ Research indicates that much of this support is **not** currently provided. In cases where it is provided by local authorities, it will not represent additional spend. There are significant variations between authorities in terms of types and levels of social care support and services, so the degree of overestimation of the additional cost of these services will vary accordingly.

² Holmes, L. (2014) *Supporting children and families returning home from care*, Centre for Child and Family Research, Loughborough University.

³ Farmer, E., Sturgess, W., O'Neill, T. & Wijedasa, D. (2011) *Achieving successful returns from care: what makes reunification work?* British Association for Adoption and Fostering, London.

⁴ Wade, J., Biehal, N., Farrelly, N. & Sinclair, I. (2011) *Caring for Abused and Neglected Children: Making the Right Decisions for Reunification or Long-term Care*, Jessica Kingsley Publishers, London.

⁵ Meltzer, H., Gatward, R., Corbin, T., Goodman, R. & Ford, T. (2003) *The mental health of young people looked-after by local authorities in England*, The Stationery Office, London.

⁶ Holmes, L. & McDermid, S. (2012) *Understanding costs and outcomes in child welfare services*, Jessica Kingsley Publishers, London.

6.11 Short-break provision for disabled children and their families

The Centre for Child and Family Research was commissioned by the Department for Education to calculate the costs incurred by children's services departments to provide short-break services.¹ The average cost of different types of short-break services was estimated, along with the costs of the routes by which families access provision, and the ongoing activity undertaken to support the child and family once in receipt of short-break services.¹ See Holmes & McDermid in Curtis (2010) for detailed information on methods.²

The services

Short breaks can be delivered in the form of overnight stays, day, evening and weekend activities, and can take place in the child's own home, the home of an approved carer, or a residential or community setting.³ A range of services were identified in this study, and costs have been updated to current prices using the appropriate inflators.

Table 1 Short break service costs

Service type	Unit	Average cost 2016/2017 value		Range 2016/2017 value
		Mean cost	Median cost	
Residential	Per child per night (24-hour period)	£301	£330	£80-£463
Family-based overnight	Per child per night (24-hour period)	£195	£168	£160-£258
Day care	Per child per session (8 hours)	£149	£139	£113-£234
Home support	Per family per hour	£25	£25	£20-£29
Home sitting	Per family per hour	£21	£21	£12-£30
General groups	Per session	£380	£434	£111-£702
Afterschool clubs	Per session	£320	£311	£274-£378
Weekend clubs	Per session	£356	£357	£339-£370
Activity holidays	Per child per break	£1,466	£947	£129 ^a -£4,229 ^b

^a Short break of two days ^b Short break of seven days

The social care processes

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

Table 2 Social care process costs

Process	Out-of-London cost 2016/2017 value	London cost 2016/2017 value
Referral and assessment processes		
Local Core Offer eligibility models ⁴	Not available	£13
Common Assessment Framework	£213	Not available
Initial assessment	£384	£351
Core assessment	£577	£811
Resource panels for short-break services ⁵	£109	£59
Ongoing support		
Ongoing support	£87	£113
Reviews	£221	£298

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

² Holmes, L. & McDermid, S. (2010) The costs of short break provision, in L. Curtis (ed.) *Unit Costs of Health and Social Care 2011*, Personal Social Services Research Unit, University of Kent, Canterbury.

³ Department for Children, Schools & Families (2008) *Aiming high for disabled children: short breaks implementation guidance*, Department for Children, Schools & Families, London.

⁴ 'Local core offer eligibility model' refers to an access route whereby a local authority offers the provision of a standardised package of short-break services to a specific population of disabled children and young people who meet an identified set of eligibility criteria.

⁵ Two of the three participating authorities used panels to decide how resources might be most usefully deployed to support families. The out-of-London authority held panels once a fortnight, and the London authority held their panel monthly.

6.12 Local safeguarding children's boards

Research carried out by the Centre for Child and Family Research examined the cost of local safeguarding children's boards (LSCBs) as part of a wider study commissioned by the Department for Children, Schools & Families to explore the effectiveness of the boards in meeting their objectives.¹

To understand the costs of the LSCB meetings, information was gathered from practitioners, managers and administrative staff on the time taken to complete activities before, during and after LSCB meetings (see tables 1 and 2). Board members were asked to complete a time-use event record to indicate the time they spent on different LSCB activities in the month preceding the LSCB meeting. Activities included: travel to and from meetings, preparation for meetings and provision of feedback to their agency. Data were collected in relation to the main LSCB meetings and subgroup meetings. The activity times are outlined in the table below.

Table 1 Average time spent by board members before and after LSCB meetings

Activity	Average time spent per meeting ^a
Travel	0.89 hours
Preparation for meetings	3.07 hours
Feedback to own agency	1.33 hours
Total	5.29 hours

^a Figures do not include the time spent in the meeting.

Table 2 Average time spent by board members during LSCB meetings

LSCB	Chair	Business manager	Administrative support	Other posts
Area one	3 days per month	Full-time	1 FTE	1 FTE training co-ordinator
Area two	2 days per month (additional 0.5 for CDOP – another 3 LSCBs contribute) 1 day per month (DCS)	Full-time	0.4 FTE	0.5 FTE training co-ordinator
Area three	5 days per month (proposed contract for independent chair) 1 day per month (DCS)	Full-time	3 FTE* 0.5 FTE (to support training)	1 FTE policy officer 1 FTE training officer 1 FTE allegations manager
Area four	Missing data on contractual arrangements for an Independent Chair	Full-time	1 FTE	0.5 FTE policy officer
Area five	3 days a month (includes chairing SCR panel)	Full-time	1 FTE	0.5 FTE training officer
Area six	2 days per month (former Chair) 3 days per month (independent chair)	Full-time	2 FTE*	1 FTE training officer 1 FTE audit officer

¹ France, A., Munro, E. & Waring, A. (2010) *The evaluation of arrangements for effective operation of the new local safeguarding children boards in England*, Final Report, Department for Education, London.

Unit costs are calculated by multiplying the number of hours carried out for each activity by each type of personnel by the relevant unit costs per hour. Unit costs per hour are based on average salaries for each staff type using national salary scales and applying oncosts and overheads as presented in the Units Costs of Health & Social Care 2008..

Six local authority areas contributed to the study. The structure and activities of the LSCBs in these six areas varied considerably. The costs in each area and the overall average cost are shown below, uprated to 2016/17 using the appropriate inflators. The least expensive area (area 2) had the lowest number of members and seniority was mixed. In area 3 (the most costly area), the LSCB met on a monthly basis, whereas the other Boards met less regularly.

Table 3 The costs of local safeguarding children's boards

LSCB	Infrastructure (staffing, including Chair) per year	Estimated costs of board member attendance at LSCB meetings		Cost of subgroup meetings
		Estimated cost per meeting	Estimated cost per year	
Area one	£143,388	£12,306	£73,838	£71,541
Area two	£111,760	£7,692	£46,155	£23,453
Area three	£323,136	£18,642	£223,701	£157,085
Area four	£103,727*	£17,170	£68,681	£85,405
Area five	£121,602	£10,218	£61,309	Data not available
Area six	£210,541	£17,845	£71,379	Data not available
Average cost	£169,025	£13,979	£90,844	£84,371

*Figure does not include the time spent in the meeting.

6.13 Parenting programmes for the prevention of persistent conduct disorder

The most successful parenting programmes targeted at parents of children with or at risk of developing conduct disorder are designed to improve parenting styles and parent-child relationships, in turn having positive effects on child behaviour. This table draws information from a study by Bonin & colleagues (2011)¹ which identified the average costs for group-based interventions and one-to-one delivery-based interventions. In turn, these estimates drew on data collected between 2007 and 2009 by researchers at the National Academy for Parenting Research. Data on parenting programmes can be found at <http://www.education.gov.UK/commissioning-toolkit>. While there are many different parenting programmes, administered in a variety of formats, often they are group-based lasting between 1.5 and 2.0 hours per week over 8-12 weeks.

Tables 1 and 2 show the cost of delivering three parenting programmes for which there is evidence of effectiveness. According to NICE (2007),² about 80 per cent of parenting programmes can be delivered in a group format, and this figure is used to weight the median costs. The expected intervention cost, based on 80 per cent group and 20 per cent individual provision, is £1,250 per participant. All costs have been updated to 2016/17 using the appropriate inflators.

6.13.1 Group delivery (Triple P and Strengthening Families-Strengthening Communities)

	Median	Mean	Low	High
Total practitioner cost (includes time in session, preparation and supervision time)	£6,475	£6,310	£1,214	£11,074
Venue hire	£1,010	£956	£577	£1,227
Food and refreshment	£527	£499	£301	£640
Childcare	£637	£566	£218	£773
Translation services	£713	£634	£244	£866
Materials	£157	£149	£118	£164
Total cost per programme for training, supervision and materials	£9,520	£9,115	£2,673	£14,745
Total per person assuming 10 per group	£952	£912	£267	£1,475
Total costs of practitioners' training time and fees	£2,092	£2,412	£1,474	£3,991
Training/100 people (assuming 10 participants per group and 10 sessions delivered)	£21	£24	£15	£40
Per person estimate including a component for training	£973	£936	£282	£1,514
Hours of supervision needed x hourly cost of minimum recommended level of supervisor	£531	£531	£290	£770
Per person supervision estimate assuming: 10 per group; cost does not depend on number of practitioners; nor the number of programmes run at once	£53	£53	£29	£77
Per person per programme estimate including a component for training and supervisor cost	£1,026	£989	£311	£1,591

¹ Bonin, E., Stevens, M., Beecham, J., Byford, S. & Parsonage, M. (2011) Costs and longer-term savings of parenting programmes for the prevention of persistent conduct disorder: a modelling study, *BMC Public Health*, 11, 803, doi:10.1186 1471-2458-11-803.

² National Institute for Health and Clinical Excellence (2007) *Parent-training/education programmes in the management of children with conduct disorders*, National Institute for Health and Clinical Excellence, London.

6.13.2 One-to-one delivery (Triple P, Strengthening Families-Strengthening Communities and Helping the Noncompliant Child)

	Median	Mean	Low	High
Total staff cost (includes session, preparation and supervision time) for one lead practitioner	£1,915	£2,726	£760	£5,521
Total food	£53	£40	£0	£62
Childcare	£63	£45	£0	£72
Translation	£71	£51	£0	£82
Materials	£15	£13	£1	£16
Total costs (including preparation, supervision, materials etc.)	£2,118	£2,875	£761	£5,753
Training costs (lead practitioner)	£713	£699	£500	£876
Training fees	£666	£900	£146	£2,168
Total costs of lead practitioner's training time and fees	£1,379	£1,599	£646	£3,045
Per person training component (assuming 50 deliveries per training)	£28	£32	£13	£61
Total including training component	£2,145	£2,907	£774	£5,814
Hours of supervision needed x hourly cost of minimum recommended level of supervisor	384 hrs	452 hrs	256 hrs	680 hrs
Per person supervision cost estimate assuming: 10 one-to-one programmes delivered per supervisor term; cost does not depend on the number of practitioners	£39	£46	£26	£69
Per person per programme estimates including training and supervisor cost	£2,184	£2,953	£803	£5,913

6.14 Parent training interventions for parents of disabled children with sleep or behavioural problems

This table draws on work carried out by Beresford and colleagues (2012)¹ and provides the costs of five different parent training interventions for parents of disabled children with sleep or behavioural problems. Costs have been updated using current salaries and overhead information. The cost for each programme is an average cost.

Description of programme	Staff (Agenda for Change band/local authority band if provided) FTE unless otherwise noted	Staff sessions and hours (including preparation, delivery, debrief)	Average cost per programme (including programme and staff)
The Ascend Programme is a group-delivered parent-training programme for parents of children with Autistic Spectrum Conditions (ASC). Up to 20 participants per programme.	Clinical psychologist (7), learning disability nurse (7), S&L therapist (5), consultant clinical psychologist (8D), consultant psychiatrist (8DD), learning disability nurse (6), CAMHS therapist (6), social worker assistant, learning disability nurse (7), clinical psychologist (6)	Delivered in 10 weekly sessions of 2-2.5 hours plus final follow up session. In total 46.5 hours were delivered by staff across 4 programmes.	Staff cost £7,365 Programme cost £171 Total £7,535
The Cygnnet programme is a group-delivered parent-training programme for parents of children with Autistic Spectrum Conditions, age 7 to 18.	Cygnnet co-ordinator Autistic Support Group co-ordinator, child psychologist (8B), consultant clinical psychologist (8D), clinical psychologist (7), social worker, teacher, administrator (level 3), senior CAMHS practitioner (7), 3 STARS workers and a student nurse.	Delivered in CAMHS and voluntary sector community facilities in 6-weekly 2.5 hour sessions. There is a reunion session at three months. In total 51.5 hours were delivered by staff across 6 programmes.	Staff cost £3,952 Programme cost £187 Total £4,139
The Confident Parenting Programme is a 6-week, group-delivered parent-training programme for parents of disabled children (aged 7 to 18 years). A maximum of 12 participants is recommended.	Consultant clinical psychologist (8C), 2 clinical psychologists (7 and 5), head teacher, assistant psychologist (6) and teacher. There are typically 3 members of staff at each session.	The programme has 6-weekly sessions of 2 hours (+1 optional follow-up). In total 69 sessions (15 hours) were delivered by staff across 4 programmes. An additional 40 hours was required to set up the groups.	Staff cost £3,604 Programme cost £247 Total cost £3,851
Riding the Rapids is a group-delivered parent-training programme for parents of children with Autistic Spectrum Conditions and other disabilities (aged 4-10).	Clinical psychologist (8b), teaching assistant (TA4), S&L therapist, clinical psychologist, senior nurse, deputy head, community nurse (7), parent facilitator, 2 clinical psychologists, assistant psychologist and a community nurse.	The programme is delivered in 10-weekly sessions of 2 hours. In total 33.5 hours were delivered across 7 programmes.	Staff cost £3,225 Programme cost £278 Total cost £3,502
The Promoting Better Sleep Programme is a group-delivered intervention for parents of children with Autistic Spectrum Disorder and/or learning and/or sensory disabilities.	C & A learning disabilities team co-ordinator (7), community learning disability nurse (6), consultant clinical psychologist (8D), autistic spectrum link nurse (4). (Typically 2 members of staff at each session)	A manual-based programme in 4-weekly sessions of 3 hours over 5-6 weeks. In total 32 sessions (16.5 hours) were delivered across 4 programmes.	Staff cost £1,792 Programme cost £121 Total cost £1,912

¹ Beresford, B., Stuttard, L., Clarke, S., Maddison, J. & Beecham, J. (2012) *Managing behaviour and sleep problems in disabled children: an investigation into the effectiveness and costs of parent-training interventions*, Research Report DFE-RR204a, Department for Education, London.

6.15 Independent reviewing officer (IRO)

An independent reviewing officer (IRO) ensures that the care plan for a looked-after child clearly sets out the help, care and support that they need, and takes full account of their wishes and feelings. Local authorities are required by law to appoint an IRO for each looked-after child. Since 2011, IROs are responsible for chairing statutory reviews and also for monitoring children's care plans (Ofsted, 2013). The analysis of resources needed for the IRO service was conducted by the Centre for Child and Family Research (CCFR), Loughborough University (Jelicic et al., 2014).¹ Caseloads and time inputs have been based on suggested best practice and statutory guidance.²

Costs and unit estimation	2016/2017 value	Notes
A. Salary	£42,564 per year	In line with IRO Guidance (Department for Children Schools & Families, 2010), ² IROs are paid at the same level as a team manager. The average salary for a team manager was £35,410 for 2007/08. ³ As no new salary estimates are available, this has been inflated to reflect the pay increments for social workers as reported in this volume.
B. Salary oncosts	£11,997 per year	Employer's national insurance is included plus 17 per cent of salary for employer's contribution to superannuation. ⁴
C. Qualifications	£25,181 per year	IROs are required to be registered social workers. Qualification costs have been calculated using the method described in Netten et al. (1998). ⁵ Current cost information is drawn from research by Curtis et al. (2011). ⁶
D. Ongoing training		IROs should have training to develop their observational skills for work with children under the age of four, communicate with disabled children, and develop links with and awareness of support and services for disabled children. IROs have regular monthly or six-weekly supervision, and regular access to their managers for ad hoc consultation. ²
E. Direct overheads	£15,823 per year	Direct overheads were 29 per cent of direct care salary costs. They include costs to the provider for administration and management, as well as for office, training and utilities such as water, gas and electricity.
Indirect overheads	£8,730 per year	Indirect overheads were 16 per cent of direct care salary costs. They include general management and support services such as finance and human resource departments. ⁷
F. Capital overheads	£3,201 per year	Based on the new-build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. ^{8,9} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
G. Travel		No information available on average mileage covered per review. For information see <i>Green Book: National Agreement on Pay and Conditions of Service</i> . ¹⁰
Working time	41 weeks per year 37 hours per week	Includes 29 days annual leave and 8 statutory leave days. Ten days for study/training and 8.5 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. ¹¹ Unit costs are based on 1,513 hours per year.
Review	8.5 hours	Based on recommendations for a properly resourced IRO service, a standard case should take a total of between 7.5 and 9.5 hours. This includes preparation time (up to 1 hr) consultation with the child/young person, social worker, parents and foster carer/ keyworker/family or friends' carer, the review meeting (between 1.5 to 2 hours) plus travel time, and up to two hours for writing up the report. This work takes the midpoint (8.5 hours).
Ongoing monitoring	1 hour	Up to 1 hour is allocated between review meetings for standard cases. Up to 2 additional hours should be allocated if there are issues that need to be resolved, delays, poor practice or if the child is unhappy in their placement.
Case load	60	It is estimated that a caseload of 50-70 looked-after children for a full-time equivalent IRO would represent good practice in the delivery of a quality service. ² The midpoint has been taken. Results of a national survey show that overall the (mean) average caseload for a full-time equivalent IRO was 78 looked-after children.
London multiplier	1.10 x A 1.59	Allows for higher costs associated with London compared to the national average cost. ^{3,9,10}
Unit costs available 2016/2017 (costs including qualifications given in brackets)		
£54 (£71) per hour; £462 (£604) per review; £517 (£675) (including ongoing monitoring).		

¹ Jelicic, H., La Valle, I. & Hart, D. with Holmes, L. (2014) *The role of Independent Reviewing Officers (IROs) in England*, National Children's Bureau, London.

² Department for Children, Schools & Families (2010) *IRO Handbook, Statutory guidance for independent reviewing officers and local authorities on their functions in relation to case management and review for looked-after children*, Department for Children, Schools & Families. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/273995/iro_statutory_guidance_iros_and_las_march_2010_tagged.pdf (accessed 30 November 2017).

³ Local Government Association Analysis and Research (2008) *Local government earnings survey 2007*, Local Government Analysis and Research, London.

⁴ Thurley, D. (2011) *Local government pension scheme, 2010 onwards*, House of Commons, London.

⁵ 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.

⁶ Curtis, L. Moriarty, J. & Netten, A. (2012) The costs of qualifying a social worker, *British Journal of Social Work*, 42, 4, 706-724.

⁷ Based on information taken from Selwyn, J. et al. (2009) *Adoption and the inter-agency fee*, University of Bristol, Bristol; and Glendinning, C. et al. (2010) *Home care re-ablement services: investigating the longer-term impacts*, Final Report, University of York, PSSRU Kent, Department of Health, London.

⁸ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁹ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

¹⁰ Local Government Employers (2012) *Green Book: national agreement on pay and conditions of service*, Local Government Association, London. http://www.local.gov.uk/web/guest/workforce-/journal_content/56/10180/3510601/ARTICLE/ [accessed 9 October 2013].

¹¹ Local Government Association (2016) *Local government workforce survey 2014/15*, http://www.local.gov.uk/workforce-/journal_content/56/10180/7843334/ARTICLE [accessed 20 October 2016].

6.16 Early Years Teacher Classroom Management Programme

The *Teacher Classroom Management programme* is a prevention programme to strengthen teacher classroom management strategies, and promote children's prosocial behaviour and school readiness (reading skills). The programme is intended for group leaders who plan to work with groups of teachers to promote these skills. It is divided into six full-day workshops, with enough time between each workshop for teachers to practise the new skills. *The Teacher Classroom Management Programme* is useful for teachers, teacher aides, school psychologists and school counsellors <http://incredibleyears.com/programs/teacher/classroom-mgt-curriculum/>. See also Ford et al. (2012) for details on the cost-effectiveness of the programme.¹

The following table provides the costs for two group leaders to deliver six full-day day workshops to ten teachers. Excluded from this table are the costs of ongoing consultation by telephone or in person for new group leaders. The consultation fee is £120 per hour. Although not obligatory, group leaders are encouraged to apply for certification/accreditation (£270). Where costs on the Incredible Years website have been provided in dollars, they have been converted at a rate of \$1=£0.60 (2 June 2014). Based on 2013/14 costs and uprated using the appropriate inflators.

Costs and unit estimation	2016/2017 value	Notes
Start-up costs		
Group leader training	£1,579 per year	Based on the cost of £263 per person per day for a training course requiring three days. Training delivered by an Incredible Years certified trainer or mentor. (Costs exclude airfare from the USA and accommodation, which will vary and might be shared with other programmes.)
Materials	£1,555 per year	This includes Incredible Years materials such as manuals, assorted books, tool box, wheel of fortune, puppets etc. Also, video cameras should be included if sessions are to be filmed.
Group leaders		
Course planning	£14,472 per year	Based on the cost of £604 per day (includes salaries and overheads) for two group leaders for six days.
Teachers attending programme		
Supply cover	£10,525 per year	Supply cover provided for the 10 teachers attending the course at £162 per day for 6 days.
Incredible Years professional		
Supervision	£1,710 per year	Supervision provided by an Incredible Years professional for the 6 sessions. Based on a cost of £260.50 per session
Venue		Cost for venue is not known.
Course materials	£365 per year	Books and handouts at £36.50 per teacher for 10 teachers
Miscellaneous costs	£52 per annum £370 per annum	Incentives and materials Lunch and refreshments are based on a cost of £61 per session.
Certification/accreditation	£281 per annum	This promotes fidelity to the programme
Unit Costs for 2016/2017		
Start-up costs £3,039 (excluding airfare and accommodation for Incredible Years trainer).		
Cost per programme for 10 teachers excluding start-up costs £27,776.		
Cost per teacher excluding start-up costs £2,778.		

¹ Ford, T., Edwards, V. Sharkey, S., Ukoumunne, O., Byford, S. Norwich, B. & Logan, S. (2012) Supporting teachers and children in schools: the effectiveness and cost-effectiveness of the incredible years teacher classroom management programme in primary school children: a cluster randomised controlled trial, with parallel economic and process evaluations, *BMC Public Health*, 12, 719, doi:10.1186/1471-2458-12-719.

6.17 Advocacy for children with additional/multiple needs

The Children's Act 2004 makes it clear that where young people have difficulty in expressing their wishes and feelings about any decisions made about them, or wish to make a complaint, consideration must be given to securing the support of an advocate. This can result in a variety of benefits for both the child and the local authority; enhanced self-esteem and a better understanding of processes leading to more informed choices and improved care packages as well as improved transition from child to adult services.

This service is targeted at young people who are aged between ten and twenty-one and who have additional/multiple needs, are in need of immediate care and protection, looked after, or a care-leaver. It is considered to be a 'typical' service model. The costs below have been compiled in collaboration with a national children's charity.

Costs and unit estimation	2016/2017 value	Notes (for further clarification see Commentary)
A. Wages/salary	£87,434 per year	The service comprises two senior advocates (one whom specialises in disability) working 30 hours per week, an advocate working 21 hours per week and a trainee advocate working 30 hours a week. There is also a sessional advocate who works 12 additional hours per week.
B. Salary oncosts	£18,527 per year	Employer's national insurance is included plus 13.75 per cent of salary for employer's contribution to superannuation.
C. Overheads*		
Management/administration	£34,754 per year	This includes a services manager (21 hours per week) and an administrative assistant (18 hours per week).
Direct overheads	£3,606 per year	This includes rent, utilities, venue hire
Indirect overheads	£17,168 per year	Indirect overheads form 16 per cent of salary plus oncosts. This includes the finance, central management and human resources function.
D. Qualifications	No costs available	
E. Training	£3,500	A standard allowance of £500 per head is provided for training. The majority of training is run in-house via e-learning portals that the national children's charity have either developed in-house or have available through partnerships with external suppliers.
F. Capital overheads	£18,319 per year	This includes an amount of £2,617 per head for equipment and buildings owned by the national children's charity.
G. Travel	£5,000 per year	This is as per budget for a 'typical' advocacy service.
Working time	41 weeks per year 37.5 hours per week	Unit costs are based on 5043 working hours.
Ratio of direct to indirect time on client-related work	1:0.94	2600 hours of client related time is assumed each year.
Caseload	20	20 young people per 1 FTE advocate.
Time per case	10 hours	Average time spent. 85 per cent of cases require 10 hours or less face-to-face time.
Unit costs available 2016/2017		
Average cost per working hour £37, average cost per client-related hour £72. Average cost per advocacy intervention £724.		

* as estimated by the provider organisation

6.18 Counselling for children with mental or emotional difficulties

Counselling falls under the umbrella term 'talking therapies' and allows people to discuss their problems and any difficult feelings they encounter in a safe, confidential environment (<https://www.counselling-directory.org.uk/what-is-counselling.html>). Counselling for young people may be provided at the young person's home, in schools, GP surgeries or other external settings when these are agreed and risk assessed. Although counselling is usually delivered by PW11 and PW111 Counsellors and Psychotherapists, some are delivered by trained volunteers or by more specialised staff when particularly vulnerable groups such as refugees or victims of sexual exploitation/abuse are involved (usually on a sessional basis).

The information for this schema was provided by a national children's charity and the costs estimated represent a 'typical' service for young people who are identified as having a vulnerability relevant to strategic priorities and assessed as having a mental or emotional health difficulty that could benefit from a counselling intervention. There is significant variability between service models dependent on client and commissioner needs

Costs and unit estimation	2016/2017 value	Notes (for further clarification see Commentary)
A. Wages/salary	£59,155 per year	Salary provided by the national children's charity for a counselling service. Includes a service co-ordinator (PW111) with some client-facing time, a project worker, and sessional or volunteer staff to deliver required volumes as flexibly as possible.
B. Salary oncosts	£13,431 per year	Employer's national insurance is included plus 13.75 per cent of salary for employer's contribution to superannuation.
C. Overheads		
Management/administration	£19,889 per year	This includes a services manager (PW111) (33% client-facing time) and an administrative assistant (12.5 hours per week).
Direct overheads	£2,404 per year	This includes rent, utilities and venue hire specific to the service. Indirect overheads form 16 per cent of salary plus oncosts.
Indirect overheads	£14,021 per year	This includes the finance, central management and human resources function.
D. Qualifications	No costs available	
E. Training	£2,000 per year	A standard allowance of £500 per head is provided for training. The majority of training is run in-house via e-learning portals that the national children's charity have either developed in-house or have available through partnerships with external suppliers.
F. Capital overheads	£10,468 per year	A flat amount per head of £2,617 has been applied per staff member for equipment and buildings owned by the national children's society.
G. Travel	£5,250 per year	This is as per budget for a 'typical' counselling service but will vary between services due to differing locations.
Working time	41 weeks per year 37.5 hours per week	Unit costs are based on 2,850 working hours for the counselling service.
Ratio of direct to indirect time on client-related work	1:0.98	Based on 1440 hours of client-related time assumed each year. The BACP good-practice recommendation for counselling is 60:40, with 60 per cent of the counsellor's time being direct face-to-face counselling and 40 per cent spent on associated activities, including supervision, recording and professional developing/training.
Caseload	20	20 young people per 1 FTE counsellor.
Time per case	Median 12 hours	The majority of counselling projects provide short- to medium-term interventions, ranging from 8 to 12 counselling sessions. Most of the counselling is face-to-face, but can also take place in a group context, over the phone or online. Unit costs are based on a median of 12 hours per case (range of 6-16 hours) based on data from a range of counselling services.
Unit costs available 2016/2017		
Average cost per working hour £44, average cost per client-related hour £88. Average cost per counselling intervention £1,055.		

7. Hospital and related services

7.1 NHS reference costs for hospital services

7.2 NHS wheelchairs

7.3 Equipment and adaptations

7.4 Public health interventions

7.5 Self-management programmes

7.6 Hospice Rapid Response Service

7.7 Specialist neuro-rehabilitation services

7.8 Screening interventions for sexually-transmitted infections

7.1 NHS reference costs for hospital services

We have drawn on the *NHS* reference costs to report the costs of selected adult health services.¹ All costs have been updated to 2016/17 levels using the HCHS pay & prices inflator.

Each reported unit cost includes:

- (a) direct costs – which can be easily identified with a particular activity (e.g. consultants and nurses)
- (b) indirect costs – which cannot be directly attributed to an activity but can usually be shared among a number of activities (e.g. laundry and lighting)
- (c) overheads – which relate to the overall running of the organisation (e.g. finance and human resources).

For information on the method used to allocate drugs to services, see reference cost guidance for 2012-2013.¹

	National average	Lower quartile	Upper quartile
Elective/non-elective Health Care Resource Group (HRG) data, average cost per episode			
Elective inpatient stays	£3,903	£2,517	£4,162
Elective inpatient stays (inc. carbon impact 795 kgCO ₂ e) ²	£3,938		
Non-elective inpatient stays (long stays)	£2,953	£2,149	£3,466
Non-elective inpatient stays (long stays) (inc. carbon 601 kgCO ₂ e)	£2,980		
Non-elective inpatient stays (short stays)	£628	£425	£733
Non-elective inpatient stays (short stays) (inc. carbon 128 kgCO ₂ e)	£634		
Day cases HRG data (finished consultant episodes)			
Weighted average of all stays	£727	£499	£870
Weighted average of all stays (inc. carbon 148 kgCO ₂ e)	£734		
Outpatient attendances³			
Weighted average of all outpatient attendances	£137		
Weighted average of all outpatient attendances (inc. carbon 28 kgCO ₂ e)	£138		
PALLIATIVE CARE			
Inpatient – specialist palliative care (adults only), average cost per bed day	£412	£289	£503
Inpatient – hospital specialist palliative care support (adults and children)	£104	£53	£119
Outpatient – medical specialist palliative care attendance (adults and children)	£142	£95	£169
Outpatient – non-medical specialist palliative care attendance (adults and children)	£98	£62	£122
AMBULANCE SERVICES (Weighted average of attendances)			
Calls	£7	£6	£8
Hear and treat and refer	£35	£30	£42
See and treat and refer (including carbon 31 kgCO ₂ e)	£188 (£189)	£174	£205
See and treat and convey (including carbon 40 kgCO ₂ e)	£246 (£248)	£220	£266
All Ambulance Services	£119	£107	£130

¹ Department of Health (2016) *NHS reference costs 2015-2016*, <https://www.gov.uk/government/publications/nhs-reference-costs-2015-to-2016> [accessed 6 September 2016].

² Costs of carbon emissions provided by Richard Lomax, Sustainable Development Unit. Contact richard.lomax@nhs.net for more information.

³ See also Grant, P. (2015) How much does a diabetes out-patient appointment actually cost? An argument for PLICS, *Journal of Health Organisation and Management*, 29, 2, 2015. <http://www.emeraldinsight.com/doi/pdfplus/10.1108/JHOM-01-2012-0005>

7.2 NHS wheelchairs

Information about wheelchair costs is based on the results of a study of six sites supplying wheelchairs to adults and older people.¹ 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 generally refer to individuals who are permanently restricted to a wheelchair but are otherwise well.) The cost of modifications is included in the estimated capital value, but this is a very approximate mid-range figure so specific information should be used wherever possible. All costs have been updated using the retail price index.

Although we have been unable to identify any recent studies on wheelchairs, current price information² suggests that powered wheelchairs range from £1000-£7000 and self- or attendant-propelled wheelchairs range from £100-£1,200.

Type of chair	Total value 2016/2017	Annual cost 2016/2017	Notes
Capital costs			Capital value has been annuitised over five years at a discount rate of 3.5 per cent to allow for the expected life of a new chair. In practice, 50 per cent of wheelchairs supplied have been reconditioned, not having been worn out by the time their first users ceased to need them.
Self- or attendant-propelled	£294	£65	
Active user	£734	£163	
Powered	£1,468	£325	
Revenue costs			Revenue costs exclude therapists' time but include the staff costs of maintenance, and all costs for pressure relief. The cost of reconditioning has not been included in the cost of maintenance.
Maintenance			
- non-powered		£32	
- powered		£126	
Agency overheads			No estimate of management overhead costs is available. They are likely to be minimal.
Unit costs available 2016/2017			
£97 per self or attendant propelled chair per year; £195 per active user per chair per year; £451 per powered chair per year.			

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

² UK wheelchairs - <https://www.uk-wheelchairs.co.uk/>

7.3 Equipment and adaptations

Community equipment refers to any items of equipment prescribed by occupational therapists, physiotherapists and other health staff, designed to help vulnerable or older people and those with disabilities or long-term health conditions to manage everyday tasks independently at home. For this schema, we have drawn from a study commissioned by PSSRU and undertaken by Astral/Foundations (<http://www.foundations.uk.com/about-home-improvement-agencies/>), one aim of which was to identify the process and resources used to supply equipment and adaptations. Information was received from 17 organisations (85% response rate) to support the research: ten local authorities, six Home Improvement Agencies (HIAs) and the British Association of Occupational Therapists. The research differentiated between the time taken to supply and install minor adaptations (generally those under £1,000) and also provided time inputs of the staff involved in administering the process and assessing clients.

In Tables 1-2, we have provided information on equipment and installation costs for major and minor adaptations, and in Tables 3-4 staff preparation and assessment time are provided. Excluded from the research brief were items of equipment and systems commonly regarded as telecare or telehealth, as these types of equipment have been the focus of previous work (see Henderson & colleagues article in the Unit Costs of Health & Social Care 2013).

The period over which adaptations to housing should be annuitised is open to debate. Ideally, they should be annuitised over the useful life of the aid or adaptation. In many cases this is linked to the length of time the person using the appliance is expected to remain at home. Where it is expected that the house would be occupied by someone else, who would also make use of the equipment, a longer period would be appropriate. In the absence of data and following government guidelines on the discount rate, the items in the table below have been annuitised over 10 years at 3.5 per cent.¹ The costs have been updated from 2016/17 using the Retail Prices Index.

Table 1 Major adaptations, including installation costs

	Sample size	Lowest cost	Highest cost	Mean (median) cost	Mean (median) annual equipment cost (3.5% discount)
Level-access shower	21	£2,773	£13,314	£5,160 (£4,422)	£620 (£532)
Stair lift (straight)	21	£1,165	£3,138	£2,079 (£2,136)	£250 (£257)
Stair lift (more complex)	7	£2,552	£7,337	£5,064 (£5,104)	£609 (£614)
Convert room for downstairs WC /washroom	7	£3,107	£24,410	£10,936 (£10,953)	£1,314 (£1,317)
Build downstairs extension for WC/washroom	5	£13,314	£33,287	£25,035 (£27,739)	£3,009 (£3,334)
Build downstairs extension for bedroom	5	£13,314	£49,930	£29,641 (£28,566)	£3,563 (£3,434)
Build downstairs extension for bedroom and en suite facilities	6	£25,519	£49,930	£37,324 (£35,580)	£4,486 (£4,277)
Total	52				

¹ See http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Aboutus/Procurementandproposals/Publicprivatepartnership/Privatefinanceinitiative/Changestotreasurygreenbook/DH_4016196.

Table 2 Minor adaptations, including installation costs

	Sample size	Lowest cost	Highest cost	Mean (median) cost	Mean (median) annual equipment cost (3.5% discount)
Fit handrail – external	8	£18	£110	£45 (£30)	£5.40 (£3.70)
Fit handrail – internal	10	£11	£72	£30 (£22)	£3.80 (£2.60)
Fit handrail to bath	8	£10	£31	£19 (£22)	£2.40 (£2.60)
Fit over bath shower	6	£348	£2006	£117 (£1295)	£14 (£155)
Create step to front/back door	8	£23	£1672	£519 (£97)	£64 (£11.80)
Create ramp to front/back door	5	£132	£755	£341 (£130)	£42 (£15)
Lay new path, per metre cost	3	£109	£134	£123 (£130)	£15 (£15.60)
Widen doorway for wheelchair access	6	£325	£637	£578 (£712)	£71 (£85.60)
Install lighting to outside steps/path	5	£28	£669	£276 (£151)	£34 (£18.10)
Move bed to downstairs room	3	£34	£50	£43 (£49)	£5.40 (£5.80)
Raise electrical sockets/lower light switches	6	£44	£1640	£86 (£81)	£11 (£9.70)

Table 3 Mean time inputs for staff involved in the process of providing minor adaptations

	Average time in minutes			
	Initial enquiry	OT	HIA administrator	Total time
Fit handrail – external	9.8	84	30	123.8 (2.06 hours)
Fit handrail – internal	9.8	72	30	111.8 (1.7 hours)
Fit handrail to bath	9.8	42	24	75.8 (1.1 hours)
Fit (handrail) over bath shower	9.8	84	42	135.8 (2.1 hours)
Create step to front/back door	9.8	132	30	171.8 (2.7 hours)
Create ramp to front/back door	9.8	360	30	399.8 (6.5 hours)
Lay new path, per metre cost	9.8	192	48	249.8 (4 hours)
Widen doorway for wheelchair access	9.8	456	42	507.8 (8.3 hours)
Install lighting to outside steps/path	9.8	318	12	339.8 (5.5 hours)
Move bed to downstairs room	9.8	78	42	129.8 (2 hours)
Raise electrical sockets/lower light switches	9.8	156	36	201.8 (3.2 hours)

Table 4 Mean time inputs for staff involved in providing major adaptations

	Average minutes						Total time
	Initial enquiry	OT	LA grants officer	HIA technical officer	HIA caseworker	HIA administrator	
Level access shower	9.8	210	462	420	287	168	1,557 (26 hours)
Stairlift (straight)	9.8	72	186	120	474	120	982 (16.4 hours)
Stairlift (more complex)	9.8	156	756	306	96	120	1,444 (24.1 hours)
Convert room for downstairs WC/washroom	9.8	498	792	672	276	312	2,560 (42.7 hours)
Build downstairs extension for WC washroom	9.8	816	1,188	1,578	144	174	3,910 (65.2 hours)
Build downstairs extension for bedroom and en-suite facilities	9.8	1,068	1,356	1,272	372	234	4,312 (71.9 hours)

7.4 Public health interventions

These costs are drawn from two reports: *Prioritising investments in public health* (Matrix Evidence and Bazian, 2008),¹ commissioned by the Department of Health, and *A review of the cost-effectiveness of individual level behaviour change interventions* commissioned by the Health and Well-Being Alliance (North West Public Health Observatory, 2011).² Here we present the costs of interventions for which the economic evidence originated in the UK. Further information can be found on Public Health Interventions in the Cost Effectiveness Database (PHICED) <http://www.yhpho.org.uk/PHICED/>. All costs have been taken directly from the reports and updated to 2016/17 prices using the appropriate inflators. Further information on the specific research studies can be found in the reports named above, and King's Fund have produced a set of infographics that describe key facts about the public health system and the return on investment for some public health interventions <https://www.kingsfund.org.uk/audio-video/public-health-spending-roi>. See NICE guidance : <https://www.nice.org.uk/advice/lgb10/chapter/judging-the-cost-effectiveness-of-public-health-activities#smoking-cessation-interventions-bury---a-case-study-in-cost-effectiveness> for advice on the cost effectiveness of public health activities. See also a series of blogs 'public health matters' issued by Public Health England (<https://publichealthmatters.blog.gov.UK/2016/02/29/investing-in-prevention-is-it-cost-effective/>), which cover subjects such as why investing in prevention matters and whether it saves money

Reducing long-term absence in the workplace

The NICE public health guidance on *Management of long-term sickness and incapacity for work*³ provides cost information for three types of intervention: physical activity and education (10 sessions of physiotherapy or physical activity and 10 sessions of cognitive behaviour therapy); workplace intervention (usual care, workplace assessment and work modifications and communication between occupational physician and GP to reach a consensus on return to work); and physical activity and education along with a workplace visit (sessions as before plus half a day of line manager's time).

Table 1 Workplace interventions

Intervention	Workplace intervention	Physiotherapy/ physical activity	Cognitive behaviour therapy	Workplace visit	Total
Physical activity and education		£185	£700		£885
Workplace intervention	£596				£596
Physical activity education and workplace visit		£185	£700	£52	£938

Alcohol intervention

Brief interventions have proven to be effective and have become increasingly valuable for the management of individuals with increasing and high-risk drinking, filling the gap between primary prevention efforts and more intensive treatment for persons with serious alcohol use disorders. The cost of delivering ten minutes' brief advice for alcohol ranges from £8 for a practice nurse to £40 for a GP (see Tables 10.2 and 10.3c of this publication).

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

Individual risk counselling, defined here as a one-to-one intervention, is delivered by a counsellor to at-risk groups with the aim of reducing incidence of STIs or risky behaviour. Individual risk counselling can be delivered through clinics (genitourinary medicine, abortion, or drug and alcohol misuse clinics), community health services, GPs and other community and non-health care settings. The review suggested that counselling interventions cost between £87 and £193 per person.

¹ Matrix Evidence & Bazian (2008) *Prioritising investments in public health*, Department of Health, London.

² North West Public Health Observatory (2011) *A review of the cost-effectiveness of individual level behaviour change interventions*, Health and Wellbeing Alliance, Manchester. <https://www.ewin.nhs.uk/news/item/2011/changes-in-the-nhs> [accessed 9 October 2013].

³ <https://www.nice.org.uk/guidance/ph19>

Reducing smoking and the harms from smoking

The review suggests that there is strong evidence that **mass media campaigns** are effective for both young and adult populations and cost between £0.31 and £2.09 per person. Estimates of cost are higher when the unit receiving the intervention is defined as those potentially exposed to the campaign (£27-£51).

Drug therapies for smoking cessation can include nicotine replacement therapy (NRT) (such as nicotine patches and gum), nicotine receptor partial antagonists (such as varenicline), opioid antagonists (such as naltrexone), clonidine, lobeline, or antidepressants (such as bupropion). There is evidence that drug therapy (bupropion, nicotine replacement therapy and varenicline) has a moderate effect on smoking cessation, particularly in people motivated to quit. There is economic evidence from the UK on the cost of NRT (£48-£167 per person), bupropion (£92-£98 per person), and combinations of NRT and bupropion (£184-£189 per person).

A ten-minute opportunistic brief advice session for smoking costs £40 with a GP and £8 with a practice nurse (see Tables 10.2 and 10.3c of this publication).

Well man services

Information has been drawn from the Liverpool Public Health Observatory Series¹ and provides the costs of 18 well man pilots in Scotland funded between June 2004 and March 2006, which aimed to:

- Promote healthier lifestyles and attitudes among men;
- Provide men with an opportunity to undertake a health assessment and to obtain advice and support on health and lifestyle issues;
- Effectively engage all men and, in particular, those who were hardest to reach as a consequence of social exclusion or discrimination. They were also intended to identify what worked in promoting and sustaining health awareness and improvement in men.

Staff variation was the main factor influencing different session costs, and attendance rate was the main factor in cost per health assessment, particularly at drop-in services in community venues, where attendance was unpredictable. The costs did not include those incurred by patients.

Table 2 Cost comparison of delivery modes – well man service pilots

Location	Cost per session		Cost per assessment	
	Number	Range	Number	Range
Health clinics	9	£213-£941	9	£48-£320
Workplaces	2	£234-£248	3	£30-£116
Community venues (inc. pharmacies)	6	£114-£482	4	£71-£1,257

Health action area – community programme

Within the Wirral health action area, specialist lifestyle advisory staff are co-located with health trainers and community health development staff. These teams work with individuals and groups and provide (or commission) a programme of community-based lifestyle activities including mental wellbeing. They work closely with employability programmes such as the Condition Management Programme and Wirral Working 4 Health. The teams are based in a variety of community venues including a children's centre, and they also work closely with a wide network of other partner agencies, particularly where there is a common interest, e.g. in accessing particular groups such as men aged over 50 or homeless people. This is a model of wellness which takes a network approach within a particular neighbourhood potentially involving all aspects of the wellbeing of an individual or family through joint working rather than a discrete wellness service.

An evaluation of the community programme showed the average cost per client is £37.

¹ Winters, L., Armitage, M., Stansfield, J. Scott-Samuel & Farrar, A. (2010) *Wellness services – evidence based review and examples of good practice*, Final Report, Liverpool Public Health Observatory.

7.5 Self-management programmes

Empowering patients is one of the key priorities listed for the *Five Year Forward View* and the King's Fund have provided a summary of a number of well-established self-management programmes that aim to empower people to improve their health (<https://www.kingsfund.org.uk/projects/gp-commissioning/ten-priorities-for-commissioners/self-management>). Here we draw from studies that have provided the costs of the programmes. We will continue to add to this section when new costs become available.

Self-management support using digital health system for chronic obstructive pulmonary disease (COPD)

Andrew Farmer & colleagues (2017)¹ conducted a randomised controlled trial of a digital health system supporting clinical care through monitoring and self-management support in community-based patients with moderate to very severe chronic obstructive pulmonary disease. The aim of the study was to determine the efficacy of a fully automated internet-linked, tablet computer-based system of monitoring and self-management support (EDGE, sElf-management anD support proGrammE) in improving quality of life and clinical outcomes. Patients were informed that the EDGE platform was not a replacement for their usual clinical care, and the conclusion drawn was that there appears to be an overall benefit in generic health status. The effect sizes for improved depression score, reductions in hospital admissions, and general practice visits, warrant further evaluation.

The costs provided below are for self-management support only; patients will undergo their usual appointments which could be a hospital admission estimated as £2,517, a GP appointment as £37 and a half-hour practice nurse appointment as £18. To provide an annual cost, we have used the costs provided by Farmer & colleagues (2017)¹ and assumed that the equipment would be replaced every 5 years.

Table 1 Costs of self-management support using a digital health system for chronic obstructive pulmonary disease.

	Fixed costs	Annual costs
Equipment costs		
Tablet computer (Android tablet computer (Samsung Galaxy Tab)	£325	£72
Bluetooth-enabled pulse oximeter probe	£407	£90
Clinician reviewing summary of the oxygen saturation, heart rate, and symptom diary module, twice weekly.		£462
Total costs		£625

¹ Farmer, A., Williams, V., Verlardo, C., Ahmar Shah, S. Mee Yu, L., Rutter, H., Jones, L., Williams, N., Heneghan, C., Price, J., Hardinge, M. & Tarassenko, L. (2017) Self-management support using a digital health system compared with usual care for chronic obstructive pulmonary disease: randomized controlled trial, *Journal of Medical Internet Research*, https://www.jmir.org/article/viewFile/jmir_v19i5e144/2.

Nurse-facilitated self-management support for people with heart failure and their family carers (SEMAPHOR).

A study carried out in the UK between 2006 and 2008 assessed the cost-effectiveness of a nurse-facilitated, cognitive behavioural self-management programme for patients with heart failure.¹ The self-management programme consisted of a Heart Failure Plan manual and accompanying DVD, a relaxation tape, a DVD of exercises performed in and around a chair, in addition to regular monitoring of signs and symptoms. Participants received up to six structured one-to-one sessions with a nurse (one visit lasting 60 minutes and the five follow-up visits lasting 20 minutes each).

The first session covered an overview of the Heart Plan; introduction to the pocket diary; a discussion of the patient's risk factors, assessment of whether the patient had any cardiac misconceptions and a discussion of patient's medication. Participants selected the part of the programme they wished to follow, but were encouraged to select a relaxation and walking goal, if appropriate, for the first week. At the second and subsequent meetings at approximately one, three and six weeks later, a check was made on the targets.

The referenced study (Mejia et al., 2014) evaluated the costs and clinical effectiveness of the self-management programme when actively facilitated by a heart failure nurse compared to giving the programme to patients to follow on their own, whilst receiving care from a heart failure nurse.² Table 2 provides the costs of the programme per patient. These costs have been updated from 2008/09 to current values.

Table 2 – Nurse facilitated self-management support for people with heart failure and their family carers

Nurse training	Resources/unit costs per hour	Cost per patient
Number of nurses in self-management	7	
Training (in hours, per nurse)	2	
Hourly cost of a practice nurse (with qualifications)	£36 (£43)	
Number of patients in self-management	95	
Training cost per patient		£5.30
Nurse-facilitated self-management programme		
First visit (minutes)	60	
Five follow-up visits, 20 minutes each		
Costs of visits, per patient		£96.20
Total programme cost, per patient		£101.50

The diabetes education and self management for ongoing and newly diagnosed (DESMOND) programme

The DESMOND Programme is designed for people with type 2 diabetes and for those at increased risk of developing type 2 diabetes: <http://desmond-project.org.uk/329.html>. It is a six-hour structured group education programme delivered in the community by two professional healthcare educators. It was developed as a collaborative project between service users, workers, Diabetes UK and the Department of Health.

A detailed guide to the current costs of hosting the DESMOND Programme in the UK is provided in the linked website: <http://desmond-project.org.uk/costsfordesmondexplained-317.html>. Gillett & colleagues (2010)³ found that the estimated cost of delivering the DESMOND Programme in a 12-month trial of the intervention was £239 per patient; however, the equivalent real-world cost per patient for a hypothetical primary care trust was estimated to be £89. The cost of the DESMOND programme, in terms of its effect on drug use and use of NHS resources, was £18 in the trial. Adding this value to the £239 cost of the intervention gives an estimated 12-month total incremental cost of £258. Using the £89 real-world cost of the intervention, the total incremental cost was £108 per patient. Costs have been updated from 2007/08 using the HCHS inflators.

¹ Mejia, A., Richardson, G., Pattenden, J., Cockayne, S. & Lewin, R. (2014) Cost-effectiveness of a nurse facilitated, cognitive behavioural self-management programme compared with usual care using a CBT manual alone for patients with heart failure: secondary analysis of data from the SEMAPHOR trial, *International Journal of Nursing Studies*, 51, 1214-1220.

² Cockayne, S., Pattenden, J., Worthy, G., Richardson, G. & Lewin, R. (2014) Nurse facilitated Self-management support for people with heart failure and their family carers (SEMAPHOR): a randomised controlled trial, *International Journal of Nursing Studies*, 51, 1207-1213.

³ Gillett, M., Dallosso, H., Dixon, S., Brennan, A., Carey, M., Campbell, M., Heller, S., Khunti, K., Skinner & T., Davies, M. (2010) Delivering the diabetes education and self management for ongoing and newly diagnosed (DESMOND) programme for people with newly diagnosed type 2 diabetes: cost effectiveness analysis, *British Medical Journal*; 341. <http://www.bmj.com/content/341/bmj.c4093> [accessed 9 November 2017].

7.6 Hospice Rapid Response Service

This table is based on a Rapid Response Service (RRS) introduced by Pilgrims Hospices in East Kent in 2010. RRSs provide intensive care over relatively short periods when crises arise, and work alongside regular domiciliary services that offer longer-term support, to help avoid admission to hospice or hospital.¹ This team serves three areas and has access to a service co-ordinator, medical advice and equipment that can be carried by car. The team responds rapidly 24/7 to crises in patients' own homes (including care homes); undertakes a robust assessment which takes account of patient and carer/family preferences, patient needs, and patient prognosis; provides hands-on care; and works in co-ordination with other community services. See *Setting up a new hospice at home service*² for further information. See also *National Survey of Patient Activity Data* for more information on specialist palliative care services.³

Costs and unit Estimation	2016/2017 value	Notes
A. Wages/salary	£287,295 per year	Based on mean Agenda for Change (AfC) salaries for 18 band 3 health care assistants (HCAs) ⁴ who spend 85 per cent of their time on duties related to the RRS.
B. Salary oncosts	£63,942 per year	Employer's national insurance is included plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Qualifications		HCAs required NVQ 2/3 or equivalent and community end-of-life care experience.
D. Training		The HCAs were provided with an initial orientation training programme covering introduction to the hospice and clinical work on wards and in the community. They also attended a 5-day hospice palliative care course costing approximately £755. Staff have continued to access in-house development training, statutory and mandatory annual training.
E. Overheads		
Service co-ordinator and day to day co-ordinator	£41,272 per year	Based on information provided by the hospice, supervision was provided by an Agenda for Change band 8 nurse (40% of WTE) plus a day-to-day coordinator (80% of WTE Agenda for Change band 3). Salary and oncosts are included in this calculation.
Management, administration and estates staff	£17,562 per year	Based on information provided by the hospice, estates and indirect care staff are assumed to be approximately 5 per cent of direct care salary costs.
Non-staff	£151,383 per year	Taken from <i>NHS foundation trusts accounts: consolidated (FTC) files 2014/15</i> . ⁵ Hospice overheads are broadly similar to those applied to NHS staff. Non-staff costs were 43.1 per cent of direct care salary costs. They include costs to the provider for drugs, office, travel/transport and telephone, education and training, supplies and services (clinical and general), as well as utilities such as water, gas and electricity.
F. Capital overheads	£4,664 per year	Based on the new-build and land requirements of NHS facilities. ^{6,7} It is assumed that each HCA uses one-sixth of an office. Six HCAs are on duty at any one time. Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
H. Travel	£131,638 per year	£12.50 per visit. Based on the average number of visits per patient in 2012 (16.6).
Caseload	610 per year	Number of patients
Hours and length of service		The service is available 24 hours each day, seven days per week.
Ratio of indirect time to direct time		No estimates available for percentage of service time spent with patients. Travel time is high given the area covered by the service (approx 20% of total time).
Number of rapid response visits	16.6 per patient	Based on the average number of visits per patient in 2012 (610). Episodes vary according to need. The average number of referrals was 670, although this includes multiple referrals for some people.
Unit costs available 2016/2017		
Total annual costs £697,755; cost per hour of service £80; average cost per patient (referral) £1,149 (£1,046).		

¹ Butler, C., Holdsworth, L. Coulton, S. & Gage, H. (2012) Evaluation of a hospice rapid response community service: a controlled evaluation, *BMC Palliative Care*, 11, 11, doi:10.1186/1472-684X-11-11.

² Butler, C. & Holdsworth, L. (2013) Setting up a new evidence-based hospice-at-home service in England, *International Journal of Palliative Nursing*, 19(7), 355-359.

³ National Survey of Patient Activity Data for Specialist Palliative Care Services (2014) *National Survey of Patient Activity Data for Specialist Palliative Care Services, MDS Full Report for the year 2012-2013*, Public Health England.

⁴ NHS Digital (2016) *NHS staff earnings estimates, 12-month period from July 2015 to June 2016* (not publicly available), NHS Digital, Leeds.

⁵ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415>. [accessed 17 October 2016]

⁶ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁷ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

7.7 Specialist neuro-rehabilitation services

Specialist rehabilitation services¹ play a vital role in management of patients admitted to hospital by ensuring that their immediate medical needs have been met, and supporting safe transition back to the community.² They are consultant-led and supported by a multi-professional team who have undergone recognised specialist training in rehabilitation.^{3,4}

The following table provides the costs of two service models: tertiary 'specialised' rehabilitation services (level 1); and local (district) specialist rehabilitation services (level 2). Also, a new hyper-acute specialist rehabilitation service has been introduced as a result of the development of Major Trauma Networks.⁵ To be designated and commissioned as a specialist rehabilitation service, all Level 1 and 2 services must be registered with UK Rehabilitation Outcomes Collaborative (UKROC).⁶ Two costs are provided for each service: the mean cost per occupied bed day, calculated by taking the total annual costs and dividing by the number of patient bed days; and the mean cost per weighted occupied bed day, which takes into account the number of days patients spend at five identified sub-levels of complexity. See <http://www.kcl.ac.uk/lsm/research/divisions/cicelysaunders/research/studies/ukroc/Commissioning-Tools.aspx> for more information on how the weighted costs have been calculated.

2016/2017 mean costs per occupied bed day and weighted occupied bed day for each service level from participating UKROC Services

Service level	Mean cost (ranges) per occupied bed day (excluding MFF)	Mean cost (ranges) per weighted occupied bed day (excluding MFF)
Level 1 - Tertiary 'specialised' rehabilitation services: high cost / low volume services for patients with highly complex rehabilitation needs that are beyond the scope of their local and district specialist services. These are normally provided in co-ordinated service networks planned over a regional population of 1,000,000-5,000,000 through specialised commissioning arrangements.		
Level 1a - for patients with high physical dependency	£569 (£495 - £654)	£426 (£367 - £469)
Level 1b - mixed dependency	£507 (£457 - £548)	£380 (£325 - £415)
Level 1c - mainly physically stable patients with cognitive/behavioural disabilities. ^a	£678 (£617 - £760)	£511 (£462 - £568)
Level 2 – Local (district) specialist services: typically planned over a district-level population of 350,000-500,000 providing advice and support for local general rehabilitation teams. As tertiary specialised rehabilitation services are thinly spread, in some areas of the UK where access is poor, local specialist rehabilitation services have extended to support a supra-district catchment of 750,000-1,000,000, and take a higher proportion (at least 50%) of patients with very complex needs.		
Level 2a - supra-district specialist rehabilitation services	£461 (£338 - £547)	£368 (£241 - £465)
Level 2b - local specialist rehabilitation services	£434 (£329 - £533)	£362 (£309 - £442)
Hyper-acute: These units are sited within acute care settings. They take patients at a very early stage in the rehabilitation pathway when they still have medical and surgical needs requiring continued active support from the trauma, neuroscience or acute medical services.		
	£698 (£664 - £731)	£436 (£412 - £461)

a. Based on only two services

¹ For more information contact: UKROC - UK Rehabilitation Outcomes Collaborative, St Marks Hospital, London North West Healthcare NHS Trust, Watford Road, Harrow HA1 3UJ. Email: lnwh-tr.ukroc@nhs.net.

² Department of Health (2005) *National service framework: long term conditions*, Department of Health, London. <https://www.gov.uk/government/publications/quality-standards-for-supporting-people-with-long-term-conditions> [accessed 10 November 2015]

³ British Society of Rehabilitation Medicine (2015) *Specialised Neurorehabilitation Service Standards*, BSRM London.

⁴ <http://www.england.nhs.uk/commissioning/spec-services/npc-crg/group-d/d02/>

⁵ British Society of Rehabilitation Medicine (2013) *Core standards and major trauma*, London: <http://www.bsrm.co.uk/Publications.html#BSRMstandards> [accessed 10 November 2015]

⁶ Clinical Reference Group Specialist Services Specification (2012) *Specialist rehabilitation for patients with highly complex needs*, London <http://www.england.nhs.uk/commissioning/spec-services/npc-crg/group-d/d02/> [accessed 10 November 2015]

7.8 NHS reference costs for sexual health

We have drawn on the *NHS* reference costs to report the costs of selected sexual health services.¹ All costs have been updated to 2016/17 levels using the HCHS pay & prices inflator.

Each reported unit cost includes:

- (a) direct costs – which can be easily identified with a particular activity (e.g. consultants and nurses)
- (b) indirect costs – which cannot be directly attributed to an activity but can usually be shared among a number of activities (e.g. laundry and lighting)
- (c) overheads – which relate to the overall running of the organisation (e.g. finance and human resources).

For information on the method used to allocate drugs to services, see reference cost guidance for 2012-2013.¹

	National average
Genito-Urinary Medicine (GUM) infections	
Elective/non elective Health Care Resource Group (HRG) data, average cost per episode	
Elective inpatient stays	£3,543
Non-elective inpatient stays (long stays)	£2,639
Non-elective inpatient stays (short stays)	£1,213
Day cases HRG data (finished consultant episodes)	£396
Consultant-led (Multi-professional)	
Non-admitted, face-to-face, first	£124
Non-admitted, face-to-face, follow-up	£109
Non-consultant-led	
Non-admitted, face-to-face, first	£143
Non-admitted, face-to-face, follow-up	£101
Community health services	
HIV/AIDS specialist nursing (adult)	
Face-to-face	£74
Non face-to-face	£65
Outpatient attendances	
Family planning clinic	
Consultant led	£94
Non-consultant led	£84

¹ Department of Health (2016) *NHS reference costs 2015-2016*, <https://www.gov.uk/government/publications/nhs-reference-costs-2014-to-2015> [accessed 6 October 2017].

7.9 Screening interventions for sexually transmitted infection (STI)

In 2013, Louise Jackson and colleagues (2014)¹ carried out a study to compare the costs and outcomes of two sexually transmitted infection (STI) screening interventions (SPORTSMART pilot trial). The participants were men aged 18 years and over within six amateur football clubs in London. Eligible football clubs were grouped by similar characteristics into three pairs, and each of the pairs was randomised to a study arm (captain-led,¹ sexual health advisor-led² and poster-only³), after which resource use data were collected prospectively and unit costs were applied. In total, 153 men received the screening offer; 50 per cent of the men in the captain-led arm accepted the offer, 67 per cent in the sexual health advisor-led arm and 61 per cent in the poster-only arm.

The costs of each intervention are shown in Table 1. Forgone leisure time or any informal costs were excluded from the study. All costs have been updated from 2012/13 costs using the appropriate inflators.

Table 1

Health Service Costs per intervention and player

Resources used	Cost item	Unit cost £	N	Total cost £
Intervention costs				
Recruitment of club	Per club	£593	2	£1,187
Poster pack	Per pack	£57	2	£114
Test kit	Per player	£6.00	46	£275
Promotion	Per club	Captain-led £143 Health advisor-led £258 Poster-only £143	2	Captain-led £286 Health advisor-led £516 Poster-only £287
Specimen collection box *	Per club	£59		£117
Transport of specimen collection box	Per club	£144		£287
Processing costs				
Additional storage facilities*		£12		£25
Sample processing	Per player tested	£11	Captain-led 28 Health advisor-led 31 Poster-only 31	£320 £354 £354
Patient admin and notification of results	Per player tested	£5.40	Captain-led 28 Health advisor-led 31 Poster-only 31	£151 £167 £167
Total cost per intervention				Captain-led - £2,765 Health advisor-led - £3,045 Poster-only - £2,815
Average cost per player screened			Captain-led 28 Health advisor-led 31 Poster-only 31	Captain-led - £98.70 Health advisor-led £98.20 Poster-only - £90.80

* Includes costs for the first year of the design elements of the posters, test kit, pens and specimen collection boxes and for the first year of the storage facilities, annuitised at 3 per cent over three years

1) Captain-led and poster STI screening promotion; includes the costs for a member of staff (healthcare assistant) from the clinic to undertake the sample processing, notification, preparing of materials and safe return of samples to the clinic. The forgone time taken by the team captain to prepare for and deliver the intervention was excluded.

(2) Sexual health advisor-led and poster STI screening promotion; included a sexual health advisor to lead the screening promotion. It was assumed that the health advisor would also take the materials to the club, prepare the promotion and ensure the safe return of completed specimen samples to the clinic in accordance with trial processes and clinical governance requirements. Travel costs are included.

3) Poster-only STI screening promotion (control/comparator). It was assumed that a member of staff (healthcare assistant) from the clinic undertaking the testing and notification would need to be on site before and after the promotion.

8. Care packages

- 8.1 Social care support for older people, people with intellectual disabilities, people with mental health problems and people with physical disabilities
- 8.2 Health care support received by people with mental health problems, older people (over 75) and other service users
- 8.3 Support for children and adults with autism
- 8.4 Services for children returning home from care
- 8.5 Support care for children
- 8.6 Young adults with acquired brain injury in the UK
- 8.7 Residential parenting assessments
- 8.8 Acute medical units
- 8.9 End of life care

8.1 Social care support for older people, people with learning disabilities, people with mental health problems and people with physical disabilities

The care packages described in the following tables (8.1.1-8.1.4) are drawn from the National Evaluation of the Individual Budgets Pilot Projects (IBSEN).¹ This study collected information on the social care service use of 1001 people across four client groups: older people, people with learning disabilities, people with mental health problems, and people with physical disabilities. For the study, the service users' needs were categorised as critical, substantial or moderate, and information was collected on a pre-specified set of services: the type of accommodation in which they usually lived, the number of hours of home care and day care received each week, and the social security benefits they received. The services were costed using information contained in this volume where possible (see details below); otherwise they have been taken from the Personal Social Services Expenditure return (PSS EX1, 2013/2014)² and uprated using the PSS pay & prices inflator. As no information was available on whether the services had been provided by the local authority or private organisations, we have used the weighted average price.

Home care: The cost per hour for a home care worker is £26 (face-to-face, see Table 11.6). As the PSS EX1 return does not distinguish between client groups for home care, the cost of home care for adults and older people has been used for all client groups. This cost is likely to be an under-estimate for certain client groups.

Day care: To arrive at a cost per day care attendance, assumptions have to be made about the number of times service users attend per week (see section 1 of this volume). Based on these assumptions, the mean cost per client attendance for older people is £64 per week, and for people with mental health problems (local authority and independent provision) is £37.² For people with learning disabilities the mean cost is £64 per session,² and for people with physical disabilities the mean cost of a day care session lasting 4.8 hours is £67.²

Benefit receipt: All benefit receipt was costed using information taken from the Department for Work and Pensions (DWP)³ and summed to provide a total for each service user. Included were long-term incapacity benefit (£106.40 per week), severe disability (single) benefit (£62.45 per week), attendance allowance (lower/higher rate, £55.65/£83.10 per week) and carer's allowance (£62.70 per week).

Accommodation: Information is available on whether the service user lived in a registered care home, sheltered accommodation, supported living, flats, private accommodation or rented accommodation; whether the service user lived alone or in shared accommodation; and the number of bedrooms in the accommodation. No information is available on whether the service user lived in accommodation provided by the local authority or private organisations. We have taken the lower-cost assumption that the accommodation was provided by a private sector organisation. For each client group, the appropriate cost was taken from this volume or other national sources such as Rentright (<http://rentright.co.uk/>), a website which provides the average rental costs for England for each month, or the Halifax Price Index which provides average prices for privately-owned accommodation in England. Sometimes judgements were made about the type of accommodation according to the level of need of the service user. For example, for people with physical disabilities, where a care home was specified it was assumed that this was a high-dependency care home (see Table 5.1 of this volume). Similarly, when a 'flat' was specified and the level of need was 'critical' or 'substantial', the cost of special needs flats were applied (see Table 5.3 of this volume). When the accommodation type was 'supported living', where the level of need was 'critical', it was assumed that this also was a care home; otherwise the cost of 'extra care housing' was used. Costs for residential care and supported living for all client groups were taken from the relevant sections of this volume.

¹ Glendinning, C., Challis, D., Fernandez, J., Jacobs, S., Jones, K., Knapp, M., Manthorpe, J., Moran, N., Netten, A., Stevens, M. & Wilberforce, M. (2008) *Evaluation of the individual budgets pilot programme: Final Report*, Social Policy Research Unit, University of York, York.

² Health & Social Care Information Centre (2015) *PSS EX1 2013/14*, Health & Social Care Information Centre, Leeds

³ PayingForCare (2016) Types of state and local authority support, <http://www.payingforcare.org/types-of-state-and-local-authority-support> [accessed 19 May 2016].

8.1.1 Social care support for older people

In the IBSEN study, 281 people were aged over 65 (28% of the whole sample): 39 had critical needs, 171 had substantial needs and 71 moderate needs. The average total cost for the whole sample was £303 per week.

Service/need group	Average weekly costs 2016/2017	Number of users	Description
Home care			
Critical	£320	18 users	Forty-two per cent of the sample of older people reported the use of home care. The average weekly cost for critical needs users was £320 compared to £169 for those with moderate needs. The average weekly cost for all 118 service users was £190 (9 hours per week).
Substantial	£165	74 users	
Moderate	£169	26 users	
Average/total	£190	118 users	
Day care			
Critical	£165	4 users	Twelve per cent of the older participants reported the use of day care. The average weekly cost for all 35 users was £77.
Substantial	£104	24 users	
Moderate	£85	7 users	
Average/total	£77	35 users	
Benefits			
Critical	£128	15 users	Thirty-seven per cent reported receiving benefits. In total, the cost of benefits received by critical service users was £128, compared to £88 for moderate service users. The total average weekly cost for all 105 users was £98.
Substantial	£88	66 users	
Moderate	£100	24 users	
Average/total	£98	105 users	
Accommodation			
Critical	£203	39 users	The cost of accommodation for those with moderate needs was 6 per cent higher than those with critical needs. The average weekly cost for accommodation was £178.
Substantial	£167	171 users	
Moderate	£214	71 users	
Average/total	£178	281 users	
Total costs			
Critical	£437	39 users	The average weekly cost for all service users was £301. Support costs for critical service users were 33 per cent higher than costs for moderate service users.
Substantial	£301	171 users	
Moderate	£327	71 users	
Average/total	£301	281 users	

8.1.2 Social care support for people with learning disabilities

In the IBSEN study, 260 people had learning disabilities (26% of the whole sample): 76 had critical needs, 159 had substantial needs and 25 moderate needs. The average cost for this sample was £344 per week.

Service/need group	Average weekly costs 2016/2017	Number of users	Description
Home care			
Critical	£425	28 users	Forty-six per cent of the sample of people with learning disabilities reported the use of home care. Of those, the average weekly cost for critical users was £425 compared to £296 for those with moderate needs. The average weekly cost for all 77 service users was £418.
Substantial	£418	47 users	
Moderate	£296	2 users	
Average/total	£418	77 users	
Day care			
Critical	£398	18 users	Twenty-eight per cent of the whole sample of people with learning disabilities reported the use of day care. The average weekly cost was £64 across the 72 users.
Substantial	£58	51 users	
Moderate	£42	3 users	
Average/total	£64	72 users	
Benefits			
Critical	£146	68 users	Seventy-seven per cent reported receiving benefits. In total, the value of benefits received by critical service users was £146 compared to £153 for moderate service users. The total average weekly cost for all 199 users was £145.
Substantial	£144	119 users	
Moderate	£153	12 users	
Average/total	£145	199 users	
Accommodation			
Critical	£203	76 users	The cost of accommodation for those with critical needs was £203 compared to the cost of those with moderate needs of £73. The average weekly cost for the whole sample of people with learning disabilities was £175.
Substantial	£176	159 users	
Moderate	£73	25 users	
Average/total	£175	260 users	
Total costs			
Critical	£437	76 users	The average weekly cost for all service users was £344.
Substantial	£331	159 users	
Moderate	£181	25 users	
Average/total	£344	260 users	

8.1.3 Social care support for people with mental health problems

In the IBSEN study, 143 people had mental health problems (14% of the whole sample): 22 had critical needs, 96 had substantial needs and 25 moderate needs. The average cost for these 143 people was £475 per week.

Service/need group	Average weekly costs 2016/2017	Number of users	Description
Home care			
Critical	£111	4 users	Seven per cent of people with mental health problems were receiving home care. The average weekly cost for critical users was £111, compared to £84 for moderate users. The average weekly cost for all 10 service users was £190.
Substantial	£272	5 users	
Moderate	£84	1 user	
Average/total	£190	10 users	
Day care			
Critical	£79	5 users	Fourteen per cent of people with mental health problems were receiving day care. The average weekly cost was £82 across all users of day care.
Substantial	£83	13 users	
Moderate	£75	2 users	
Average/total	£82	20 users	
Benefits			
Critical	£151	17 users	Seventy-seven per cent service users were receiving benefits. In total, the value of benefits received by critical service users was £151, compared to £116 for moderate service users. The total average weekly cost for all 110 users was £152.
Substantial	£163	73 users	
Moderate	£116	20 users	
Average/total	£152	110 users	
Accommodation			
Critical	£220	22 users	The cost of accommodation for those with critical needs was £220, compared to the cost of those with moderate needs of £190. The average weekly cost across all users was £221.
Substantial	£235	96 users	
Moderate	£190	25 users	
Average/total	£221	143 users	
Total costs			
Critical	£340	22 users	The average weekly cost for all service users was £475. Support costs for critical users were 22 per cent higher than costs for moderate service users.
Substantial	£555	96 users	
Moderate	£278	25 users	
Average/total	£475	143 users	

8.1.4 Social care support for people with physical disabilities

In the IBSEN study, 317 people had physical disabilities (32% of the whole sample): 52 had critical needs, 245 had substantial needs and 20 moderate needs. The average cost for this group was £752 per week.

Service/need group	Average weekly costs 2016/2017	Number of users	Description
Home care			
Critical	£408	31 users	Fifty-six per cent of the total sample of people with physical disabilities received home care. The average weekly cost for users with critical needs was £408, compared to £135 for those with moderate needs. The average weekly cost for all users of home care (176 people) was £311.
Substantial	£302	136 users	
Moderate	£135	9 users	
Average/total	£311	176 users	
Day care			
Critical	£184	8 users	Twelve per cent of the people with physical disabilities were receiving day care. The value of day care received by moderate users was 56 per cent higher than critical users. The average weekly cost was £196 for all 37 users of day care.
Substantial	£194	27 users	
Moderate	£285	2 users	
Average/total	£196	37 users	
Benefits			
Critical	£134	72 users	Ninety-four per cent of service users were receiving benefits. In total, the cost of benefits received by critical service users was £134 per week, compared to £172 for moderate service users. The total average weekly cost for all 297 service users was £184.
Substantial	£183	230 users	
Moderate	£172	17 users	
Average/total	£184	297 users	
Accommodation			
Critical	£845	52 users	The average weekly cost of accommodation for those with critical needs was £845, compared to £266 for those with substantial and moderate needs. The average weekly cost was £361.
Substantial	£266	245 users	
Moderate	£266	20 users	
Average/total	£361	317 users	
Total costs			
Critical	£1,348	52 users	The average weekly care package cost for all service users was £752 per week. Support costs for critical users were 26 per cent higher than costs for moderate service users.
Substantial	£641	245 users	
Moderate	£519	20 users	
Average/total	£752	317 users	

8.2 Health care support received by people with mental health problems, older people (over 75) and other service users

Information for this table has been drawn from the *Evaluation of the Personal Health Budget Pilot Programme*¹ and provides information on the health service use of participants in the year before the study started. The information provided in the table below shows the total mean annual cost of health care received by all participants, which includes people with chronic obstructive pulmonary disease, diabetes, long-term neurological conditions, mental health, stroke and patients eligible for NHS Continuing Healthcare. It also provides this information separately for people with mental health problems and people over 75 with one of the above health conditions.

The information was collected in 2009 and has been updated using the appropriate inflators.

Health services received	Total mean annual cost	Number of patients	Range of costs
All service users			
Nursing and therapy	£226	1,278	£0-£14,628
Primary care	£890	2,028	£0-£11,027
Inpatient care	£4,238	1,771	£0-£111,547
Outpatient and A&E	£1,006	1,772	£0-£12,485
People with mental health problems			
Nursing and therapy	£162	180	£0-£4,008
Primary care	£570	344	£0-£2,498
Inpatient care	£4,507	358	£0-£111,547
Outpatient and A&E	£859	358	£0-£6,884
People aged over 75			
Nursing and therapy	£193	226	£0-£4,168
Primary care	£1,139	345	£0-£14,023
Inpatient care	£6,200	275	£0-£80,046
Outpatient and A&E	£1,081	275	£0-£7,192

¹ Forder, J., Jones, K., Glendinning, C., Caiels, J., Welch, E., Baxter, K., Davidson, J., Windle, K., Irvine, A., King, D. & Dolan, P. (2012) *Evaluation of the personal health budget pilot programme*, Department of Health, London.

8.3 Support for children and adults with autism

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

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

Here we present cost information taken from two research studies. The first focuses on pre-school children and provides the service and wider societal costs in the UK.¹ It looked at the services received by 152 pre-school children with autism, reported family out-of-pocket expenses and productivity losses, and explored the relationship between family characteristics and costs.

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

The second study provides the annual costs for children and adults with low-functioning and high-functioning ASD (i.e. with and without an intellectual disability). The research^{2,3} estimated the full costs of autism spectrum disorders (ASDs) in the United Kingdom drawing on previous research, national surveys, expert advice and supplemented with service use data on 146 children and 91 adults. In the sample of children with autism, ages ranged from 3 to 17, with a mean of 10.28 years (standard deviation 3.17) and a median age of 10. The purpose of the study was to examine the service, family and other economic consequences of autism in the UK for children and adults with ASD. See Tables 8.3.2 to 8.3.4 for costs from this study.

¹ Barrett, B., Byford, S., Sharac, J., Hudry, K., Leadbitter, K., Temple, K., Aldred, C., Slonims, V., Green, J. & the PACT Consortium (2012) Service and wider societal costs of very young children with autism, *Journal of Autism and Developmental Disorders*, 42, 5, 797-804.

² Knapp, M., Romeo, R. & Beecham, J. (2007) *The economic consequences of autism in the UK*, Report to the Foundation for People with Learning Disabilities, London.

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

8.3.1 Children with autism (pre-school)

Information for this table has been taken from Barrett et al. (2012).¹ All costs were originally estimated at 2006/2007 prices and have therefore been updated to 2016/17 using the appropriate inflators.

This table reports the service and wider societal costs for the six months prior to interview for pre-school children with autism. The mean total service costs were £3,068, equivalent to £511 per month and over £5,978 per year. Almost half the costs (44%) were for education and childcare, 41 per cent were for community health and social services, and 12 per cent for hospital services. Total costs varied substantially between the children in the study (range £375 to £7,934 over six months). Box 1 below presents case studies of low- and high-cost cases.

On average, families spent an additional £299 as a result of their child's disorder over the six months prior to interview (range £0 to £4,412). 51 per cent of families reported taking some time off work due to their child's illness over the six months, associated with productivity losses of £326 per family. Mean total costs including all services, family costs and productivity losses were estimated at over £3,692 over six months, equivalent to over £615 per month.

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

	Mean	SD	Total service cost %	Total cost %
Accommodation (residential care)	£21	£261	0.68	0.56
Hospital-based health services	£364	£534	11.88	9.87
Community health and social care services	£1,263	£1,058	41.16	34.19
Medication	£20	£100	0.65	0.54
Voluntary sector services	£36	£97	1.16	0.96
Education and child care	£1,365	£976	44.48	36.95
Total service costs	£3,068	£1,477	100.00	83.08
Out-of-pocket expenses	£299	£633		8.10
Productivity losses	£326	£712		8.82
Total costs	£3,692	£1,978		100.00

Box 1 Case studies of high and low cost cases

High cost — £7,934 over six months

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

Low cost — £375 over six months

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

¹ Barrett, B., Byford, S., Sharac, J., Hudry, K., Leadbitter, K., Temple, K., Aldred, C., Slonims, V., Green, J. & the PACT consortium (2012) Service and wider societal costs of very young children with autism, *Journal of Autism and Developmental Disorders*, 42, 5, 797-804.

8.3.2 Children with low-functioning autism¹ (ages 0-17)

Research carried out by Knapp and colleagues (2007, 2009)^{2,3} estimated the full costs of autism spectrum disorders (ASDs) in the United Kingdom. Costs estimated for children used a combination of routinely collected and research data and a pooled dataset of 146 children, and have been updated to 2016/17 using the appropriate inflators.

The table below summarises the average cost per child with low-functioning ASD, whether living with his or her family or in a residential or foster care placement. Costs are organised under a number of different service and support headings. Family expenses were also included and, where appropriate, costs were imputed for the lost employment of parents. The table distinguishes children in three different age groups. For the two older age groups, the largest contributors to these totals are the care placements themselves, and special education. The authors noted that, given the availability of data, residential special school costs may have been under-estimated.

Average annual cost per child with low-functioning ASD

	Living in residential or foster care placement			Living in private households with family		
	Ages 0-3	Ages 4-11	Ages 12-17	Ages 0-3	Ages 4-11	Ages 12-17
Residential/foster care placement	£19,358	£28,178	£40,050	-	-	-
Hospital services	-	£1,081	£1,991	-	£1,081	£1,991
Other health and social care services	£734	£8,665	£502	£734	£8,665	£502
Respite care	-	-	-	-	£3,545	£4,621
Special education	-	£11,467	£34,632	-	£11,467	£34,632
Education support	-	£1,485	£1,251	-	£1,485	£1,251
Treatments	-	£23	£19	-	£23	£19
Help from voluntary organisations	-	-	-	-	£1,057	£120
Benefits	-	-	-	£4,713	£5,017	£5,017
Lost employment (parents)	-	-	-	-	£2,617	£2,617
Total annual cost (excluding benefits)	£20,302	£50,900	£78,443	£734	£29,941	£45,752
Total annual cost (including benefits)	£20,302	£50,900	£78,443	£5,446	£34,958	£50,769

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

¹ Low functioning autism is a form of autism at the most severe end of the spectrum. Individuals who have it often have extensive impairments. <http://study.com/academy/lesson/low-functioning-autism-definition-characteristics.html> [accessed 4 December 2017].

² Knapp, M., Romeo, R. & Beecham, J. (2007) *The economic consequences of autism in the UK*, Report to the Foundation for People with Learning Disabilities, London.

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

8.3.3 Children with high-functioning autism¹ (ages 0-17)

Research carried out by Knapp and colleagues (2007, 2009)^{2,3} estimated the full costs of autism spectrum disorders (ASDs) in the United Kingdom. Costs have been updated to 2016/17 using the appropriate inflators.

As in Table 8.3.2, the table below distinguishes costs under a number of different service and support headings. The study assumed that all children with high-functioning ASD live with their parents.

Average annual cost per child with high functioning ASD

	Living in private household with family		
	Ages 0-3	Ages 4-11	Ages 12-17
Hospital services	-	£975	£975
Other health and social care services	£1,523	£1,523	£1,523
Respite care	-	£8,166	£8,166
Special education	-	£14,651	£14,651
Education support	-	£684	£684
Treatments	-	£186	£186
Help from voluntary organisations	-	-	-
Benefits	£588	£588	£588
Lost employment (parents)	-	£271	£271
Total annual cost (excluding benefits)	£1,523	£26,455	£26,455
Total annual cost (including benefits)	£2,111	£27,043	£27,043

Note: The costs for children aged 4-11 and aged 12-17 are the same. Expenditure on social security/welfare benefits could partly double-count the costs of lost employment for parents, which is why two totals are provided above.

¹ 'High functioning autism' is a term applied to people with autism who are deemed to be cognitively "higher functioning" than other people with autism. <https://www.verywell.com/what-is-high-functioning-autism-3896828> [accessed 4 December 2017].

² Knapp, M., Romeo, R. & Beecham, J. (2007) *The economic consequences of autism in the UK*, Report to the Foundation for People with Learning Disabilities, London.

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

8.3.4 Adults with autism

Research carried out by Knapp and colleagues (2007, 2009)^{1,2} estimated the full costs of autism spectrum disorders (ASDs) in the United Kingdom. The estimated annual costs for adults with high- and low-functioning ASD are presented below, and were calculated from routinely-collected and research data and a pooled dataset of 185 individuals. Imputed costs for lost employment are included for both the individuals with ASD and for parents, where these are appropriate. Costs are arranged by place of residence, and have been updated using the appropriate inflators.

A sizeable part (59%) of costs for an adult with high-functioning ASD living in a private household (with or without family) is imputed to lost employment (and hence also lost productivity to the economy). Part of that (not separately identified here) would be lost tax revenue to the Exchequer. Costs for high-functioning adults in supported living settings or care homes are much higher (£107,036 and £110,437 per year respectively) and the proportion attributable to lost employment is lower. The largest cost element in each case is for accommodation, and includes the costs of staff employed in those settings or supporting the residents.

Average annual cost per adult with ASD

	Adults with high-functioning ASD			Adults with low-functioning ASD			
	Private household	Supporting people	Residential care	Private household	Supporting people	Residential care	Hospital
Accommodation	£1,867	£74,036	£77,437	-	£74,036	£77,437	-
Hospital services	£975	£975	£975	£109	£188	£43	£94,680
Other health and social care services	£610	£610	£610	£887	£587	£726	-
Respite care	-	-	-	£1,927	-	-	-
Day services	£2,792	£2,792	£2,792	£4,706	£4,545	£1,040	-
Adult education	£3,620	£3,620	£3,620	£1,800	£1,067	£4,159	-
Employment support	-	-	-	£632	£1,371	-	-
Treatments	£186	£186	£186	£78	£78	£78	-
Family expenses	£2,372	-	-	£2,731	-	-	-
Lost employment (parents)	£4,621	-	-	£4,621	-	-	-
Sub-total	£17,042	£82,218	£85,620	£17,491	£81,872	£83,483	£94,680
Lost employment (person with ASD)	£24,818	£24,818	£24,818	£28,077	£28,077	£28,077	£28,077
Total (excluding benefits)	£41,860	£107,036	£110,437	£45,568	£109,948	£111,560	£122,757
Benefits	-	-	-	£8,408	£5,419	£5,419	£1,160
Total (including benefits)	£41,860	£107,036	£110,437	£53,976	£115,367	£116,979	£123,917

¹ Knapp, M., Romeo, R. & Beecham, J. (2007) *The economic consequences of autism in the UK*, Report to the Foundation for People with Learning Disabilities, London.

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

8.4 Services for children returning home from care

A child is recorded as returning home from an episode of care if he or she ceases to be looked after by returning to live with parents or another person who has parental responsibility. This includes a child who returns to live with their adoptive parents but does not include a child who becomes the subject of an adoption order for the first time, nor a child who becomes the subject of a residence or special guardianship order.¹

In light of the research findings about the lack of support leading to breakdown of reunification in some circumstances, the Department for Education has worked with Loughborough University to draw up a number of scenarios reflecting the costs of returning children home based on a range of ages, circumstances and placement types.

Information for Tables 8.4.1 to 8.4.4 has been drawn from a study commissioned by the Childhood Wellbeing Research Centre and undertaken by the Centre for Child and Family Research (CCFR) at Loughborough University.¹ They make use of existing unit costs that have been estimated in previous research studies carried out by the CCFR.^{2,3,4} The aim of this work was to provide a series of estimated unit cost trajectories for children returning home from care. The care illustrates examples of the support received by children between January 2012 and January 2013.

The unit costs used are based on estimates for the 2016/17 financial year. Where costs have been taken from research completed in previous years, they have been inflated to 2016/17. The unit costs of support foster care have been estimated for the Fostering Network, and have been included in these case studies with their permission.⁵

¹ Department for Education (2013) *Data pack: improving permanence for looked-after children*, <http://www.education.gov.uk/a00227754/looked-after-children-data-pack/> [accessed 1 October 2013].

² Ward, H., Holmes, L. & Soper, J. (2008) *Costs and consequences of placing children in care*, Jessica Kingsley, London.

³ Holmes, L., McDermid, S., Padley, M. & Soper, J. (2012) *Exploration of the costs and outcomes of the Common Assessment Framework*, Department of Health, London.

⁴ Holmes, L. & McDermid, S. (2012) *Understanding costs and outcomes in child welfare services*, Jessica Kingsley, London.

⁵ The Fostering Network & Holmes, L. (2013) *Unit Costs of Support Care*, The Fostering Network, London.

8.4.1 Child A – low level of Child in Need support on return home from care

Child A became looked-after under Section 20 arrangements at the age of five. Child A was placed with grandparents out of the area of the local authority under kinship placement arrangements. The placement lasted for three months and, on return home, formal support was not provided; however, the grandmother provided ongoing informal support to the family. In October 2012 Child A became looked-after again and returned to the care of the grandmother.

Social care processes (case management)			
Process	Frequency	Unit cost	Sub-total
LAC 1 – became LAC (looked-after child)	Twice	£1,363	£2,726
LAC 2 – care plan	Once a fortnight	£257	£515
LAC 3 – ongoing placement support	Six months in total	£3,126	£18,756
LAC 4 – return home	Once	£444	£444
LAC 6 – review	Twice	£661	£1,322
Total social care case management costs per year			£23,763

8.4.2 Child B – high level of Child in Need support on return home from care

Child B first became looked-after as a baby and was placed with local authority foster carers when an interim care order was obtained. In February 2011, Child B returned home and a high level of (Child in Need) support was provided to the family over the year, and Child B's parent was provided with drug and alcohol treatment services.

Social care processes (case management)			
Process	Frequency	Unit cost	Sub-total
CiN 3 – ongoing support	12 months	£213	£2,559
CiN 6 – planning and review	3 times	£246	£737
Cost of social care case management activity			£3,295
Additional service costs (out of London)			
Drug and alcohol treatment services	Once a fortnight	£129	£3,360
Total social care case management and service costs per year			£6,655

8.4.3 Child C – high level of Child in Need support and foster care provided on return home from care

Child C was placed in a specialist therapeutic foster care community placement outside the area of the placing authority between September 2011 and October 2012. Prior to this placement, Child C had experienced two other placements and was accommodated under Section 20 arrangements.¹ Child C had emotional and behavioural problems, and was aged 11 at the start of this specialist placement. On return home in October 2012, Child C was referred to receive support foster care. A support foster care family was identified, and respite care was provided by the carers for one overnight stay per week. The case also remained open as a CiN/support foster care case, and this support continued until March 2013.

Social care processes (case management)			
Process	Frequency	Unit cost	Sub-total
LAC 2 – carer plan	Twice	£256	£513
LAC 3 – ongoing placement support	10 months	£12,766	£127,656
LAC 4 – return home	Once	£444	£444
LAC 6 – review	Twice	£661	£1,322
Support foster care – ongoing	2 months	£741	£1,482
Support foster care – referral	Once	£422	£422
Total social care case management costs per year			£131,839

8.4.4 Child D – ongoing support provided by an independent fostering provider on return home from care

Child D was placed with Intensive Foster Placement (IFP) foster carers in June 2010, aged 16, after a care order was obtained. Child D had emotional and behavioural difficulties and remained in the placement until August 2011. On return home in March 2012, Child D continued to be supported by the IFP, and there was a good working relationship between the foster carers and birth family. This support continued until the end of March 2012. The timeline below shows the CiN support provided during the first three months of 2012.

Social care processes (case management)			
Process	Frequency	Unit cost	Sub-total
CiN 3 – ongoing support	3 months	£1,154	£3,463
CiN 4 – close case	Once	£106	£106
Total social care case management costs per year			£3,569

¹ Department for Education (2012) *Children in care*, <http://www.education.gov.uk/childrenandyoungpeople/safeguardingchildren/a0068940/children-in-care/> [accessed 10 September 2013].

8.5 Support care for children

Support care is short-term preventative foster care aimed at families in crisis, with a view to avoiding a child being taken into care full-time and long-term. Support carers look after the child on a part-time basis, while at the same time a package of other support services is offered to the family, giving them space, guidance and help to work through their problems.

The information reproduced below has been drawn from the *Unit costs of support care (2013)*.¹ The report demonstrates that support care, including the accompanying support services for families, has a far lower unit cost than the foster care it replaces.

As well as helping struggling families stay together, support care also helps family and friends' carers such as grandparents, who report that they struggle when children are first placed with them. It can also help to prevent adoption breakdown, and be a breathing space for some families whose disabled children do not reach the criteria for short breaks but desperately need help.

Using a range of pre-existing process unit costs (for example, referrals, reviews and ongoing support),² the costs of support care, using individual case studies as illustrative examples, are presented in Tables 8.5.1 and 8.5.2. Comparative costs if the local authority had been required to place them as looked-after children are also shown. Costs have been updated to current prices using the PSS pay & prices inflator.

The first case study (8.5.1) shows that, for Family A, the costs would have been much higher if the local authority had been required to provide looked-after placements. The cost to look after the three children in local authority foster care for one year is £140,364 which is nearly nine times higher than the estimated social care costs of providing support care for the same duration (£15,673).

The second case study (8.5.2) shows that the total estimated cost to look after Child B in local authority foster care for one year is £50,388 – four times higher than the estimated social care costs of providing support care for the same duration (£12,461).

S. (2012) *Understanding costs and outcomes in child welfare services: a comprehensive costing approach to managing your resources*, Loughborough University; Holmes, L., McDermid, S., Padley, M. & Soper, J. (2012) *Exploration of the costs and impact of the Common Assessment Framework*, Department for Education, London.

¹ The Fostering Network & Holmes, L. (2013) *Unit costs of support care*, the Fostering Network, London.

² Taken from: Ward, H., Holmes, L. & Soper, J. (2009) *Costs and consequences of placing children in care*, Jessica Kingsley, London; Holmes, L. & McDermid,

8.5.1 Family A – support care for a sibling group

Family A were referred to support care following social work concerns about their living arrangements and the deterioration in family relationships. The family consisted of 11 children living with their mother and step-father in a small three-bedroom house. In addition to support care, the family were engaged with a housing support service, budgeting advice, parenting classes and ongoing social work support.

Support care was initially offered to three members of the family: Jack aged 15, Samantha aged 8 and Jordan aged 7. Different support carers were identified for each of the children, and they were offered one overnight stay with support carers once a fortnight.

Family A: support care and annual social care costs

Process	Process unit cost	Social work cost	Fostering cost
1 Referral	£428	£269	£159
2 Ongoing support	(£247 x 12) and (£119 x 12)	£2,964	£1,428
2 Ongoing support	[(£160/7) x 26] x 3 + [(£463/7) x 26] x 3		£6,942
3 Review	£89 x 8 and £74 x 8	£712	£592
4 Case closure	£303	£266	£37
Total		£4,211	£9,158

Annual costs of other support or services provided alongside support care

Support or service	Frequency/duration	Unit cost	Sub-total
Parenting programme	One course – group	£545	£545
Housing support	Once a fortnight	£33	£879
Budgeting advice	Once a fortnight	£33	£879
Total cost of other support or services			£2,303

Family A: social care costs for looked-after children

These costs include the activity to find the first placement for the three siblings, to review the case (using statutory timeframes of 28 days, three-monthly and six-monthly intervals), update care plans and also support the children in their placements. The costs of these processes are detailed below.

Process	Cost
1: Decide children need to be looked-after and find first placement	£1,053
2: Care plans: Updated three times following reviews for each of the children	£2,337
3: Maintain the placements: Support and placement costs (£804 per child per week)	£134,965
6: Review: Held on three occasions during the year	£2,009

8.5.2 Child B – Support care for a single child

Child B (aged six) was referred for support care as a result of housing and financial concerns. He was living with his father and step-mother, along with five other children, in a two-bedroom property throughout the week, and a further three children stayed at weekends. Space and overcrowding were key concerns, as were the financial pressures.

Child B was offered support care for one overnight stay per week at the weekend. Child B's father also agreed to attend support sessions for parenting and budgeting. Child B continued with weekly visits to his support carers for six months, until his family secured larger accommodation. He then continued to receive support care on a fortnightly basis for three further months before being reduced to monthly stays. Child B and his family no longer required support care or other support services after 12 months.

Child B: support care and annual social care unit costs

Process	Process unit cost	Social work cost	Fostering cost
1.Referral	£428	£269	£159
2.Ongoing support	(£247 x 12) and (£119 x 12)	£2,964	£1,428
2.Ongoing support	[(£160/7) x 42] and [(£463/7) x 42]		£3,738
3.Review	(£89 x 8) and £600	£712	£600
4.Case closure	£303	£266	£37
Total		£4,211	£5,962

Annual costs of other support or services, provided alongside support care

Support or service	Frequency/duration	Unit cost	Sub-total
Parenting programme	Once course – group	£545	£545
Housing support	Six sessions	£33	£879
Budgeting advice	Once a fortnight	£33	£879
Total cost of other support or services			£2,303

Child B's: social care costs for looked-after children

The costs for child B would also have been much higher if the local authority had been required to place him as a looked-after child. The costs below include the activity to find the first placement for Child B, to review the case (using statutory timeframes of 28 days, three-monthly and six-monthly intervals), update his care plan and also support Child B in his placement. The costs of these processes are detailed below:

Process	Cost
1. Decide child needs to be looked-after and find first placement	£1,053
2. Care plans: Updated three times following reviews	£2,337
3. Maintain the placements: Support and placement costs (£793 per week)	£44,988
6. Review: Held on three occasions during the year (3 x £614)	£2,010
Total	£50,388

8.6 Young adults with acquired brain injury in the UK

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

A study was undertaken by the Personal Social Services Research Unit to identify the health and social care services used by young adults aged 18-25 years with acquired brain injury (ABI) and the associated costs.¹ The study identified the annual incidence of ABI in this age group, and then tracked the young adults' likely progress through four support-related stages: trauma, stabilisation, rehabilitation and return to the community. By identifying the numbers using different treatment locations and services at each stage, a picture of service use and costs could be built up over a notional 12-month period following injury. All costs have been updated to 2016/17 prices using the HCHS pay & prices Inflatior.

Four broad groups of young people with ABI were identified by their location at the community care stage.

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

Group 1: Average cost per person = £316 per year.

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

Group 2: Average costs per person = £22,578 per year.

The third group of young adults with ABI are those whose pathway towards the end of a year will see them living in supported accommodation with formal (paid) personal carers. Some will have been discharged straight from hospital and some will have stayed in a rehabilitation facility prior to moving to supported living. One in four of these young adults will need overnight supervision, and three in four will need at least part-time supervision during the day. The number of young adults may be quite high, but some will move on to more independent living. Others will need this type of support for many years to come. For cost estimates, it has been assumed this group will live in community-based housing with low staffing levels during the day and 'sleeping-in' staff at night. In addition to personal care, they are also likely to use outpatient clinics and community-based therapists. Personal care costs (estimated at an average of 8 hours overnight 'sleeping-in' and 6 hours during the day) would amount to £565 per week. Use of community-based therapy and health care services would add another £657 by the end of the notional 12-month period.

Group 3: Average cost per person = £43,289 per year.

The fourth group includes young adults who are likely to be among the most severely disabled. Although some will be supported at home, it is estimated that 310 will be resident in nursing homes for young adults, specialist ABI residential units, in longer-stay hospital wards or in mental health units. They are likely to have been the most severely injured. Some of the principal independent providers contacted for this research reported current prices for residential placements of up to £3,289 per week, often jointly funded by health and social services. Nursing homes and 'young disability units' are likely to be less costly. However, nursing home care may not be appropriate for people with severe ABI-related disability as there tend to be few qualified staff and low input from local community-based teams or specialist doctors.

Group 4: Average cost per person = £44,604 per year.

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

8.7 Residential parenting assessments

The following tables illustrate examples of the support given to families during a residential parenting assessment (RPA) from independent providers. These costs have been drawn from a study carried out by the Institute of Education, London and the Centre for Child and Family Research (CCFR) at Loughborough University, in which the use and costs of RPAs in local authorities were explored.¹ Three local authorities took part in an in-depth case analysis of 10 or 11 cases in which an RPA had been used. The unit costs of social care processes and support are based on previous research carried out by CCFR,² and the weekly cost of the RPA is the rate charged to the local authority by the independent RPA provider.

Three examples are presented. Each illustrates different RPA support package and the outcome for the families over a 12-month period during 2011 and 2012, along with the costs incurred. We show the costs for relevant social care processes and other services provided, uprated to 2016/17 prices using the appropriate inflators.

¹ Munro, E., Hollingworth, K., Meetoo, V., Quy, K., McDermid, S., Trivedi, H. & Holmes, L. (2014) *Residential parenting assessments: uses, costs and contributions to effective and timely decision-making in public law cases*, Department for Education, London.

² Ward, H., Holmes, L., & Soper, J (2008) *The costs and consequences of placing children in care*. Jessica Kingsley Publishers, London; Holmes, L. & McDermid, S. (2012) *Understanding costs and outcomes of child welfare services: a comprehensive guide to managing your resources*, Jessica Kingsley, London. The costs have been inflated using the appropriate inflators.

Family A

The mother of this family received methadone replacement treatment and had previously had a child removed from her care. A pre-birth assessment was completed in 2010 for the current child, and a child protection plan initiated. In Spring 2012 a court directed a residential parenting assessment (RPA). The RPA lasted 20 weeks. As part of the assessment the mother was provided with parenting advice and support. In the final six weeks of the RPA, both parents received relationship guidance counselling from the provider. A psychiatric assessment of the mother was completed by another agency. It was concluded that the mother was unable to provide consistently good care and meet the baby's needs. At the end of the RPA the baby was placed with foster carers, and a Placement Order was granted in Summer 2012 when the baby was two years old.

Social process costs	Frequency/ length	Unit cost	Sub-total
CiN – 3 high level – (CPP) ongoing support (per month)	5 months	£474	£2,370
CiN – 5 core assessment	Once	£676	£676
CiN – 8 legal activity	Once	£2,589	£2,589
Cost of CiN social care case management activity			£5,636
LAC – 1 child becomes looked-after	Once	£1,106	£1,107
LAC – 5 find subsequent placement	Once	£350	£350
LAC – 3 ongoing support, in RPA (per day)	143 days	£44 (per day)	£6,334
LAC – 3 ongoing support, first 3 months of placement (per day)	90 days	£9 (per day)	£768
LAC – 3 ongoing support, LA foster care (per day)	99 days	£58 (per day)	£5,757
LAC – 3 fee & allowance foster care in LA (per week)	14 weeks	£180 (per week)	£2,520
LAC – 6 review	Once	£704	£704
LAC – 2 care planning	Once	£273	£273
LAC – 7 legal activity	Once	£4,765	£4,764
Cost of LAC social care case management activity			£22,578
Total cost of all social care case management activity			£28,214
Service provision costs			
RPA, including parenting support and relationship counselling for parent.	12 weeks and 8 weeks	£3,680 (per week for the RPA) £3,680 (per week for the relationship counselling)	£73,597
Drug & rehab programme	20 weeks	£58	£1,164
Parent psychiatric assessment	Once	£147	£147
Total cost of service provision			£74,909
Total costs of support for Family A			£103,123

Family B

In Summer 2011 a court-directed RPA was to be initiated for Family B. The parents asked to be assessed as a couple. The parents and two children began the RPA that Summer, during which time another baby was born. Due to aggressive incidents between the couple, the parents were separated into different facilities and assessed separately. During the period of the RPA, the mother attended an intervention group for perpetrators of domestic abuse, completed a psychiatric assessment, and the children were also given a psychotherapy assessment. The father's individual RPA began with the two older children at the other facility. The mother's RPA with her new baby finished at the end of the Summer due to her poor care skills and maltreatment of the baby. The baby was placed with the father and other siblings. A week of intensive parenting support to help him care for the young baby was provided by the RPA provider. The assessment was completed and the father was considered able to provide for the care needs of the children. The family was accommodated and a community assessment completed. The local authority concluded the father should be the primary carer, and in Spring 2012 a Residence Order was granted for the three children and a Supervision Order for 12 months.

Social process costs	Frequency/ length	Unit cost	Sub-total
CiN – 3 ongoing support	5 days	£15.37	£79
CiN – 8 legal activity	Once	£2,589	£2589
Cost of CiN social care case management activity			£2,668
LAC – 1 child becomes looked-after	Once	£684	£684
LAC – 3 ongoing support, in RPA	133 days	£36 (per day)	£4,828
LAC – 3 ongoing support, placed with parent	154 days	£36 (per day)	£5,580
LAC – 3 ongoing support, first 3 months of placement	87 days	£8.79 (per day)	£768
LAC – 6 review	Once	£704	£704
LAC – 2 care planning	Once	£273	£273
LAC – 7 legal activity	Once	£4,765	£4,765
LAC – 4 ongoing support	Once	£461	£461
Cost of LAC social care case management activity			£18,063
Total cost of all social care case management activity			£20,732
Service provision costs			
RPA initiated	12 weeks	£1,456 (per week)	£16,126
2nd RPA initiated	17 weeks	£1,456 (per week)	£22,845
Consultant paediatrician	Twice	£189 (per consultation)	£349
LA parenting support	12 weeks	£32 (per week)	£353
Parenting support and visits	6 weeks	£1,415 (per week)	£7,836
Parent psychiatric assessment	Once	£145	£145
Child psychotherapy assessment	Twice	£74 (per visit)	£148
Total cost of service provision			£51,777
Total costs of support for Family B			£72,509

Family C

In this family, three children have previously been removed and adopted; when it was apparent the mother wanted to raise the baby, a referral was made to social care. This referral led to an initial assessment in Autumn 2011. The mother had a diagnosis of depression, and both parents have learning difficulties. A core assessment was completed in Spring 2012 and an RPA followed. This was to give the parents an opportunity to show they could care for the needs of the baby. The RPA began from birth in late Spring 2012. The RPA was planned for 12 weeks, but the father was asked to leave due to his aggressive behaviour with staff and other service users, and the mother left with him. Thus the RPA lasted only 8 weeks, until Summer 2012. The baby was placed in local authority foster care and an interim care order was granted in late Summer 2012, and a care order and placement order in winter 2012. The baby was placed a year later with adoptive parents who had previously adopted one of the baby's siblings.

Social process costs	Frequency/length	Unit cost	Sub-total
CiN – 3 medium level – ongoing support	5.5 months	£221 (per month)	£1,221
CiN – 5 core assessment	Once	£676	£676
Cost of CiN social care case management activity			£1,898
LAC – 1 child becomes looked-after	Once	£1,107	£1,106
LAC – 5 find subsequent placement	Once	£350	£350
LAC – 3 ongoing support, during RPA	62 days	£36 (per day)	£2,217
LAC – 3 ongoing support, LA foster care	157 days	£58 (per day)	£9,130
LAC – 3 ongoing support, first 3 months of placement	90 days	£9 (per day)	£767
LAC – 3 additional support for care order	55 days	£11 (per day)	£625
LAC – 3 fee & allowance foster care in LA	23 weeks	£180 (per week)	£4,141
LAC – 6 review	Twice	£704	£1,409
LAC – 2 care planning	Twice	£273	£547
LAC – 7 legal	Once	£4,764	£4,765
Cost of LAC social care case management activity			£26,956
Total cost of all social care case management activity			£28,853
RPA initiated	8 weeks	£1,456 per week	£11,651
Total cost of service provision			£11,651
Total costs of support for Family C			£38,607

8.8 Acute medical units (patient costs following discharge)

Acute medical units (AMU) are the first point of entry for patients who are admitted for urgent investigation or care by their GP, an outpatient clinic or the Emergency Department. They allow for those who need admission to be correctly identified, and for those who could be managed in ambulatory settings to be discharged. The Acute Medicine Outcome Study (AMOS) carried out by Franklin et al. (2014) found that service evaluations indicated that readmission rates for older people in the year following discharge from AMUs are high.¹ Further work was therefore carried out to identify the resource use of 644 people, aged over 70, based in Nottingham and Leicester and who had been discharged from an acute medical unit within 72 hours of admission.

Data were taken from Electronic Administrative Record (EAR) systems on a range of health and social care services potentially used by all patients participating in the study, collected for three months post-AMU discharge (January 2009-February 2011). Resource use was then combined with national unit costs to derive total patient costs, which have been updated to 2016/17 prices using the HCHS inflation index. The table below provides the secondary care and social care resource use and costs for 456 patients residing in Nottingham, and also for a subset of these patients (250) for which the primary care costs were also available. The mean cost for the 456 patients (excluding primary care) was £1,928, and £2,173 for the 250 patients for which all resource use was available (see Table 1).

Table 1 Summary of patient resource use and costs over three months (costs have been updated using the HCHS inflator).

	No. of service users (mean number of events per service user) ^(a)	Mean (SD) cost (£) for 456 patients	Mean (SD) cost (£) per patient in the complete data subset (n = 250)
Hospital care	360 (4)	£1,712 (£3,415)	£1,634 (£3,165)
Inpatient care ^(b)	119 (2)	£1,176 (£3,199)	£1,074 (£2,952)
Day case care	71 (1)	£144 (£418)	£154 (£464)
Outpatient care	358 (3)	£384 (£409)	£391 (£367)
Critical care ^(c)	8 (1)	£8 (£100)	£14 (£135)
Ambulance service	20 (2)	£20 (£118)	£15 (£84)
Intermediate care	11 (Not applicable)	£11 (£167)	£3 (£42)
Mental health care	28 (4)	£41 (£196)	£47 (£193)
Social care	76 (4)	£167 (£777)	£226 (£950)
Total costs (exc. primary care)	377 (5)	£1,952 (£3,634)	£1,928 (£3,475)
Primary care ^(d)	243 (6)	-	£245 (£258)
Consultations	113 (3)	-	£32 (£46)
Home visits	42 (7)	-	£27 (£108)
Procedures	25 (3)	-	£4 (£22)
Other events ^(e)	202 (22)	-	£57 (£60)
Medication	232 (21)	-	£115 (£146)
Wound dressings	64 (4)	-	£11 (£35)
Total costs including primary care ^(f)	248 (7)	-	£2,173 (£3,528)

SD: standard deviation

a) Mean number of events for inpatient care is based on mean number of episodes, and not number of spells. Mean number of events for 'total' does not include primary care events classed as 'other events', 'medication' or 'wound dressing'.

b) Mean length of hospital stay for those patients with an inpatient admission over the trial period was 12 days.

c) Mean length of intensive care stay for those patients with an intensive care admission was 15 days.

d) Mean number of events for primary care service users only includes face-to-face contacts (i.e. consultations, home visits, and procedures)

e) 'Other events' includes all non-face-to-face entries on the EAR system that require staff time to execute, i.e. administration, telephone calls etc. Entries that were electronic and external to the practice or created by an electronically automated system (i.e. did not require staff time to execute) were excluded from this analysis.

f) Mean number of events includes only face-to-face contacts across all services apart from mental health care (see also point (d))

¹ Franklin, M., Berdunov, V., Edmans, J., Conroy, S., Gladman, J. Tanajewski, L., Gkountouras, G. & Elliott, R. (2014) Identifying patient-level health and social care costs for older adults discharged from acute medical units in England, *Age and Ageing*, 43, 703-707. Contact Matthew Franklin: Matthew.Franklin@matt.franklin@sheffield.ac.uk for more information.

The figures presented in Table 2 are mean costs by service and mean total cost across services for patients described as high-cost patients. A high-cost patient represents the top 25 per cent of most costly patients, based on their overall health and social care cost (including primary care) for whom primary care data were available.

The mean cost for these high cost patients across all services excluding primary care was £6,250, and £6,638 when including primary care. These mean costs for high-cost patients are approximately three times higher than the mean cost estimates for all patient discharged from AMU in the complete data subset as presented in Table 1 (mean total cost excluding primary care: £6,139 versus £1,916; mean total cost including primary care: £6,638 versus £2,173).

Table 2 High-cost patients discharged from AMU (top 25% of most costly patients - costs have been updated using the HCHS inflator)

	No. of high-cost service users, (mean number of events per service user) (n = 63) ^(a)	Mean (SD) cost per high cost patient (n = 63)
Hospital care	62 (6)	£5,274 (£4,646)
Inpatient care ^(b)	52 (3)	£4,097 (£4,739)
Day case care	24 (1)	£488 (£790)
Outpatient care	61 (4)	£630 (£380)
Critical care ^(c)	3 (1)	£59 (£266)
Ambulance service	5 (2)	£33 (£127)
Intermediate care	2 (not applicable)	£13 (£85)
Mental health care	12 (4)	£134 (£326)
Social care	27 (4)	£795 (£1,760)
Total costs (excl. primary care)	63 (9)	£6,250 (£4,732)
Primary care ^(d)	27 (11)	£388 (£394)
Consultations	26 (3)	£30 (£47)
Home visits	16 (12)	£66 (£198)
Procedures	4 (1)	£1 (£5)
Other events ^(e)	53 (28)	£85 (£79)
Medication	57 (32)	£187 (£209)
Wound dressings	22 (5)	£20 (£48)
Total costs including primary care ^(f)	63 (14)	£6,638 (£4,693)

SD: standard deviation

a) Mean number of events for inpatient care is based on mean number of episodes, and not number of spells. Mean number of events for 'total' does not include primary care events classed as 'other events', 'medication' or 'wound dressing'.

b) Mean length of hospital stay for those patients with an inpatient admission over the trial period was 13 days.

c) Mean length of intensive care stay for those patients with an intensive care admission was 15 days.

d) Mean number of events for primary care service users only includes face-to-face contacts (i.e. consultations, home visits, and procedures)

e) 'Other events' includes all none face-to-face entries on the EAR system that requires staff time to execute, i.e. administration, telephone calls etc. Entries that were electronic and external to the practice or created by an electronically automated system (i.e. did not require staff time to execute) were excluded from this analysis.

f) Mean number of events includes only face-to-face contacts across all services apart from mental health care (see also point (d))

8.9 End of life care

Recent research carried out by the Nuffield Trust¹ on behalf of the National End of Life Care Intelligence Network has examined the health and social care service use patterns across seven local authorities for a cohort of 73,243 people who died.

Table 1 provides the total cost of care services received in the last twelve months of life, and also the average cost per decedent and per user of each type of service. Estimated social care costs include only the most common types of services provided by local authorities. Hospital care accounted for 66 per cent of total care costs, and social care costs for 34 per cent of total costs.

Emergency hospital admissions were responsible for 71 per cent of all hospital costs in the final year of life, and 46 per cent of total costs. Emergency admissions rose sharply in the final year such that, by the final month of death, costs had risen by a factor of 13 compared to 12 months earlier. They accounted for 85 per cent of hospital costs in the final month (£2,006 per decedent). Elective inpatient costs more than tripled in the same period (from £77 to £263 per decedent).

Table 1: Estimated average cost of care services in the last twelve months of life

	Total cost	Total cost per decedent	% total	No. of users	Total cost per user
Hospital care	£532	£7,260	66%	65,624	£8,102
Inpatient emergency	£378	£5,159	47%	54,577	£6,923
Inpatient non-emergency	£101	£1,376	12%	58,165	£1,732
Outpatient	£43	£592	5%	50,155	£865
A&R	£10	£133	1%	48,000	£203
Social care	£283	£3,864	34%	20,330	£13,923
Residential and nursing care	£227	£3,099	28%	10,896	£20,529
Home care	£44	£599	5%	10,970	£4,000
Other	£12	£167	1%	4,084	£2,991
Total	£814	£11,124	100%	73,243	NA

NB The total cost per decedent for any of the services is total cost of the service/the number of people who died. The total cost per user is total cost of the services/number of users of that service.

One of the key findings of the research was that there were significant differences in the use of social care between groups of individuals with certain long-term conditions: people with dementia, falls and stroke were more likely to use social care services, while people with cancer were least likely to use social care (even when adjusted for age). Table 2 shows these costs by diagnostic group. A person may have more than one condition so the groups are not mutually exclusive, and the sum of individual rows exceeds the total. Hospital costs were higher for those with more than one long-term condition (as might be expected), and social care costs decreased with an increasing number of long-term conditions.

¹ Georghiou, T., Davies, S., Davies, A. & Bardsley, M. (2012) *Understanding patterns of health and social care at the end of life*, Nuffield Trust, London.

Table 2 Cost of hospital and social care services by diagnostic group per decedent in the final year of life

Diagnostic group	Average costs, final year, £ per person			
	Number	Hospital care	Social care	Hospital and social care
All people	73,243	£7,260	£3,865	£11,125
No diagnoses	22,118	£3,574	£4,750	£8,324
Any diagnosis	51,125	£8,853	£3,482	£12,335
Hypertension	21,241	£9,908	£3,195	£13,103
Cancer	19,934	£10,378	£1,492	£11,871
Injury	17,540	£10,692	£4,642	£15,334
Atrial fibrillation	13,567	£10,010	£3,784	£13,794
Ischaemic heart disease	13,213	£10,155	£3,224	£13,379
Respiratory infection	11,136	£11,112	£2,567	£13,678
Falls	10,560	£9,823	£5,875	£15,700
Congestive heart failure	10,474	£10,203	£3,662	£13,865
Chronic obstructive pulmonary disease	9,392	£9,967	£2,885	£12,853
Anaemia	9,210	£11,704	£3,479	£15,183
Diabetes	8,697	£10,187	£3,593	£13,781
Cerebrovascular disease	8,290	£10,031	£4,782	£14,813
Peripheral vascular disease	6,780	£11,558	£3,187	£14,745
Dementia	6,735	£8,367	£10,245	£18,612
Renal failure	6,570	£11,665	£3,678	£15,343
Angina	6,549	£10,908	£3,260	£14,167
Mental disorders, not dementia	4,814	£10,940	£4,141	£15,081
Iatrogenic conditions	4,190	£15,767	£2,903	£18,670
Asthma	3,480	£10,589	£2,846	£13,435
Alcoholism	2,437	£9,657	£1,329	£10,986
Non-rheumatic valve disorder	2,059	£11,889	£2,510	£14,399

II. COMMUNITY-BASED HEALTH CARE STAFF

9. Scientific and professional staff

The table overleaf provides the unit costs for community-based allied health professionals (bands 4-8) and replaces the individual schema usually found in this section. Each Agenda for Change (AFC) band can be matched to professionals using the AFC generic profiles: <http://www.nhsemployers.org/your-workforce/pay-and-reward/pay/job-evaluation/national-job-profiles>. Examples of roles by band are shown below and in more detail by job type in Chapter 18. Reference should also be made to the explanatory notes when interpreting the unit costs.

Job titles by band	
Band 2	Clinical support worker (Physiotherapy, Occupational therapy, Speech and language therapy).
Band 3	Clinical support worker (higher level) (Physiotherapy, Occupational therapy, Speech and language therapy).
Band 4	Occupational therapy technician, Speech and language therapy assistant/associate practitioner, Podiatry technician, Clinical psychology assistant practitioner, Pharmacy technician.
Band 5	Physiotherapist, Occupational therapist, Speech and language therapist, Podiatrist, Clinical psychology assistant practitioner (higher level), Counsellor (entry level).
Band 6	Physiotherapist specialist, Occupational therapist specialist, Speech and language therapist specialist, Podiatrist specialist, Clinical psychology trainee, Counsellor, Pharmacist, Arts therapist (entry level).
Band 7	Physiotherapist (advanced), Specialist physiotherapist (Respiratory problems), Specialist physiotherapist (Community), Physiotherapy team manager, Speech and language therapist (advanced), Podiatrist (advanced), Podiatry team manager, Clinical psychologist, Counsellor (specialist), Arts therapist.
Band 8a	Physiotherapist principal, Occupational therapist principal, Speech and language therapist principal, Podiatrist principal.
Band 8a-b	Physiotherapist consultant, Occupational therapist consultant, Clinical psychologist principal, Speech and language therapist principal, Podiatric consultant (surgery), Arts therapist principal.
Band 8a-c	Counsellor professional manager, Counsellor consultant, Consultant speech and language therapist.
Band 8c-d	Clinical psychologist consultant, Podiatric Consultant (surgery), Head of arts therapies, Arts therapies consultant.
Band 8d-9	Clinical psychologist consultant (Professional), Lead/head of psychology services, Podiatric consultant (surgery) Head of Service.

9. Scientific and professional staff

A Wages/salary

Based on the mean full-time equivalent basic salary for Agenda for Change bands 2-8b of the July 2016-June 2017 NHS staff earnings estimates for allied health professionals.¹ See NHS terms and conditions of service handbook for information on payment for unsocial hours.² See section V for further information on pay scales. The Electronic Staff Records (ESR) system shows that the mean basic salary for all physiotherapists is £33,440; hospital occupational therapists, £32,253; speech and language therapists, £33,622; dietitians, £33,380.

B Salary oncosts

Employer's national insurance is included plus 14.38 per cent of salary for employer's contribution to superannuation.

C Qualification costs

See section V for detailed information on qualifications for each category of scientific and professional staff. These have been calculated using the method described in Netten et al. (1998).³ Current cost information has been provided by the Department of Health and Health Education England (HEE).⁴ To calculate the cost per hour including qualifications for each profession, the appropriate expected annual cost shown in chapter 19 should be divided by the number of working hours. This can then be added to the cost per working hour.

Based on information provided by Health Education England,⁵ the cost of training a clinical psychologist was on average £159,420 in 2016. This excludes living expenses/lost production costs.

D Overheads

Taken from the 2013/14 financial accounts for 10 community trusts.

Management and other non-care staff costs are 24.5 per cent of direct care salary costs and include administration and estates staff. Non-staff costs are 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.

E Capital overheads

Based on the new-build and land requirements of NHS hospital facilities, but adjusted to reflect shared use of office space for administration, and recreational and changing facilities.^{6,7}

F Travel

No information available on average mileage covered per visit. From July 2014, NHS reimbursement has been based on a single rate for the first 3,500 miles travelled of 56p per mile, and a reduced rate thereafter of 20p per mile, irrespective of the type of car or fuel used.⁸

G Working time

Working hours for each AFC band have been calculated by deducting sickness absence days as reported for NHS staff groups⁹ and training/study days from 225 working days.

H Ratio of direct to patient-related time

See previous editions for time spent on patient-related activities. See also section V for information on a PSSRU survey carried out in 2014/15 providing estimates of time use for community staff.

I London multiplier and non-London multiplier

Allows for the different costs associated with working in London/outside London.^{4,5,10}

¹ NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

² NHS Employers (2017) *NHS Terms and Conditions of Service Handbook (Agenda for Change)*, NHS Employers, London. <http://www.nhsemployers.org/your-workforce/pay-and-reward/nhs-terms-and-conditions/nhs-terms-and-conditions-of-service-handbook>. [accessed 17 October 2016]

³ 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.

⁴ Personal Communication with the Department of Health and Health Education England (HEE), 2017.

⁵ Health Education England (2016) *Review of clinical and educational psychology training arrangements*, Health Education England & National College for Teaching & Leadership, London.

⁶ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁷ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal, 2009-10 to 2016-17*, NHS Digital, London. [accessed 9 October 2017]. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf

⁸ NHS Employers (2015) *Mileage allowances – Section 17*, NHS Employers, London. <http://nhsemployers.org/your-workforce/pay-and-reward/nhs-terms-and-conditions/nhs-terms-and-conditions-of-service-handbook/mileage-allowances> [accessed 5 November 2015].

⁹ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17*, NHS Digital, London. [accessed 13 October 2017].

¹⁰ Monitor (2016) *NHS National Tariff Payment System 2016/17*, <https://www.gov.uk/government/publications/nhs-national-tariff-payment-system-201617> [accessed 17 October 2017].

9. Scientific and professional staff

This table provides the annual and unit costs for community-based scientific and professional staff. See notes facing for assistance in interpreting each cost item. See chapter 18 for examples of roles in each band.

Refer to notes on facing page for references	Band 4	Band 5	Band 6	Band 7	Band 8a	Band 8b	Band 8c	Band 8d	Band 9
A Wages/salary	£21,579	£23,439	£31,593	£38,951	£46,339	£55,478	£65,309	£79,352	£97,318
B Salary oncosts	£4,969	£5,493	£7,791	£9,864	£11,946	£14,521	£17,292	£21,249	£26,312
C Qualification	See note	See note	See note	See note	See note	See note	See note	See note	See note
D Overheads									
Management, admin and estates staff	£6,504	£7,088	£9,649	£11,960	£14,280	£17,150	£20,237	£24,647	£30,289
Non-staff	£10,141	£11,052	£15,045	£18,647	£22,265	£26,740	£31,554	£38,430	£47,227
E Capital overheads	£2,813	£5,125	£5,125	£5,125	£5,125	£5,125	£5,125	£5,125	£5,125
F Travel	See note	See note	See note	See note	See note	See note	See note	See note	See note
G Working time	43.2 weeks (1,620 hours) per year, 37.5 hours per week	42.6 weeks (1,599 hours) per year, 37.5 hours per week	42.6 weeks (1,599 hours) per year, 37.5 hours per week	42.6 weeks (1,599 hours) per year, 37.5 hours per week	42.6 weeks (1,599 hours) per year, 37.5 hours per week	42.6 weeks (1,599 hours) per year, 37.5 hours per week	42.6 weeks (1,599 hours) per year, 37.5 hours per week	42.6 weeks (1,599 hours) per year, 37.5 hours per week	42.6 weeks (1,599 hours) per year, 37.5 hours per week
H Ratio of direct to indirect time									
I London multiplier	1.95 x E	1.95 x E	1.95 x E	1.95 x E	1.95 x E	1.95 x E	1.95 x E	1.95 x E	1.95 x E
Non-London multiplier	0.43 x E	0.43 x E	0.43 x E	0.43 x E	0.43 x E	0.43 x E	0.43 x E	0.43 x E	0.43 x E
Unit costs available 2016/2017									
Cost per working hour	£28	£33	£43	£53	£62	£74	£87	£106	£129

10. Nurses, doctors and dentists

10.1 Nurses

10.2 Practice nurse

10.3a General practitioner—cost elements

10.3b General practitioner—unit costs

10.3c General practitioner—commentary

10.4 Telephone triage

10.5 Dentist – Performer-Only

10.6 Dentist – Providing-Performer

10.7 NHS dental charges

10.1. Nurses

A. Wages/salary

Based on the mean full-time equivalent basic salary for Agenda for Change band 4-8b of the July 2016-June 2017 NHS staff earnings estimates for nurses and band 2-3 of Royal College of Nursing pay scales.^{1,2} See NHS terms and conditions of service handbook for information on payment for unsocial hours.³ The Electronic Staff Records (ESR) system shows that the mean basic salary for all community nurses is £32,139.¹ See section V for further information on pay scales.

B. Salary oncosts

Employer's national insurance is included, plus 14.38 per cent of salary for employer's contribution to superannuation.

C. Qualifications

Qualification costs have been calculated using the method described in Netten et al. (1998).⁴ Current cost information has been provided by the Department of Health and Health Education England (HEE).⁵ See table 19 for more details.

D. Overheads

Taken from the 2013/14 financial accounts for ten community trusts. See 2015 edition for more information.

Management and other non-care staff costs are 24.5 per cent of direct care salary costs and include administration and estates staff.

Non-staff costs are 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.

E. Capital overheads

Based on the new-build and land requirements of NHS hospital facilities, but adjusted to reflect shared use of office space for administration, and recreational and changing facilities.^{6,7}

F. Travel

No information available on average mileage covered per visit. From July 2014, NHS reimbursement has been based on a single rate for the first 3,500 miles travelled of 56p per mile, and a reduced rate thereafter of 20p per mile, irrespective of the type of car or fuel used.⁸

G. Working time

Working hours for each AFC band have been calculated by deducting sickness absence days⁹ as reported for NHS staff groups and training/study days from 225 working days.

H. Ratio of direct to indirect time

Based on a study by Ball & Philippou (2013),¹⁰ community nurses spent 43 per cent of their time on direct care and a further 18 per cent of their time on care planning, assessment and co-ordination. Nineteen per cent of time was spent on administrative tasks, 5 per cent on management, 14 per cent travelling, with a further 1 per cent on other duties. See Ball & Philippou (2013)⁹ for more detail and for information on other bands of nurses. Also see the McKinsey report,¹¹ for comparative purposes.

¹ NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

² Royal College of Nursing, Pay scales for NHS nursing staff in England, Wales, Scotland and Northern Ireland from 1 April 2017, <https://www.rcn.org.uk/employment-and-pay/nhs-pay-scales-2017-18> [accessed 17 October 2017].

³ NHS Employers (2017) *NHS Terms and Conditions of Service Handbook (Agenda for Change)*, NHS Employers, London. <http://www.nhsemployers.org/your-workforce/pay-and-reward/nhs-terms-and-conditions/nhs-terms-and-conditions-of-service-handbook>. [accessed 17 October 2017]

⁴ 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.

⁵ Personal communication with the Department of Health and Health Education England (HEE), 2017.

⁶ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁷ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017]

⁸ NHS Employers (2015) *Mileage allowances – Section 17*, NHS Employers, London. <http://nhsemployers.org/your-workforce/pay-and-reward/nhs-terms-and-conditions/nhs-terms-and-conditions-of-service-handbook/mileage-allowances> [accessed 5 November 2015].

⁹ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17*, NHS Digital, Leeds. [accessed 13 October 2017].

¹⁰ Ball, J. & Philippou, J. with Pike, G. & Sethi, J., (2014) *Survey of district and community nurses in 2013*, Report to the Royal College of Nursing, King's College London.

¹¹ Department of Health (2010) *Achieving world class productivity in the NHS, 2009/10-2013/14: The McKinsey Report*, Department of Health, London.

10.1. Nurses

This table provides the annual and unit costs for nurses. See notes facing for assistance in interpreting each cost item. See chapter 18 for examples of roles in each band.

Refer to notes on facing page for references	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7	Band 8a	Band 8b
A Wages/salary	£16,536	£18,333	£20,279	£26,038	£32,342	£38,801	£45,544	£54,307
B Salary oncosts	£3,548	£4,054	£4,602	£6,225	£8,002	£9,822	£11,722	£14,191
C Qualification	See note	See note	See note	See note	See note	See note	See note	See note
D Overheads								
Management, admin and estates staff	£4,920	£5,485	£6,096	£7,904	£9,884	£11,913	£14,030	£16,782
Non-staff	£7,672	£8,552	£9,505	£12,325	£15,411	£18,574	£21,876	£26,166
E Capital overheads	£2,891	£2,891	£2,891	£4,378	£4,378	£4,378	£4,378	£4,378
F Travel			See note	See note	See note	See note	See note	See note
G Working time	42.9 weeks (1,610 hours) per year, 37.5 hours per week	42.9 weeks (1,610 hours) per year, 37.5 hours per week	42.9 weeks (1,610 hours) per year, 37.5 hours per week	42 weeks (1,573 hours) per year, 37.5 hours per week	42 weeks (1,573 hours) per year, 37.5 hours per week	42 weeks (1,573 hours) per year, 37.5 hours per week	42 weeks (1,573 hours) per year, 37.5 hours per week	42 weeks (1,573 hours) per year, 37.5 hours per week
H Ratio of direct to indirect time								
I London multiplier	1.95 x E	1.95 x E	1.95 x E	1.95 x E	1.95 x E	1.95 x E	1.95 x E	1.95 x E
Non-London multiplier	0.43 x E	0.43 x E	0.43 x E	0.43 x E	0.43 x E	0.43 x E	0.43 x E	0.43 x E
Unit costs available 2016/2017								
Cost per working hour	£23	£24	£29	£36	£44	£53	£62	£74

10.2 Nurse (GP practice)

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£26,038 per year	Based on the mean full-time equivalent basic salary for Agenda for Change band 5 of the July 2016-June 2017 NHS staff earnings estimates for nurses. ¹ See NHS terms and conditions of service handbook for information on payment for unsocial hours. ² See section V for further information on pay scales.
B. Salary oncosts	£6,225 per year	Employer's national insurance is included, plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Qualifications	£9,876 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). ³ Current cost information has been provided by the Department of Health and Health Education England (HEE). ⁴ See table 19 for more details.
D. Overheads		
Management and administration	£7,904 per year	Taken from the 2013/14 financial accounts for 10 community trusts. See the Preface of the 2015 edition for more information. No information available on management and administrative overheads for practice nurses. The same level of support has been assumed for practice nurses as for other NHS staff (24.5 per cent of direct care salary costs).
Office, general business and premises (including advertising and promotion)	£12,689 per year	No information available on overheads for a practice nurse. All information on office and general business expenses is drawn from the GP earnings and expenses report. ⁵ Office and general business, premises and other expenses calculated as the ratio of practice nurse salary costs to all GP employees' salary costs.
E. Capital overheads		
Buildings	£3,872 per year	Calculated as the ratio of GP practice nurse salary costs to net remuneration of GP salary and based on new-build and land requirements for a GP practitioner's suite and annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years. ^{6,7}
F. Travel		No information available on average mileage covered per visit. From July 2014, NHS reimbursement has been based on a single rate for the first 3,500 miles travelled of 56p per mile, and a reduced rate thereafter of 20p per mile, irrespective of the type of car or fuel used. ⁸
Working time	41.9 weeks per year 37.5 hrs per week	Unit costs are based on 1,573 hours per year: 225 working days minus sickness absence ⁹ and training/study days as reported for all NHS staff groups.
Ratio of direct to indirect time on: face-to-face contacts		No current information available. See previous editions of this volume for sources of information.
Duration of contact		No current information available. See previous editions of this volume for sources of information.
Patient contacts		No current information available. See previous editions of this volume for sources of information.
London multiplier		Allows for the higher costs associated with London compared to the national average cost. ¹⁰
Unit costs available 2016/2017 (costs including qualifications given in brackets)		
£36 (£42) per hour		

¹ NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

² NHS Employers (2016) *NHS Terms and Conditions of Service Handbook (Agenda for Change)*, NHS Employers, London.

<http://www.nhsemployers.org/your-workforce/pay-and-reward/nhs-terms-and-conditions/nhs-terms-and-conditions-of-service-handbook>. [accessed 17 October 2016]

³ 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.

⁴ Personal communication with the Department of Health and Health Education England (HEE), 2014.

⁵ Health & Social Care Information Centre (2015) *GP earnings and expenses 2013/14*, Information Centre, Leeds. <http://data.gov.uk/dataset/gp-earnings-and-expenses/> [accessed 22 September 2015].

⁶ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁷ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁸ NHS Employers (2015) *Mileage allowances – Section 17*, NHS Employers, London. <http://nhsemployers.org/your-workforce/pay-and-reward/nhs-terms-and-conditions/nhs-terms-and-conditions-of-service-handbook/mileage-allowances> [accessed 5 November 2015].

⁹ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17*, NHS Digital, Leeds. [accessed 13 October 2017].

¹⁰ Monitor (2016) *NHS National Tariff Payment System 2016/17*, <https://www.gov.uk/government/publications/nhs-national-tariff-payment-system-201617> [accessed 17 October 2017].

10.3 General practitioner

10.3a General practitioner — cost elements

Costs and unit estimation	2016/2017 value	Notes (for further clarification see Commentary)
A. Net remuneration	£104,900 per year	Average income before tax for GPMS contractor GPs for England. ¹
B. Practice expenses:		
Direct care staff	£24,304 per year	Ninety one per cent of FTE equivalent practitioners (excluding GP registrars & GP retainers) employed 0.60 FTE nurse (including practice nurses, advanced level nurses and extended role and specialist nurses) (includes salary and oncosts). ^{2,3}
Administrative and clerical staff	£39,688 per year	Each FTE equivalent practitioner (excluding GP registrars & GP retainers) employed 1.39 FTE administrative and clerical staff ^{1,2} (includes salary and oncosts).
Office & general business	£10,513 per year	All office & general business, premises and other expenses, including advertising, promotion and entertainment, are based on expenditure taken from the GP earnings and expenses report. ¹ Each GP employs 3.02 members of staff (including practice nurses, other patient care staff, plus administrators and clerical staff). ^{1,2} Office & general business, premises, and other expenses calculated as the ratio of GP salary costs to all GP employees salary costs.
Premises	£15,529 per year	
Other: includes advertising, promotion and entertainment	£17,023 per year	
Car and travel	£1,100 per year	Based on information taken from the GP earnings and expenses report. ^{1,2}
C. Qualifications	£41,688 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). ⁴ Current cost information has been provided by the Department of Health and Health Education England (HEE). ⁵
D. Ongoing training		No estimates available.
E. Capital costs:		
Premises	£15,599 per year	Based on new-build and land requirements for a GP practitioner suite. Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years. ^{6,7}
Working time	42 weeks per year 41.4 hours per week	Based on information taken from the 8 th National GP Worklife Survey. ⁸ Respondents to this survey reported working an average of 41.4 hours per week and a mean number of 7.2 sessions.
Ratio of direct to indirect time:		
face-to-face time (excludes travel time)	1:0.61	Based on information taken from the 8 th National GP Worklife Survey, ⁸ direct patient care (surgeries, clinics, telephone consultations & home visits) took 62 per cent of a GP's time. Indirect patient care (referral letters, arranging admissions) absorbed 19.7 per cent of time. General administration (practice management, PCO meetings etc.) formed 8.4 per cent of time, 3.5 per cent was spent on external meetings, with other activities (continuing education/development, research, teaching etc.) taking 6.3 per cent of a GP's time. No information was available on the percentage time allocated to out-of-surgery visits.
Patient-related time	1:0.22	
Consultations:		
Surgery	9.22 minutes	Based on a study carried out by Hobbs et al. (2016) of 398 English general practices (101.8 million consultations) between April 2007 and March 2014, ⁹ the mean duration of a GP surgery consultation was 9.22 minutes. Based on research carried out by Elmore et al. (2016) ¹⁰ in which 440 video-recorded consultations were analysed from 13 primary care practices in England, the mean consultation length was 10.22 minutes.

Unit costs for 2016/2017 are given in table 10.3b

¹ NHS Digital (2017) *GP earnings and expenses 2016/17*, NHS Digital, Leeds. <http://www.digital.nhs.uk/catalogue/PUB30072> [accessed 5 October, 2017].

² NHS Digital (2017) *General and Personal Medical Services, England – March 2017: Report, Provisional Experimental statistics*, NHS Digital, Leeds.

³ Based on personal correspondence with the Chairman of the East Midlands Regional Council, British Medical Association.

⁴ 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.

⁵ Personal communication with the Department of Health and Health Education England (HEE), 2015.

⁶ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁷ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁸ Gibson, J., Checkland, K., Coleman, A., Hann, M., McCall, R., Spooner, S. & Sutton, M. (2015) *Eighth national GP worklife survey*, University of Manchester, Manchester. <http://www.population-health.manchester.ac.uk/healthconomics/research/Reports/EighthNationalGPWorklifeSurveyreport/EighthNationalGPWorklifeSurveyreport.pdf> [accessed 17 October 2016]

⁹ Hobbs, R., Bankhead, C., Mukhtar, T., Stevens, S., Perera-Salazar, R., Holt, T., & Salisbury, C. (2016) Clinical workload in UK primary care: a retrospective analysis of 100 million consultations in England, 2007-14, *The Lancet*, 387, 10035, 2323-2330. <http://www.sciencedirect.com/science/article/pii/S0140673616006206> [accessed 17 October 2016]

¹⁰ Elmore, N., Burt, J., Abel, G., Maratos, F., Montague, J., Campbell, J. & Roland, M. (2016) Investigating the relationship between consultation length and patient experience: a cross-sectional study in primary care, *British Journal of General Practice*, DOI: 10.3399/bjgp 16X687733.

10.3b General practitioner — unit costs

Unit cost 2016/2017	Including direct care staff costs		Excluding direct care staff costs	
	With qualification costs	Without qualification costs	With qualification costs	Without qualification costs
Annual (including travel)	£270,344	£228,656	£246,040	£204,353
Annual (excluding travel)	£269,244	£227,556	£244,940	£203,253
Per hour of GMS activity ¹	£150	£127	£137	£113
Per hour of patient contact ¹	£242	£205	£220	£183
Per minute of patient contact ¹	£4.00	£3.40	£3.70	£3.00
Per surgery consultation lasting 9.22 minutes ¹	£37	£31	£34	£28
Per patient contact lasting 9.22 minutes (including carbon emissions (5 KgCO ₂ e) ² (carbon costs less than £1)	£38	£32	£35	£29
Prescription costs per consultation (net ingredient cost)	£29.20 ³			
Prescription costs per consultation (actual cost)	£27.90 ³			
Actual cost including carbon emissions (5 KgCO ₂ e) ²	£28.90 ^{2,3}			

10.3c General practitioner — commentary

General note about GP expenditure. NHS England, the Government, and the British Medical Association's General Practitioners Committee reached agreement on changes to the GP contract in England for 2016/17, which took effect from 1 April 2016: <https://www.england.nhs.uk/2016/02/gp-contract-16-17/>.

Allowing for whole-time equivalence (FTE). NHS Digital has estimated that the number of FTE practitioners (excluding GP registrars and GP retainers) has reduced from 29,271 in 2015 to 28,092 in 2016.⁴ FTE practice staff included 15,400 practice nurses (includes specialist nurses, advanced level nurses, 9,150 direct patient care staff, and 63,700 administrative and clerical.² Assuming that administrative and clerical staff are shared equally between GP practitioners and direct patient care staff (including practice nurses), each FTE practitioner employs 1.21 FTE administrative and clerical staff (63,700/52,642).

Direct care staff. On average in 2016, approximately 91 per cent of FTE equivalent practitioners (excluding GP registrars & GP retainers)⁵ employed 0.60 FTE nursing staff (15,400/28,092). All direct care staff have been costed at the same level as a band 6 GP practice nurse.

Qualifications. The equivalent annual cost of pre-registration and post-graduate medical education. The investment in training has been annuitised over the expected working life of the doctor.⁶ Post-graduate education costs have been calculated using information provided by the Department of Health and Health Education England.⁷ This includes the cost of the two-year foundation programme, two years on a General Practice Vocational Training Scheme (GP-VTS) and a further year as a general practice registrar.⁸

¹ Excludes travel.

² Costs provided by Richard Lomax, Sustainable Development Unit. Costs are <£1 for carbon emissions per patient contact lasting 9.22 minutes.

³ Personal communication with the Prescribing and Primary Care Group at the HSCIC, 2017.

⁴ NHS Digital (2017) *General and Personal Medical Services, England – March 2017: Report, Provisional Experimental statistics*, NHS Digital, Leeds.

⁵ Based on personal correspondence with the Chairman of the East Midlands Regional Council, British Medical Association (2015).

⁶ Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

⁷ Personal communication with the Department of Health and Health Education England (HEE), 2015.

⁸ NHS Employers (2006) *Modernising medical careers: a new era in medical training*, NHS Employers, London.

Environment costs. The cost of carbon emissions from patient and staff travel, electricity and gas for the building, along with embedded emissions in the goods and services used to provide the appointment. The embedded carbon in pharmaceuticals prescribed is shown separately and accounts for half of GP emissions. A carbon price of £44 per tonne of carbon dioxide emission has been used to value these externalities in line with the mix of traded and non-traded emissions and HM Treasury Green Book <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>.

Prescription costs. Prescription costs per consultation are £29.20 (net ingredient cost (NIC)) and £27.90 (actual cost). NIC is the basic cost of the drug, while the actual cost is the NIC less the assumed average discount plus the container allowance (plus on-cost for appliance contractors). The NIC does not take account of dispensing costs, fees or prescription charges income. The prescription cost per consultation has been calculated by first dividing the number of prescriptions per GP by the number of consultations per GP (37,300/10,714)^{1,2} to give the number of prescriptions per GP consultation (3.50) and multiplying this by the actual cost per GP prescription (£7.80) and the NIC per GP prescription (£8.20). The total NIC and actual cost of GP prescriptions were £8,691,170,449 and £8,085,258,268 respectively.

Activity. Hobbs and colleagues (2016)³ carried out a retrospective analysis of GP and nurse consultations of non-temporary patients registered at 398 English general practices between April 2007 and March 2014. They used data from electronic health records routinely entered in the Clinical Practice Research Datalink, and linked CPRD data to national datasets. The dataset comprised 101,818,352 consultations and 20,626,297 person-years of observation. The mean duration of GP surgery consultations increased by 6.7 per cent, from 8.65 minutes to 9.22 minutes during that time.

¹ Royal College of General Practitioners (2014) *34m patients will fail to get appointment with a GP in 2014*, <http://www.rcgp.org.uk/news/2014/february/34m-patients-will-fail-to-get-appointment-with-a-gp-in-2014.aspx>. [accessed 4 November 2015]

² Personal communication with the Prescribing and Primary Care Group at NHS Digital, 2016

³ Hobbs, R. Bankhead, C. Mukhtar, T., Stevens, S. Perera-Salazar, R. Holt, T., & Salisbury, C. (2016) Clinical workload in UK primary care: a retrospective analysis of 100 million consultations in England, 2007-14, *The Lancet*, 387, 10035, 2323-2330. <http://www.sciencedirect.com/science/article/pii/S0140673616006206>.

10.4 Telephone triage – GP-led and nurse-led

Telephone triage is increasingly used to manage workload in primary care. A study carried out between 1 March 2011 and 31 March 2013 by John Campbell & colleagues^{1,2} aimed to assess the effectiveness and cost consequences of general practitioner GP-led and nurse-led triage compared with usual care for requests for same-day appointments. Based on a review of 5,567 clinician contact forms for GP-led triage and 5,535 forms for nurse-led triage, the study found that mean clinician contact times for interventions were 4 minutes (SD 2.83) for GP triage and 6.56 minutes (SD 3.83) for nurse triage. Using national cost estimates (see schema 10.1 & 10.2), a detailed breakdown of the costs is provided below. Mean costs per intervention were £14.75 (including staff training) for GP-led triage and £7.90 (including staff training and computer decision support software) for nurse-led triage.

Costs and unit estimation	Nurse-led triage	Notes	GP-led triage	Notes
	2016/2017 value		2016/2017 value	
A. Wages/salary and oncosts	£32,263 per year	Based on the salary of a GP practice nurse (Agenda for Change band 5) plus oncosts (see 10.2)	£104,900	Average income before tax. See 10.3.
B. Overheads				
Staff overheads	£7,904 per year	See schema 10.2	£39,688	See schema 10.3 (excludes a cost for direct care staff)
Non-staff	£12,689 per year	See schema 10.2	£44,165	
C. Qualifications	£10,499 per year	See schema 10.2	£39,806	See schema 10.3
D. Capital	£3,810 per year	See schema 10.2	£15,349	See schema 10.3
E. Other costs				
Staff training	£5,690 per year	Taken from table 25 of Campbell & colleagues ² and uprated using the HCHS pay and prices inflator	£3,170	Taken from table 25 of Campbell & colleagues ² and uprated using the HCHS pay and prices inflator
Computer decision support software	£7,882 per year			
Working time	42 weeks per year 37.5 hours per week	Based on 1,573 hours per year	44 weeks per year 41.7 hours per week	Based on 1,800 hours per year
Ratio of direct to indirect time on: face-to-face contact	1:0.30	See schema 10.2	1:0.61	See schema 10.3
Average time per intervention (minutes)	6.56 (SD 3.83)	See table 23 of Campbell & colleagues ²	4 (SD 2.83)	See table 23 of Campbell & colleagues ²
Unit costs available 2016/17				
Total annual costs excluding 'other costs' (E) (including other costs)	£67,165 (£80,738)		£243,909 (£247,079)	
Cost per hour of face-to-face contact excluding 'other costs' (E) (including set-up costs)	£56 (£72.20)		£218 (£221)	
Cost per intervention excluding 'other costs' (E) (including other costs)	£6.10 (£7.90)		£14.60 (£14.80)	

¹ Campbell, J., Fletcher, E., Britten, N., Green, C., Holt, T., Lattimer, V., Richards, D., Richards, S., Salisbury, C., Calitri, R., Bowyer, V., Chaplin, K., Kandiyali, R., Murdoch, J., Roscoe, J., Varley, A., Warren, F., & Taylor, R. (2014) Telephone triage for management of same-day consultation requests in general practice (the ESTEEM trial): a cluster-randomised controlled trial and cost-consequence analysis, *Lancet*. Doi: 10.1016/S0140-6736(14)61058-8 [accessed 4 November 2015]

² Campbell, J., Fletcher, E., Britten, N., Green, C., Holt, V., Lattimer, V., Richards, D., Richards, S., Salisbury, C., Taylor, R., Calitri, R., Bowyer, V., Chaplin, K., Kandiyali, R., Murdoch, J., Price, L., Roscoe, J., Varley, A. & Warren, F. (2015) The clinical effectiveness and cost-effectiveness of telephone triage for managing same-day consultation requests in general practice: a cluster randomised controlled trial comparing general practitioner-led management systems with usual care (the ESTEEM trial), *Health Technology Assessment*. DOI 10.3310/hta 19130.

10.5 NHS dentist – Performer-Only

A Performer-Only dentist is a qualified dentist who works in a Providing-Performer practice (eg. a local dental practice). They are sometimes referred to as Associates.¹ In 2016/17, there were 21,082 Performer-Only dentists in England.² In 2015, a survey of dentists carried out by PSSRU in collaboration with the General Dental Council provided information to estimate practice staff overheads and equipment used by dentists working all or some of the time with NHS patients. In total, responses were received from 251 practices with some or all NHS activity. See article in this edition for more information. The costs below apply only to Performer-Only dentists with registered NHS activity. Dentists who performed only private dentistry have been excluded (n=50).

Costs and unit estimation	2016/2017 value	Notes
A. Net remuneration	£60,200 per year	This is the average taxable income (average gross earnings less average total expenses) for self-employed primary care Performer-Only dentists in 2015/16. ³ It has not been possible to identify an inflator to provide estimated net remuneration for 2016/17.
B. Practice expenses:		
Direct care staff	£55,834 per year	Employee expenses are taken from the <i>Dental Earnings and Expenses</i> report. ⁴ All office and general business, premises and other expenses including advertising promotion and entertainment are based on expenditure taken from the <i>Dental Earnings and Expenses</i> report.
Office and general business	£4,800 per year	All office and general business, premises and other expenses including advertising promotion and entertainment are based on expenditure taken from the <i>Dental Earnings and Expenses</i> report. ²
Premises	£ 3,300 per year	Includes insurance, repairs, maintenance, rent and utilities.
Car and travel	£ 900 per year	
Other	£24,100 per year	
C. Qualifications	No costs available	See http://www.gdc-uk.org/Dentalprofessionals/Education/Pages/Dentist-qualifications.aspx .
D. Ongoing training	No costs available	At least 250 hours of CPD are required every five years. At least 75 of these hours need to be 'verifiable' CPD. ⁵
E. Capital costs		Assumed to be included as rent (see above). Based on the new-build and land requirements of a dentist surgery, but adjusted to reflect shared use of both treatment and non-treatment space, annuitised capital costs would be £8,353 per annum. ⁶
F. Equipment costs	£ 6,762 per year	Total equipment costs (e.g. dentist chairs, cabinetry and all dental technology) per practice with all or some NHS activity was valued at £56,256 per FTE dentist. Costs have been annuitised to reflect that ten years was the most frequently-cited replacement time.
Working time	42.9 weeks per year 36 hours per week.	The average total number of weekly hours worked by Performer-Only dentists in 2015/16 was 6. ⁷ The average total number of weekly NHS hours worked was 26.7. On average, dentists took 5 days of sickness leave and 4.5 weeks annual leave. Unit costs are based on 1,548 hours. ⁶
Ratio of direct to indirect time: Clinical time	1:0.26	Based on information taken from the 2015/16 <i>Dental working hours</i> survey, Performer-Only dentists spent 79.2 per cent of their working time on clinical activities. ⁷
Unit costs available 2016/2017		
£101 per hour; £127 per hour of patient contact, £102 per hour (with 17 kgCO ₂ e) ⁸ ; £128 per hour of patient contact (with 21 kgCO ₂ e). ⁷		

¹ NHS Business Services Authority (2014) *NHS General Dental Practitioners* (GDS/PDS Providers and Performers), http://www.nhsbsa.nhs.uk/Documents/Pensions/GDP_Pensions_Guide_V3_032014.pdf [accessed 30 November 2016].

² NHS Digital (2017) *A guide to NHS dental publications*, NHS Digital, Leeds. <http://content.digital.nhs.uk/catalogue/PUB21701/nhs-dent-stat-eng-15-16-rep.pdf> [accessed 5 October 2017].

³ NHS Digital (2017) *Dental earnings and expenses 2015/16, additional analysis*, NHS Digital, Leeds. <http://www.digital.nhs.uk/catalogue/PUB30077> [accessed 31 October 2017].

⁴ NHS Digital (2017) *Dental earnings and expenses, 2015/16*, NHS Digital, Leeds.

⁵ General Dental Council (2013) *Continuing professional development for dental professionals*, General Dental Council, London. <http://www.gdc-uk.org/Dentalprofessionals/CPD/Documents/GDC%20CPD%20booklet.pdf> [accessed 30 July 2014].

⁶ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁷ NHS Digital (2017) *Dental working hours, 2014/15 & 2015/16*, NHS Digital, Leeds. <http://content.digital.nhs.uk/catalogue/PUB21316/dent-work-hour-1415-1516-rep.pdf> [accessed 5 October 2017].

⁸ Costs provided by Richard Lomax, Sustainable Development Unit.

10.6 Dentist – Providing-Performer

The costs below relate to a Providing-Performer, which is a dentist who holds a health service contract and who also acts as a Performer, delivering dental services themselves. In 2016/17, there were 2,925 Providing-Performer dentists in England.¹ In 2015, a survey of dentists carried out by PSSRU in collaboration with the General Dental Council provided information to estimate practice staff overheads and equipment used by dentists working all or some of the time with NHS patients. In total, responses were received from 251 practices with some or all NHS activity. See article in this edition for more information. The costs below apply only to Performer-Only dentists with registered NHS activity. Dentists who performed only private dentistry have been excluded.

Costs and unit estimation	2016/2017 value	Notes
A. Net remuneration	£117,000 per year	This is the average taxable income of self-employed primary care Providing-Performer dentists in 2015/16. ² It has not been possible to agree an inflator to provide estimated net remuneration for 2016/17.
B. Practice expenses:		
Employee expenses	£55,834 per year	As salary expenses for Performer-Only dentists are declared as an expense by Providing-Performer dentists, ³ to avoid double-counting, employee expenses have been calculated using the PSSRU survey (see article in this edition for survey information). This found that on average each FTE dentist (carrying out some or all NHS activity) employs 1.43 of a dental nurse, 0.17 of a hygienist/dental therapist, 0.23 of a practice manager (AFC band 6) and 0.50 of 'other' staff (AFC band 2) (e.g. receptionist, dental technician, cleaner).
Office and general business expenses	£7,207 per year	All office and general business, premises and other expenses including advertising promotion and entertainment are based on expenditure taken from the <i>Dental Earnings and Expenses</i> report. ²
Premises	£7,828 per year	Includes insurance, repairs, maintenance, rent and utilities.
Car and travel	£1,800 per year	
Other	£43,483 per year	Includes a variety of expenses, including laboratory costs, materials costs, advertising, promotion and entertainment costs, which have been divided equally between the dental staff (dentists and nurses/hygienists). ²
C. Qualifications	No costs available	See http://www.gdc-uk.org/Dentalprofessionals/Education/Pages/Dentist-qualifications.aspx .
D. Ongoing training	No costs available	At least 250 hours of CPD are required every five years. At least 75 of these hours need to be 'verifiable' CPD. ⁴
E. Capital costs		Assumed to be included as rent (see above). Based on the new-build and land requirements of a dentist surgery, but adjusted to reflect shared use of both treatment and non-treatment space, annuitised capital costs would be £8,353 per annum. ⁵
F. Equipment costs	£ 6,762 per year	Total equipment costs (e.g. dentist chairs, cabinetry and all dental technology) per practice with all or some NHS activity was valued at £56,256 per FTE dentist. Costs have been annuitised to reflect that ten years was the most frequently-cited replacement time.
Working time	43 weeks per year 41.4 hours per week.	The average total number of weekly hours worked by Providing-Performer dentists in 2015/16 was 41.4, with 25.6 hours devoted to NHS work. ⁷ On average dentists took 4.9 days of sickness leave and 4.4 weeks annual leave. Unit costs are based on 1,781 hours. ⁶
Ratio of direct to indirect time: Clinical time	1:0.38	Based on information taken from the 2015/16 <i>Dental working hours survey</i> , ⁶ Providing-Performer dentists spent 72.4 per cent of their working time on clinical activities.
Unit costs available 2016/2017		
£135 per hour; £186 per hour of patient contact; £136 per hour (with 19 kgCO ₂ e) ⁷ ; £187 per hour of patient contact (with 27 kgCO ₂ e). ⁷		

¹ NHS Digital (2017) *A guide to NHS dental publications*, NHS Digital, Leeds. <http://content.digital.nhs.uk/catalogue/PUB21701/nhs-dent-stat-eng-15-16-rep.pdf> [accessed 20 October 2016].

² NHS Digital (2016) *Dental earnings and expenses 2014/15, additional analysis*, NHS Digital, Leeds. <http://content.digital.nhs.uk/catalogue/PUB21315/dent-earn-expe-2014-15-addi-rep.pdf> [accessed 24 November 2016].

³ NHS Digital (2016, p.11) *Dental earnings and expenses 2014/15, initial analysis*, NHS Digital, Leeds. <https://www.gov.uk/government/statistics/dental-earnings-and-expenses-2014-to-2015-initial-analysis> [accessed 24 November 2016].

⁴ General Dental Council (2013) *Continuing professional development for dental professionals*, General Dental Council, London. <http://www.gdc-uk.org/Dentalprofessionals/CPD/Documents/GDC%20CPD%20booklet.pdf> [accessed 30 July 2014].

⁵ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁶ NHS Digital (2017) *Dental working hours*, <https://digital.nhs.uk/catalogue/PUB21316>, NHS Digital, Leeds [accessed 5 October 2017].

⁷ Costs provided by Richard Lomax, Sustainable Development Unit.

10.7 NHS dental charges

Paying adults are charged according to the treatment band. The table below shows the NHS dental charges applicable to paying adults from 1 April 2017.

Treatment Band	Charges from 1 April 2017	
Emergency dental treatment	£20.60	This covers emergency care in a primary care NHS dental practice such as pain relief or a temporary filling.
Band 1	£20.60	Examination, diagnosis (including x-rays), advice on how to prevent future problems, a scale and polish if needed, and application of fluoride varnish or fissure sealant.
Band 2	£56.30	This covers everything listed in Band 1 above, plus any further treatment such as fillings, root canal work or removal of teeth.
Band 3	£244.30	This covers everything listed in Bands 1 and 2 above, plus crowns, dentures and bridges.

See: <http://www.nhs.uk/NHSEngland/AboutNHSservices/dentists/Pages/nhs-dental-charges.aspx> for further information on NHS dental charges.

III. COMMUNITY-BASED SOCIAL CARE

11. Social care staff

11.1 Social work team leader/senior practitioner/senior social worker

11.2 Social worker (adult services)

11.3 Social worker (children's services)

11.4 Social work assistant

11.5 Community occupational therapist (local authority)

11.6 Home care worker

11.7 Home care manager

11.8 Family support worker

11.9 Time banks

11.1 Social work team leader/senior practitioner/senior social worker

Costs and unit estimation	2016/2017 value	Notes
A. Salary	£42,564 per year	The average salary for a social work team leader was £35,410 for 2007/08. ¹ As no new salary estimates are available, this has been adjusted to reflect the pay increments for social workers reported in the Local Government Earnings Surveys 2009 to 2014 ² and the National Minimum Dataset for Social Care (NMDS-SC). ³
B. Salary oncosts	£11,998 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation (see Preface). ⁴
C. Qualifications	£24,569 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). ⁵ Current cost information is drawn from research by Curtis et al. (2011). ⁵
D. Ongoing training		The General Social Care Council sets out a requirement that all social workers, as a condition of their three-yearly renewal of registration, should engage in development activity to meet a 'post registration teaching and learning' requirement of 15 days or 90 hours. ⁶ No costs are available.
E. Overheads		
Direct overheads	£15,823 per year	Direct overheads were 29 per cent of direct care salary costs. They include costs to the provider for administration and management, as well as for office, training and utilities such as water, gas and electricity.
Indirect overheads	£8,730 per year	Indirect overheads were 16 per cent of direct care salary costs. They include general management and support services such as finance and human resource departments. ⁷
F. Capital overheads	£3,055 per year	Based on the new-build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. ^{8,9} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
G. Travel		No information available on average mileage covered per visit. For information see <i>Green Book: national agreement on pay and conditions of service</i> . ¹⁰
Working time	40.9 weeks per year 37 hours per week	Includes 29 days annual leave and 8 statutory leave days. Ten days for study/training and 8.5 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. ¹¹ Unit costs are based on 1,513 hours per year.
Ratios of direct to indirect time on: Client-related work	1:0.37	Ratios are estimated on the basis that 73 per cent of time is spent on client-related activities including direct contact (includes travel) (26%), case-related recording (22%), case-related work in own agency (12%) and case-related inter-agency work (13%). A further 27 per cent of time is spent on other inter-agency and sundry work (non-client-related). ¹²
Duration of visit		It is not possible to estimate a cost per visit as there is no information available on the number or duration of visits.
London multiplier	1.10 x A 1.59 x F	Allows for the higher costs associated with London compared to the national average cost. ^{1,7,8}
Non-London multiplier	0.96 x A 0.96 x F	Allows for the lower costs associated with working outside London compared to the national average cost. ^{7,8}
Unit costs available 2016/2017 (costs including qualifications given in brackets)		
£54 (£71) per hour; £75 (£98) per hour of client-related work.		

¹ Local Government Association Analysis and Research (2008) *Local government earnings survey 2007*, Local Government Analysis and Research, London.

² Local Government Association Analysis and Research (2015) *Local government earnings survey 2014/2015*, Local Government Association, London.

³ Skills for Care (2016) *National Minimum Dataset-Social Care online*, <https://www.nmds-sc-online.org.uk/> [accessed 20 October 2016].

⁴ Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

⁵ 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.

⁶ British Association of Social Workers (2013) *Social Work Careers*, British Association of Social Workers, London. <http://www.basw.co.uk/social-work-careers/> [accessed 9 October 2013].

⁷ Based on information taken from Selwyn, J. et al. (2009) *Adoption and the inter-agency fee*, University of Bristol, Bristol; and Glendinning, C. et al. (2010) *Home care re-ablement services: investigating the longer-term impacts*, Final Report, University of York, PSSRU Kent, Department of Health, London.

⁸ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁹ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

¹⁰ Local Government Employers (2012) *Green Book: national agreement on pay and conditions of service*, Local Government Association, London. http://www.local.gov.uk/web/guest/workforce/-/journal_content/56/10180/3510601/ARTICLE/ [accessed 9 October 2013].

¹¹ Local Government Association (2016) *Local government workforce survey 2014/15*, Local Government Association, London. http://www.local.gov.uk/workforce/-/journal_content/56/10180/7843334/ARTICLE [accessed 20 October 2016].

¹² Baginsky, M., Moriarty, J., Manthorpe, J., Stevens, M., MacInnes, T. & Nagendran, T. (2010) *Social workers' workload survey*, Messages from the frontline, findings from the 2009 survey and interviews with senior managers, Children's Workforce Development Council, King's College, University of London, New Policy Institute.

11.2 Social worker (adult services)

Costs and unit estimation	2016/2017 value	Notes
A. Salary	£33,258 per year	Information taken from the National Minimum Data Set for Social Care 2017 ¹ showed that the mean basic salary for a social worker working in adult services was £33,258.
B. Salary oncosts	£9,131 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation (see Preface). ²
C. Qualifications	£24,569 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). ³ Current cost information is drawn from research carried out by Curtis et al. (2011). ⁴
D. Ongoing training		The General Social Care Council sets out a requirement that all social workers, as a condition of their three-yearly renewal of registration, should engage in development activity to meet a 'post registration teaching and learning' requirement of 15 days or 90 hours. ⁵ No costs are available.
E. Overheads		
Direct overheads	£12,293 per year	Direct overheads were 29 per cent of direct care salary costs. They include costs to the provider for administration and management, as well as for office, training and utilities such as water, gas and electricity.
Indirect overheads	£6,782 per year	Indirect overheads were 16 per cent of direct care salary costs. They include general management and support services such as finance and human resource departments. ⁶
F. Capital overheads	£3,055 per year	Based on the new-build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. ^{7,8} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
G. Travel		No information available on average mileage covered per visit. For information see <i>Green Book: national agreement on pay and conditions of service</i> . ⁹
Working time	40.9 weeks per year 37 hours per week	Includes 29 days annual leave and 8 statutory leave days. ⁹ Ten days for study/training and 8.5 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. ¹⁰ Unit costs are based on 1,513 hours per year.
Ratios of direct to indirect time on: Client-related work	1:0.39	Ratios are estimated on the basis that 72 per cent of time is spent on client-related activities including direct contact (includes travel) (25%), case-related recording (23%), case-related work in own agency (10%) and case-related inter-agency work (14%). A further 28 per cent of time is spent on other inter-agency and sundry work (non-client-related). ¹¹
Duration of visit		It is not possible to estimate a cost per visit as there is no information available on the number or duration of visits.
London multiplier	1.10 x A 1.59 x F	Allows for the higher costs associated with London compared to the national average cost. ^{1,7,8}
Non-London multiplier	0.96 x A 0.96 x F	Allows for the lower costs associated with working outside London compared to the national average cost. ^{7,8}
Unit costs available 2016/2017 (costs including qualifications given in brackets)		
£43 (£59) per hour; £59 (£82) per hour of client-related work.		

¹ Skills for Care (2017) *National Minimum Dataset-Social Care online*, <https://www.nmds-sc-online.org.uk/> [accessed 20 October 2017].

² Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

³ 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.

⁴ Curtis, L. Moriarty, J. & Netten, A. (2011) The costs of qualifying a social worker, *British Journal of Social Work*, doi:10.1093/bjsw/bcr113. [http://bjsw.oxfordjournals.org/content/early/2011/08/22/bjsw.bcr113.short?rss=1/](http://bjsw.oxfordjournals.org/content/early/2011/08/22/bjsw.bcr113.short?rss=1) [accessed 26 September 2013].

⁵ British Association of Social Workers (2011) *Social work careers*, The British Association of Social Workers. www.basw.co.uk/social-work-careers/ [accessed 9 October 2013].

⁶ Based on information taken from Selwyn, J. et al. (2009) *Adoption and the inter-agency fee*, University of Bristol, Bristol; and Glendinning, C. et al. (2010) *Home care re-ablement services: investigating the longer-term impacts*, Final Report, University of York, PSSRU Kent, Department of Health, London.

⁷ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁸ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁹ Local Government Employers (2012) *Green Book: national agreement on pay and conditions of service*, Local Government Association, London. http://www.local.gov.uk/web/guest/workforce/-/journal_content/56/10180/3510601/ARTICLE/ [accessed 9 October 2013].

¹⁰ Local Government Association (2016) *Local government workforce survey 2014/15*, Local Government Association, London. http://www.local.gov.uk/workforce/-/journal_content/56/10180/7843334/ARTICLE [accessed 20 October 2016].

¹¹ Baginsky, M., Moriarty, J., Manthorpe, J., Stevens, M., MacInnes, T. & Nagendran, T. (2010) *Social workers' workload survey*, Messages from the frontline, findings from the 2009 survey and interviews with senior managers, Children's Workforce Development Council, King's College, University of London, New Policy Institute.

11.3 Social worker (children's services)

Costs and unit estimation	2016/2017 value	Notes
A. Salary	£33,258 per year	Information taken from the National Minimum Data Set for Social Care 2017 ¹ showed that the mean basic salary for a social worker working in children's services was £33,258.
B. Salary oncosts	£9,131 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation (see Preface). ²
C. Qualifications	£24,569 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). ³ Current cost information is drawn from research carried out by Curtis et al. (2011). ⁴
D. Ongoing training		The General Social Care Council sets out a requirement that all social workers, as a condition of their three-yearly renewal of registration, should engage in development activity to meet a 'post registration teaching and learning' requirement of 15 days or 90 hours. ⁵ No costs are available.
E. Overheads		
Direct overheads	£12,293 per year	Direct overheads were 29 per cent of direct care salary costs. They include costs to the provider for administration and management, as well as for office, training and utilities such as water, gas and electricity.
Indirect overheads	£6,782 per year	Indirect overheads were 16 per cent of direct care salary costs. They include general management and support services such as finance and human resource departments. ⁶
F. Capital overheads	£3,055 per year	Based on the new-build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. ^{7,8} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
G. Travel		No information available on average mileage covered per visit. For information see <i>Green Book: national agreement on pay and conditions of service</i> . ⁹
Working time	40.9 weeks per year 37 hours per week	Includes 29 days annual leave and 8 statutory leave days. Ten days for study/training and 8.5 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. ¹⁰ Unit costs are based on 1,513 hours per year.
Ratios of direct to indirect time on:		
Client-related work	1:0.39	Ratios are estimated on the basis that 72 per cent of time is spent on client-related activities including direct contact (includes travel) (26%), case-related recording (22%), case-related work in own agency (12%) and case-related inter-agency work (12%). A further 28 per cent of time is spent on other inter-agency and sundry work (non-client-related). ¹¹ See also Holmes et al. (2009). ¹²
London multiplier	1.10 x A 1.59 x F	Allows for the higher costs associated with London compared to the national average cost. ^{1,7,8}
Non-London multiplier	0.96 x F	Allows for the lower costs associated with working outside London compared to the national average cost. ^{7,8}
Unit costs available 2016/2017 (costs including qualifications given in brackets)		
£43 (£59) per hour; £59 (£82) per hour of client-related work.		

¹ Skills for Care (2017) *National Minimum Dataset-Social Care online*, <https://www.nmds-sc-online.org.uk/> [accessed 20 October 2017].

² Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

³ 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.

⁴ Curtis, L. Moriarty, J. & Netten, A. (2012) The costs of qualifying a social worker, *British Journal of Social Work*, 42, 4, 706-724.

⁵ British Association of Social Workers (2011) *Social Work Careers*, The British Association of Social Workers <http://www.basw.co.uk/social-work-careers/> [accessed 9 October 2013].

⁶ Based on information taken from Selwyn, J. et al. (2009) *Adoption and the inter-agency fee*, University of Bristol, Bristol; and Glendinning, C. et al. (2010) *Home care re-ablement services: investigating the longer-term impacts*, Final Report, University of York, PSSRU Kent, Department of Health, London.

⁷ Building Cost Information Service (2016) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁸ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁹ Local Government Employers (2012) *Green Book: national agreement on pay and conditions of service*, Local Government Association, London. http://www.local.gov.uk/web/guest/workforce/-/journal_content/56/10180/3510601/ARTICLE/ [accessed 9 October 2013].

¹⁰ Local Government Association (2016) *Local government workforce survey 2014/15*, Local Government Association, London. http://www.local.gov.uk/workforce/-/journal_content/56/10180/7843334/ARTICLE/ [accessed 20 October 2016].

¹¹ Baginsky, M., Moriarty, J., Manthorpe, J., Stevens, M., MacInnes, T. & Nagendran, T. (2010) *Social workers' workload survey*, Messages from the frontline, findings from the 2009 survey and interviews with senior managers, Children's Workforce Development Council, King's College, University of London, New Policy Institute.

¹² Holmes, L., McDermid, S., Jones, A. & Ward, H. (2009) *Research report DCSF-RR087: How social workers spend their time - An analysis of the key issues that impact on practice pre- and post implementation of the integrated children's system*, London, Department for Children, Schools and Families. <http://www.dcsf.gov.uk/research/data/uploadfiles/DCSF-RR087%28R%29.pdf> [accessed 7 December 2015].

11.4 Social work assistant

Costs and unit estimation	2016/2017 value	Notes
A. Salary	£24,175 per year	The mean basic salary of a social work assistant was £22,715 in 2012/13. As no new salary estimates are available, this has been inflated to reflect changes in pay for social workers as reported in this volume.
B. Salary oncosts	£6,334 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation (see Preface). ¹
C. Overheads		
Direct overheads	£8,847 per year	Direct overheads were 29 per cent of direct care salary costs. They include costs to the provider for administration and management, as well as for office, training and utilities such as water, gas and electricity.
Indirect overheads	£4,881 per year	Indirect overheads were 16 per cent of direct care salary costs. They include general management and support services such as finance and human resource departments. ²
D. Capital overheads	£3,055 per year	Based on the new-build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. ^{3,4} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
E. Travel		No information available on average mileage covered per visit. For information see <i>Green Book: national agreement on pay and conditions of service</i> . ⁵
Working time	40.9 weeks per year 37 hours per week	Includes 29 days annual leave and 8 statutory leave days. Ten days for study/training and 8.5 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. ⁶ Unit costs are based on 1,513 hours per year.
Ratios of direct to indirect time on: Client-related work		No current information is available about the proportion of social work assistant time spent on client-related outputs. See previous editions of this volume for sources of information.
London multiplier	1.16 x A 1.60 x D	Allows for the higher costs associated with London compared to the national average cost. ^{1,3,4}
Non-London multiplier	0.96 x D	Allows for the lower costs associated with working outside London compared to the national average cost. ^{3,4}
Unit costs available 2016/2017		
£31 per hour.		

¹ Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

² Based on information taken from Selwyn, J. et al. (2009) *Adoption and the inter-agency fee*, University of Bristol, Bristol; and Glendinning, C. et al. (2010) *Home care re-ablement services: investigating the longer-term impacts*, Final Report, University of York, PSSRU Kent, Department of Health, London.

³ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁴ Building Cost Information Service (2016) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁵ Local Government Employers (2012) *Green Book: national agreement on pay and conditions of service*, Local Government Association, London. http://www.local.gov.uk/local-government-intelligence/-/journal_content/56/10180/3328402/ARTICLE/ [accessed 9 October 2013].

⁶ Local Government Association (2016) *Local government workforce survey 2014/15*, Local Government Association, London. http://www.local.gov.uk/workforce/-/journal_content/56/10180/7843334/ARTICLE [accessed 20 October 2016].

11.5 Community occupational therapist (local authority)

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£32,419 per year	Information taken from the National Minimum Data Set for Social Care 2017 ¹ showed that the mean basic salary for an occupational therapist was £32,419.
B. Salary oncosts	£8,873 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation (see Preface). ²
C. Qualifications	£5,710 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). ³ Current cost information has been provided by the Department of Health and the Higher Education Funding Council for England (HEFCE). ⁴
D. Overheads		
Direct overheads	£11,975 per year	Direct overheads were 29 per cent of direct care salary costs. They include costs to the provider for administration and management, as well as for office, training and utilities such as water, gas and electricity. ⁵
Indirect overheads	£6,607 per year	Indirect overheads were 16 per cent of direct care salary costs. They include general management and support services such as finance and human resource departments. ⁵
E. Capital overheads	£3,055 per year	Based on the new-build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. ^{6,7} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
F. Working time	40.9 weeks per year 37 hours per week	Includes 29 days annual leave and 8 statutory leave days. Ten days for study/training and 8.5 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. ⁸ Unit costs are based on 1,513 hours per year.
Ratio of direct to indirect time on: Client-related work		No current information is available on the proportion of time spent with clients. See previous editions of this volume for sources of information.
London multiplier	1.09 x A 1.59 x E	Allows for the higher costs associated with London compared to the national average cost. ^{1,6,7}
Non-London multiplier	0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. ^{6,7}
Unit costs available 2016/2017 (costs including training given in brackets)		
£42 (£45) per hour.		

¹ Skills for Care (2017) *National Minimum Dataset-Social Care online*, <https://www.nmds-sc-online.org.uk/> [accessed 20 October 2017].

² Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

³ 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.

⁴ Personal communication with the Department of Health and the Higher Education Funding Council for England (HEFCE) Higher Education Funding Council for England (HEFCE), 2011.

⁵ Based on information taken from Selwyn et al. (2009) *Adoption and the inter-agency fee*, University of Bristol, Bristol; and Glendinning et al. (2010) *Home care re-ablement services: investigating the longer-term impacts*, Final Report, University of York, PSSRU Kent, Department of Health, London.

⁶ Building Cost Information Service (2016) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁷ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁸ Local Government Association (2016) *Local government workforce survey 2014/15*, Local Government Association, London. http://www.local.gov.uk/workforce/-/journal_content/56/10180/7843334/ARTICLE [accessed 20 October 2016].

11.6 Home care worker

This table provides information on the costs of a home care worker. Salary information is taken from the National Minimum Dataset for Social Care (Skills for Care, 2016).¹ Based on PSS EX1 2013/2014,² and using the PSS inflators, the mean hourly cost of all home care including LA-funded and independent provision was £18, the mean hourly cost of LA home care was £40, and the mean hourly cost was £16 for independent sector provision. See Mickelborough (2011)³ for more information on the domiciliary care market. The ASC-FR return currently provides two rates for home care: one for the hourly rate of in-house home care provision (£25.62); and one for the average hourly rate paid to external providers of home care services (£15.52).⁴ NHS Digital do not analyse the rate by primary support reason or age group.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£15,162 per year	Based on the weighted mean annual salary for a local authority and independent sector care worker for 2016/17. The weighted mean hourly pay rate was £7.85. A senior care worker would earn £16,743 per year (£8.70 gross hourly salary). ¹
B. Salary oncosts	£3,558 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation (see Preface). ⁵
C. Overheads		
Direct overheads	£5,429 per year	Direct overheads were 29 per cent of direct care salary costs. They include costs to the provider for administration and management, as well as for office, training and utilities such as water, gas and electricity. ⁶
Face-to-face contact	1:0.25	
Indirect overheads	£2,995 per hour	Indirect overheads were 16 per cent of direct care salary costs. They include general management and support services such as finance and human resource departments. ⁶
D. Travel		No information available on average mileage covered per visit. For information see Green Book: national agreement on pay and conditions of service.
Working time	41.9 weeks per year 37 hours per week	Includes 29 days annual leave and 8 statutory leave days. Five days for study/training and 8.5 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. ^{7,8} Unit costs are based on 1,551 hours per year.
Ratios of direct to indirect time on:		
Face-to-face contact	1:0.25	No current information available on the proportion of time spent with clients. It is likely, however, that if 19 per cent of a home care worker's time is spent travelling (see duration of visit below), the proportion of total time spent with clients is approximately 80 per cent.
Duration of visit		Sixty-three per cent of local authority commissioned home care visits lasted 16-30 minutes. Ten per cent of visits lasted under 15 minutes, and 16 per cent were longer than 46 minutes.
Service use	7 hours per week (364 hours per year)	In England, 673,000 people used domiciliary care in 2014/15, and 249 million hours of domiciliary care were delivered. On average, individual service users received 370 hours of home care in 2014/15 (7.1 hours per week). The average local authority- commissioned home care per person per week was 12.8 hours. ⁸
Price multipliers for unsocial hours ³	1.00 1.086 1.035 1.093 1.036 1.031 1.039	Day-time weekly Day-time weekend) Night-time weekday) for an independent sector home care hour Night-time weekend) provided for private purchasers Day-time weekend) Night-time weekday) for an independent sector home care hour Night-time weekend) provided for social services
Unit costs available 2016/2017		
<p>Based on the price multipliers for independent sector home care provided for private purchasers: £21 per weekday hour (£23 per day-time weekend, £22 per night-time weekday, £23 per night-time weekend). Face-to-face: £26 per hour weekday (£28 per day-time weekend, £27 per night-time weekday, £29 per night-time weekend).</p> <p>Based on the price multipliers for independent sector home care provided for social services: £22 per weekday hour (£22 per day-time weekend, £22 per night-time weekday, £22 per night-time weekend). Face-to-face: £26 per hour weekday (£27 per day-time weekend, £27 per night-time weekday, £27 per night-time weekend).</p>		

¹ Skills for Care (2017) *National Minimum Dataset-Social Care online*, <https://www.nmds-sc-online.org.uk/> [accessed 20 October 2017].

² Health & Social Care Information Centre (2015) *PSS EX1 2013/14*, Health & Social Care Information Centre, Leeds.

³ Mickelborough, P. (2011) *Domiciliary care*, UK Market Report, Laing & Buisson, London.

⁴ NHS Digital (2017) *Adult Social Care Finance Return (ASC-FR) Activity and Finance report*, NHS Digital, Leeds. <https://digital.nhs.uk/catalogue/PUB30121> [accessed 28 November 2017].

⁵ Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

⁶ Based on information taken from Selwyn, J. et al. (2009) *Adoption and the inter-agency fee*, University of Bristol, Bristol; and Glendinning, C. et al. (2010) *Home care re-ablement services: investigating the longer-term impacts*, Final Report, University of York, PSSRU Kent, Department of Health, London.

11.7 Home care manager

Salary information in this table is taken from the National Minimum Dataset for Social Care (NMDS-SC)¹ and has been based on the salary of a registered manager.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£29,936 per year	Based on the weighted mean annual salary for a local authority and independent sector registered manager for 2016/17. The weighted mean hourly pay rate was £15. A senior care worker would earn £16,743 per year (£7.85 gross hourly salary). ¹
B. Salary oncosts	£8,108 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation (see Preface). ²
C. Qualifications		No information available.
D. Overheads:		
Direct	£11,032 per year	Direct overheads were 29 per cent of direct care salary costs. They include costs to the provider for administration and management, as well as for office, training and utilities such as water, gas and electricity.
Indirect	£6,087 per year	Indirect overheads were 16 per cent of direct care salary costs. They include general management and support services such as finance and human resource departments. ³
E. Capital overheads	£2,566 per year	Based on the new-build and land requirements of a local office and shared facilities for waiting, interviews and clerical support. ^{4,5} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
F. Travel		No information available on average mileage covered per visit. For information see <i>Green Book: national agreement on pay and conditions of service</i> . ⁶
Working time	40.9 weeks per year 37 hours per week	Includes 29 days annual leave and 8 statutory leave days. Ten days for study/training and 8.5 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. ⁷ Unit costs are based on 1,513 hours per year.
Ratios of direct to indirect time on:		
Client-related work		No current information is available on the proportion of time spent with clients. See previous editions of this volume for sources of information.
Face to-face contact		
Frequency of visits		
Duration of visits		
Caseload per worker		
London multiplier	1.25 x A 1.49 x E	Allows for the higher costs associated with London compared to the national average cost. ^{1,4,5}
Non-London multiplier	0.97 x E	Relative London costs are drawn from the same source as the base data for each cost element. ^{4,5}
Unit costs available 2016/2017		
£39 per hour.		

¹ Skills for Care (2017) *The national minimum dataset for social care (NMDS-SC) and data protection: guidance for employers*, Skills for Care. <https://www.nmds-sc-online.org.uk/research/researchdocs.aspx?id=10> [accessed 10 October 2017].

² Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

³ Based on information taken from Selwyn, J. et al. (2009) *Adoption and the inter-agency fee*, University of Bristol, Bristol; and Glendinning, C. et al. (2010) *Home care re-ablement services: investigating the longer-term impacts*, Final Report, University of York, PSSRU Kent, Department of Health, London.

⁴ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁵ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁶ Local Government Employers (2012) *Green Book: national agreement on pay and conditions of service*, Local Government Association, London. http://www.local.gov.uk/local-government-intelligence/-/journal_content/56/10180/3328402/ARTICLE/ [accessed 9 October 2013].

⁷ Local Government Association (2017) *Local government workforce survey 2014/15*, Local Government Association, London. <https://local.gov.uk/sites/default/files/documents/Workforce%20Survey%202015-16%20report%20final%20201704120.pdf> [accessed 12 November 2017].

11.8 Family support worker

Family support workers provide emotional and practical help and advice to families who are experiencing long- or short-term difficulties. A study carried out by the Centre for Child and Family Research (CCFR)¹ explored the costs of Intensive Family Support (IFS) services received by 43 families in two local authority areas (sites 1 and 2). In site 1, the average length of the intervention was just over one year (413 days), and ranged from seven months to 21 months. The average length of the intervention in Site 2 was just under one year (269 days) and ranged from two months to just under two years. The average cost of the IFS service per family in one local authority was £6,866 (£3,506-£11,072) and in the other £5,819 (£1,211-£15,880).² These costs have been uprated using the PSS pay and prices inflator.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£25,271 per year	Information taken from the Local Government Earnings Survey 2008 showed that the mean salary for a family support worker was £21,296. ³ As no new salary estimates are available, this has been inflated to reflect the pay increments for social workers as reported in this volume.
B. Salary oncosts	£6,671 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation (see Preface). ⁴
C. Training		No information available.
D. Overheads		
Direct overheads	£9,263 per year	Direct overheads were 29 per cent of direct care salary costs. They include costs to the provider for administration and management, as well as for office, training and utilities such as water, gas and electricity. ⁵
Indirect overheads	£5,111 per year	Indirect overheads were 16 per cent of direct care salary costs. They include general management and support services such as finance and human resource departments. ⁵
E. Capital overheads	£3,201 per year	Based on the new-build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. ^{6,7} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
F. Travel		No information available on average mileage covered per visit. For information see <i>Green Book: national agreement on pay and conditions of service</i> . ⁸
Working time	41.9 weeks per year 37 hours per week	Includes 29 days annual leave and 8 statutory leave days. Five days for study/training and 8.5 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. ⁹ Unit costs are based on 1,550 hours per year.
Ratios of direct to indirect time on: Client-related work		No current information is available on the proportion of time spent with clients. See previous editions of this volume for sources of information.
London multiplier	1.16 x A	Allows for the higher costs associated with London compared to the national average cost. ⁹
Unit costs available 2016/2017		
£32 per hour; £54 per hour of client-related work.		

¹ McDermid, S. & Holmes, L. (2013) *The cost effectiveness of action for children's intensive family support services*, Final Report, Centre for Child and Family Research, Loughborough University. http://socialwelfare.bl.uk/subject-areas/services-client-groups/families/actionforchildren/153741intensive-family-support-cost-effectiveness_full-report.pdf [accessed 3 October 2013].

² Local Government Association Analysis and Research (2016) *Local government earnings survey 2015/2016*, Local Government Association, London.

³ Local Government Association Analysis and Research (2008) *Local government earnings survey 2007*, Local Government Analysis and Research, London.

⁴ Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

⁵ Based on information taken from Selwyn, J. et al. (2009) *Adoption and the inter-agency fee*, University of Bristol, Bristol; and Glendinning, C. et al. (2010) *Home care re-ablement services: investigating the longer-term impacts*, Final Report, University of York, PSSRU Kent, Department of Health, London.

⁶ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁷ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁸ Local Government Employers (2013) *Green Book: national agreement on pay and conditions of service*, Local Government Association, London. http://www.local.gov.uk/local-government-intelligence/-/journal_content/56/10180/3328402/ARTICLE/ [accessed 9 October 2013].

⁹ Local Government Association (2017) *Local government workforce survey 2014/15*, Local Government Association, London. <https://local.gov.uk/sites/default/files/documents/Workforce%20Survey%202015-16%20report%20final%20201704120.pdf> [accessed 12 November 2017].

11.9 Time banks

Rushey Green time bank is the first UK time bank to be based in a health care setting; it has established a reputation for pioneering work in this field. It services five hubs across Lewisham. See http://www.rgtb.org.uk/extras/TBank_AReport_Final4.pdf and <http://www.cihm.leeds.ac.uk/new/wp-content/uploads/2009/05/Rushey-Green-Time-Bank.pdf/>. The time bank supports Time Banking UK and promotes a National Health and Wellbeing project from the Department of Health to reduce isolation and improve the health of older people. It also provides support and training to other Lewisham time banks, builds relationships with statutory and voluntary sector organisations, and delivers consultancy services/workshops to raise funds for the time bank.

Time banks use hours of time rather than pounds as a community currency, with participants contributing their own skills, practical help or resources in return for services provided by fellow time-bank members. They vary significantly in the way they are organised, including the way credits are exchanged, eligibility criteria, route of access, the administration of the database and ways of accessing it.^{1,2}

When these costs were estimated, Rushey Green timebank was serviced by a manager who was partly funded through a match-funding programme (£11.09 per hour).³ The detailed costs below are based on this service but reflect a fully funded time-bank servicing 360 members. Using these data, cost per member would then decrease from £337 to £242 (or from £299 to £215 using the match-funding voluntary rate).⁴ All costs have been updated to 2016/17 levels using the PSS inflators.

Costs and unit estimation	2016/2017 value	Notes
A. Salaries	£87,118 per year	In total, the service employs 1 full-time manager, 1 PT and 1 FT broker/co-ordinator. Salaries have been based on the midpoint of the NJC payscales ⁵ for a PO2-3 and 1 PT and 1 FT SO1 (Senior officers, 35 and 30 hours per week).
B. Oncosts	£12,894 per year	Employer's national insurance contribution is included, plus 5 per cent employer's contribution to superannuation.
C. Overheads		
Direct overheads		
Telephone, internet, software	£1,925 per year	Other expenses not included are those relating to the use of a house/garden for members' parties and those for attending funerals of members.
Printing, stationery, postage	£3,102 per year	
Volunteer expenses	£535 per year	
Events	£2,140 per year	This includes the training of staff, volunteers and board members.
Training costs	£959 per year	
Workshops/consultancy	£2,509 per year	This includes human resources, legal, payroll and accounts.
Indirect overheads	£3,011 per year	
D. Travel costs	£856 per year	Based on travel costs for staff and volunteers.
E. Capital costs		Based on the office costs for a practice nurse (see table 10.2).
Office costs	£3,872 per year	Includes computers and other office equipment. Office (equipment) costs have been annuitised over 60 (5) years and discounted at a rate of 3.5 per cent, declining to 3 per cent after 30 years.
Equipment costs	£1,925 per year	
Working time		Opening hours for the time-bank vary. The office is usually manned 10-12 hours per day.
Number of members	360	Currently the time-bank has 360 members. It aimed to increase its membership to over 500 by March 2015.
Unit costs available 2016/2017		
Total annual cost if fully funded (actual cost using voluntary match-funding rates) £121,213 (£107,703)		
Annual cost per member based on 360 members (actual cost using match-funding rate) £337 (£242)		

¹ Bauer, A., Fernandez, J.L., Knapp, M. & Anigbogu, B. (2013) *Economic Evaluation of an "Experts by Experience" Model in Basildon District*, http://eprints.lse.ac.uk/29956/1/Internet_Use_and_Opinion_Formation_in_Countries_with_Different_ICT_Contexts.pdf. n.b. This work has been produced from research that forms part of a NIHR School of Social Care Research funded project on the economic consequences for social care interventions. This paper presents independent research and the views expressed in this publication are those of the authors and not necessarily those of the NIHR School for Social Care Research or the Department of Health, NIHR or NHS.

² Knapp, M., Bauer, A., Perkins, M. & Snell, T. (2013) Building community capital in social care: is there an economic case? *Community Development Journal*, 48, 2, 213-331.

³ Rushey Green Community Projects, Funding example, <http://rgcommunityprojects.wordpress.com/apply-for-funding/funding-example/>.

⁴ Volunteering England (2014) Is there a way of measuring the economic value of the work our volunteers are doing?, <http://www.volunteering.org.uk/component/gpb/is-there-any-way-of-measuring-the-economic-value-of-the-work-our-volunteers-are-doing>.

⁵ National Joint Council (NJC) Salary scales for Local Government Services, *NJC payscales 2015-16*, http://www.nottinghamshire.gov.uk/media/2265/local-government-salary-scales-2015_16.pdf [accessed 20 October 2016].

12. Health and social care teams

- 12.1 NHS community mental health team (CMHT) for older people with mental health problems
- 12.2 Community mental health team for adults with mental health problems
- 12.3 Crisis resolution team for adults with mental health problems
- 12.4 Assertive outreach team for adults with mental health problems
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- 12.8 Dedicated CAMHS team
- 12.9 Targeted CAMHS team
- 12.10 Transition services for children with complex needs when transferring to adult services
- 12.11 Re-ablement service

12.1 NHS community mental health team (CMHT) for older people with mental health problems

Composed of professionals from a wide range of disciplines, community mental health teams (CMHTs) are intended to provide an effective local mental health service that prioritises those whose problems are severe and long-term.^{1,2} Information has been taken from the mental health combined mapping website¹ and is based on data received from 787 service providers. NHS reference costs³ report that the mean average weighted cost per face-to-face contact for all community mental health teams for older people was £133. Costs have been updated to 2016/17 price levels using the HCHS pay and prices inflators. See also research articles for additional information on variations in case mix and service receipt.^{4,5}

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£31,755 per year	Based on mean basic salaries for Agenda for Change (AfC) bands. ⁶ Weighted to reflect input of community nurses (43%), social workers/approved social workers (12%), consultants (6%) and others. 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 (OP) worker salary. ¹ See section V for further information on pay scales.
B. Salary oncosts	£7,806 per year	Employer's national insurance is included, plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Overheads Management, administration and estates staff Non-staff	£9,692 per year £15,112 per year	Taken from the 2013/14 financial accounts for 10 community trusts. ⁷ Management and other non-care staff costs are 24.5 per cent of direct care salary costs and include administration and estates staff. Non-staff costs are 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.
D. Capital overheads	£4,378 per year	Based on the new-build and land requirements of an NHS office and shared facilities for waiting, interviews and clerical support. ^{8,9} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
Working time	41.7 weeks per year 37.5 hours per week	Unit costs are based on 1,565 hours per year: 225 working days minus sickness absence and training/study days as reported for NHS staff groups. ¹⁰
Ratios of direct to indirect time		No current information on time use is available. See previous editions of this volume for sources of information.
Frequency of visits	8	Average number of visits per week per worker.
Duration of visits	60 minutes	Average duration of visits.
Length of time on caseload	11.6 months	Average time on caseload, based on information obtained for 1,396 people, was 11.6 months. ¹
Caseload per CMHT	32 cases per care staff	Based on mental health combined mapping data. ¹ In 2008/09 there were on average 389 cases per service and 32 cases per year per generic CMHT.
London multiplier	1.96 x D	Allows for higher costs associated with working in London. ^{7,8, 11}
Non-London multiplier	0.42 x D	Allows for lower costs associated with working outside London. ^{7,8}
Unit costs available 2016/2017		
£44 per hour per team member; £68,744 annual cost of team member		

¹ Public Health England (2016) *Adult mental health service mapping atlases for England 2000-2003*, (full datasets to 2009 can be downloaded using this link), http://www.nepho.org.uk/mho/publications/AMH_service_mapping_atlases [accessed 29 November 2016].

² Rethink Mental Illness (2016) *Community Mental Health Teams (CMHTs)*, <https://www.rethink.org/diagnosis-treatment/treatment-and-support/cmhts> [accessed 29 November 2015].

³ Department of Health (2015) *NHS reference costs 2013-2014*, Department of Health, London. <https://www.gov.uk/government/publications/nhs-reference-costs-2013-to-2014> [accessed 2 October 2014].

⁴ Tucker, S., Wilberforce, M., Brand, C., Abendstern, M., Crook, A., Jasper, R., Steward, K. & Challis, D. (2014) Community mental health teams for older people: variations in case mix and service receipt (1), *International Journal of Geriatric Psychiatry*, doi: 10.1002/gps.4191.

⁵ Wilberforce, M., Tucker, S., Brand, C., Abendstern, M., Jasper, R., Steward, K. & Challis, D. (2014) Community mental health teams for older people: variations in case mix and service receipt (11), *International Journal of Geriatric Psychiatry*, doi: 10.1002/gps.4190.

⁶ NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

⁷ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415> [accessed 9 October 2017].

⁸ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁹ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

¹⁰ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17* [accessed 13 October 2017].

¹¹ Monitor (2016) *Guidance on the market forces factor: A supporting document for the 2017 to 2019 National Tariff Payment System*, https://improvement.nhs.uk/uploads/documents/Guidance_on_the_market_forces_factor_cagqile.pdf [accessed 26 October 2017].

12.2 Community mental health team for adults with mental health problems

Composed of professionals from a wide range of disciplines, community mental health teams (CMHTs) are intended to provide an effective local mental health service that prioritises those whose problems are severe and long-term.¹ Information has been taken from the mental health combined mapping website¹ and is based on data received from 787 service providers. NHS reference costs² report that the mean average weighted cost per contact with a community mental health team specialist for adults with mental health problems was £197. Based on personal communication with the NHS Benchmarking network (<https://www.nhsbenchmarking.nhs.uk/news/camhs-benchmarking-2016-findings-published>), the median average cost per contact delivered was £248. Costs have been updated to 2016/17 price levels using HCIS inflators.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£27,501 per year	Based on mean basic salaries for Agenda for Change (AfC) bands. ³ Weighted to reflect input of community nurses (31%), social workers/approved social workers (18%), consultants (6%) OTs and physiotherapists (5%), carer support (5%) and others. 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. ¹ See section V for further information on pay scales.
B. Salary oncosts	£7,082 per year	Employer's national insurance is included, plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Qualifications		Information not available for all care staff.
D. Overheads		Taken from the 2013/14 financial accounts for 10 community trusts. ⁴
Management, administration and estates staff	£8,473 per year	Management and other non-care staff costs are 24.5 per cent of direct care salary costs and include administration and estates staff.
Non-staff	£13,211 per year	Non-staff costs are 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.
E. Capital overheads	£4,378 per year	Based on the new-build and land requirements of an NHS office and shared facilities for waiting, interviews and clerical support. ^{5,6} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
Working time	41.7 weeks per year 37.5 hrs per week	Unit costs are based on 1,565 hours per year: 225 working days minus sickness absence and training/study days as reported for NHS staff groups. ⁷
Ratio of direct to indirect time		No current information on time use is available. See previous editions of this volume for sources of information.
Caseload per CMHT	24 cases per CMHT	Based on mental health combined mapping data. ¹ In 2008/09, there were on average 404 cases per service and 24 cases per year per generic CMHT.
London multiplier	1.96 x E	Allows for higher costs associated with working in London. ^{4,5,8}
Non-London multiplier	0.42 x E	Allows for the lower costs associated with working outside London. ^{4,5}
Unit costs available 2016/2017		
£39 per hour per team member; £60,645 annual cost of team member		

¹ Public Health England (2016) *Adult mental health service mapping atlases for England 2000-2003*, (full datasets to 2009 can be downloaded using this link), http://www.nepho.org.uk/mho/publications/AMH_service_mapping_atlases [accessed 29 November 2016].

² Department of Health (2015) *NHS reference costs 2013-2014*, Department of Health, London. <https://www.gov.uk/government/publications/nhs-reference-costs-2013-to-2014> [accessed 4 October 2015].

³ NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

⁴ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415> [accessed 9 October 2017]

⁵ Building Cost Information Service (2016) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁶ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁷ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17*, NHS Digital, Leeds. [accessed 13 October 2017].

⁸ Monitor (2016) *Guidance on the market forces factor: A supporting document for the 2017 to 2019 National Tariff Payment System*, https://improvement.nhs.uk/uploads/documents/Guidance_on_the_market_forces_factor_cagqjle.pdf [accessed 26 October 2017].

12.3 Crisis resolution team for adults with mental health problems

Crisis resolution is an alternative to inpatient hospital care for service users with serious mental illness, offering flexible, home-based care 24 hours a day, seven days a week. Information has been taken from the mental health combined mapping website¹ and is based on data received from 270 service providers. There were, on average, 17 care staff per team. NHS reference costs² report that the mean average cost for a crisis resolution team was £192 per team contact. Costs have been uprated to 2016/17 price levels using the HCHS pay and prices inflators. See McCrone et al. (2008) for more information on Crisis Resolution Teams.³

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£28,684 per year	Based on mean salaries for Agenda for Change (AfC) bands. ⁴ 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 crisis resolution worker salary. Teams included medical staff, nurses, psychologists, social workers, social care and other therapists. ¹ See section V for further information on pay scales.
B. Salary oncosts	£7,095 per year	Employer's national insurance is included, plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Training		No costs available. Crisis resolution work involves a major re-orientation for staff who have been accustomed to working in different ways.
D. Overheads Management, administration and estates staff	£8,766 per year	Taken from the 2013/14 financial accounts for 10 community trusts. ⁵ Management and other non-care staff costs are 24.5 per cent of direct care salary costs and include administration and estates staff.
Non-staff	£13,668 per year	Non-staff costs are 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.
E. Capital overheads	£4,378 per year	Based on the new-build and land requirements of an NHS office and shared facilities for waiting, interviews and clerical support. ^{6,7} Costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
Working hours of team members	41.7 weeks per year 37.5 hours per week	Unit costs are based on 1,565 hours per year: 225 working days minus sickness absence and training/study days as reported for NHS staff groups. ⁸
Service hours	24 hours per day 7 days per week	In general, the team should operate seven days a week, 24 hours per day throughout the year. This can be done if two shifts a day are scheduled for mornings and afternoons. ⁹
Duration of episode	27 days	The mapping exercise ¹ reported that 27 days was the average duration of episode. The mean longest time that teams stay involved is 75.6 days. ¹⁰
Caseload	36 cases per service 2 cases per care staff	Based on mental health combined mapping data ¹ average caseloads for 2008/09 were 36 cases per service and two cases per year per crisis-resolution team member.
London multiplier	1.96 x E	Allows for higher costs associated with working in London. ^{5,6,11}
Non-London multiplier	0.42 x E	Allows for lower costs associated with working outside London. ^{5,6}
Unit costs available 2016/2017 (costs including qualifications given in brackets)		
£40 per hour per team member; £62,591 annual cost of team member; £31,296 average cost per case		

¹ Public Health England (2016) *Adult mental health service mapping atlases for England 2000-2003*, (full datasets to 2009 can be downloaded using this link), http://www.nepho.org.uk/mho/publications/AMH_service_mapping_atlases [accessed 29 November 2016].

² Department of Health (2015) *NHS reference costs 2013-2014*, Department of Health, London. <https://www.gov.uk/government/publications/nhs-reference-costs-2012-to-2013> [accessed 2 October 2014].

³ McCrone, P., Dhanasiri, S., Patel, A., Knapp, M. & Lawton-Smith, S. (2008) *Paying the price, the cost of mental health care in England to 2026*, King's Fund, London.

⁴ NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

⁵ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415> [accessed 9 October 2017].

⁶ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁷ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁸ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17*, NHS Digital, Leeds [accessed 13 October 2017].

⁹ Sainsbury Centre for Mental Health (2010) *Mental health topics, crisis resolution*, http://www.centreformentalhealth.org.uk/pdfs/crisis_resolution_mh_topics.pdf [accessed 9 October 2013].

¹⁰ Onyett, S., Linde, K., Glover, G. et al (2007) *Crisis resolution and inpatient mental health care in England*, University of Durham.

¹¹ Monitor (2016) *Guidance on the market forces factor: A supporting document for the 2017 to 2019 National Tariff Payment System*, https://improvement.nhs.uk/uploads/documents/Guidance_on_the_market_forces_factor_caggile.pdf [accessed 26 October 2017].

12.4 Assertive outreach team for adults with mental health problems

Assertive outreach teams provide intensive support for people with severe mental illness who are 'difficult to engage' in more traditional services.¹ Information has been taken from the mental health combined mapping website² and is based on data received from 248 service providers. See McCrone et al. (2008) for more information on this service.³ NHS reference costs⁴ report the mean average cost for an assertive outreach team contact was £132. Costs have been updated to 2016/17 price levels using the HCHS pay and prices inflators.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£26,984 per year	Based on mean salaries for Agenda for Change (AfC) bands. ⁵ 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 Assertive Outreach Team worker salary. Teams included doctors, nurses, psychologists, social workers, social care, other therapists and volunteers. ²
B. Salary oncosts	£6,520 per year	Employer's national insurance is included, plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Overheads		Taken from the 2013/14 financial accounts for 10 community trusts. ⁶
Management, administration and estates staff	£8,208 per year	Management and other non-care staff costs are 24.5 per cent of direct care salary costs and include administration and estates staff.
Non-staff	£12,798 per year	Non-staff costs are 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.
D. Capital overheads	£4,378 per year	Based on the new-build and land requirements of an NHS office and shared facilities. ^{7,8} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
Ratio of direct contact to total contact time:		No current information on time use is available. See previous editions of this volume for sources of information.
Working hours of team members	41.7 weeks per year 37.5 hours per week	Unit costs are based on 1,565 hours per year: 225 working days minus sickness absence and training/study days as reported for NHS staff groups. ⁹
Service hours	24 hours per day	Working hours of most services are flexible, although 24-hour services are rare.
Caseload	72 cases per service 7 cases per care staff	Based on mental health combined mapping data, average caseloads for 2008/09 were 72 cases per service and seven cases per year per assertive outreach team member. ²
London multiplier	1.96 x E	Allows for the higher costs associated with working in London. ^{6,7,10}
Non-London multiplier	0.42 x E	Allows for lower costs associated with working outside London. ^{6,7}
Unit costs available 2016/2017 (costs including qualifications given in brackets)		
£38 per hour per team member; £58,889 annual cost of team member; £8,413 average cost per case		

¹ Rethink Mental Illness (2016) *Assertive Outreach*, <https://www.rethink.org/diagnosis-treatment/treatment-and-support/assertive-outreach> [accessed 29 November 2016].

² Public Health England (2016) *Adult mental health service mapping atlases for England 2000-2003*, http://www.nepho.org.uk/mho/publications/AMH_service_mapping_atlases [accessed 29 November 2016].

³ McCrone, P., Dhanasiri, S., Patel, A., Knapp, M. & Lawton-Smith, S. (2008) *Paying the price, the cost of mental health care in England to 2026, King's Fund*, London.

⁴ Department of Health (2015) *NHS reference costs 2013-2014*, Department of Health, London. <https://www.gov.uk/government/publications/nhs-reference-costs-2012-to-2013> [accessed 2 October 2014].

⁵ NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

⁶ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415> [accessed 9 October 2017].

⁷ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁸ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁹ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17*, NHS Digital, Leeds [accessed 13 October 2017].

¹⁰ Monitor (2016) *Guidance on the market forces factor: A supporting document for the 2017 to 2019 National Tariff Payment System*, https://improvement.nhs.uk/uploads/documents/Guidance_on_the_market_forces_factor_cagqile.pdf [accessed 26 October 2017].

12.5 Early intervention team for adults with mental health problems

Early intervention is a service for young people aged 14-35 during the first three years of a psychotic illness. They provide a range of services, including anti-psychotic medications and psycho-social interventions, tailored to the needs of young people with a view to facilitating recovery.¹ Staff and caseload information for this table has been taken from the mental health combined mapping website and is based on data received from 150 service providers.² NHS reference costs³ report the mean average cost for an early intervention team contact was £184. Costs have been uprated to 2016/17 price levels using the HCHS pay and prices inflators. See McCrone et al. (2008) for more information on early intervention teams.⁴ See section V for further information on pay scales.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary	£28,395 per year	Based on median salaries for Agenda for Change (AfC) bands. ⁵ 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 assertive outreach team worker salary. Teams included doctors, nurses, psychologists, social workers, social care, other therapists and volunteers. ² The minimum wage has been assumed for volunteers. ⁶
B. Salary oncosts	£7,062 per year	Employer's national insurance is included, plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Training		
D. Overheads Management, administration and estates staff	£8,687 per year	Taken from the 2013/14 financial accounts for 10 community trusts. ⁷ Management and other non-care staff costs are 24.5 per cent of direct care salary costs and include administration and estates staff.
Non-staff	£13,545 per year	Non-staff costs are 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.
E. Capital overheads	£4,378 per year	Based on the new-build and land requirements of an NHS office and shared facilities. ^{8,9} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
Working time per staff member	41.7 weeks per year 37.5 hours per week	Unit costs are based on 1,565 hours per year: 225 working days minus sickness absence and training/study days as reported for NHS staff groups. ¹⁰
Service hours		Teams tend to operate 9.00 a.m.-5.00 p.m. but some flexibility is planned.
Caseload	98 cases per service 9 cases per care staff	Based on mental health combined mapping data. ² Caseload data for 2008/09 showed 98 cases per service and nine cases per early intervention team member. ²
Ratio of direct to indirect time		No information available
London multiplier	1.96 x E	Allows for higher costs associated with working in London. ^{7,8,11}
Non-London multiplier	0.42 x E	Allows for lower costs associated with working outside London. ^{7,8}
Unit costs available 2016/2017 (costs including qualifications given in brackets)		
£40 per hour; £62,067 annual cost of team member; £6,896 average cost per case		

¹ Rethink Mental Illness (2016) 'Lost Generation' – protecting Early Intervention in Psychosis services, <https://www.rethink.org/living-with-mental-illness/early-intervention> [accessed 29 November 2016].

² Public Health England (2016) *Adult mental health service mapping atlases for England 2000-2003*, (full datasets to 2009 can be downloaded using this link), http://www.nepho.org.uk/mho/publications/AMH_service_mapping_atlases [accessed 29 November 2016].

³ Department of Health (2015) *NHS reference costs 2013-2014*, Department of Health, London. <https://www.gov.uk/government/publications/nhs-reference-costs-2012-to-2013> [accessed 2 October 2014].

⁴ McCrone, P., Dhanasiri, S., Patel, A., Knapp, M. & Lawton-Smith, S. (2008) *Paying the price, the cost of mental health care in England to 2026*, King's Fund, London.

⁵ NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

⁶ Gov.UK (2016) *National minimum and national living wage rates*, <https://www.gov.uk/national-minimum-wage-rates> [accessed 17 October 2017].

⁷ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415> [accessed 9 October 2017]

⁸ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁹ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

¹⁰ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17*, NHS Digital, Leeds [accessed 13 October 2017].

¹¹ Monitor (2016) *Guidance on the market forces factor: A supporting document for the 2017 to 2019 National Tariff Payment System*, https://improvement.nhs.uk/uploads/documents/Guidance_on_the_market_forces_factor_cagqile.pdf [accessed 26 October 2017].

12.6 Generic single-disciplinary CAMHS team

These teams provide services for children and young people with particular problems requiring particular types of intervention and within a defined geographical area.¹ Staff, caseload and cost information has been taken from the Child and Adolescent Mental Health Service (CAMHS)^{2,3} mapping database, and is based on returns from 2,094 teams of which 60 were generic single-disciplinary teams. The staff in these teams are almost exclusively clinical psychologists, educational psychologists and other therapists. There are on average 4.13 WTE per team (excluding administrative staff and managers). Costs have been updated to 2016/17 price levels using the appropriate inflators.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary plus oncosts	£37,927 per year	Average salary for single generic team member based on national CAMHS cost data. ^{2,3}
B. Overheads		Taken from the 2013/14 financial accounts for 10 community trusts. ⁴
Management, administration and estates staff	£ 9,292 per year	Management and other non-care staff costs are 24.5 per cent of direct care salary costs and include administration and estates staff.
Non-staff	£14,488 per year	Non-staff costs are 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.
C. Capital overheads	£4,378 per year	Based on the new-build and land requirements of an NHS office and shared facilities. ^{5,6} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent. Based on the assumption that each team has one shared office, declining to 3 per cent after 30 years.
Working time	41.7 weeks per year 37.5 hours per week	Unit costs are based on 1,565 hours per year: 225 working days minus sickness absence and training/study days as reported for NHS staff groups. ⁷
Ratio of direct to indirect time on:		Information taken from CAMHS mapping data. ² Staff activity was reported at the team level by the Strategic Health Authority (SHA) averaging as follows: education and training (9%), research and evaluation (5%), administration and management (23%), consultation and liaison (13%) and clinical (49%).
Patient-related work	1:0.63	
Face-to-face contact	1:1.06	
Duration of episode		26 per cent of cases lasted 4 weeks or less, 25 per cent for 13 weeks or less, 18 per cent for 26 weeks or less, 16 per cent for 52 weeks or less, and 15 per cent for more than 52 weeks.
Caseload per team	60 cases per team	Based on 60 teams and a caseload of 3,604. ²
London multiplier	1.96 x C	Allows for higher costs associated with working in London. ^{4,5,8}
Non-London multiplier	0.42 x C	Allows for lower costs associated with working outside London. ^{4,5}
Unit costs available 2016/2017		
£42 per hour per team member; £69 per hour per patient-related activity; £87 per hour per team member face-to-face contact; £66,085 annual cost of team member; £4,549 average cost per case		

¹ YoungMinds (2016) *Children and people services*, http://www.youngminds.org.uk/for_parents/services_children_young_people/camhs [accessed 29 November 2016].

² Child and Adolescent Mental Health Service (CAMHS) (2009) *Children's service mapping*, Durham University & Department of Health, <http://dro.dur.ac.uk/6373/> [accessed 17 November 2017].

³ The CAMHS mapping data are no longer being collected so costs for this table have been updated to current prices.

⁴ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415> [accessed 9 October 2017]

⁵ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁶ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁷ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17*, NHS Digital, Leeds [accessed 13 October 2017].

⁸ Monitor (2016) *Guidance on the market forces factor: A supporting document for the 2017 to 2019 National Tariff Payment System*, https://improvement.nhs.uk/uploads/documents/Guidance_on_the_market_forces_factor_cagqjle.pdf [accessed 26 October 2017].

12.7 Generic multi-disciplinary CAMHS team

Staff mix, time use, caseload and cost information for this table has been taken from the Child and Adolescent Mental Health Service (CAMHS)^{1,2} mapping database, and is based on returns from 2,094 teams of which 421 teams were generic multi-disciplinary. Generic teams provide the backbone of specialist CAMHS provision, ensuring a range of therapeutic interventions were available to children, young people and families locally. Multidisciplinary generic teams, as the name implies, were largely staffed by a range of mental health professionals. The average size of multidisciplinary teams was 10.9 WTE (excluding administrative staff and managers). Costs have been updated to 2016/17 price levels using the appropriate inflators.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary plus oncosts	£50,483 per year	Average salary for a multi-disciplinary CAMHS team based on national CAMHS cost data. ^{1,2}
B. Overheads Management, administration and estates staff	£12,368 per year	Taken from the 2013/14 financial accounts for 10 community trusts. ³ Management and other non-care staff costs are 24.5 per cent of direct care salary costs and include administration and estates staff.
Non-staff	£19,284 per year	Non-staff costs are 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.
C. Capital overheads	£4,378 per year	Based on the new-build and land requirements of an NHS office and shared facilities. ^{4,5} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years. Based on the assumption that each team has one shared office.
Working time	41.7 weeks per year 37.5 hours per week	Unit costs are based on 1,565 hours per year: 225 working days minus sickness absence and training/study days as reported for NHS staff groups. ⁶
Ratio of direct to indirect time on: Patient-related work	1:0.63	Information taken from national CAMHS mapping data. ² Staff activity was reported at the team level by the Strategic Health Authority (SHA) averaging as follows: education and training (9%), research and evaluation (5%), administration and management (23%), consultation and liaison (13%), and clinical (49%).
Face-to-face contact	1:1.06	
Duration of episode (all CAMHS teams)		19 per cent of cases lasted for 4 weeks or less, 21 per cent for 13 weeks or less, 19 per cent for 26 weeks or less, 17 per cent for 52 weeks or less and 25 per cent for more than 52 weeks.
Caseload per team	191 cases per team	Based on 421 teams and 80,386 cases. ²
London multiplier	1.96 x C	Allows for higher costs associated with working in London. ^{3,4,7}
Non-London multiplier	0.42x C	Allows for lower costs associated with working outside London. ^{3,4}
Unit costs available 2016/2017		
£55 per hour per team member; £90 cost per hour per team member for patient-related activities; £114 cost per hour per team member for face-to-face contact; £4,937 average cost per case		

¹ YoungMinds (2016) *Children and people services*, http://www.youngminds.org.uk/for_parents/services_children_young_people/camhs [accessed 29 November 2016].

² Child and Adolescent Mental Health Service (CAMHS) (2009) *Children's service mapping*, Durham University & Department of Health, <http://dro.dur.ac.uk/6373/> [accessed 17 November 2017].

³ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415> [accessed 9 October 2017]

⁴ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁵ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed October 2017].

⁶ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17*, NHS Digital, Leeds [accessed 13 October 2017].

⁷ Monitor (2016) *Guidance on the market forces factor: A supporting document for the 2017 to 2019 National Tariff Payment System*, https://improvement.nhs.uk/uploads/documents/Guidance_on_the_market_forces_factor_cagqile.pdf [accessed 26 October 2017].

12.8 Dedicated CAMHS team

Dedicated CAMHS workers are fully trained child and adolescent mental health professionals who are out-posted in teams that are not specialist CAMHS teams but have a wider function, such as a youth offending team or a generic social work children's team. The information for this table is based on national Child and Adolescent Mental Health Service (CAMHS) mapping staff-related and cost information returned in 2008 from 2,094 teams, of which 133 were dedicated teams.^{1,2} On average, there are 2.2 WTE per team (excluding administrative staff and managers). Costs have been updated to 2016/17 price levels using the appropriate inflators.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary plus oncosts	£36,510 per year	Average salary plus oncosts for a team member working in a dedicated team based on national CAMHS data and on the 128 dedicated teams. ^{1,2}
B. Overheads Management, administration and estates staff	£8,945 per year	Taken from the 2013/14 financial accounts for 10 community trusts. ³ Management and other non-care staff costs are 24.5 per cent of direct care salary costs and include administration and estates staff.
Non-staff	£13,947 per year	Non-staff costs are 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.
C. Capital overheads	£4,378 per year	Based on the new-build and land requirements of an NHS office and shared facilities. ^{4,5} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years. Based on the assumption that each team has one shared office.
Working time	41.7 weeks per year 37.7 hours per week	Unit costs are based on 1,565 hours per year: 225 working days minus sickness absence and training/study days as reported for NHS staff groups. ⁶
Ratio of direct to indirect time on: Patient-related work	1:0.63	Information taken from national CAMHS mapping data. ¹ Staff activity was reported at the team level by the Strategic Health Authority (SHA) averaging as follows: education and training (9%), research and evaluation (5%), administration and management (23%), consultation and liaison (13%) and clinical (49%).
Face-to-face contact	1:1.06	
Length of episode		30 per cent of cases lasted for 4 weeks or less, 30 per cent for 13 weeks or less, 19 per cent for 26 weeks or less, 11 per cent for 52 weeks or less and 10 per cent for more than 52 weeks.
Caseload	35 cases per team	Based on 133 teams and 4,596 cases. ¹
London multiplier	1.96 x C	Allows for higher costs associated with working in London. ^{3,4,7}
Non-London multiplier	0.42 x C	Allows for lower costs associated with working outside London. ^{3,4}
Unit costs available 2016/2017		
£41 per hour per team member; £66 per hour of patient-related activity; £84 per hour of face-to-face contact; £4,009 average cost per case		

¹ Child and Adolescent Mental Health Service (CAMHS) mapping (2009), Durham University & Department of Health, <http://www.childrensmapping.org.uk/> [accessed 17 November 2013].

² Child and Adolescent Mental Health Service (CAMHS) (2009) *Children's service mapping*, Durham University & Department of Health, <http://dro.dur.ac.uk/6373/> [accessed 17 November 2017].

³ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415> [accessed 9 October 2017]

⁴ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁵ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁶ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17*, NHS Digital, Leeds [accessed 13 October 2017].

⁷ Monitor (2016) *Guidance on the market forces factor: A supporting document for the 2017 to 2019 National Tariff Payment System*, https://improvement.nhs.uk/uploads/documents/Guidance_on_the_market_forces_factor_cagqjle.pdf [accessed 26 October 2017].

12.9 Targeted CAMHS team

These teams provide services for children and young people with particular problems or for those requiring particular types of therapeutic interventions. The information for this table is based on national Child and Adolescent Mental Health Service (CAMHS) mapping data for 2008 and returns from 2,094 teams, of which 335 were targeted teams.^{1,2} On average, there are 4.2 WTE per team (excluding administrative staff and managers). Costs have been updated to 2016/17 price levels using the appropriate inflators.

Costs and unit estimation	2016/2017 value	Notes
A. Wages/salary plus oncosts	£39,636 per year	Average salary for a team based on national CAMHS data. ^{1,2}
B. Overheads		Taken from the 2013/14 financial accounts for 10 community trusts. ³
Management, administration and estates staff	£9,711 per year	Management and other non-care staff costs are 19.31 per cent of direct care salary costs and include administration and estates staff.
Non-staff	£15,141 per year	Non-staff costs are 38.2 per cent of direct care salary costs. They include costs to the provider for office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.
C. Capital overheads	£4,378 per year	Based on the new-build and land requirements of an NHS office and shared facilities. ^{4,5} Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years. Based on the assumption that each team has one shared office.
Working time	41.7 weeks per year 37.5 hours per week	Unit costs are based on 1,565 hours per year: 225 working days minus sickness absence and training/study days as reported for NHS staff groups. ⁶
Ratio of direct to indirect time on:		Information taken from national CAMHS mapping data. ¹ Staff activity was reported at the team level by the Strategic Health Authority (SHA) averaging as follows: education and training (9%), research and evaluation (5%), administration and management (23%), consultation and liaison (13%) and clinical (49%).
Patient-related work	1:0.63	
Face-to-face contact	1:1.06	
Duration of episode		22 per cent of cases lasted for 4 weeks or less, 24 per cent for 13 weeks or less, 18 per cent for 26 weeks or less, 16 per cent for 52 weeks or less and 20 per cent for more than 52 weeks.
Caseload	47 cases per team	Based on 335 teams and 15,653 cases. ¹
London multiplier	1.96 x C	Allows for higher costs associated with working in London. ^{3,4,7}
Non-London multiplier	0.42 x C	Allows for lower costs associated with working in London. ^{3,4}
Unit costs available 2016/2017		
£44 per hour per team member; £72 cost per hour per team member for patient-related activities; £91 cost per hour per team member for face-to-face contact; £6,154 average cost per case		

¹ Child and Adolescent Mental Health Service (CAMHS) mapping (2009), Durham University & Department of Health, <http://www.childrensmapping.org.uk/> [accessed 17 November 2013].

² Child and Adolescent Mental Health Service (CAMHS) (2009) *Children's service mapping*, Durham University & Department of Health, <http://dro.dur.ac.uk/6373/> [accessed 17 November 2017].

³ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415> [accessed 9 October 2017]

⁴ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁵ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*, Department for Communities and Local Government, London. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

⁶ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17*, NHS Digital, Leeds [accessed 13 October 2017].

⁷ Monitor (2016) *Guidance on the market forces factor: A supporting document for the 2017 to 2019 National Tariff Payment System*, https://improvement.nhs.uk/uploads/documents/Guidance_on_the_market_forces_factor_cagqile.pdf [accessed 26 October 2017].

12.10 Transition services for children with complex needs when transferring to adult services

This table has been based on a study carried out by Sloper et al. (2010)¹ in which the costs for five transition services were studied in depth. Three of the five transition services have been selected for inclusion here and represent low, medium and high cost services (based on cost per case per year).

12.10.1 Transition services for children: medium cost

Relaunched in June 2007, the service was fully staffed for the first time just before the research interviews were undertaken in 2007/2008. The team has no case-holding responsibilities or budget but works to co-ordinate transition for young people with very complex needs.

At that time, the team supported 184 young people. The average cost per working hour (including steering group) is £61 (£64) and the cost per case per year is £1,009 and £1,065 respectively. Time use: direct contact (7%), meetings with family (12%), liaison (45%) and report writing or assessments (36%). Costs have been uprated from 2007/08 using the PSS inflators.

Staff member	Whole-time-equivalent (WTE) on transition	£ per year
Team manager/business support	2.0 WTE	£91,093
Social worker/social work assistant	1.5 WTE	£87,979
Other support and supervision	<0.1	£6,547
Total for staff		£185,619
Steering group	Total hours per year	£ per year
Managers: children's services	56	£3,035
Managers: adult services	42	£2,177
Managers: health	32	£1,946
Managers: education/training	60	£3,256
Total for steering group		£10,413
TOTAL COST		£196,032

¹ Sloper, P., Beecham, J., Clarke, S., Franklin, A., Moran, N. & Cusworth, L. (2010) *Models of multi-agency services for transition to adult services for disabled young people and those with complex health needs: impact and costs*, Social Policy Research Unit, University of York & Personal Social Services Research Unit, University of Kent, Canterbury.

12.10.2 Transition services for children: low-cost

This service was based in a small unitary authority and was launched in June 2005. At the time of the study, the co-ordinator worked closely with other personnel in social services, health and education (including special schools) to ensure a smooth transition for disabled young people who have complex needs. The local voluntary sector organisation undertook personal care planning and was in regular contact with the transition co-ordinator. This transition service had a complex 'cost picture' involving many people and agencies, and although much of the work planning transition support has been included, the cost of transition support has probably not been included.

The team supported 203 young people, of whom 79 had complex needs and 124 had moderate intellectual disabilities. The cost per working hour for the team (including strategic management group) was £25 (£29), and cost per case per year £457 (£530). Time use: direct contact (40%), assessments and reports (10%), liaison (20%), travel (10%) and meetings (20%). Costs have been updated from 2007/08 using the PSS inflators.

Staff member	Whole-time-equivalent (WTE) on transition	£ per year
Transition co-ordinator	1.0	£50,144
Transition co-ordinator supervision	0.02	£1,129
Some of the virtual team members		
Social workers in children's team	0.35	£17,995
Practice managers in children's teams	0.05	£3,165
Social workers in adult team	0.28	£14,039
Connexions advisor	0.03	£1,833
Adult operational director	0.05	£3,777
Divisional manager	<0.01	£656
Total		£92,829
Strategic Management Group (meets monthly)	Total hours per year	£ per year
Managers: children's services	99	£4,109
Managers: adult services	77	£4,065
Managers: education/training	22	£1,198
Area managers: connexions	22	£933
Managers: health	88	£4,406
Subtotal for Strategic Management Group		£14,711
Transition sub-groups	Total hours per year	£ per year
(2 meet monthly, 1 meets each term)		
Managers: children's services	143.5	£6,270
Managers: adult services	116	£4,941
Managers: health	215.6	£8,919
Education services managers	235	£1,054
Connexions	22	£938
Voluntary organisations personnel	44	£1,215
Subtotal for transition sub-groups		£23,337
TOTAL COST		£116,166

12.10.3 Transition services for children: high-cost

At the time of the study, this transition team was located in an education department within an integrated disabled children's service. The team was set up in November 2007, and the research interviews were undertaken in October 2008. There had been problems getting staff in place; many interviewees were involved in statutory duties as well and felt they had only just got to the point where transition work could begin.

The team supported 76 young people. The average costs per working hour (including steering group) is £42 (£43), and cost per case per year is £4,128 (£4,206). Time use: face-to-face contact (12%); telephone contact (17%); assessments and writing reports (28%); meetings with people and families (11%); liaison away from meetings (12%); travel (12% and general administration (10%). Costs have been updated from 2007/08 using the PSS inflators.

Staff member	Whole-time-equivalent (WTE) on transition	£ per year
Children's services		
Manager transition team/administrator	0.50	£24,549
Social workers/key workers	0.75	£37,112
Nurse (cyp)/trainee psychologist	0.70	£37,832
Connexions TPAs	1.00	£43,565
Adult services		
Manager adult team	0.60	£37,073
Social worker (adult)	0.80	£40,113
Senior practitioner	0.75	£46,344
Nurse (adult)	0.80	£41,391
Supervision (various managers, not included above)	0.08	£5,744
Subtotal for children's services		£313,723
Steering group and sub-groups	Total hours per year	£ per year
Managers: children's services	33	£1,830
Managers: adult services	14	£760
Managers: education/training	12	£599
Services managers: local authority	42	£956
Connexions	22.5	£1,785
Subtotal for steering group		£5,930
TOTAL COST		£319,653

12.11 Re-ablement service

Adult social care services are increasingly establishing re-ablement services as part of their range of home care provision, sometimes alone, sometimes jointly with NHS partners. Typically, home care re-ablement is a short-term intervention, often provided to the user free of charge, and aims to maximise independent living skills. Information on the costs of re-ablement were collected as part of an evaluation at the Personal Social Services Research Unit at the University of Kent, in collaboration with the Social Policy Research Unit, University of York.¹ The table below shows the average costs across four re-ablement services participating in the evaluation.² All the services were based outside London, and one service had occupational therapists (OTs) working closely with the team. Cost data were provided for 2008/09 and have been updated using the PSS inflators.

Costs per service user for the four sites ranged from £1,724 to £2,341 at 2016/17 prices.

Costs and unit estimation	2016/2017 value	Notes
A. Salary plus oncosts	£2,526,695 per year	Based on total salary costs ranging from £598,697 to £4,905,310 for re-ablement workers. Salary cost accounted for between 61 and 62 per cent of total costs. One site included OTs as well as re-ablement workers.
B. Direct overheads		
Administrative and management	£931,770 per year	Administrative and management costs accounted for between 2 and 25 per cent of the total for the four sites.
Office and training costs	£50,180 per year	The costs of uniforms and training costs are included here. These accounted for 1 per cent of the total.
C. Indirect overheads	£172,149 per year	Indirect overheads include general management and support services such as finance and human resource departments. These were 4 per cent of total costs and ranged from 0.5 to 9 per cent.
D. Capital overheads		
Building and land costs	£7,243 per year	Information supplied by the local authority and annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
Equipment costs	£2,797 per year	Based on information supplied by the local authority.
E. Travel	£434,763 per year	Average travel costs for the four local authorities were 10 per cent of total costs and ranged from 1 to 12 per cent.
Patient contact hours	49 hours	Average duration of episode for the four sites was 49 hours. Average episodes ranged from 35 to 55 hours.
Ratio of direct to indirect time on: Face-to-face contacts	1:0.94	Fifty-two per cent of time was spent in contact with service users. This was based on the average of 179,174 working hours and 92,566 contact hours.
Number of service users	1,886	The average number of service users for the four sites was 1,886 per year, ranging between 429 and 3,500 service users.
Unit costs available 2016/2017		
£23 per hour; £45 per hour of contact; £2,187 average cost per service user.		

¹ Glendinning, C., Jones, K., Baxter, K., Rabiee, P., Curtis, L., Wilde, A., Arksey, H. & Forder, J. (2010) *Home care re-ablement services: investigating the longer-term impacts*, Final Report, University of York, PSSRU Kent, Department of Health, London.

² Although five sites participated in the evaluation, one of the sites had very different costs and did not provide complete information. The costs for this site have therefore been omitted. The services on which these costs are based are considered to be typical of a re-ablement service.

IV. HOSPITAL-BASED HEALTH CARE STAFF

13. Hospital-based scientific and professional staff

The table overleaf provides the unit costs for hospital-based scientific and professional staff, and replaces the individual schema usually found in this section. See Preface for more information on changes to the presentation of our estimates. Each Agenda for Change (AFC) band can be matched to professionals using the AFC generic profiles: <http://www.nhsemployers.org/your-workforce/pay-and-reward/pay/job-evaluation/national-job-profiles>. Examples of roles by band are shown below and in more detail by job type in Chapter 18. Reference should also be made to the explanatory notes when interpreting the unit costs.

Job titles by band	
Band 2	Clinical support worker (Physiotherapy, Occupational therapy, Speech and language therapy).
Band 3	Clinical support worker (higher level) (Physiotherapy, Occupational therapy, Speech and language therapy).
Band 4	Occupational therapy technician, Speech and language therapy assistant/associate practitioner, Podiatry technician, Clinical psychology assistant practitioner, Pharmacy technician.
Band 5	Physiotherapist, Occupational therapist, Speech and language therapist, Podiatrist, Clinical psychology assistant practitioner (higher level), Counsellor (entry level).
Band 6	Physiotherapist specialist, Occupational therapist specialist, Speech and language therapist specialist, Podiatrist specialist, Clinical psychology trainee, Counsellor, Pharmacist, Arts therapist (entry level).
Band 7	Physiotherapist (advanced), Specialist physiotherapist (Respiratory problems), Specialist physiotherapist (Community), Physiotherapy team manager, Speech and language therapist (advanced), Podiatrist (advanced), Podiatry team manager, Clinical psychologist, Counsellor (specialist), Arts therapist.
Band 8a	Physiotherapist principal, Occupational therapist principal, Speech and language therapist principal, Podiatrist principal.
Band 8a-b	Physiotherapist consultant, Occupational therapist consultant, Clinical psychologist principal, Speech and language therapist principal, Podiatric consultant (surgery), Arts therapist principal.
Band 8a-c	Counsellor professional manager, Counsellor consultant, Consultant speech and language therapist.
Band 8c-d	Clinical psychologist consultant, Podiatric Consultant (surgery), Head of arts therapies, Arts therapies consultant.
Band 8d-9	Clinical psychologist consultant (Professional), Lead/head of psychology services, Podiatric Consultant (surgery) Head of Service.

13. Hospital-based scientific and professional staff

A Wages/salary

Based on the mean full-time equivalent basic salary for Agenda for Change bands 4-9 of the July 2016-June 2017 NHS staff earnings estimates for allied health professionals.¹ See *NHS terms and conditions of service handbook* for information on payment for unsocial hours.² The Electronic Staff Records (ESR) system shows that the mean basic salary for all physiotherapists is £33,440; occupational therapists £32,253; speech and language therapists, £33,622; dietitians, £33,380; and radiographers (Diagnostic & Therapeutic), £33,240.

B Salary oncosts

Employer's national insurance is included, plus 14.38 per cent of salary for employer's contribution to superannuation.

C Qualification costs

See section V for detailed information on qualifications for each category of scientific and professional staff. These costs have been calculated using the method described in Netten et al. (1998).³ Current cost information has been provided by the Department of Health and Health Education England (HEE).⁴ To calculate the cost per hour including qualifications for each profession, the appropriate expected annual cost shown in chapter 19 should be divided by the number of working hours. This can then be added to the cost per working hour.

Note that the cost of the clinical placement for pharmacists has been provided by Dr Lynne Bollington.⁵ These costs exclude external training courses that supplement work-based learning and may cover specific components of the General Pharmaceutical Council's performance standards and/or examination syllabus. See schema 19 for more details on training.

Based on information provided by Health Education England,⁶ the cost of training a clinical psychologist was on average £159,420 in 2016. This excludes living expenses/lost production costs.

D Overheads

Taken from *NHS foundation trusts accounts: consolidated (FTC) files 2014/15*.⁷

Management and other non-care staff costs were 24.2 per cent of direct care salary costs and included administration and estates staff.

Non-staff costs were 43.1 per cent of direct care salary costs. They include costs to the provider for drugs, office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.

E Capital overheads

Based on the new-build and land requirements of NHS hospital facilities, but adjusted to reflect shared use of office space for administration, and recreational and changing facilities.^{8,9}

F Travel

No information available on average mileage covered per visit. From July 2014, NHS reimbursement has been based on a single rate for the first 3,500 miles travelled of 56p per mile, and a reduced rate thereafter of 20p per mile, irrespective of the type of car or fuel used.¹⁰

G Working time

Working hours for each AFC band have been calculated by deducting sickness absence days as reported for NHS staff groups¹¹ and training/study days from 225 working days.

H Ratio of direct to patient-related time

See previous editions for time spent on patient-related activities. See also section V for information on a PSSRU survey carried out in 2014/15 providing estimates of time use for hospital-based staff.

¹ NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

² NHS Employers (2016) *NHS Terms and Conditions of Service Handbook (Agenda for Change)*, <http://www.nhsemployers.org/your-workforce/pay-and-reward/nhs-terms-and-conditions/nhs-terms-and-conditions-of-service-handbook> [accessed 17 October 2016]

³ 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.

⁴ Personal Communication with the Department of Health and Health Education England (HEE), 2017.

⁵ Bollington, L. & John, D. (2012) *Pharmacy education and training in the hospital service in Wales: Identifying demand and developing capacity*. STS Publishing, Cardiff.

⁶ Health Education England (2016) *Review of clinical and educational psychology training arrangements*, Health Education England & National College for Teaching & Leadership, London.

⁷ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415> [accessed 9 October 2017]

⁸ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁹ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 9 October 2017].

¹⁰ NHS Employers (2015) *Mileage allowances – Section 17*, <http://nhsemployers.org/your-workforce/pay-and-reward/nhs-terms-and-conditions/nhs-terms-and-conditions-of-service-handbook/mileage-allowances> [accessed 9 October 2017].

¹¹ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17* [accessed 13 October 2017].

13. Hospital-based scientific and professional staff

This table provides the annual and unit costs for hospital-based scientific and professional staff. See notes facing for assistance in interpreting each cost item and the beginning of this chapter for examples of roles in each band.

Refer to notes on facing page for references	Band 4	Band 5	Band 6	Band 7	Band 8a	Band 8b	Band 8c	Band 8d	Band 9
A Wages/salary	£21,579	£23,439	£31,593	£38,951	£46,339	£55,478	£65,309	£79,352	£97,318
B Salary on-costs	£4,969	£5,493	£7,791	£9,864	£11,946	£14,521	£17,292	£21,249	£26,312
C Qualification									
D Overheads									
Management, admin and estates staff	£6,425	£7,002	£9,531	£11,813	£14,105	£16,940	£19,989	£24,345	£29,918
Non-staff	£11,442	£12,470	£16,974	£21,039	£25,121	£30,170	£35,601	£43,359	£53,285
E Capital overheads									
-physiotherapists/OTs	£4,026	£6,444	£6,444	£6,444	£6,444	£6,444	£6,444	£6,444	£6,444
-radiographers	£5,572	£9,537	£9,537	£9,537	£9,537	£9,537	£9,537	£9,537	£9,537
-dietitians/speech and language therapists (or other professionals with a small treatment space or sharing facilities).	£3,445	£5,282	£5,282	£5,282	£5,282	£5,282	£5,282	£5,282	£5,282
F Travel									
G Working time	42.8 (1,604 hours) per year, 37.5 hours per week	42.6 (1,599 hours) per year, 37.5 hours per week	42.6 (1,599 hours) per year, 37.5 hours per week	42.6 (1,599 hours) per year, 37.5 hours per week	42.6 (1,599 hours) per year, 37.5 hours per week	42.6 (1,599 hours) per year, 37.5 hours per week	42.6 (1,599 hours) per year, 37.5 hours per week	42.6 (1,599 hours) per year, 37.5 hours per week	42.6 (1,599 hours) per year, 37.5 hours per week
H Ratio of direct to indirect time									
I Multipliers									
London	1.96xE	1.96xE	1.96xE	1.96xE	1.96xE	1.96xE	1.96xE	1.96xE	1.96xE
Non-London	0.42xE	0.42xE	0.42xE	0.42xE	0.42xE	0.42xE	0.42xE	0.42xE	0.42xE
Unit costs available 2016/2017									
Cost per working hour									
-physiotherapists/OTs	£30	£34	£45	£55	£65	£77	£90	£109	£133
-radiographers	£31	£36	£47	£57	£67	£79	£92	£111	£135
-dietitians/speech and language therapists	£30	£34	£45	£54	£64	£77	£90	£109	£133

14. Hospital-based nurses

The table overleaf provides the unit costs for hospital nurses bands 2-9 and replaces the individual schema usually found in this section. Each Agenda for Change (AFC) band can be matched to professionals using the AFC generic profiles: <http://www.nhsemployers.org/your-workforce/pay-and-reward/pay/job-evaluation/national-job-profiles>. Reference should be made to the explanatory notes when interpreting the unit costs. See below for examples of roles in each band.

Job titles by band	
Band 2	Clinical support worker nursing (hospital)
Band 3	Clinical support worker higher level nursing (hospital/mental health)
Band 4	Nurse associate practitioner acute, Nursery nurse (neonatal)
Band 5	Nurse, Nurse (mental health)
Band 6	Nurse specialist/team leader
Band 7	Nurse advanced/team manager
Band 8a	Modern matron
Bands 8a-c	Nurse consultant
Bands 8c-8d & 9	Nurse/Midwife consultant higher level

14. Hospital-based nurses

A Wages/salary

Based on the mean full-time equivalent basic salary for Agenda for Change bands 2-9 of the July 2016-June 2017 NHS staff earnings estimates for nurses.¹ See *NHS terms and conditions of service handbook* for information on payment for unsocial hours.² The Electronic Staff Records (ESR) system shows that the mean basic salary for a staff nurse is £29,831; a matron is £45,826, and a nurse manager is £47,655.

B Salary oncosts

Employer's national insurance is included, plus 14.38 per cent of salary for employer's contribution to superannuation.

C Qualification costs

See section V for detailed information on qualifications for each category of scientific and professional staff. These costs have been calculated using the method described in Netten et al. (1998).³ Current cost information has been provided by the Department of Health and Health Education England (HEE).⁴ To calculate the cost per hour including qualifications for each profession, the appropriate expected annual cost shown in chapter 19 should be divided by the number of working hours. This can then be added to the cost per working hour.

D Overheads

Taken from *NHS foundation trusts accounts: consolidated (FTC) files 2014/15*.⁵

Management and other non-care staff costs were 24.2 per cent of direct care salary costs and included administration and estates staff.

Non-staff costs were 43.1 per cent of direct care salary costs. They include costs to the provider for drugs, office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.

E Capital overheads

Based on the new-build and land requirements of NHS hospital facilities, but adjusted to reflect shared use of office space for administration, and recreational and changing facilities.^{6,7}

F Working time

Working hours for each AFC band have been calculated by deducting sickness absence days as reported for NHS staff groups⁸ and training/study days from 225 working days.

G Ratio of direct to patient-related time

Taken from the McKinsey report commissioned by the Department of Health in 2009,⁹ hospital nurses are estimated to spend 41 per cent of their time on patient care, and 59 per cent of their time spent on non-patient activities, such as paperwork and administration, handing over and co-ordination, discussion with other nurses, and preparing medication (away from patients). When the ratio of time spent on patient care to other activities is 1:1.44, each hour spent with a client requires 2.44 paid hours.

¹ NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

² NHS Employers (2016) *NHS Terms and Conditions of Service Handbook (Agenda for Change)*, <http://www.nhsemployers.org/your-workforce/pay-and-reward/nhs-terms-and-conditions/nhs-terms-and-conditions-of-service-handbook> [accessed 17 October 2016]

³ 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.

⁴ Personal Communication with the Department of Health and Health Education England (HEE), 2015.

⁵ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415> [accessed 17 October 2016]

⁶ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London

⁷ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf [accessed 26 October 2017].

⁸ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17* [accessed 13 October 2017].

⁹ Department of Health (2010) *Achieving a world class productivity in the NHS, 2009/10-2013/14: the McKinsey report*, Department of Health, London.

14. Hospital-based nurses

This table provides the annual and unit costs for hospital-based nurses (see the notes facing for assistance in interpreting each cost item). See also the beginning of this chapter for examples of roles in each band.

Hospital-based nurses									
Refer to notes on facing page for references	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7	Band 8a	Band 9	
A Wages/salary	£16,536	£18,777	£20,279	£26,038	£32,342	£38,801	£45,544	£88,526	
B Salary oncosts	£3,548	£4,179	£4,602	£6,225	£8,002	£9,822	£11,722	£23,834	
C Qualifications (see notes)									
D Overheads									
Management, admin and estates staff	£4,860	£5,556	£6,021	£7,808	£9,763	£11,767	£13,858	£27,191	
Non-staff	£8,656	£9,894	£10,724	£13,905	£17,388	£20,956	£24,682	£48,427	
E Capital overheads	£2,061	£2,061	£2,061	£3,421	£3,421	£3,421	£3,421	£3,421	
F Working time	42.4 weeks (1,591 hours) per year, 37.5 hours per week	42.4 weeks (1,591 hours) per year, 37.5 hours per week	42.4 weeks (1,591 hours) per year, 37.5 hours per week	42 weeks (1,573 hours) per year, 37.5 hours per week	42 weeks (1,573 hours) per year, 37.5 hours per week	42 weeks (1,573 hours) per year, 37.5 hours per week	42 weeks (1,573 hours) per year, 37.5 hours per week	42 weeks (1,573 hours) per year, 37.5 hours per week	42 weeks (1,573 hours) Per year, 37.5 hours per Week
G Ratio of direct to indirect time on : Face to face contacts	N/A	N/A	N/A	1:1.44	1:1.44	1:1.44	N/A	N/A	
H London multiplier	1.15 x (A to B)								
Non-London multiplier	1.55 x E	1.55 x E	1.55 x E	1.55 x E	1.55 x E	1.55 x E	1.55 x E	1.55 x E	
	0.42 x E	0.42 x E	0.42 x E	0.42 x E	0.42 x E	0.42 x E	0.42 x E	0.42 x E	
Unit costs available 2016/2017									
Cost per working hour	£22	£25	£28	£37	£45	£54	£62	£122	
Cost per hour of patient contact				£89	£110	£131			

15. Hospital-based doctors

The table overleaf provides the unit costs for hospital doctors and replaces the individual schema usually found in this section. See Preface for more information on changes to the presentation of our estimates. Reference should be made to the explanatory notes when interpreting the unit costs. See below for examples of work performed under each title.

Work performed under each job title	
Foundation doctor FY1 Foundation doctor FY2	Foundation doctors are a grade of medical practitioner undertaking a two-year, general postgraduate medical training programme which forms the bridge between medical school and specialist/general practice training. They have the opportunity to gain experience in a series of posts in a variety of specialty and healthcare settings. ¹
Registrar	A registrar is a specialist in training for medical consultancy. ²
Associate specialist	An associate specialist grade is normally reached by doctors taking a non-consultant career path involving becoming a staff grade after being a foundation doctor. ²
Consultant: medical, surgical and psychiatric	Consultants are senior hospital-based physicians or surgeons who have completed all of their specialist training and been placed on the specialist register in their chosen speciality. A consultant typically leads a team of doctors which comprises specialty registrars and foundation doctors, all training to work in the consultant's speciality, as well as other 'career grade' doctors such as clinical assistants, clinical fellows, speciality doctors, associate specialists and staff grade doctors. ²

¹ NHS, UK (2016) *The Foundation Programme*, <http://www.foundationprogramme.nhs.uk/pages/home>

² Prospects (2016) *Job profile, hospital doctors*, <https://www.prospects.ac.uk/job-profiles/hospital-doctor>

15. Hospital-based doctors

A. Wages/salary

The mean basic salary for hospital doctors has been taken from the July 2016-June 2017 Electronic Staff Record (ESR).¹ See section V for further information on pay scales.

B. Salary oncosts

Employer's national insurance is included plus 14.38 per cent of salary for employer's contribution to superannuation.

C. Qualification costs

See section V for detailed information on qualifications for each category of hospital doctors. These costs have been calculated using the method described in Netten et al. (1998).² Current cost information has been provided by the Department of Health and Health Education England (HEE).³ For hospital doctors, post-graduate study consists of a two-year Foundation Programme, specialty registrar training involves three years' full-time post-graduate training with at least two of the years in a specialty training programme. Associate specialist training involves at least four years' full-time post-graduate training, and consultants' training requires six years in a specialty hospital setting.⁴

D. Overheads

Taken from NHS foundation trusts accounts: consolidated (FTC) files 2014/15.⁵

Management and other non-care staff costs were 24.2 per cent of direct care salary costs and included administration and estates staff.

Non-staff costs were 43.1 per cent of direct care salary costs. They include costs to the provider for drugs, office, travel/transport, publishing, training courses and conferences, supplies and services (clinical and general), and utilities such as water, gas and electricity.

E. Capital overheads

Based on the new-build and land requirements of NHS hospital facilities.^{6,7} Adjustments have been made to reflect shared use of administration and recreational facilities, including accommodation for night-time duties. Treatment space has not been included. Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.

F. Working time

Working hours for each AFC band have been calculated by deducting sickness absence days as reported for NHS staff groups⁸ and training/study days from 225 working days. Under the European Working Time Directive (EWTD), the majority of foundation officers (Year 1) are working up to 48 hours per week, 19.7 per cent are working up to 56 hours, and 11.3 per cent are working 40 hours.⁹

G. London and non-London multiplier

The London multiplier allows for the higher costs associated with London, and the non-London multiplier allows for the lower costs associated with working outside London.^{7,8}

¹ NHS Digital (2017) *NHS staff earnings estimates, 12-month period from July 2016 to June 2017* (not publicly available), NHS Digital, Leeds.

² Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

³ Personal communication with the Department of Health and Health Education England (HEE), 2014.

⁴ National Health Service (2008) *Modernising medical careers*, National Health Service, London.

⁵ Monitor (2016) *NHS Foundation Trusts: Consolidation (FTC) files 2014/15*, <https://www.gov.uk/government/publications/nhs-foundation-trust-accounts-consolidation-ftc-files-201415>

⁶ Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

⁷ Department for Communities and Local Government (2015) *Land value estimates for policy appraisal*. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407155/February_2015_Land_value_publication_FINAL.pdf

⁸ NHS Digital, *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17* [accessed 13 October 2017].

⁹ Provided by the Department of Health, 2009.

15. Hospital-based doctors

This table provides the annual and unit costs for hospital-based doctors (see the notes facing for assistance in interpreting each cost item). See also the beginning of this chapter for examples of work performed under each title.

Hospital-based doctors							
Refer to notes on facing page for references	Foundation doctor FY1	Foundation doctor FY2	Registrar	Associate specialist	Consultant: medical	Consultant: surgical	Consultant: psychiatric
A Wages/salary	£24,893	£28,723	£39,881	£81,252	£88,878	£89,708	£90,908
B Salary oncosts	£5,808	£6,873	£9,975	£21,476	£23,198	£23,642	£23,858
D Overheads							
Management, admin and estates staff	£7,430	£8,614	£12,065	£24,860	£27,219	£27,475	£27,846
Non-staff	£13,232	£15,342	£21,488	£44,276	£48,476	£48,933	£49,594
E Capital overheads	£4,527	£4,527	£4,527	£4,527	£5,880	£5,880	£5,880
F Working time	44.4 weeks (2,132 hours) per year 48 hours per week	44.4 weeks (2,132 hours) per year 48 hours per week	42.5 weeks (2,038 hours) per year 48 hours per week	42.5 weeks (1,698 hours) per year 40 hours per week	42.4 weeks (1,838 hours) per year 43.3 hours per week	42.4 weeks (1,838 hours) per year 43.3 hours per week	42.4 weeks (1,838 hours) per year 43.3 hours per week
G London multiplier	1.15 x (A to B) 1.56 x E	1.15 x (A to B) 1.56 x E	1.15 x (A to B) 1.56 x E	1.15 x (A to B) 1.56 x E	1.15 x (A to B) 1.56 x E	1.15 x (A to B) 1.56 x E	1.15 x (A to B) 1.56 x E
H Non-London multiplier	0.42 x E	0.42 x E	0.42 x E	0.42 x E	0.42 x E	0.42 x E	0.42 x E
Units costs available 2016/2017							
Cost per working hour	£26	£30	£43	£101	£106	£107	£108
Cost per working hour, 56-hr week	£23	£26	£37				
Cost per working hour, 40-hr week	£32	£36	£52				

V. SOURCES OF INFORMATION

16. Inflation indices
17. NHS staff earnings estimates
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16. Inflation indices

16.1 The BCIS house rebuilding cost index and the retail price index

BCIS calculates the house rebuilding cost index for the Association of British Insurers (ABI). The index is based on an average of house types and cannot therefore reflect changes in all rates from the house rebuilding cost tables as regional trends, labour and materials contents differ.¹ The retail price index is a measure of inflation published monthly by the Office for National Statistics. It measures the change in the cost of a basket of retail goods and services.²

Year	BCIS/ABI		Retail price	
	Rebuilding cost index (1988=100)	Annual % increases	Index (1986/87= 100)	Annual % increases
2007	228.7	4.0	210.9	4.0
2008	243.5	6.5	212.9	0.9
2009	236.9	-2.7	218.0	2.4
2010	239.5	1.1	228.4	4.8
2011	251.7	5.2	239.4	4.8
2012	252.7	0.4	246.8	3.1
2013	257.5	1.9	253.4	2.7
2014	274.4	6.6	257.5	1.6
2015	283.2	3.2	260.6	1.2
2016	N/A	N/A	267.1	2.5

16.2 Gross domestic product (GDP) deflator and the tender price index for public sector buildings

For non-staff revenue, Her Majesty's Treasury's (HMT) GDP deflator is a measure of general inflation in the domestic economy. HMT produces the GDP deflator from data provided by the ONS and extends the series to future years by applying forecasts of the inflation rate. The BCIS PUBSEC tender price index (PUBSEC) is used by the Office for National Statistics (ONS) to deflate capital expenditure in health and social care.

Year	Gross domestic product ³ annual % increases	Tender price index for public sector building (non-housing) (PUBSEC) ³	
		Index (1995=100)	Annual % increases
2005/06	2.7	166	6.4
2006/07	3.0	170	2.7
2007/08	2.4	187	9.8
2008/09	2.7	191	2.3
2009/10	1.4	172	-10.3
2010/11	1.8	169	-1.8
2011/12	1.4	176	4.2
2012/13	2.1	181	3.0
2013/14	1.7	191	5.5
2014/15	1.5	205	7.5
2015/16	0.7	208	1.5
2016/17	2.0	222	6.7

¹ Building Cost Information Service (2016) *Indices and forecasts*, Royal Institute of Chartered Surveyors, London <http://www.rics.org/uk/knowledge/bcis/about-bcis/rebuilding/bcis-house-rebuilding-cost-index/> [accessed 1 November 2016].

² <http://ons.gov.uk/ons/taxonomy/index.html?nscl=Retail+Prices+Index#tab-data-tables> [accessed 15 October 2016].

³ Provided by the Department of Health, 2017.

16.3 The hospital & community health services (HCHS) index

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 the average pay increase of the two previous years. 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 & prices inflation figure.¹

Year	Hospital & community health services (HCHS)		
	Pay & prices index (1987/8=100)	Annual % increases	
		Prices ²	Pay
2007/08	257.0	1.8	3.5
2008/09	267.0	5.2	3.0
2009/10	268.6	-1.3	1.8
2010/11	276.7	2.8	3.1
2011/12	282.5	4.1	0.9
2012/13	287.3	3.1	0.9
2013/14	290.5	1.8	0.7
2014/15	293.1	1.7	0.3
2015/16	297.0	2.7	0.3
2016/17	302.3 (E)	3.9	0.3 (E)

16.4 The PSS pay & prices index

As in previous years, the PSS pay annual percentage increases are calculated using data on rates of hourly pay change for each occupation group in the PSS sector from the Annual Survey of Hours and Earnings (ASHE), published by Office for National Statistics (ONS).³ The following occupation groups are used for analysis: managers, social workers, nurses, occupational therapists. Pay changes were weighted by the proportion of PSS staff in each group and the different pay levels of each group: i.e. that occupation group's share of the total PSS pay bill. Workforce data from the National Minimum Data Set for Social Care (NMDS-SC), collected by Skills for Care (SfC), is used to calculate the proportion of PSS staff in each occupation group.

As in previous years, the index includes an element for capital, which takes into account the pressure from the opportunity cost of capital. The index used is the PUBSEC Tender Price Index of public sector building non-housing supplied by the Royal Institution of Chartered Surveyors (RICS). The HMT GDP deflator is used to deflate prices for non-staff revenue spend in the sector.

The PSS pay & prices (including capital) is calculated by taking the weighted sum of three indices - pay, capital and non-staff revenue - and the PSS pay & prices (excluding capital) is calculated by taking the weighted sum of two indices - pay and non-staff revenue.

¹ Estimated by PSSRU.

² Estimated by PSSRU and based on the average of the previous two years.

³ This work contains statistical data from ONS which is Crown copyright and reproduced with the permission of the controller of HMSO and Queen's Printer for Scotland. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis.

16.4.1 The PSS annual percentage increases for adult services (all sectors)

Year	PSS all sectors, adults only ¹		
	Annual % increases		
	Pay & prices (excluding capital)	Pay & prices (including capital)	Pay
2006/07	4.8	4.5	5.1
2007/08	2.9	3.9	3.0
2008/09	2.4	2.4	2.4
2009/10	2.1	0.2	2.2
2010/11	-0.1	-0.4	-0.4
2011/12	0.3	0.7	0.2
2012/13	0.9	1.1	0.7
2013/14	1.0	1.5	0.9
2014/15	2.2	2.9	2.3
2015/16	3.3	3.1	3.9
2016/17	2.9 (E)	3.4 (E)	3.1 (E)

16.4.2 The PSS annual percentage increases for adult local authority services

Year	PSS local authority, adults only ¹		
	Annual % increases		
	Pay & prices (excluding capital)	Pay & prices (including capital)	Pay
2006/07	4.6	4.5	4.7
2007/08	3.1	3.5	3.2
2008/09	2.4	2.4	2.3
2009/10	1.9	1.3	1.9
2010/11	0.3	0.2	0.2
2011/12	0.0	0.1	-0.1
2012/13	1.4	1.5	1.4
2013/14	1.0	1.1	0.9
2014/15	4.0	4.1	4.2
2015/16	0.8	0.8	0.8
2016/17	2.7 (E)	2.8 (E)	2.7 (E)

16.4.3 The PSS annual percentage increases for adult independent services

Year	PSS independent care, adults only ¹		
	Annual % increases		
	Pay & prices (excluding capital)	Pay & prices (including capital)	Pay
2010/11	-0.2	-0.5	-0.5
2011/12	0.4	0.9	0.2
2012/13	0.8	1.1	0.6
2013/14	1.1	1.7	0.9
2014/15	2.0	2.8	2.1
2015/16	3.5	3.2	4.2
2016/17	2.9 (E)	3.5 (E)	3.2 (E)

E = estimate.

¹ Provided by the Department of Health, 2017.

17. NHS staff earnings estimates¹

17.1 Mean annual basic pay per FTE for non-medical occupational groupings, NHS England

	Mean annual basic pay per FTE
Ambulance staff	£24,853
Administration and estates staff	£27,823
Healthcare assistants and other support staff	£17,295
Nursing, midwifery and health visiting staff	£29,353
Nursing, midwifery and health visiting learners	£20,637
Scientific, therapeutic and technical staff	£31,787
Healthcare scientists	£29,350

17.2 Mean annual basic pay per FTE for nursing, midwifery & health visiting staff by Agenda for Change band, NHS England

	Mean annual basic pay per FTE
Band 2	£16,536
Band 3	£18,333
Band 4	£20,279
Band 5	£26,038
Band 6	£32,342
Band 7	£38,801
Band 8a	£45,544
Band 8b	£54,307
Band 8c	£63,703
Band 8d	£75,171
Band 9	£88,526

17.3 Mean annual basic pay per FTE for allied health professionals staff by Agenda for Change band, NHS England

	Mean annual basic pay per FTE
Band 4	£21,579
Band 5	£23,439
Band 6	£31,593
Band 7	£38,951
Band 8a	£46,339
Band 8b	£55,478
Band 8c	£65,309
Band 8d	£79,352
Band 9	£97,318

¹ Salaries have been provided by NHS Digital and more specific enquiries relating to pay by grade or staff group should be directed to them: <https://digital.nhs.uk/>.

17.4 Mean annual basic pay per FTE for administration and estates by Agenda for Change band, NHS England

	Mean annual basic pay per FTE
Band 1	£15,398
Band 2	£16,950
Band 3	£18,690
Band 4	£21,527
Band 5	£25,632
Band 6	£31,260
Band 7	£37,461
Band 8a	£44,982
Band 8b	£53,735
Band 8c	£63,835
Band 8d	£76,859
Band 9	£92,680

17.5 Mean annual basic pay per FTE for all staff groups by Agenda for Change band, NHS England

	Mean annual basic pay per FTE
Band 1	£15,701
Band 2	£16,850
Band 3	£18,777
Band 4	£21,417
Band 5	£25,735
Band 6	£31,989
Band 7	£38,412
Band 8a	£45,428
Band 8b	£54,283
Band 8c	£64,351
Band 8d	£77,334
Band 9	£93,122

17.6 Mean annual basic pay per FTE for NHS staff groups

	Mean basic salary per full-time equivalent
All nurses, midwives and health visiting staff	
Qualified	£31,374
Nursery nurses and nursing assistants	£18,447
Science technical & therapeutic staff (ST&T): allied health professionals	
Qualified	£33,748
Unqualified	£19,171
ST&T staff: other	
Qualified	£36,147
Unqualified	£20,178
Ambulance staff	
Qualified	£27,192
Unqualified	£18,973
Former pay negotiating council groups	
Senior managers	£79,273
Managers	£49,310
Administrative & clerical	£23,197
Maintenance & works	£22,447

Source of tables 17.1-17.6: NHS Digital (2017) NHS staff earnings estimates, 12 month period from July 2016 to June 2017 (not publicly available), NHS Digital, Leeds.

General notes for NHS earnings estimates

Inspection of data suggests that discretionary point payments are sometimes included with basic pay for consultants.

These figures represent payments made using the Electronic Staff Record to NHS Staff who are directly paid by NHS organisations. It does not include, for example, elements of pay for clinical staff which are paid to the individual by universities, or other non-NHS organisations providing NHS care.

Figures rounded to the nearest £100.

Figures based on data from all NHS organisations who are using ESR (two Foundation Trusts have not taken up ESR).

18. Examples of roles in each Agenda for Change band

Allied health professionals

Physiotherapist

Band 2	Clinical support worker (Physiotherapy)
Band 3	Clinical support worker higher level (Physiotherapy)
Band 5	Physiotherapist
Band 6	Physiotherapist specialist
Band 7	Physiotherapist advanced, Specialist physiotherapist, Physiotherapy team manager
Band 8a	Physiotherapist principal
Bands 8a-b	Physiotherapist consultant

Occupational therapist

Band 2	Clinical support worker (Occupational therapy)
Band 3	Clinical support worker higher level (Occupational therapy)
Band 4	Occupational therapy technician
Band 5	Occupational therapist
Band 6	Occupational therapist specialist
Band 7	Occupational therapist advanced/team manager
Band 8a	Occupational therapist principal
Bands 8a-b	Occupational therapist consultant

Speech and language therapist

Band 2	Clinical support worker (Speech and language therapy)
Band 3	Clinical support worker higher level (Speech and language therapy)
Band 4	Speech and language therapy assistant/associate practitioner
Band 5	Speech and language therapist
Band 6	Speech and language therapist specialist
Band 7	Speech and language therapist advanced
Band 8a	Speech and language therapist principal
Bands 8a-c	Speech and language therapist consultant

Chiropodist/Podiatrist

Band 2	Clinical support worker (Podiatry)
Band 3	Clinical support worker higher level (Podiatry)
Band 4	Podiatry technician
Band 5	Podiatrist
Band 6	Podiatrist specialist
Band 7	Podiatrist advanced/team manager
Band 8a	Podiatrist principal
Bands 8a-b	Podiatric registrar
Bands 8c-d	Podiatric consultant
Band 9	Podiatric consultant

Psychologist

Band 4	Clinical psychology assistant practitioner
Band 5	Clinical psychology assistant practitioner higher level, Counsellor entry level
Band 6	Clinical psychology trainee, Counsellor
Band 7	Clinical psychologist, Counsellor specialist
Bands 8a-b	Clinical psychologist principal
Bands 8a-c	Counsellor professional manager/consultant
Bands 8c-d	Clinical psychologist consultant
Bands 8d & 9	Professional lead/Head of psychology services

Pharmacist

Band 2	Pharmacy support worker
Band 3	Pharmacy support worker higher level
Band 4	Pharmacy technician
Band 5	Pharmacy technician higher level/Pharmacist entry level
Band 6	Pharmacist
Band 7	Pharmacist specialist
Bands 8a-b	Pharmacist advanced
Bands 8b-c	Pharmacist team manager
Bands 8b-d	Pharmacist consultant
Bands 8c-Band 9	Professional manager pharmaceutical services

19. Training costs of health and social care professionals

Tables 19.1 and 19.2 provide a breakdown of the training costs incurred using standard estimation approaches.¹ The investment costs of education should be included when evaluating the cost-effectiveness of different approaches to using health service staff so that all the costs implicit in changing the professional mix are considered. For the most part, these investment costs are borne by the wider NHS and individuals undertaking the training, rather than trusts. The tables show details of the total investment incurred during the working life of the professional **after allowing for the distribution of the costs over time**. The expected working life of the professional based on previous research carried out at PSSRU has been noted in brackets in Table 19.1 after the title of the professional group.²

The components of the cost of training health service professionals are for pre-registration and post-graduate training. They include the costs of tuition; infrastructure costs (such as libraries); costs or benefits from clinical placement activities; and lost production costs during the period of training where staff are away from their posts. Although further training is available to all professionals to enable them to progress to higher grades, the cost of post-graduate training is only known for doctors. Each year after registration a substantial proportion of the salary (100% or 60% depending on the level of seniority) can be attributed to the investment costs of training for subsequent stages in the doctor's career. This cost, together with additional expenditure representing infrastructure costs for maintaining post-graduate medical education, is taken as the total training cost for that year. During training Health Education England pays 50 per cent of the professional's salary plus oncosts to the trust.

19.1 Training costs of health and social care professionals, excluding doctors

<i>Professional (working life in years)</i>	Pre-registration			Totals	
	Tuition	Living expenses/lost production costs ³	Clinical placement ⁴	Total investment	Expected annual cost discounted at 3.5%
Scientific and professional					
Physiotherapist (24.3)	£25,454	£34,728	£4,742	£64,924	£5,313
Occupational therapist (23.5)	£25,454	£34,728	£4,742	£64,924	£5,322
Speech and language therapist (24.7)	£27,955	£34,728	£4,742	£67,425	£5,666
Dietitian (23.3)	£25,454	£34,728	£4,742	£64,924	£5,521
Radiographer (24.3)	£30,499	£34,728	£4,742	£69,969	£5,702
Hospital pharmacist (27.6)	£36,549	£44,588	£37,425	£118,562	£9,343
Community pharmacist (27.6)	£36,549	£44,588	£27,546	£108,683	£8,564
Psychologists ⁵					
Nurses (15.7)	£24,111	£46,304	£4,741	£75,156	£9,876
Social workers (8) (degree)	£24,430	£34,828	£6,850	£66,108	£25,181

¹ 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.

² Estimates of expected working life have been calculated using the 2001 census.

³ These estimates have been drawn from the University of Kent website: <https://www.kent.ac.uk/finance-student/livingcosts.html> and the Studying in London, Official University Guide: <http://www.studyinlondon.ac.uk/application-advice/cost-of-studying-in-london>.

⁴ See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/547749/Tariff_guidance_acc2.pdf for 2016-17 education and training tariffs.

⁵ NHS England (2016) *Review of clinical and educational psychology training arrangements*, National College for Teaching and Leadership, London.

19.2 Training costs of doctors (after discounting)

<i>Doctors (working life in years)</i>	Tuition ¹	Living expenses/lost production costs	Clinical placement	Placement fee ^{2,3} plus Market Forces Factor (a)	Salary (inc o/heads) and post-graduate centre costs	Total investment	Expected annual cost discounted at 3.5%
Doctors (26)							
Pre-registration training: years 1-5	£44,458	£55,024	£143,935	NA		£243,417	£19,758
Post-graduate							
Foundation officer 1 (included in pre-reg training)	£44,458	£55,024	£143,935	£10,754	£47,723	£301,894	£24,504
Foundation officer 2	£44,458	£55,024	£143,935	£20,780	£52,535	£316,732	£27,542
Registrar group	£44,458	£55,024	£143,935	£40,155	£101,801	£385,373	£38,879
Associate specialist	£44,458	£55,024	£143,935	£48,496	£137,530	£429,443	£45,881
GP	£44,458	£55,024	£143,935	NA	£204,135	£390,198	£41,688
Consultants	£44,458	£55,024	£143,935	£65,598	£146,781	£513,151	£58,848

¹ No new tuition figures were available this year.

² Gov.UK (2016) *Healthcare education and training placement tariffs 2016 to 2017*, <https://www.gov.uk/government/publications/healthcare-education-and-training-tariff-2016-to-2017> [accessed September, 2017].

³ Placement fees for post-graduate doctors in training before discounting, but including the Market Forces Factor and an additional payment of 2.0408% of placement tariff + MFF are: Foundation Officer 1 £12,772 + MFF; Foundation Officer 2 £25,544; Registrar £51,088; Associate specialist £63,860; Consultants £89,404. Placement fees are not provided for GP placements. See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/547749/Tariff_guidance_acc2.pdf for 2016-17 education and training tariffs.

20. Care home fees

Care home fees in England – not-for-profit providers.

Minimum and maximum fees for 2016/17 for single and shared rooms per week

	Single Room Midpoint Min and Max	Shared Room Midpoint Min and Max	Single Room Midpoint Min and Max	Shared Room Midpoint Min and Max	Single Room Midpoint Min and Max	Shared Room Midpoint Min and Max
	Residential Homes		Dementia Residential Homes		Nursing Homes	
Dementia	£674	£617	£686	£555		
Eating Disorders	£0	£0				
Learning disability	£1,308	£757	£2000			
Mental health	£613	£950			£297	
Older people (65+)	£649	£602		£631	£868	£876
Physical disability	£1,097	£605			£1,750	
Sensory impairment	£999					
Substance misuse	£788	£604				
Average fee for 'for not profit' care homes	£724	£603	£701	£621	£996	£876

Care home fees in England – for-profit providers.

Minimum and maximum fees for 2016/17 for single and shared rooms per week

	Single Room Midpoint Min and Max	Shared Room Midpoint Min and Max	Single Room Midpoint Min and Max	Shared Room Midpoint Min and Max	Single Room Midpoint Min and Max	Shared Room Midpoint Min and Max
	Residential Homes		Dementia Residential Homes		Nursing Homes	
Brain Injury/Neurological Rehabilitations	£1,259	NA	£0	£0	£2,076	£2,875
Dementia	£708	£569	£760	£585	£830	£646
Learning Disability	£1,094	£1,342		£0	£1,306	£1,076
Mental health	£715	£545		£0	£949	£722
Older People (65+)	£639	£579	£729	£584	£775	£696
Physical Disability	£516	£466	£421	£0	£804	£586
Average fee for 'for not profit' care homes.	£660	£582	£738	£585	£813	£705

21. Time use of community care professionals

The following table provides information from an online survey carried out by PSSRU in 2014/15 (see Preface to the Unit Costs of Health & Social Care 2015 for more details). The link for the survey was distributed non-selectively through various channels. **Given the small sample from which the ratios of direct to indirect time have been calculated, the ratios have not been used in the unit cost calculations**, but have been tabulated here so that readers can use them where appropriate.

Community professionals	Sample size	Average number of hours worked (including unpaid overtime)	% of hours worked spent with patients	% of hours worked spent on other patient-related tasks (a)	% of hours worked spent on non-direct activities (b)	Other time (definition not provided but includes travel)	Average mileage per professional per week	Ratios of direct to indirect time on: client-related work
Nurses								
(bands 5 and 6)	44	39	54%	29%	13%	5%	102	1:0.20
(bands 7 and 8)	31	40	42%	33%	19%	6%	71	1:0.33
Physiotherapists	11	41	35%	38%	22%	5%	132	1:0.37
(bands 5-8)								
Occupational therapists	6	40	51%	36%	11%	2%	42	1:0.15
(bands 4-7)								
Speech and language therapists	7	40	38%	50%	9%	3%	84	1:0.14
(bands 5-6)								

a) Includes time researching and gathering information before each patient/client contact, writing-up case notes after each patient/client contact, and liaising with or meeting with other professionals in relation to patients/clients

b) Non-direct activities include training (either others or self), supervision and general administration.

22. Glossary

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

Child and adolescent mental health services (CAMHS) is a name for NHS-provided services for children with mental health needs in the UK. In the UK they are often organised around a tier system. Tier 3 services, for example, are typically multidisciplinary in nature and the staff come from a range of professional backgrounds.

Capital overheads The cost of buildings, fixtures and fittings employed in the production of a service.

Care package costs Total costs for all services received by a patient.

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

Department for Work and Pensions (DWP) is the largest government department in the United Kingdom, created on 8 June 2001, from the merger of the employment part of the Department for Education and Employment and the Department of Social Security and headed by the Secretary of State for Work and Pensions, a Cabinet position.

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

Durables Items such as furniture and fittings.

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.

Oncosts Essential associated costs, salary oncosts, for example, include the employer's national insurance contributions.

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

Short-term The period during which durable assets cannot be immediately added to or removed from the existing stock of resources.

Time preference rate The rate at which future costs or benefits are valued in comparison to current or base year's costs or benefits.

Overheads

NHS overheads

Management and other non-care staff overheads include administration and estates staff.

Non-staff overheads include costs to the provider for office, travel/transport and telephone, education and training, supplies and services (clinical and general), as well as utilities such as water, gas and electricity.

Local authority overheads

Direct overheads include costs to the provider for administration and management, as well as for office, training and utilities such as water, gas and electricity.

Indirect overheads include general management and support services, such as finance and human resource departments.

SSMSS Social services management and support services: overhead costs incurred by a local authority, as defined by CIPFA guidelines. These include indirect overheads such as finance and personnel functions.

Time use and unit costs

Per average stay Cost per person for the average duration of a typical stay in that residential facility or hospital.

Per client/patient hour Cost of providing the service for one hour of client/patient attendance. The costs of time not spent with clients are allocated to the time spent with clients.

Per clinic visit Cost of one client attending a clinic. This allows for overall time spent on non-clinical activity to be allocated 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 to be allocated to the total time spent with clients.

Fee per resident week For example, in care homes the fee charged is assumed to include care costs, accommodation and hotel costs, ancillary costs and operator's profit.

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/patient at home. This includes the cost of time spent travelling for the visit, the proportion of time spent on non-clinical activity which is attributable to visiting patients in their own home, and the time spent on visiting patients at home.

- Per hour of home visiting** Cost of one hour spent by a professional undertaking visits to clients/patients at home. This includes the cost of time spent travelling. It also allows for overall time spent on non-clinical/patient activity to be allocated to the total time spent with clients/patients in any setting.
- Per hour in clinic** Cost of one hour spent by a professional in a clinic. Time spent on non-clinical activity is allocated to the total time spent with clients/patients in any setting.
- Per hour of direct contact/per hour of face-to-face contact** Hourly cost of time spent with, or in direct contact with, the client/patient. Some studies include travel time in this cost. When this is the case, it has been noted in the schema.
- 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 and overnight in hospital.
- Per patient day** Cost per person of receiving a service for one day and overnight.
- Per procedure** Cost of a procedure undertaken in a clinic or surgery. This includes the cost of time spent on non-clinical activity and the total time spent with clients.
- Per resident week** Cost per person per week spent in a residential facility.
- Per client attendance** Cost per person per attendance.
- Per client session** Cost for one person attending one session. The length of a session will be specified in the schema and may vary between services.
- 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/patient-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 spent with a client requires 2.5 paid hours.

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25. List of useful websites

Adult Social Care Finance Return (ASC-FR): <http://content.digital.nhs.uk/datacollections/ASC-FR>

Building Cost Information Service: <http://www.bcis.co.uk/site/index.aspx>

BCIS is the UK's leading provider of cost and price information for construction and property occupancy.

Care Quality Commission: <http://www.cqc.org.uk/>

The Care Quality Commission is the health and social care regulator for England and replaces the Healthcare Commission, Commission for Social Care Inspection and the Mental Health Act Commission which all ceased to exist on 31 March 2009.

Centre for Child and Family Research: <http://www.lboro.ac.uk/research/ccfr/>

Chartered Institute of Public Finance and Accountancy (CIPFA): <http://www.cipfa.org/>

The CIPFA Statistical Information Service (SIS) was established as a partnership between individual authorities and CIPFA. SIS has been undertaking detailed annual surveys of local authority operations for more than a century, and the 'CIPFA Statistics' still remain the only impartial and comprehensive account of the extent and achievements of each individual council. Surveys are conducted in the following areas: education, environmental services, environmental health, housing, leisure, planning, public protection, social services, transport.

Department for Education: <http://www.education.gov.UK/>

Department of Health: <https://www.gov.UK/government/organisations/department-of-health>

Department for Work and Pensions: <http://www.dwp.gov.UK/>

Family Resource Survey: <http://research.dwp.gov.UK/asd/frs/>

Federation of Ophthalmic & Dispensing Opticians: <http://www.fodo.com/>

Hospital Episode Statistics (HES): <http://www.hesonline.nhs.uk/>

This is the national statistical data warehouse for England of the care provided by NHS hospitals and for NHS hospital patients treated elsewhere. HES is the data source for a wide range of health-care analysis for the NHS, Government and many other organisations and individuals. The HES database is a record-level database of hospital admissions and is currently populated by taking an annual snapshot of a sub-set of the data submitted by NHS Trusts to the NHS-Wide Clearing Service (NWCS). Quarterly information is also collected. A separate database table is held for each financial year, containing approximately 11 million admitted patient records from all NHS Trusts in England.

Joseph Rowntree Foundation: <http://www.jrf.org.uk/>

This website provides information on housing and care.

LaingBuisson: <http://www.laingbuisson.co.uk/>

LaingBuisson, an independent company, provides authoritative data, statistics, analysis and market intelligence on the UK health.

Livability: <http://www.livability.org.uk/>

National Audit Office: <https://www.nao.org.uk/>

National Council for Palliative Care: <http://www.ncpc.org.uk/>

National End of Life Care Intelligence network: <http://www.endoflifecare-intelligence.org.uk/home/>

NHS Digital: <https://digital.nhs.uk/>

NHS Digital is the new name for the Health & Social Care Information Centre a Special Health Authority set up on 1 April 2005 to take over most DH statistical collection and dissemination and some functions of the former NHS Information Authority. This includes information on Personal Social Services Expenditure.

National Institute for Health and Clinical Excellence: <http://www.nice.org.uk/>

Personal Social Services Expenditure Data (PSS EX1 data): <http://www.ic.nhs.uk/statistics-and-data-collections/>

PSSRU at LSE, London School of Economics and Political Science:
<http://www2.lse.ac.uk/LSEHealthAndSocialCare/Home.aspx>

Pub Med: <http://www.pubmedcentral.nih.gov/>

Reference Costs: <https://www.gov.UK/government/publications/nhs-reference-costs-2014-to-2015>

This website gives details on how and on what NHS expenditure was used. The Reference Costs/Reference Costs Index publication is the richest source of financial data on the NHS ever produced. As in previous years, its main purpose is to provide a basis for comparison within (and outside) the NHS between organisations, and down to the level of individual treatments.

Social Care Institute for Excellence: <http://www.scie.org.uk/>

Social Care Online: <http://www.scie-socialcareonline.org.uk/>

Social Policy Research Unit, University of York: <http://www.york.ac.uk/inst/spru/>

YoungMinds: <http://www.youngminds.org.uk/>

YoungMinds is a national charity committed to improving the mental health of all children and young people.

26. List of items from previous volumes

All articles from our 2003 edition onward can also be searched and downloaded from our article database at <http://www.pssru.ac.uk/ucarticles/>

Editorials and articles

2006

Guest editorial: Conducting and interpreting multi-national economic evaluations: the measurement of costs
The costs of an intensive home visiting programme for vulnerable families
Direct payments rates in England
Training costs of person centred planning
The baker's dozen: unit costs and funding

2007

The costs of telecare: from pilots to mainstream implementation
The Health BASKET Project: documenting the benefit basket and evaluating service costs in Europe
Recording professional activities to aid economic evaluations of health and social care services

2008

Guest editorial: National Schedule of Reference Costs data: community care services
The challenges of estimating the unit cost of group-based therapies
Costs and users of Individual Budgets

2009

Guest editorial: Economics and Cochrane and Campbell methods: the role of unit costs
Estimating unit costs for Direct Payments Support Organisations
The National Dementia Strategy: potential costs and impacts
SCIE's work on economics and the importance of informal care

2010

The costs of short-break provision
The impact of the POPP programme on changes in individual service use
The Screen and Treat programme: a response to the London bombings
Expected lifetime costs of social care for people aged 65 and over in England

2011

The costs of extra care housing
Shared Lives – model for care and support
Calculating the cost and capacity implications for local authorities implementing the Laming (2009) recommendations

2012

Guest editorial: Appropriate perspectives for health care decisions
Using time diaries to contribute to economic evaluation of criminal justice interventions
Costing multi-site, group-based CBT workshops
A review of approaches to measure and monetarily value informal care

2013

Guest editorial: Widening the scope of unit costs to include environmental costs
Cognitive behaviour therapy: a comparison of costs
Residential child care: costs and other information requirements
The costs of telecare and telehealth

2014

Guest editorial: Big data: increasing productivity while reducing costs in health and social care

Cost of integrated care

Shared Lives – improving understanding of the costs of family-based support

RYCT & CSP intervention costs

2015

Guest editorial: Implications of the Care Act 2014 on social care markets for older people

Survey questions on older people's receipt of, and payment for, formal and unpaid care in the community.

Estimating the unit costs of vision rehabilitation services.

Review of resource-use measures in UK economic evaluations.

2016

Guest editorial: Agency staff in the NHS

Costs of the Well London Programme

PUCC: The Preventonomics Unit Cost Calculator

Tables**2006**

Adolescent support worker

Educational social work team member

Behavioural support service team member

Learning support service team member

2007

All children's service withdrawn, but reinstated in 2010

2008

Paramedic and emergency ambulance services

2009

Cost of maintaining a drugs misuser on a methadone treatment programme

Unpaid care

2010

Voluntary residential care for older people

Nursing-Led Inpatient Unit (NLIU) for intermediate care

Local authority sheltered housing for older people

Housing association sheltered housing for older people

Local authority very sheltered housing for older people

Housing association very sheltered housing for older people

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

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

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

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

Acute NHS hospital services for people with mental health problems

NHS long-stay hospital services for people with mental health problems

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

Sheltered work schemes for people with mental health problems

Village communities for people with learning disabilities

The costs of community-based care of technology-dependent children

2011

Approved social worker

2012

High-dependency care home for younger adults with physical and sensory impairments
Residential home for younger adults with physical and sensory impairments
Special needs flats for younger adults with physical and sensory impairments
Rehabilitation day centre for younger adults with brain injury
Comparative costs of providing sexually abused children with individual and group psychotherapy

2013

Rapid response service

2014

Community rehabilitation unit
Intermediate care based in residential homes
Counselling services in primary medical care
Group homes for people with learning disabilities
Fully-staffed living settings (people with learning disabilities)
Semi-independent living settings (people with learning disabilities)
Hospital-based rehabilitation care scheme
Expert patients programme
Community care packages for older people
Nursing homes for people with dementia
Private and other independent sector residential homes for people with dementia

2015

Individual placement and support
Adults with learning disabilities
Key worker services for disabled children and their families
Services for children in care
Services for children in need
Common assessment framework (CAF)
Palliative care for children and young people

2016

Multi-dimensional treatment foster care (MTFC)

