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### DOI

<https://doi.org/10.22024/UniKent/01.02.70995>

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PSSRU

Unit Costs of  
Health & Social  
Care 2018

Compiled by Lesley Curtis  
and Amanda Burns

# **Unit Costs of Health and Social Care 2018**

**Compiled by Lesley Curtis and Amanda Burns**

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Published by:

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This report is independent research funded by the National Institute for Health Research (Policy Research Programme, Unit Costs of Health and Social Care, 035/0093). The views expressed in this publication are those of the author(s) and not necessarily those of the NHS, the National Institute for Health Research or the Department of Health and Social Care. A small amount of additional resources has also been provided by the Department for Education.

ISSN: 1368-230X

ISBN: 978-1-911353-06-05

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## Preface

### Lesley Curtis

Twenty-five years have now passed since the first edition of the *Unit Costs of Health and Social Care* was published, and in that time, we have seen many changes in health and care systems. We are nonetheless made only too aware of the current pressures under which these systems are operating with the Autumn Chancellor's budget allocating an additional billion of funding to the NHS in England (HM Treasury, 2017, p.65). With evidence-based services seen as a long-term solution to improving the quality of the National Health Service, the demand for unit cost information has not abated; how much a service costs is an important pre-requisite of evaluating how effectively and efficiently care is being delivered.

The commitment to an integrated care system will no doubt shape our research in the coming years, as NHS services are re-configured to reduce costs and to provide more joined-up care for patients. Notably, the Department of Health have recently changed their name to the Department of Health and Social Care (DHSC) in recognition of their long-held responsibilities for social care. Conveniently for economists and those involved in costing services, a great deal of health and social care cost information to support the challenges ahead is already under the same roof!

### Web-based improvements

So that our unit costs remain accessible, as well as keeping abreast of topical cost studies to include in our volumes, we are continuing to make improvements to our website. Last year's work involved creating a database to house articles and guest editorials published in the *Unit Costs of Health and Social Care* volumes. This has facilitated access to a wealth of cost-related information and both our download statistics and comments made by readers indicate that it has been well received.

This year, rather than our usual method of providing online readers with a separate excel spreadsheet showing the costs for each group of professionals, we have developed a [spreadsheet database](#) containing the costs of all professionals found in the publication. This contains a search facility enabling readers to find quickly the professionals or Agenda for Change (AfC) bands they need. It is also possible to search by job title, all of which are listed alongside the AfC band. Of course, it is important when using this resource, that attention is paid to the descriptive text and methods information in the main publication and to assist with this, we have included chapter and page numbers for quick reference. If this new addition to our website proves successful, we will continue to develop it in response to future requests. You may notice that we have omitted qualification costs from the spreadsheet, although they are still in the main volume. We are currently reviewing the information on the expected working lives of professionals and hope to have new figures in the near future.

We have also added a video presentation to our website for those who would like to hear an overview of the *Unit Costs of Health and Social Care* volumes.

### Guest editorials and articles

Our first article this year is provided by Tracey Sach and colleagues. It uses data collected as part of the 'Multi-professional clinical medication reviews in care homes for older people CAREMED' study (see: Sach et al., 2015) to see whether two different methods of collecting primary and social care resource use data produce similar costs. This work also identifies the main cost drivers in a care home setting.

The second article written by Jennifer Beecham and myself provides an insight into reasons for the reduction of the net ingredient cost over time, and how this has impacted on estimates made for the prescription cost per GP consultation in the *Unit Cost of Health and Social Care* volumes. This work was prompted by a report from the King's Fund on the *Rising Cost of Medicines to the NHS* which readers are encouraged to read for more detail:

<https://www.kingsfund.org.uk/publications/rising-cost-medicines-nhs>.

---

## Progress on work identified as part of the consultation with readers

### GP online system

The General Practice Forward View (2016) allocated £45 million to stimulate uptake of online consultation systems for every practice. In Schema 10.4, we present the average cost of e-consultations drawn from a 2017 observational study by Hannah Edwards and colleagues.

### Sexual health services

This year, we have continued to liaise with researchers and professionals involved in commissioning sexual health services or involved in estimating costs and have included a schema (which provides the costs of chlamydia and gonorrhoea testing) (see chapter 7).

### Other new items

#### Mental health promotion and disorder prevention

We have drawn information from the Public Health England (2017) report which builds on the 2011 report *Mental Health Promotion and Mental Illness Prevention: the Economic Case* (Knapp, McDaid & Parsonage, 2011) to bring up-to-date the information in Schema 2.7.

#### Low intensity interventions for the management of obsessive compulsive disorder

Alongside most mental health problems, the prevalence of obsessive compulsive disorder (OCD) in the UK has increased in recent years in the 16+ age group with 52.1 per cent receiving treatment (Mental Health Foundation, 2016). Schema 8.7 provides the cost of three interventions for people with OCD drawn from a study by Lovell et al. (2017).

#### Support and outreach worker

The unit cost of a support and outreach worker has been estimated using information taken from the National Minimum Data Set for Social Care.

#### Peer support worker

The unit cost of a peer support worker has been estimated in collaboration with Alexandra Melaugh of King's College, London. This has been drawn from work with The Living Well Network Hub (<http://lambethcollaborative.org.uk/about/living-well-network>) which aims to increase access to mental health support in primary care.

#### Social prescribing

The General Practice Forward View states that staff are navigating patients to a wider range of alternative services such as a primary care access hub (see peer support worker above) and also social prescribing initiatives (see evidence: [https://www.york.ac.uk/media/crd/Ev%20briefing\\_social\\_prescribing.pdf](https://www.york.ac.uk/media/crd/Ev%20briefing_social_prescribing.pdf)). In Schema 8.6, three years of costs incurred by the Rotherham Social Prescribing pilot, referred to as a social prescribing 'plus' model are provided.

#### Smoking cessation

Information for this work has been drawn from a study by Walker et al. (2018). This responds to the first objective listed in the single departmental plan issued following the Prime Minister's cabinet reshuffle in January 2018; to keep people healthy and to work with Public Health England to deliver the new Tobacco Control Plan: <https://www.gov.uk/government/publications/department-of-health-single-departmental-plan/department-of-health-single-departmental-plan>. Schema 8.5 presents the costs of a large scale study designed to estimate the cost for each individual using the Quit 51 smoking cessation service.

#### Home adaptations

In May 2018, we were successful in having an article published by the British Journal of Occupational Therapy which identified the hidden costs of providing a home adaptations service (see blog: <https://www.pssru.ac.uk/blog/the-hidden-costs-of-adapting-the-homes-of-older-and-disabled-people/>). A breakdown of staff costs drawn from this work are now presented in Schema 7.3.

## GP consultations

In Schema 10.3b we estimate the prescription costs per GP consultation which some readers might want to add to the cost of a surgery consultation. This figure relies on information provided by the prescribing team at NHS Digital who track the number of GP items prescribed during the year, and the NHS Digital report *General Practice Trends in the UK* which gives the number of FTE GP practitioners in England. Not so easy to find however, is data on the number of GP consultations undertaken in England as this information is not routinely reported. This year, based on new information published by the Royal College of General Practitioners in 2018 and other reports (Hippisley-Cox et al., 2007 and Hobbs et al., 2016) we have revised our estimate for the number of consultations per GP. This information has also been used in our article described at the beginning of this Preface entitled 'GP prescription costs – changes over time'.

## External primary and social care services received in a care home setting

Thanks to the article by Tracey Sach and colleague, discussed above, we have been able to include new information in the care home Schema (1.2-1.3) on external services received by residents in care homes (see: Sach et al., 2015). As this work compares the cost of nursing contacts, GP services and other external services such as physiotherapy received by residents using two data sources; GP and care home records, we have used the mid-point between the two sources to provide the average total costs of external services incurred per resident week.

## Innovative approaches to children's social care

The Children's Social Care Innovation Programme was launched by the Department for Education (DfE) in 2014 to test innovative ways of supporting vulnerable children and young people (<http://innovationcsc.co.uk/>). In chapter 6, we have included the costs of several projects, which have been evaluated, and we will continue to add to this list each year as more information is published.

## Routine activities

### Salaries

To help with our tight timetable for producing the *Unit Costs of Health & Social Care* volumes, we are now basing the NHS salary component of our unit cost calculations on the data produced for May to April each year, instead of the July to June data. This is unlikely to have any differential impact on the increments or salaries, as all NHS pay rises are normally allocated in April.

## New Hospital and Community Health Service (HCHS) pay and prices inflator: the Health Services (HS) pay and prices indices

In previous years, the HCHS pay and prices index has been calculated by the Department of Health (now DHSC) and this has been used to uprate our unit costs for some hospital and community health services to current prices. Following a review of departmental analytical products in 2016/2017, the HSCI index, and thus our inflator, was discontinued. This year, to ensure we could present a relevant inflation index in the volume, we have explored other indices to replace the prices component so we can replicate as closely as possible the 'old' HCHS pay and prices inflator.

For the pay components; the pay inflator has, as usual, been calculated using the annual increase in NHS salaries. In the 2017 Autumn Budget (HM Treasury, 2017), the government agreed to increase pay for NHS Staff on the Agenda for Change contract as part of a pay deal to improve productivity, recruitment and retention. This pay agreement is reflected this year in the larger than usual increase shown in our new health services pay inflator.

For the prices component; four indices have been considered. First, the Gross Domestic Product (GDP) deflator, which is a measure of general inflation in the domestic economy. Second, the Consumer Price Inflation index (CPI), which is a general measure of UK consumer prices and includes owner occupiers' housing costs and third, the CPI health component (CPI Health) which measures only the inflation in health items. The fourth option, the Retail Price Index (RPI) was rejected as the ONS no longer recommends its use as the methodology does not meet international standards:

<https://www.ons.gov.uk/economy/inflationandpriceindices/methodologies/usersandusesofconsumerpriceinflationstatistic>. Section V of this publication has more information.

To test which was the most appropriate prices index, the annual percentage increase was calculated for all three indices, and then each was substituted for the HCHS Prices Index used in previous years to assess the impact on the combined pay and prices index. The CPI Health Index was the closest fit over the last ten years, the last three years and in 2016/2017 only. Using the 2017/2018 NHS Foundation Trust consolidated accounts, we found that 72 per cent of health expenditure is allocated to pay and 28 per cent to non-pay items. The pay and prices components identified above were weighted accordingly.

We will review the use of the CPI Health Index for calculating our new HS pay and prices inflator over the forthcoming years. This year, in Section V, we have provided a table showing the impact on our new health services pay and price index of all three indices, but only the CPI Health will be used to uprate unit costs in the rest of the volume.

### Personal Social Services (PSS) inflators

Changes have also been made to the PSS inflators (calculated by the DHSC) as five years have passed since the previous review in 2013. Two important changes have been made; the first relates to the timing of the index's component and has a significant impact and the second relates to the calculation of index weights. A detailed description of these changes can be found in Section V.

### The extension of the PUBSEC Tender Price Index of Public Sector Building Non-housing

The PSS indices also include an element for capital. This year, the DHSC have reviewed the use of the PUBSEC Tender Price Index of Public Sector Building Non-housing, as they found it had begun to show erratic results due to a decreasing sample size. It has now been replaced by an extension of this index, which has already been used by the Office of National Statistics (ONS) to deflate capital expenditure in health and social work.

### Land costs

In last year's Preface, we included land estimates published by the Department for Communities and Local Government in 2015. The Ministry of Housing, Communities & Local Government have released new estimates this year for 2017 which are tabulated below.

**Table 1**

	Cost per hectare	Multipliers
England including London	£6,220,086	
England excluding London	£2,773,031	0.45
London (including inner and outer)	£36,825,758	5.92
Inner London	£61,639,286	9.90
Outer London	£18,542,105	2.98

### Environmental costs

To value the carbon impacts associated with health care appointments, the Sustainable Development Unit (SDU) have based calculations on a carbon price of £41.56 per tonne of carbon dioxide emission. Important changes to the method of calculating these costs have been made this year as a result of the *Natural Resource Footprint* report (2018): <https://www.sduhealth.org.uk/policy-strategy/reporting/natural-resource-footprint-2018.aspx>. Readers are advised to contact Richard Lomax in the SDU for more information ([Richard.lomax@nhs.net](mailto:Richard.lomax@nhs.net)).

### Blogs and other useful information

What's new? The Unit Costs publication and children's services (Lesley Curtis) <https://www.pssru.ac.uk/blog/category/childrens-service/>

O come all ye Unit Cost faithful – 2017 edition now available (Lesley Curtis) <https://www.pssru.ac.uk/blog/christmas-is-in-the-air/>

The hidden costs of adapting the homes of older and disabled people (Lesley Curtis) <https://www.pssru.ac.uk/blog/the-hidden-costs-of-adapting-the-homes-of-older-and-disabled-people/>

Unit Costs: The Final Chapter (Amanda Burns) <https://www.pssru.ac.uk/blog/unit-costs-the-last-chapter/>

Foundations guest blog on the Unit Costs of Disabled Facilities Grant (DFG) allocations (Lesley Curtis) <https://www.pssru.ac.uk/blog/unit-costs-on-foundations/>

### **What have we taken out?**

To comply with our ten-year rule on removing schema for which the original data are more than ten years old, this year the following schema have been withdrawn. Although they will no longer be updated, section V of the volume contains the list of services removed since 2006, which can be downloaded online. (See Amanda Burns' blog for more information).

1.6 Extra-care housing for older people

1.8 Geriatric resources for assessment and care of elders

2.7 Mindfulness-based cognitive therapy – group-based intervention

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

6.7 Cognitive Behavioural Therapy

6.12 Local safeguarding children's boards

6.13 Parenting programmes for the prevention of persistent conduct disorder

6.15 Independent reviewing officer (IRO)

8.1.1-8.1.4 Social care support for older people/people with learning disabilities/people with mental health problems and people with physical disabilities

8.3.1-8.3.4 Support for children and adults with autism

8.5 Support care for children

8.6 Young adults with acquired brain injury in the UK

8.7 Residential parenting assessments

11.1 Social work team leader/senior practitioner/senior social worker

11.8 Family support worker

12.1-12.11 Health and social care teams

### **Other useful information**

The following reports have come to our attention this year, which readers might find of interest:

Paying for home care costs in 2018: <https://ukcareguide.co.uk/home-care-costs/>

The Costing Transformation Programme: <https://www.gov.uk/guidance/costing-transformation-programme#history>

Approved Costing Guidance: <https://www.gov.uk/government/publications/approved-costing-guidance>

2018 Mental health and ambulance approved cost guidance and early implementer support explained: <http://www.workcast.com/ControlUsher.aspx?cpak=5814518960659978&pak=6738201540652244>.

## Acknowledgements

I would like to thank Jennifer Beecham, Amanda Burns, James Cordery, Alan Dargan, Sarah Godfrey, Ed Ludlow and Jackie Sullivan for their help in compiling and producing this volume. Also many thanks go to the researchers involved in cost work who have drawn our attention to new information, and to our Working Group members for their continued input and support.

Each year we distribute a large number of hard copies of the publication to people working in central government and social services directorates, as well as to academics and contributors. Starting with the 2019 volume, in line with good business practice, we intend to cut down on the production of paper copies. Given the huge number of downloads recorded for this publication, we are aware that most people are happy to use an online copy. There will still be a small number of hard copies available to purchase and if you would like to do so, please contact Amanda Burns at a.l.burns@kent.ac.uk or on 01227 823862.

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# A comparison of two sources of primary and social care resource use data in a care home setting

Tracey Sach, James Desborough, Julie Houghton and Richard Holland

## Introduction

Economic evaluations are only as reliable as the data and methods upon which they are based. For both costs and outcomes there are multiple methods available and choice of approach has been demonstrated to impact on the conclusions reached for some evaluations (Drummond et al., 2015). In undertaking a cost analysis there are three broad steps: identification, measurement and valuation. At the identification stage the important resources (large cost drivers) that are likely to differ between the treatment groups are identified, though methods for this are not always evident in published economic evaluations (Thorn et al., 2013, p.159). There are also various methods for collecting resource use information, dependent on the context of the research and health sector being studied. In the UK context, the most likely sources available could include medical records, care institution records, or direct reporting (e.g. questionnaires). It is often assumed that information derived from medical notes will be more accurate than self-report which can suffer from recall bias and missing data, however, evidence suggests this is not universally true for all types of health care resources (Noble et al., 2012; Byford et al., 2007).

Comparatively little research has been undertaken looking at methods of resource use measurement (Thorn et al., 2013) and as such, there remains a lack of consensus about which data source(s) should be used in economic analyses and in what circumstances a particular data source might be most appropriate. If source of data leads to different estimates of resource use and costs, then it is important to begin to understand the potential implications of choice of data source on the results and conclusions reached particularly where this may change resource allocation decisions.

The objective of this study was to assess which resource items might be important to collect and to see if there are any differences in primary care and social care resource use reporting comparing two sources (General Practice (GP) records versus care home records) of this data in the care home setting.

## Methods

This study is based on data collected as part of the CAREMED trial which evaluated the effectiveness of multi-professional clinical medication reviews in care homes for older people (Desborough et al., 2011; Sach et al., 2014). The trial employed a cluster randomised control trial design, across care homes in Cambridgeshire and Norfolk (UK), during 2011-2013. Intervention homes (n=15) received a multi-professional medication review at two time points, whereas control homes (n=15) received usual care.

The sample size of this study was determined by the sample size of the overall trial (Desborough et al., 2011) and the practicality of collecting data from two sources for all residents. Data extraction for specified time points (covering a period of around seven months) was performed by a pharmacy technician. GP records were electronically searched to find visits which were then recorded manually, whilst in care homes there was no electronic recording of information such that each resident's paper records had to be obtained and information extracted manually. This involved searching two sections of the resident's care plan ('visits by health professionals' and 'daily reporting') and care home health professional's visits book as appropriate in each care home.

Resource use data extracted included every visit or contact recorded in the GP and care home residents' records, although in this analysis the focus is limited to primary and social care resources.

## Statistical analysis

To identify which resource items were used most frequently and thus might be important to capture in future studies, the mean number of contacts per resident for each resource item and the mean number of total contacts per resident (sum of contacts of individual resource items divided by number of residents) were calculated, along with the mean difference (95% CI) between the two data sources. Likewise, the mean cost per resident with the mean difference (95% CI) in cost is presented in order to quantify the difference between data sources in terms of cost (see Supplementary table 1 for unit costs).

Level of agreement was assessed using data from residents with a positive number of contacts recorded for each resource item according to at least one data source. Residents with zero contacts on both data sources were excluded from the

analysis as inclusion would give misleading high levels of agreement. Resource use data are continuous, where the units are number of contacts to the resource item stated or in total (number of visits across all resource items summed), thus the following methods were chosen: per cent agreement (Banerjee et al., 1999), Lin's Concordance Correlation Coefficient (CCC) (Lin, 1989), and the 95 per cent limits of agreement (Bland & Altman, 1986). Per cent agreement reports the proportion of observations that are the same between the two data sources without adjusting for chance agreement. Lin's Concordance Correlation Coefficient (CCC) (Lin, 1989), is a scaled agreement index, which takes into account systematic bias; it provides a measure of agreement between two continuous variables obtained via two different methods, by producing a value ranging from 1 for perfect agreement to -1 for perfect disagreement where 10 or more data pairs are available. It is suitable for data from non-normal distributions making it appropriate for resource and cost data (Noble et al., 2012). The 95 per cent limits of agreement investigate the amount of random variation between the two data sources (Bland & Altman, 1986).

All analyses were undertaken in STATA 14 SE and where necessary 0.05 was taken as the level of significance.

## Results

Data were available for 362 residents from the 15 intervention care homes for a period of around seven months. The mean age of residents was 87.91 years (sd: 6.62; min-max 56 to 104); 80.39 per cent were female; had been resident at the home for a mean of 2.5 years (sd 2.38; min-max 0.01 to 15.95) at time of entry to study, 45.86 per cent had dementia; were classified as residential (nursing) 83.98 per cent (16.02%); had a mean number of comorbid conditions of 5.07 (sd 2.64; min-max 1.00 to 14.00); and were on a mean number of medications of 8.72 (sd 4.28; min-max 0.00 to 20.00) at the first review meeting. The care homes were evenly split between Norfolk and Cambridge.

Table 1 shows the mean number of contacts according to GP and care home records and the mean difference with 95 per cent confidence interval. The mean total number of visits according to GP records was 12.47 compared to 16.06 according to care home records, a difference of -3.58 (95% CI -5.08 to -2.09). This shows that the two data sources give significantly different levels of overall resource use per resident. This was also the case for the individual resource items shown in bold, though the mean resource use for some individual items was low. The resource item with the biggest difference in recorded utilisation between the two data sources was found for district nurse visits -3.16 (95% CI -4.61 to -1.70).

**Table 1: Mean number of contacts and mean cost (UK£2016/2017) of health and social care service use data collected from GP records compared to care home records for the complete sample (n=362)**

Resource Item	Mean number of contacts (GP)	Mean number of contacts (Care Home)	Mean difference in contacts (95% CI)(GP minus Care Home)	Mean cost of contacts (GP)	Mean cost of contacts (Care Home)	Mean difference in costs (95% CI) (GP minus Care Home)
<b>Total visits</b>	<b>12.472</b>	<b>16.055</b>	<b>-3.583 (-5.079 to -2.087)</b>	<b>625.14</b>	<b>765.32</b>	<b>-140.18 (-206.38 to -73.98)</b>
Audiologist	0.005	0.019	-0.014 (-0.028 to 0.000)	0.27	0.96	-0.68 (-1.39 to 0.03)
Care of the elderly physician	0.003	0.003	0.000 (-0.008 to 0.008)	0.52	0.52	ND
<b>Continuing health care review nurse</b>	<b>0.041</b>	<b>0.097</b>	<b>-0.055 (-0.090 to -0.20)</b>	<b>0.19</b>	<b>0.43</b>	<b>-0.25 (-0.40 to -0.09)</b>
<b>Chiropodist</b>	<b>0.022</b>	<b>1.663</b>	<b>-1.641 (-1.872 to -1.410)</b>	<b>0.97</b>	<b>72.96</b>	<b>-71.99 (-82.13 to -61.85)</b>
Community geriatrician	0.000	0.003	-0.003 (-0.008 to 0.003)	0.00	0.52	-0.52 (-1.53 to 0.50)
Community matron	0.003	0.000	0.003 (-0.003 to 0.008)	0.07	0.00	0.07 (-0.06 to 0.19)
<b>Dentist</b>	<b>0.000</b>	<b>0.099</b>	<b>-0.099 (-0.140 to -0.059)</b>	<b>0.00</b>	<b>2.15</b>	<b>-2.15 (-3.01 to -1.28)</b>
<b>Dietician</b>	<b>0.086</b>	<b>0.182</b>	<b>-0.097 (-0.146 to -0.048)</b>	<b>6.51</b>	<b>13.85</b>	<b>-7.35 (-11.08 to -3.61)</b>
<b>District nurse</b>	<b>3.119</b>	<b>6.272</b>	<b>-3.157 (-4.613 to -1.702)</b>	<b>130.16</b>	<b>261.93</b>	<b>-131.77 (-192.50 to -71.04)</b>
Falls team	0.013	0.000	0.013 (-0.0005 to 0.027)	1.12	0.00	1.12 (-0.04 to 2.29)
<b>General Practitioner (GP)</b>	<b>7.138</b>	<b>5.870</b>	<b>1.268 (0.920 to 1.615)</b>	<b>305.54</b>	<b>251.26</b>	<b>54.27 (39.41 to 69.14)</b>
GP by telephone	0.003	0.000	0.003 (-0.003 to 0.008)	0.08	0.00	0.08 (-0.07 to 0.23)
<b>Health care assistant</b>	<b>0.066</b>	<b>0.014</b>	<b>0.052 (0.010 to 0.095)</b>	<b>1.77</b>	<b>0.37</b>	<b>1.40 (0.28 to 2.53)</b>
<b>Mental health team</b>	<b>0.003</b>	<b>0.044</b>	<b>-0.041 (-0.080 to -0.003)</b>	<b>0.38</b>	<b>6.05</b>	<b>-5.68 (-10.96 to -0.39)</b>
<b>Music therapist</b>	<b>0.000</b>	<b>0.144</b>	<b>-0.144 (-0.269 to -0.018)</b>	0.00	3.30	-3.30 (-6.19 to -0.42)
Nurse prescriber	0.003	0.000	0.003 (-0.003 to 0.008)	0.07	0.00	0.07 (-0.06 to 0.19)
<b>Optician</b>	<b>0.017</b>	<b>0.152</b>	<b>-0.135 (-0.174 to -0.097)</b>	<b>0.52</b>	<b>4.78</b>	<b>-4.26 (-5.47 to -3.04)</b>
Occupational Therapist	0.036	0.025	0.011 (-0.034 to 0.056)	2.65	1.84	0.82 (-2.50 to 4.13)

Resource Item	Mean number of contacts (GP)	Mean number of contacts (Care Home)	Mean difference in contacts (95% CI)(GP minus Care Home)	Mean cost of contacts (GP)	Mean cost of contacts (Care Home)	Mean difference in costs (95% CI) (GP minus Care Home)
Out of hours district nurse	0.003	0.019	-0.017 (0.032 to -0.001)	0.18	1.26	-1.08 (-2.08 to -0.08)
<b>Out of hours GP</b>	<b>0.489</b>	<b>0.273</b>	<b>0.215 (0.145 to 0.286)</b>	<b>52.85</b>	<b>29.56</b>	<b>23.29 (15.64 to 30.94)</b>
Paramedic	0.212	0.222	-0.019 (-0.081 to 0.042)	52.35	57.11	-4.76 (-19.96 to 10.44)
<b>Phlebotomist</b>	<b>0.152</b>	<b>0.000</b>	<b>0.152 (0.101 to 0.203)</b>	<b>0.48</b>	<b>0.00</b>	<b>0.48 (0.32 to 0.64)</b>
<b>Physiotherapist</b>	<b>0.082</b>	<b>0.423</b>	<b>-0.340 (-0.497 to -0.182)</b>	<b>4.17</b>	<b>21.27</b>	<b>-17.09 (-25.01 to -9.17)</b>
Podiatrist	0.155	0.169	-0.014 (-0.076 to 0.048)	6.79	7.39	-0.61 (-3.32 to 2.10)
<b>Practice nurse</b>	<b>0.080</b>	<b>0.003</b>	<b>0.077 (0.043 to 0.112)</b>	<b>1.00</b>	<b>0.03</b>	<b>0.96 (.054 to 1.39)</b>
Psychiatrist	0.028	0.014	0.014 (-0.007 to 0.035)	9.43	4.71	4.71 (-2.46 to 11.89)
Speech & Language therapist	0.064	0.036	0.028 (-0.003 to 0.058)	5.03	2.84	2.19 (-0.24 to 4.70)
<b>Social worker</b>	<b>0.019</b>	<b>0.064</b>	<b>-0.044 (-0.082 to -0.007)</b>	<b>1.61</b>	<b>5.30</b>	<b>-3.69 (-6.81 to -0.57)</b>
Specialist GP	0.003	0.000	0.003 (-0.003 to 0.008)	0.12	0.00	0.12 (-0.11 to 0.35)
<b>Specialist nurse</b>	<b>0.624</b>	<b>0.232</b>	<b>0.392 (0.267 to 0.518)</b>	<b>40.16</b>	<b>14.93</b>	<b>25.23 (15.09 to 35.38)</b>

Notes: Bold text represents a statistically significant mean difference in resource use. ND means no difference.

The top ten resources used by residents differed slightly depending on data source. Both sources included GP, district nurse, specialist nurse, out of hours GP, physiotherapist, paramedic, dietician and podiatrist as the most used whilst GP records reported more use of phlebotomist and practice nurse than care home records which recorded more use of chiropodist and optician visits. Thus these items are likely to be important to collect in future economic evaluations in this setting where an intervention might be likely to change their utilisation.

Some resource items were only recorded in one data source, for instance GP records logged visits with community matron, the falls team, GP by telephone, nurse prescriber, phlebotomist and specialist GP that were not recorded in care home records. Equally care home records logged items that were not captured in GP records including community geriatrician, dentist and music therapist contacts as well as recording significantly more contacts with community facing services such as dietician, district nurse, mental health team, optician, physiotherapists and social workers. Although there is no gold standard to guide which data source is accurate, previously the higher value has been assumed to be the more accurate (Byford et al., 2007) such that this suggests care home records might be a better source of data for many resource items. However, whilst GP records tended to have a more restricted range of resources, they did tend to record more use of services that they directly provide to residents.

Cumulatively, there was a mean difference in total cost of £-140.18 (95% CI £-206.38 to £-73.98), meaning that if GP records were used instead of care home records estimated costs per resident would be £140.18 less on average than had care home records be used. Most of this differential is driven by the significantly larger number of district nurse contacts recorded by the care home.

Table 2 presents the results for the per cent agreement. Per cent agreement ranged from 0.00 per cent for 11 resource items which were either not frequently used or only captured by one data source to 19.66 per cent for GP contacts.

The CCC values are also reported in Table 2, whilst there is no clear guidance as to how to interpret  $\rho_c$  values ( $\rho_c$  = shorthand for concordance correlation coefficient) only one resource item appears to show substantial agreement: GP visits ( $\rho_c=0.775$  (95% CI 0.736 to 0.815)). Podiatrist and total contacts seem to show moderate agreement whilst dietician, health care assistant, out of hours GP, SLT and social workers seem to show fair agreement (reversed agreement in the case of negative  $\rho_c$ ). All other resource items showed poor agreement. The 95 per cent limits of agreement show individual differences are likely across almost all resource items.

**Table 2: Level of agreement between health and social care service use data collected from GP records and care home records for those residents with one or more contact recorded in either data source**

Resource Item	Number of residents with recorded contacts	Number in agreement (per-cent agreement)^	Concordance correlation coefficient $\rho_c$ (SD; 95% CI)†	95% limits of Agreement
Total visits	361	24 (6.65)	0.399 (0.038; 0.324 to 0.474)	-31.994 to 24.804
Audiologist	8	1 (12.5)	*	*
Care of the elderly physician	2	0 (0.00)	*	*
Continuing health care review nurse	35	5 (14.29)	-0.167 (0.111; -0.384 to 0.051)	-2.430 to 1.287
Chiropodist	187	1 (0.53)	0.004 (0.005; -0.005 to 0.014)	-7.471 to 1.119
Community geriatrician	1	0 (0.00)	*	*
Community matron	1	0 (0.00)	*	*
Dentist	29	0 (0.00)	*	*
Dietician	41	7 (17.07)	0.310 (0.110; 0.094 to 0.526)	-3.154 to 1.447
District nurse	291	23 (7.90)	0.123 (0.048; 0.028 to 0.217)	-34.523 to 26.667
Falls team	4	0 (0.00)	*	*
GP	351	69 (19.66)	0.775 (0.020; 0.736 to 0.815)	-5.367 to 7.982
GP by telephone	1	0 (0.00)	*	*
Health care assistant	18	0 (0.00)	-0.280 (0.114; -0.504 to -0.056)	-1.986 to 4.097
Mental health team	7	0 (0.00)	*	*
Music therapist	8	0 (0.00)	*	*

Resource Item	Number of residents with recorded contacts	Number in agreement (per-cent agreement)^	Concordance correlation coefficient $\rho_c$ (SD; 95% CI)†	95% limits of Agreement
Nurse prescriber	1	0 (0.00)	*	*
Optician	59	2 (3.39)	-0.144 (0.033; -0.209 to -0.080)	-1.870 to 0.209
OT				
Out of hours district nurse	8	0 (0.00)	*	*
Out of hours GP	107	29 (27.10)	0.395 (0.066; 0.266 to 0.525)	-1.435 to 2.880
Paramedic	88	18 (20.45)	0.008 (0.107; -0.203 to 0.218)	-2.461 to 2.302
Phlebotomist	42	0 (0.00)	*	*
Physiotherapist	49	9 (18.37)	0.005 (0.042; -0.077 to 0.088)	-9.266 to 4.245
Podiatrist	45	1 (2.22)	0.417 (0.116; 0.189 to 0.645)	-3.460 to 3.238
Practice nurse	25	0 (0.00)	-0.058 (0.031; -0.119 to 0.002)	-0.185 to 2.425
Psychiatrist	9	2 (22.22)	*	*
SLT	19	4 (21.05)	-0.206 (0.189; -0.578 to 0.165)	-1.862 to 2.915
Social worker	22	1 (4.54)	-0.357 (0.143; -0.638 to -0.077)	-3.306 to 1.852
Specialist GP	1	0 (0.00)	*	*
Specialist nurse	112	12 (10.71)	0.091 (0.068; -0.041 to 0.224)	-2.480 to 5.016

Notes: \*Resource item used too little to estimate or only recorded by one data source. ^ Level of agreement unadjusted for chance.

## Discussion

This study adds new evidence to inform the identification and measurement of resource use in economic evaluations conducted in the care home context. As the main cost drivers, it is likely to be important to capture GP, district nurse, specialist nurse, out of hours GP, physiotherapist, paramedic, dietician, and podiatrist resource use where the interventions being evaluated could change the resource use levels. Very few resource items had substantial agreement between GP and care home records suggesting that choice of data source may have important implications for the results of cost effectiveness analyses, this seems most likely where there is differential recording of low cost but frequently used items or of high cost items. Certain resources were found to be recorded in only one source (GP or care home records) and as such if a particular resource item is deemed important for a particular study the results of this study may help inform the best source of this data.

Two other trials conducted in the UK care home population have been published since the inception of the CAREMED trial (Underwood et al., 2013a & 2013b; Sackley et al., 2015). However, this is the first study we are aware of that compares resource use captured in two administrative data sources for the same residents in a care home context. Whilst it is largely not clear what caused the discrepancies observed, one would not expect any lag in reporting as both records are captured contemporaneously and data were extracted retrospectively. The largest difference observed was for district nurse contacts. Discussion post-study suggests that care home records are likely to be more accurate for this resource item since GPs are likely to only record district nurse visits which were planned or had significant input, not those which happened ad hoc as and when a district nurse happened to see an extra resident because they were in the home anyway. It was also noted that district nurses in the area keep their own records and given the scale of contacts recorded with hindsight it might have been more accurate to try and access these records. Further work needs to be undertaken to explore the discrepancies observed for other resource items.

A strength of this study is the collection of the same resource use data from two sources, for the same residents from multiple care homes over a reasonably long time period. Secondly, by not stating what resource use should be extracted, all visits were recorded, allowing this study to help researchers designing future trials in the care home setting to determine which resource items are potentially important for inclusion. Care home records tended to include a wider range of resource items but many of these were not widely used during the study period.

Due to time and personnel constraints, the original objective of dual data collection for the whole study period in all care homes was not feasible, particularly for control care homes. This could be a limitation if recording of resource use improved with the extra attention given to intervention homes such that the results presented may not be representative of control homes. A second limitation is that whilst it is believed most contacts recorded were those provided by publicly funded services, we cannot rule out that some contacts recorded in the care home records might have been privately financed by the residents themselves. Thirdly, despite having reasonable total resource use recorded for the average resident over the study period, some resource items had very little recorded use, such that level-of-agreement could not be meaningfully analysed.

## Conclusion

To conclude, the study highlights the feasibility of undertaking research into the methods used to identify and measure resource use. This paper has provided evidence to help inform the identification of resource items to include and identified potential disparities when using two different sources of the same data in a care home population. Further research is needed to strengthen the methods for recording resource utilisation.

## Declarations

Ethical approval was granted from the Norfolk Research Ethics Committee:

09/H0310/96 Multi-professional clinical medication reviews in care homes for the elderly. A randomised controlled trial with cost effectiveness study

## Governance:

NHS Cambridgeshire



L00929 Caremed Multi-professional clinical medication reviews in care homes for the elderly. A randomised controlled trial with cost effectiveness study.

NHS Norfolk

2011GP15 (26757) Multi-professional clinical medication reviews in care homes for the elderly. A randomised controlled trial with cost effectiveness study.

Trial registration

Current Controlled Trials ISRCTN90761620.

### Funding

This study presents independent research commissioned by the National Institute for Health Research (NIHR) under its Research for Patient Benefit (RfPB) Programme (Grant Reference Number PB-PG-0808-16065) and supported by the NIHR Collaboration for Leadership in Applied Health Research and Care East. The views expressed in this paper are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.

### Acknowledgements

The contributions of collaborators on the CAREMED study are gratefully acknowledged, the team included:

Sue Ashwell, Chief Pharmacist, NHS Cambridgeshire

Dr Allan Clark, Senior Lecturer in Medical Statistics, UEA

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We would like to thank the care homes and staff involved in the process of delivering the intervention without whom the study would not have been possible.

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**Supplementary Table 1: Unit costs in 2016/2017 UK pounds sterling (for the online copy only)**

Resource Item	Unit cost	Source
		<b>2011/2012 unit costs (as used in the original CAREMED economic evaluation) were inflated using the hospital &amp; community health services (HCHS) pay &amp; prices index to 2016/2017 prices (Curtis &amp; Burns, 2017).</b>
Audiologist	£100.75	NHS reference costs 2011/2012
Care of the elderly physician	£187.25	NHS reference costs 2011/2012
Continuing health care review nurse	£4.49	PSSRU 2012
Chiropodist	£43.87	PSSRU 2012
Community geriatrician	£187.25	NHS reference costs 2011/2012
Community matron	£23.58	PSSRU 2012
Dentist	£21.60	NHS choices Band 1 charge
Dietician	£75.98	NHS reference costs 2011/2012
District nurse	£41.73	PSSRU 2012
Falls team	£81.33	Irvine et al. 2010
General practitioner (GP)	£42.80	PSSRU 2012
GP by telephone	£27.82	PSSRU 2012
Health care assistant	£26.75	PSSRU 2012
Mental health team	£136.97	PSSRU 2012
Music therapist	£23.00	Assumed AfC band 6, 30 minutes
Nurse prescriber	£23.54	PSSRU 2012
Optician	£31.44	NHS reference costs 2011/2012
Occupational therapist	£73.84	PSSRU 2012
Out of hours district nurse	£65.28	PSSRU 2012
Out of hours GP	£108.08	PSSRU 2012
Paramedic	£246.12	PSSRU 2012
Phlebotomist	£3.16	PSSRU 2012
Physiotherapist	£50.29	PSSRU 2012
Podiatrist	£43.87	PSSRU 2012
Practice nurse	£12.44	PSSRU 2012
Psychiatrist	£341.36	PSSRU 2012
Speech and Language therapists	£79.19	PSSRU 2012
Social worker	£83.47	PSSRU 2012
Specialist GP	£42.80	PSSRU 2012 (assumed same as GP)
Specialist nurse	£64.32	NHS reference costs 2011/2012

## GP prescription costs – changes over time

Lesley Curtis and Jennifer Beecham

### Introduction

The very first volume of the *Unit Costs of Community Care* reported a unit cost for General Practitioners (GP) working in primary care. At 1992 prices, the cost per surgery visit (9.3 minutes) was £7.30. As data sources improved, better estimates have been developed, and by 1997 the prescription costs per GP consultation could be included (£18 at 1996-1997 prices) based on the Net Ingredient Cost (NIC) of medicines and the average number of prescriptions per GP consultation. Since then, GP prescription cost data have been reported each year in our volumes of the *Unit Costs of Health and Social Care*.

This look back at the data reported in the *Unit Costs of Health & Social Care* past volumes was prompted by a report from the King's Fund on the *Rising Cost of Medicines to the NHS*, which draws from the NHS Digital Prescription Cost Analysis data presenting the costs of medicines prior to any discounts from the sector (Ewbank et al., 2018). The authors note that NHS spend on medicines has increased from £13.0 billion in 2010/2011, to £17.4 billion in 2016/2017 with a growth of some 12 per cent in hospital medicines, but a much smaller rate of growth in primary care prescribing (0.6%, p7). In turn this has led to a reduction in the proportion of medicines spend attributable to primary care from 67 per cent in 2010/2011, to 52.4 per cent in 2016/2017 (calculated from p7). The authors note that expenditure on medicines is influenced by three factors: volume of products, the price of products, and the combination of products (p9). Changes in the first two of these, volume dispensed and average NIC, are particularly relevant to our GP unit costs as they are used to calculate the prescription costs per consultation.

In this short article we pull together information from NHS Digital Prescription Cost Analysis<sup>1</sup> to illustrate these data for the whole of England and then identify the trends as they relate to GP consultations using data from previous *Unit Costs of Health & Social Care* volumes. We have not applied inflation indices to the data; all costs are presented at prices for the year cited.

### How the Net Ingredient Cost for medicines prescribed in primary care has changed in England

The Prescription Cost Analysis data provide a breakdown by clinical area for all prescriptions issued in primary care, with GP prescriptions accounting for around 98 per cent of the total number of prescriptions items dispensed. We looked at data between 2007 and 2017 and there was a marked reduction in the total average NIC across all medicines; from £10.50 in 2007 to £8.30 in 2017. This data also provided the total NIC for each clinical area, as well as the average NIC per item in each clinical area and total items dispensed. It should be noted that medicines are categorised using British National Formulary (BNF) classifications and are therefore sometimes not categorised by the condition they are used to treat.

Following the Ewbank et al. (2018) analysis, Table 1 presents the NIC and number of prescriptions for 2007, 2012 and 2017 for three of the four clinical areas which dominate in terms of the volume of items dispensed (63% in 2017) and total cost (69.6%).

a) The cardiovascular system, total NIC = £1.2 billion in 2017.

This category includes medicines used to manage high cholesterol and blood pressure. Dominating this group in terms of items prescribed are lipid-regulating drugs (which include statins) with 72,612,423 items prescribed in 2017, an increase of 53 per cent since 2007. The NIC for this group of drugs has reduced from £12.52 to £2.97 in the same period. The next largest group, with 71,531,003 items prescribed, are drugs for hypertension and heart failure which also show a large reduction in average cost; from £9.52 to £2.28.

b) The respiratory system, total NIC = £1.1 billion in 2017.

Although not having the highest average cost of all 23 clinical groups, the respiratory sector has the highest average NIC of these three clinical groups; £16.20 in 2007 with a small reduction to £15.20 in 2017. Data for antifibrotics, prescribed for people with pulmonary fibrosis, were not available in 2007, but show a high average NIC for 2017 (£1,297 per item). This

<sup>1</sup> <https://digital.nhs.uk/data-and-information/publications/statistical/prescription-cost-analysis>

has contributed to keeping the average NIC high even though there have been reductions in the cost of other drugs in this clinical area, such as mucolytics (which can help manage chronic asthma or bronchitis) where the average NIC has decreased from £29.25 to £11.45 in ten years.

c) The central nervous system, total NIC = £1.8 billion in 2017.

Central nervous system (CNS) medications are used to treat the effects of a wide variety of conditions including dementia and Parkinson's disease, depression, obesity as well as analgesics for pain. CNS medications are the second most widely prescribed drugs and the number of items dispensed has grown quicker over the ten year period than the other two groups. However, there has also been a 30 per cent decrease in the average NIC over the same period. Notably the average NIC for drugs used for dementia patients has decreased from £77.75 in 2007 to £7.40 in 2017 and the NIC for antidepressants has dropped from £8.76 to £3.48 in the same period. These two conditions accounted for 34 per cent of the total CNS prescriptions dispensed.

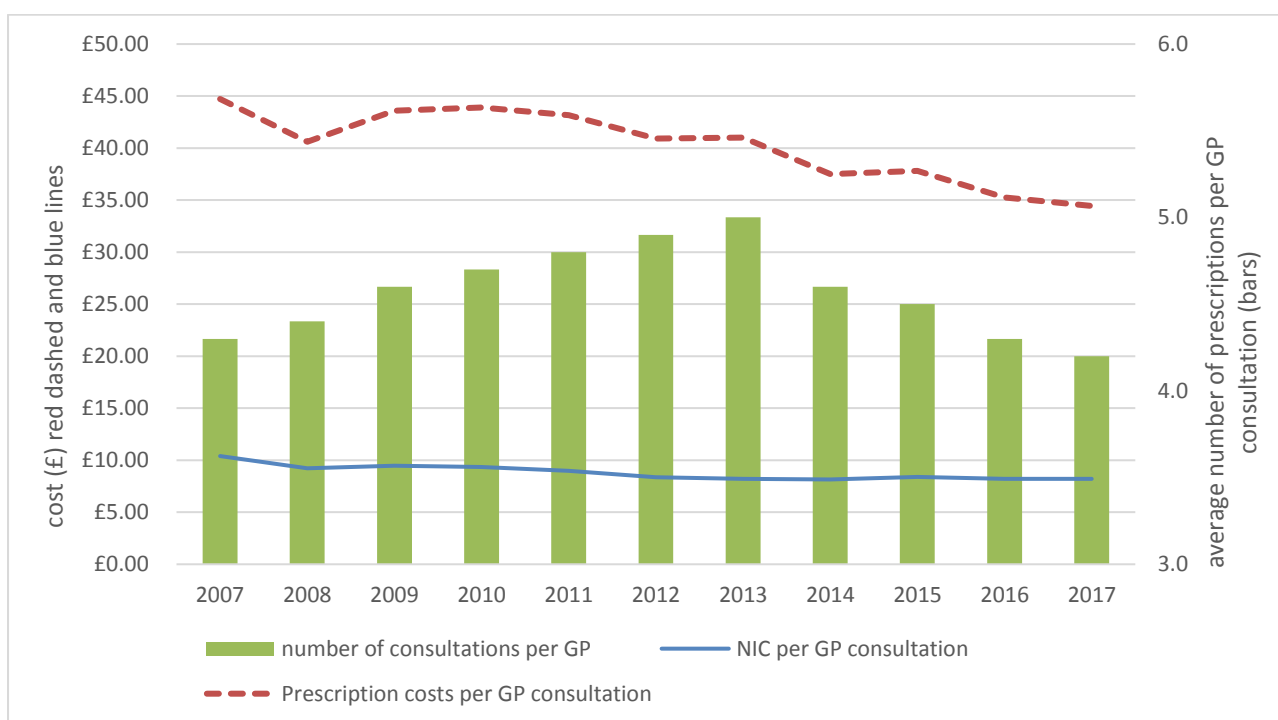
**Table 1 Changes in the NIC per item and number of items prescribed**

	Cardiovascular system		Respiratory system		Central nervous system	
	NIC per item	Items dispensed	NIC per item	Items dispensed	NIC per item	Items dispensed
2007	£7.20	250.9 m	£16.50	53.6 m	£12.60	138.0 m
2012	£3.80	300.6 m	£16.90	64.4 m	£9.90	180.1 m
2017	£3.70	321.4m	£15.20	72.1 m	£8.70	208.5 m

### How the GP prescription costs have changed in England

Figure 1 collates data from the GP unit cost schema presented in the volumes of the *Unit Costs of Health and Social Care* between 2007 and 2017. These data focus on GP prescriptions (rather than all primary care) and show the trend over time for the average NIC (all medicines), the GP prescription costs and the average number of prescriptions per GP consultation (the bars in the chart). Over this period, the total number of prescription items has risen by 37 per cent from 796 million in 2007 to 1,064 million in 2017.

**Figure 1 NIC per GP prescription over time, prescription cost per GP consultation and average number of prescriptions per GP consultation**



Until 2017, routine data on the number and cost of GP prescriptions was available from the Prescribing team at NHS Digital/Health and Social Care Information Centre and used to calculate the NIC per GP prescription. As no annual activity data (consultations per GP) has been routinely reported data for the *Unit Costs of Health and*

*Social Care* volumes, data has been drawn from Hippisley-Cox et al. (2007) and Hobbs et al. (2016). For this article further work has been carried out to estimate the annual increases in consultation numbers and a news item issued in 2018 by the Royal College of General Practitioners has been taken into account.<sup>2</sup>

The chart shows that in ten years, the NIC per GP consultation has reduced by 21 per cent, from £10.40 in 2007 to £8.10 per item in 2017. A similar reduction (23%) in prescription costs per GP consultation is evident with costs decreasing from £44.70 in 2007 to £34.40 in 2017. Although the price drop of the Net Ingredient Cost is the main contributing factor in the change in prescription costs per GP consultation, it is evident from the chart that since 2013, GPs are writing fewer prescriptions per consultation with rates in 2016 having returned to those seen in 2007; 4.2 prescriptions per consultation. It also indicates that there has been a higher rate of growth in the number of consultations than prescriptions (40% compared with 37%).

## Discussion

Thus changes in both NIC and number of items have relevance for our unit cost calculations. In 2007/2008, the cost of a surgery consultation with a GP was £27<sup>3</sup> and the prescription cost per consultation was £45. In 2017/2018, the cost of a surgery consultation has increased to £28<sup>3</sup> whereas because of the decrease of the NIC, from £10.40 in 2007 to £8.20 in 2017, prescription costs per GP consultation have decreased to £33.30.

Thomas (2018) summarises the evidence on developing and manufacturing new drugs and suggests this is likely to remain an expensive and resource-intensive process. Patents on new medicines, protecting the drugs from being copied, usually last around 20 years but once expired can lead to competition as other forms of the same drug enter the market and thus to reductions in the NIC for that drug, particularly for those dispensed in high volumes.<sup>4</sup> The National Audit Office (2018) found that in 2016/2017, 28 per cent of total NHS spend on medicines was on generic medicines and more than 80 per cent of these generic medicines were prescribed in primary care.

The cardiovascular clinical group is the best example of how the NIC has constrained overall spending. Table 1 shows it has the highest number of medicines prescribed, but the NIC is low at £3.20. Significantly Atorvastatin, a member of the medication class known as statins, was approved in 1996, but the patent expired in 2012 and in that year, the overall NIC for cardiovascular medicines fell from £3.81 to £3.19.<sup>5</sup> By contrast, Haines (2013) suggests that generic prescribing 'may result in people with asthma receiving inappropriate medications.' If generic prescribing has not been implemented, this may help explain why the average NIC for drugs prescribed in the respiratory category remains relatively high; £15.20 in 2017 compared to £16.50 in 2007.

Ewbank et al. (2018) outline other reasons why the Net Ingredient Cost of medicines has fallen and identifies policies aimed at controlling spending on medicines (p19-36). For example, there are strict regulatory processes in place, and the budget-impact test and the Health Service Medical Supplies (Costs) Act 2017 give the government new powers to intervene in drug pricing.<sup>6</sup>

It is worth noting, however, that since 2016/2017, the prices of certain generic medicines have increased unexpectedly (Audit Commission, 2018), possibly due to a shortage of medicines. The Department of Health and Social Care suggest the suspension of some manufacturer's licenses and the fall in the value of sterling as possible causes.<sup>7</sup>

<sup>2</sup> See a news item issued by the RCGP Press office which says that GPs have an average of 41.5 patients a day. (41.5 consultations per day x 220 working days per year x the number of FTE GP registrars and retainers; 27,773, gives a total of 253,567,490 GP consultations per annum). <http://www.rcgp.org.uk/about-us/news/2018/january/workload-in-general-practice-a-real-concern,-says-rcgp.aspx>.

<sup>3</sup> Excluding direct care and qualification costs, see schema 10.3b and 10.3c

<sup>4</sup> See John Appleby's blog for a discussion of NHS cost savings from generic prescribing:

<https://www.kingsfund.org.uk/blog/2015/07/how-much-has-generic-prescribing-and-dispensing-saved-nhs>.

<sup>5</sup> [http://www.pmlive.com/pharma\\_news/lipitor\\_patent\\_loss\\_atorvastatin\\_uk\\_378045](http://www.pmlive.com/pharma_news/lipitor_patent_loss_atorvastatin_uk_378045)

<sup>6</sup> See also <http://apps.who.int/medicinedocs/documents/s19583en/s19583en.pdf> and <https://psnc.org.uk/contract-it/pharmacy-regulation/6>; <https://www.nice.org.uk/about/what-we-do/our-programmes/nice-guidance/nice-technology-appraisal-guidance/budget-impact-test>; <http://www.legislation.gov.uk/ukpga/2017/23/contents/enacted>;

<sup>7</sup> <http://www.nationalhealthexecutive.com/Robot-News/dh-cant-fully-explain-why-nhs-spent-7-times-more-money-on-generic-meds-last-year>

## Conclusion

This article has shown how the average NIC has fallen over time using national-level data for certain clinical categories of medicine. It is rare to find the costs of anything reducing overtime, let alone items in health and social care where the costs of pay and goods and services purchased by the NHS have risen by more than 25 per cent in the last ten years (see inflation indices in chapter 5 of this volume). This reduction sits within the context of an overall rise in spend on medicines, particularly in the hospital sector, driven by increased volumes of medicines prescribed and development of new medicines.

These data set the context for the overview we present each year in the *Unit Costs of Health and Social Care* on GP prescription costs – derived from information on NIC and the number of prescriptions written per GP consultation. In light of new policies being implemented in General Practice (NHS England, 2016a; 2016b; Department of Health and Social Care, 2018) which will affect how consultations and medicines are delivered, it will be interesting to monitor whether the prescription costs per consultation reported in this publication continue to reduce beyond 2017 and 2018.

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# **I. SERVICES**





# **1. Services for older people**

1.1 Private sector nursing homes for older people (age 65+)

1.2 Private sector residential care for older people (age 65+)

1.3 Local authority own-provision residential care for older people (age 65+)

1.4 Local authority own-provision day care for older people (age 65+)

1.5 Dementia memory service



## 1.1 Private sector nursing homes for older people (age 65+)

Using Adult Social Care Finance Return (ASC-FR)<sup>1</sup> returns for 2017/2018, the median cost per person for supporting older people in all nursing homes was £622 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 £638 per week. The standard NHS nursing care cost is £155.05.<sup>2</sup> When we add the standard NHS nursing care contribution to PSS expenditure, the total expected median cost is £777 and the mean cost is £793. See *Care homes market study for an explanation of why the average fee reported using the Laing & Buisson Care Homes Complete Dataset<sup>9</sup> is higher than that reported using the ASC-FR returns.<sup>3</sup>*

Costs and unit estimation	2017/2018 value	Notes
A. Fees	£847 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. <sup>4,5,6,7,8</sup> The midpoint between the minimum and maximum fee was taken from Laing & Buisson Care Homes Complete Dataset 2017/2018. <sup>9</sup> Care home fees have been split into their component parts by Laing & Buisson (2016). <sup>10</sup> 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. Nursing	£8 per week	Information has been drawn from the article in this volume by Sach et al.(2018) which compares the mean cost of contacts per resident using data collected from GP records compared to care home records over a seven-month period. Using the mid-point between the two data sources, total costs incurred per resident week were £24 (£21 using GP records and £26 using care home data). Costs have been uprated using the Health Services Inflation.
C. GP services	£11 per week	
D. Other external services	£5 per week	
E. Personal living expenses	£24.90 per week	
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 2016/2017 was 91 per cent. <sup>12</sup> The occupancy rate for care homes (for-profit sector) with nursing was 89.2 per cent (provisional). <sup>7</sup> 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. <sup>13</sup>
London multiplier	1.05 x A	Fees in London nursing homes were 5 per cent higher than the national average. <sup>7</sup>
<b>Unit costs available 2017/2018</b>		
£847 establishment cost per permanent resident week (A); £896 establishment cost plus personal living expenses and external services per permanent resident week (A to E);		
£121 establishment cost per permanent resident day (A); £128 establishment cost plus personal living expenses and external services per permanent resident day (A to E).		

<sup>1</sup> Calculated using NHS Digital (2018) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital 2017/18, <https://digital.nhs.uk/data-and-information/publications/statistical/adult-social-care-activity-and-finance-report/2017-18> [accessed 30 October, 2018], in collaboration with the Department of Health and Social Care.

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<sup>12</sup> 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].

<sup>13</sup> 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](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 (age 65+)

Using Adult Social Care Finance Return (ASC-FR)<sup>1</sup> returns for 2017/2018, the median cost per person for supporting older people in a residential care home provided by non-local authority organisations was £593 per week, with a mean cost of £591 per week [using unique identifiers: 8713801 8714401 8715001 8715601 8716201 (numerators in thousands of pounds), 8713802 8714402 8715002 8715602 8716202 (denominators)]. See *Care homes market study for an explanation of why the average fee reported using the Laing & Buisson Care Homes Complete Dataset<sup>8</sup> is higher than that reported using the ASC-FR returns.<sup>2</sup>*

Costs and unit estimation	2017/2018 value	Notes
A. Fees	£659 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. <sup>3,4,5,6,7</sup> The midpoint between the minimum and maximum fee was taken from Laing & Buisson Care Homes Complete Dataset 2017/18. <sup>8</sup>  Care home fees have been split into their component parts by Laing & Buisson (2015). <sup>9</sup> 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. Nursing C. GP services D. Other external services	£8 per week £11 per week £5 per week	Information has been drawn from the article in this volume by Sach et al. (2018) which compares the mean cost of contacts per resident using data collected from GP records compared to care home records over a seven-month period. Using the mid-point between the two data sources, total costs incurred per resident week were £24 (£21 using GP records and £26 using care home data). Costs have been updated using the Health Services Inflation.
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. <sup>10</sup> 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. <sup>6</sup>
Occupancy	90.1 per cent	The occupancy level in England for private and voluntary sector care homes for older people in 2016/2017 was 91 per cent. <sup>11</sup> The occupancy rate for care homes (for-profit sector) without nursing was 89.7 per cent (provisional). <sup>6</sup>
<b>Unit costs available 2017/2018</b>		
£659 establishment cost per permanent resident week (A); £708 establishment cost plus personal living expenses and external services per permanent resident week (A to E); £94 establishment cost per permanent resident day (A); £101 establishment cost plus personal living expenses and external services per permanent resident day (A to E).		

<sup>1</sup> Calculated using NHS Digital (2018) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital 2017/18, <https://digital.nhs.uk/data-and-information/publications/statistical/adult-social-care-activity-and-finance-report/2017-18> [accessed 30 October, 2018], in collaboration with the Department of Health and Social Care.

<sup>2</sup> CMA Competition & Markets Authority (2017) *Care homes market study*, Final report, <https://assets.publishing.service.gov.uk/media/5a1fdf30e5274a750b82533a/care-homes-market-study-final-report.pdf> [accessed 19 November 2018].

<sup>3</sup> 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].

<sup>4</sup> 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].

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

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

<sup>7</sup> 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](http://www.laingbuisson.co.uk/Portals/1/PressReleases/FairPrice_12_PR.pdf) [accessed 29 November 2016].

<sup>8</sup> Laing & Buisson (2018) *Laing & Buisson Care Homes Complete Dataset 2017/18*, Laing & Buisson, London.

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

<sup>10</sup> Department of Health & Social Care (2018) *Social Care – Charging for care and support*, Department of Health & Social Care, London. \_ [accessed 27 September 2018].

<sup>11</sup> 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 (age 65+)

This table uses the Adult Social Care Finance Return (ASC-FR)<sup>1</sup> return for 2017/2018 for local authority expenditure.

Costs and unit estimation	2017/2018 value	Notes
Capital costs		
A. Buildings and oncosts	£94 per week	Based on the new-build and land requirements for local authority residential care establishments. These allow for 57.3 square metres per person. <sup>2</sup> Capital costs have been annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
B. Land	£28 per week	Based on a report published by the Ministry of Housing, Communities & Local Government. <sup>3</sup> 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)	£983 per week	The median estimate is taken from ASC-FR 2017/2018. <sup>1</sup> Capital charges relating to buildings and oncosts have been deducted. The mean cost is lower at £811 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	£8 per week	Information has been drawn from the article in this volume by Sach & colleagues (2018) which compares the mean cost of contacts per resident using data collected from GP records compared to care home records over a seven-month period. Using the mid-point between the two data sources, total costs incurred per resident week were £24 (£21 using GP records and £26 using care home data). Costs have been updated using the Health Services Inflation.
G. GP services	£11 per week	
H. Other external services	£5 per week	
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. <sup>4</sup> This has been used as a proxy for personal consumption.
Use of facility by client	52.18 weeks per year	
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. <sup>5</sup>
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. <sup>1,2,3</sup>
<b>Unit costs available 2017/2018</b>		
£1,105 establishment cost per permanent resident week (includes A to E); £1,154 establishment cost plus personal living expenses and external services per permanent resident week (includes A to I).		
£158 establishment cost per permanent resident day (includes A to E); £165 establishment cost plus personal living expenses and external services per permanent resident day (includes A to I).		

<sup>1</sup> Calculated using NHS Digital (2018) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital 2017/18, <https://digital.nhs.uk/data-and-information/publications/statistical/adult-social-care-activity-and-finance-report/2017-18> [accessed 30 October, 2018], in collaboration with the Department of Health and Social Care.

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

<sup>3</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>4</sup> Department of Health & Social Care (2018) *Social Care – Charging for care and support*, Department of Health & Social Care, London. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/677736/Local\\_authority\\_circular\\_-\\_charging\\_for\\_care\\_and\\_support\\_LAC\\_DHSC\\_2018\\_1.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/677736/Local_authority_circular_-_charging_for_care_and_support_LAC_DHSC_2018_1.pdf) [accessed 27 September 2018].

<sup>5</sup> 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 (age 65+)

As day care expenditure is now combined with other expenditure in the ASC-FR data collection,<sup>1</sup> this table uses data from the Personal Social Services Expenditure return (PSS EX1) for 2013/14,<sup>2</sup> which has been updated using the PSS pay & prices inflator. The median and mean cost was £145 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,<sup>3</sup> 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	2017/2018 value	Notes
Capital costs		
A. Buildings and oncosts	£6.20 per client attendance	Based on the new-build and land requirements for local authority day care facilities (which do not distinguish client group). <sup>4</sup> 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	£2.20 per client attendance	Based on a report published by the Ministry of Housing, Communities & Local Government. <sup>5</sup> 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)	£50 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. <sup>2</sup> Based on PSSRU research, <sup>3</sup> 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. <sup>3</sup>
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. <sup>2,4,5</sup>
<b>Unit costs available 2017/2018</b>		
£58 per client attendance (includes A to D); £13 per client hour; £49 per client session lasting 3.5 hours.		

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

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

<sup>3</sup> Based on research carried out by PSSRU in 2014.

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

<sup>5</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

## 1.5 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.<sup>1</sup> 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*<sup>2</sup> 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 £1,250. Two further dementia memory services provided by SLAM (but not providing assessments) had average annual costs per client of £1,051 (Lambeth and Southwark) and £795 (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	2017/2018 value	Notes
A. Wages/salary	£451,393 per year	Based on mean salaries for Agenda for Change (AfC) bands. <sup>3</sup> 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	£116,729 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	£116,716 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. <sup>3</sup> Includes 3 FTE administrative and clerical assistants (bands 3, 4 & 5) and management provided by 0.2 FTE psychologist (band 8).
Non-staff	£198,390 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	£4,423 per year	Based on the new-build and land requirements of 4 NHS offices and a large open-plan area for shared use. <sup>4,5</sup> 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.
<b>Unit costs available 2017/2018</b>		
Total annual cost £887,650; total cost per hour £440; cost per client £1,253.		
£195,182 annual cost of service; £1,712 annual cost per case, £3,424 annual cost per intervention per case.		

<sup>1</sup> 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](http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/Browsable/DH_127381) [accessed 9 October 2014].

<sup>2</sup> 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].

<sup>3</sup> NHS Digital (2018) *NHS staff earnings estimates, 12-month period from May 2017 – April 2018* (not publicly available), NHS Digital, Leeds.

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

<sup>5</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].





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

2.1 NHS reference costs for mental health services

2.2 Care homes for adults requiring long-term mental health support (age 18-64)

2.3 Local authority own-provision social services day care for adults requiring mental health support (age 18-64)

2.4 Private and voluntary sector day care for adults requiring mental health support (age 18-64)

2.5 Behavioural activation delivered by a non-specialist

2.6 Deprivation of liberty safeguards in England: implementation costs

2.7 Interventions for mental health promotion and mental illness prevention

2.8 Lifetime costs of perinatal depression

2.9 Lifetime costs of perinatal anxiety



## 2.1 NHS reference costs for mental health services

'Reference costs are the average unit cost to the NHS of providing defined services to NHS patients in England in a given financial year. They show how NHS providers spend money to provide health care to patients.'<sup>1</sup> We have drawn on *NHS Improvement, Reference Costs 2016/2017* to report on the NHS reference costs for selected mental health services.<sup>1</sup> All costs have been updated to 2017/18 prices using the Health Services (HS) inflator (see Preface for more information on this new inflator).

In previous years, the reference costs have been provided by the Department of Health (now Department of Health and Social Care) using the following guidance: <https://www.gov.uk/government/collections/nhs-reference-costs>. This year NHS Improvement have published new guidance: <https://improvement.nhs.uk/resources/approved-costing-guidance/> and also information relating specifically to mental health services.<sup>2</sup> Future plans for the reference cost collection can be found in the following weblink: [https://improvement.nhs.uk/documents/2359/National\\_cost\\_collection\\_guidance\\_2018\\_April.pdf](https://improvement.nhs.uk/documents/2359/National_cost_collection_guidance_2018_April.pdf).

In this schema, 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.

	Mean £	Lower quartile £	Upper quartile £
<b>MENTAL HEALTH SERVICES</b>			
Mental health care clusters (per bed day)	£410	NA	NA
Mental health care clusters (per bed day), including carbon emissions 97 kgCO <sub>2</sub> e <sup>3</sup>	£414	£191	£377
Mental health care clusters (initial assessment)	£305		
Mental health care clusters (initial assessment), including carbon emissions 72 kgCO <sub>2</sub> e <sup>3</sup>	£308		
<b>Mental health specialist teams (per care contact)</b>			
A&E mental health liaison services	£196	£148	£241
Criminal justice liaison services	£177	£76	£212
Prison health adult and elderly	£95	£84	£117
Forensic community, adult and elderly	£242	£191	£271
IAPT, adult and elderly	£95	£84	£117
<b>Secure mental health services</b>			
Low level	£432	£371	£457
Medium level	£502	£453	£564
<b>Specialist mental health services (per bed day)</b>			
Eating disorder (adults) – admitted	£489	£452	£518
Specialist perinatal – admitted	£726	£574	£848

<sup>1</sup> NHS Improvement (2017) *Reference Costs*, NHS Improvement, <https://improvement.nhs.uk/resources/reference-costs/> [accessed 1 November 2018].

<sup>2</sup> NHS Improvement (2018) Mental health development PLICS cost collection guidance 2017/18, [https://improvement.nhs.uk/documents/2629/Mental\\_health\\_and\\_IAPT\\_PLICS\\_collection\\_guidance.pdf](https://improvement.nhs.uk/documents/2629/Mental_health_and_IAPT_PLICS_collection_guidance.pdf) [accessed 1 November 2018].

<sup>3</sup> 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. Based on the Sustainable Development Unit carbon footprint of the health, social care and public health system: <https://www.sduhealth.org.uk/policy-strategy/reporting/natural-resource-footprint-2018.aspx>

## 2.2 Care homes for adults requiring long-term mental health support (age 18-64, summary provided for 65+)

This table uses the Adult Social Care Finance Return (ASC-FR) <sup>1</sup> returns for 2017/2018 for expenditure costs. The median establishment cost per resident week in long-term residential care for adults is £793.

Costs and unit estimation	2017/2018 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. <sup>2</sup> 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)	£678 per resident week	The median revenue weekly cost estimate (£678) for adults age 18-64 requiring long-term mental health support [using unique identifier: 8713001 (numerator in thousands of pounds), 8713002 (denominator)]. <sup>1</sup> Capital costs have been deducted. The mean cost per client per week is £713 <sup>1</sup> 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. <sup>3</sup> 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
<b>Unit costs available 2017/2018</b>		
<b>Age 18-64 (using unique identifier 8713001; numerator in thousands of pounds, 8713002; denominator)</b>		
£793 per resident week establishment costs (includes A to B); £818 per resident week (includes A to D). £113 per resident day establishment costs (includes A to B); £116 per resident day (includes A to D).		
<b>Age 65+ (using unique identifier 8716001; numerator in thousands of pounds, 8716002; denominator)</b>		
£570 (£587) median (mean) establishment costs per resident week £81 (£84) median (mean) establishment costs per resident day		

<sup>1</sup> Calculated using NHS Digital (2018) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital 2017/18, <https://digital.nhs.uk/data-and-information/publications/statistical/adult-social-care-activity-and-finance-report/2017-18> [accessed 30 October, 2018], in collaboration with the Department of Health and Social Care.

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

<sup>3</sup> 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](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 adults requiring mental health support (age 18-64)

As day care expenditure is now combined with other expenditure in the ASC-FR data collection,<sup>1</sup> this table uses the Personal Social Services Expenditure return (PSS EX1)<sup>2</sup> for 2013/2014 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 £111 and mean cost was £115 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,<sup>3</sup> 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.<sup>4</sup>

Costs and unit estimation	2017/2018 value	Notes
Capital costs		
A. Buildings and oncosts	£6.20 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. Based on Ministry of Housing, Communities & Local Government land estimates. <sup>5</sup> These allow for 33.4 square metres per person. <sup>6</sup>
B. Land	£2.20 per client attendance	
C. Other capital		
D. Total local authority expenditure (minus capital)	£29 per client attendance	The median cost per client week has been taken from PSS EX1 2013/2014 <sup>1</sup> 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 £28.  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. <sup>3</sup>
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.
<b>Unit costs available 2017/2018</b>		
£37 per client attendance (includes A to D); £9.00 per client hour; £32 per client session lasting 3.5 hours.		

<sup>1</sup> Calculated using NHS Digital (2018) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital 2017/18, <https://digital.nhs.uk/data-and-information/publications/statistical/adult-social-care-activity-and-finance-report/2017-18> [accessed 30 October, 2018], in collaboration with the Department of Health and Social Care.

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

<sup>3</sup> Based on research carried out by PSSRU in 2014.

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

<sup>5</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

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

## 2.4 Private and voluntary sector day care for adults requiring mental health support (age 18-64)

This table uses the Personal Social Services Expenditure return (PSS EX1)<sup>1</sup> for 2013/2014 for expenditure costs, which have been uprated using the PSS pay & prices inflator. The median cost was £108 per client week and the mean cost was £94 (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,<sup>2</sup> 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.<sup>3</sup>

Costs and unit estimation	2017/2018 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 Ministry of Housing, Communities & Local Government land estimates. <sup>4</sup> These allow for 33.4 square metres per person. <sup>5</sup>
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)	£27 per client attendance	The median cost per client week has been taken from PSS EX1 2013/2014 <sup>1</sup> 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), <sup>2</sup> the mean cost per day care attendance per day is lower at £23. 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. <sup>2</sup>
Occupancy		
London multiplier	3.83 x B 1.05 x D	Relative London costs are drawn from the same source as the base data.
<b>Unit costs available 2017/2018</b>		
£36 per client attendance (includes A to D); £9 per client hour; £31 per client session lasting 3.5 hours.		

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

<sup>2</sup> Based on research carried out by PSSRU in 2014.

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

<sup>4</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>5</sup> 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 five days training in BA and 1 hour clinical supervision fortnightly from the principal investigator.<sup>1</sup> 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).<sup>1</sup> Another study<sup>2</sup> 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	2017/2018 value	Notes
A. Wages/salary	£78,078 per year	Based on the mean full-time equivalent basic salary for two mental health nurses on AfC band 7 of the 2017/2018 NHS staff earnings estimates. <sup>3</sup>
B. Salary oncosts	£19,749 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). <sup>4</sup> This cost is for 2 mental health nurses.
D. Training for behavioural activation	£677 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		Taken from the 2013/2014 financial accounts for 10 community trusts.
Management, administration and estates staff	£23,968 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	£37,370 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	£8,880 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. <sup>5,6</sup> 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. <sup>7</sup>
Duration of contact		One-hour sessions included direct treatment time of 40-50 minutes and administration.
<b>Unit costs available 2017/2018 (costs including qualifications given in brackets)</b>		
Cost per session per person attending a group £16 (£17); Cost per 12 group sessions per person £186 (£208)		

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> NHS Digital (2018) *NHS staff earnings estimates, 12-month period from May 2017 – April 2018* (not publicly available), NHS Digital, Leeds.

<sup>4</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

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

<sup>6</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>7</sup> 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.<sup>1</sup> 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 2017/2018 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	£519	£236	£605	£300	£258	£384
Assessments by best-interest assessor	£729	£438	£307	£1,067	£595	£627
Secretarial costs	£340	£191	£135	£613	£322	£320
Independent mental capacity advocates assessments	£118	£90	£64	£62	£76	£82
Court protection costs	£45	£45	£45	£45	£45	£45
<b>Total costs</b>	<b>£1,751</b>	<b>£1000</b>	<b>£1,155</b>	<b>£2,086</b>	<b>£1,295</b>	<b>£1,457</b>

<sup>1</sup> 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 Interventions for mental health promotion and mental illness prevention

Information has been drawn from McDaid et al. (2017)<sup>1</sup> to provide the costs of a range of interventions which can help reduce the risk and/or incidence of mental health problems. The information builds on the interventions costed in the 2011 report *Mental Health Promotion and Mental Illness Prevention: the Economic Case* (still found in this schema).<sup>2</sup> All costs drawn from the later report have been updated from 2015 values to reflect current costs.

### 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.

### The KiVa programme

**Context:** Bullying (including cyberbullying) is very common among young people with around a third of all 11 year olds reporting that they had been bullied at least once in the last two months. There are impacts of bullying on mental health and emotional wellbeing including the risk of self-harm and suicide. Children and young people who were frequently bullied were more likely to use mental health services, both in childhood and adolescence, and in midlife. Adults who have been bullied in childhood can suffer from depression, a lack of social relationships, economic hardship and poor perceived quality of life.

**Intervention:** This is a school based programme which is designed to support young people within and outside the school environment to counter the impacts of all bullying, including cyberbullying and other forms of online abuse. It focuses on enhancing the empathy, self-efficacy and anti-bullying attitudes of classroom peers. Positive changes in the behaviour of

<sup>1</sup> McDaid, D., La Park, A., Knapp, M. & colleagues (2017) *Commissioning cost-effective services for promotion of mental health and wellbeing and prevention of mental ill-health*, Public Health England.

<sup>2</sup> Knapp, M., McDaid, D. & Parsonage, M. (2011) *Mental health promotion and mental illness prevention: the economic case*, Department of Health, London.

pupils who are neither bullies nor victims can reduce the rewards that bullies perceive that they receive and thus reduce the incentives for bullying.

**Cost:** for a cohort of 200 children, investment overall in KiVa is associated with net increased costs of £4,658 or £23.29 per child over a four year period.

### **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 five-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.

### **Providing debt advice to protect mental health**

**Context:** There is a substantial evidence base on the association between debt and poor health, including poor mental health and increased risk of suicide

**Intervention:** targeted at people who do not initially have mental health problems but are experiencing unmanageable debt. It is focused on debt advice as a potential preventive action and therefore does not look at the impact of debt advice for people who already have mental health problems. The service involved volunteer delivered debt advice services located in a GP surgery.

**Cost:** Over 5 years, per adult population of 100,000, the total intervention cost is estimated to be £1,216,180 (£69,300 for GP awareness training and £1,146,880 for the face-to-face debt advice service).

## Promoting mental health and wellbeing in the workplace

**Context:** Effective universal workplace health promotion programmes not only can improve mental and physical health outcomes, but also can have productivity benefits to business. These actions are in addition to protections that maybe embedded within health and safety legislation that impact on mental health.

**Intervention:** a multi-component universal mental health promotion programme delivered in a 'white collar' workplace with 500 employees. It consists of a health risk appraisal questionnaire, unlimited access to a personalised web portal to encourage health lifestyle behaviours including interactive behavioural changes via online, fortnightly e-mail communications to provide practical tips for self-care. In addition there are paper-based information packs, including a newsletter, stress management, sleep, nutritional advice, and physical activity and four off-line seminars touching on the most common wellness issues over a 12 month period.

**Costs:** The incremental cost of this wellbeing programme was £41,050, or £82.10 per annum per employee.

## Workplace interventions to prevent stress, depression and anxiety problems

**Context:** Taking action against work-related stress and/or burnout has been regarded as one of the most important public health issues for an economically active population (Public Health England, 2016a).

**Intervention:** the provision of a workplace cognitive behavioural therapy service offered to all employees who are identified by occupation health services as being stressed.

**Cost:** administered to 1,000 employees, the total cost is estimated as £3,493 (£88 set up costs and £3,405 running costs).

## Suicide and self-harm

**Context:** There are substantial personal and economic costs associated with both completed and non-fatal suicidal events, although the number of studies estimating these costs remains limited (McDaid, 2016b).

**Intervention:** Guidance in England now recommends a multi-component approach to suicide prevention (NICE, 2013). Guidelines also recommend training of service gatekeepers, such as GPs, the police and teachers to recognise potential risk of depression and suicide, while psychosocial assessment is recommended for most individuals who present at hospital for deliberate self-harm (NICE, 2013).

**Cost:** A strategy administered to a population of 100,000 adults, from a health system perspective is estimated to cost £37,621.

## Protecting the mental health of people with long-term physical health problems

**Context:** Many people with long-term physical health conditions are at increased risk of developing mental health problems which can impact on the management of physical health leading to poorer health outcomes and reduced quality of life.

**Intervention:** a specially trained individual such as a nurse working in primary care settings who can help improve co-ordination between different health care professionals; these individuals or others will also be specially trained to provide psychological interventions such as problem-solving therapy or cognitive behavioural therapy.

**Cost:** administered to a population of 100,000, the total cost was £22,075.

## 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.

### **Addressing loneliness to protect the mental health of older people**

**Context:** Depression is a common problem in older people and one risk factor which has been associated with depression is involuntary social isolation and loneliness. Recent NICE guidelines on actions to promote the mental wellbeing of older people recommend actions to support, publicise and, if there is not enough provision, consider providing a range of group, one-to-one and volunteering activities that meet the needs and interests of older people (NICE, 2015).

**Intervention:** a signposting service put in place in GP surgeries, shopping centres and libraries, for people aged 65 and older who are not in paid work. Individuals would then have an opportunity to have an assessment of needs to help identify opportunities for participation in a wide range of local social activities to reduce the risk of social isolation and loneliness.

**Cost:** for a population of 100,000 was £175,000 (£55,000 for the signposting service and £120,000 for group activities).

## 2.8 Lifetime costs of perinatal depression

The World Health Organisation (WHO) 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, 2014<sup>1</sup>). 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 et al., 2016)<sup>2</sup>.

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 this schema and 2.9 and have been uprated from 2012/2013 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	£1,801	£3,021	The child's health and social care costs related in similar proportions to pre-term birth, emotional problems and conduct problems.
Education	£0	£4,231	85 per cent of education costs are a result of conduct problems, with the remainder due to emotional problems.
Criminal	£0	£2,231	All child criminal justice costs were incurred because of conduct problems.
<b>Subtotal public sector costs</b>	<b>£1,801</b>	<b>£9,482</b>	All mothers' public sector cost relate to health and social care expenditure. Seventy per cent of the child's public sector costs relate to conduct problems.
<b>Wider societal perspective costs</b>			
Productivity losses	£3,422	£6,397	42 per cent of child productivity losses are related to emotional problems.
Health-related quality of life losses	£19,375	£9,888	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	£313	£25,038	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	£7,945	12 per cent of total child costs are related to becoming a victim of crime.
<b>Total wider societal perspective costs</b>	<b>£23,110</b>	<b>£49,283</b>	Costs to the wider perspective for mother and child were £72,393.
<b>Grand total</b>	<b>£24,911</b>	<b>£58,765</b>	Mother and child costs of perinatal depression totalled £83,676 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.

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

<sup>2</sup> 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](http://eprints.lse.ac.uk/64685/2/Bauer_Lifetime%20costs_2015.pdf) [accessed 17 October 2017].

## 2.9 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, 2014<sup>1</sup>). 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)<sup>2</sup>.

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 this schema and 2.8 and have been updated from 2012/2013 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	£4,610	£4,775	20 per cent/32 per cent of the mother/child's costs were associated with health and social care expenditure.
Education	£0	£351	Over half of child education costs were associated with conduct problems, with a smaller amount associated with chronic abdominal pain.
Criminal	£0	£595	
<b>Public sector costs</b>	<b>£4,610</b>	<b>£5,721</b>	All mother's public sector costs relate to health and social care expenditure.
<b>Wider societal perspective</b>			
Productivity losses	£6,214	£1,964	Productivity losses account for 28 per cent of total mother costs and 13 per cent of child costs.
Health-related quality of life losses	£11,711	£2,709	Health-related quality of life losses were the largest share of total expenditure for the mother.
Out-of-pocket expenditure		£431	
Unpaid care		£2,138	Chronic abdominal pain was associated with unpaid care costs.
Victim of crime		£2,379	Conduct problems were associated with victim of crime costs.
<b>Wider societal perspective costs</b>	<b>£17,925</b>	<b>£9,620</b>	Costs to the wider societal perspective for mother and child were £27,545 and accounted for 73 per cent of total costs.
<b>Grand total</b>	<b>£22,534</b>	<b>£15,342</b>	Mother and child costs totalled £37,876.

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

<sup>2</sup> 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](http://eprints.lse.ac.uk/64685/2/Bauer_Lifetime%20costs_2015.pdf) [accessed 17 October 2017].

### **3. Services for adults who misuse drugs or alcohol**

3.1 NHS reference costs – misuse of drugs or alcohol

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





### 3.1 NHS reference costs – misuse of drugs or alcohol

‘Reference costs are the average unit cost to the NHS of providing defined services to NHS patients in England in a given financial year. They show how NHS providers spend money to provide health care to patients.<sup>1</sup> We have drawn on *NHS Improvement, Reference Costs 2016/2017* to report on the NHS reference costs for selected mental health services.<sup>1</sup> All costs have been updated to 2017/2018 prices using the Health Services (HS) inflator (see Preface for more information on this new inflator).

In previous years, the reference costs have been provided by the Department of Health (now Department of Health and Social Care) using the following guidance: <https://www.gov.uk/government/collections/nhs-reference-costs>. This year NHS Improvement have published new guidance (<https://improvement.nhs.uk/resources/approved-costing-guidance/>) and future plans for the reference cost collection can be found in the following weblink:

[https://improvement.nhs.uk/documents/2359/National cost collection guidance 2018 April.pdf](https://improvement.nhs.uk/documents/2359/National%20cost%20collection%20guidance%202018%20April.pdf).

In this schema, 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.

	Mean £	Lower quartile £	Upper quartile £
<b>Drug and alcohol services (adults)</b>			
Alcohol services – admitted (per bed day)	£453	£451	£491
Alcohol services – admitted (per bed day), including carbon emissions 107 kgCO <sub>2</sub> e <sup>2</sup>	£457		
Alcohol services – community (per care contact)	£115	£96	£138
Alcohol services – community (per care contact), including carbon emissions 27 kgCO <sub>2</sub> e <sup>2</sup>	£116		
Drug services – admitted (per bed day)	£454	£442	£535
Drug services – admitted (per bed day), including carbon emissions 107 kgCO <sub>2</sub> e <sup>2</sup>	£458		
Drug services – community (per care contact)	£121	£107	£149
Drug services – community (per care contact), including carbon emissions 29 kgCO <sub>2</sub> e <sup>2</sup>	£122		
Drug services - outpatients	£96	£26	£149
<b>Drug and alcohol services (children and adolescents)</b>			
Alcohol services – community contacts	£275	£261	£317
Alcohol services – outpatient attendances	£44		
Drug services, community	£208	£112	£297

<sup>1</sup> NHS Improvement (2017) *Reference Costs*, NHS Improvement, <https://improvement.nhs.uk/resources/reference-costs/> [accessed 1 November 2018].

<sup>2</sup> 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. Based on the Sustainable Development Unit carbon footprint of the health, social care and public health system: <https://www.sduhealth.org.uk/policy-strategy/reporting/natural-resource-footprint-2018.aspx>. See Preface for more information.

### 3.2 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.<sup>1</sup>

Costs and unit estimation	2017/2018 value	Notes
A. Wages/salary	£32,563 per year	Based on the mean full-time equivalent basic salary for Agenda for Change band 6 of the 2017/2018 staff earning estimates. <sup>2</sup> See <i>NHS terms and conditions of service handbook</i> for information on payment for unsocial hours and shift work. <sup>3</sup> See section V for further information on salaries.
B. Salary oncosts	£8,050 per year	Employer's national insurance contribution is included, plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Qualifications	£8,687 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). <sup>4</sup> Current cost information has been provided by the Department of Health and Health Education England (HEE). <sup>5</sup> It has been assumed that this health worker requires the same qualifications as a staff nurse/ward manager.
D. Overheads		
Management, administration and estates staff	£9,828 per year	Taken from <i>NHS foundation trusts accounts: consolidated (FTC) files 2014/2015</i> . <sup>6</sup> 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	£17,504 per year	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.
E. Capital overheads	£3,462 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. <sup>7,8</sup> 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. <sup>9</sup>
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		
<b>Unit costs available 2017/2018 (costs including qualifications given in brackets)</b>		
£45 (£51) per hour of clinic consultation.		

<sup>1</sup> 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](http://alcoholresearchuk.org/downloads/finalReports/FinalReport_0115.pdf).

<sup>2</sup> NHS Digital (2018) *NHS staff earnings estimates, 12-month period from May 2017 – April 2018* (not publicly available), NHS Digital, Leeds.

<sup>3</sup> 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>.

<sup>4</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

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

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

<sup>7</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

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

<sup>9</sup> 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 adults requiring learning disability support**

- 4.1 Local authority own-provision day care for adults requiring learning disability support (age 18-64)
- 4.2 Advocacy for parents requiring learning disability support
- 4.3 Residential care homes for adults requiring learning disability support (age 18-64)
- 4.4 Care homes for adults with autism and complex needs
- 4.5 Positive behavioural support for adults with intellectual disabilities and behaviour that challenges



## 4.1 Local authority own-provision day care for adults requiring learning disability support (age 18-64)

As day care expenditure is now combined with other expenditure in the ASC-FR data collection,<sup>1</sup> this table uses the Personal Social Services Expenditure return (PSS EX1)<sup>2</sup> for 2013/2014 for expenditure costs, which have been uprated using the PSS pay & prices inflator. The median cost was £338 per client week and the mean cost was £352 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,<sup>3</sup> 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	2017/2018 value	Notes
Capital costs		
A. Buildings and oncosts	£6.20 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. <sup>4</sup>
B. Land	£2.20 per client attendance	Based on Ministry of Housing, Communities & Local Government land estimates. <sup>5</sup> 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)	£62 per client attendance	The median cost per client week has been taken from PSS EX1 2013/2014 <sup>1</sup> 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), <sup>2</sup> the mean cost per day care attendance is £65. 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. <sup>3</sup>
Occupancy		No current information is available.
London multiplier	1.5 x (A) 2.56 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. <sup>1,4,5</sup>
<b>Unit costs available 2017/2018</b>		
£71 per client attendance (includes A to D); £18 per client hour; £62 per client session lasting 3.5 hours.		

<sup>1</sup> NHS Digital (2016) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital, Leeds. <https://digital.nhs.uk/data-and-information/publications/statistical/personal-social-services-adult-social-care-survey/2017-18> [accessed 30 October 2018].

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

<sup>3</sup> Based on research carried out by PSSRU in 2014.

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

<sup>5</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

## 4.2 Advocacy for parents requiring learning disability support

Advocacy can help service users 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)<sup>1</sup> 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).<sup>1</sup>

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	2017/2018 value	Notes (for further clarification see Commentary)
A. Wages/salary	£8,291 per year	<b>Project A:</b> Two part-time advocates (salary range £20,000-£25,000); <b>Project B:</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	£9,540 per year	Employer's national insurance is included plus 17 per cent of salary for employer's contribution to superannuation.
C. Overheads Management/supervision	£7,085 per year	<b>Project A:</b> supervision from a service manager for 2 hours per month (24 hours per year) <b>Project B:</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).
Direct overheads	£3,348 per year	Premises costs (office, stationery, utilities etc.) are estimated at 7 per cent of salary costs. <sup>2</sup>
Indirect overheads	£7,653 per year	Indirect overheads assumed to be 16 per cent of direct care salary costs. <sup>2</sup> They include general management and support services such as finance and human resource departments.
D. Qualifications	No costs available	<b>Project A:</b> advocates required 20 hours of national advocacy training. <b>Project B:</b> NVQ level 4 management and national advocacy qualification required.
E. Training	No costs available	<b>Project A:</b> further training consisted of 8 hours by Family Rights Group plus additional training to individual requirements. <b>Project B:</b> 5 days per year provided by a range of safeguarding, advocacy, legal and community organisations.
F. Capital overheads	£3,175 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	<b>Project A:</b> average travel time per intervention = 70 minutes, range (40-120 minutes) <b>Project B:</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. <sup>3</sup> 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. <sup>1</sup>
Caseload		<b>Project A:</b> Caseload of 8-10 parents. <b>Project B:</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.
<b>Unit costs available 2017/2018</b>		
Average cost per working hour £30, average cost per client-related hour £51. (Estimates exclude travel costs). Average total cost £69,092; Total cost for project A: £40,640; Total cost for project B: £97,545. Average cost per advocacy intervention (based on 95 hours); £4,884 (Project A £2,873 and Project B £6,895).		

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> Skills for Care (2018) *National Minimum Dataset-Social Care online*, <https://www.nmds-sc-online.org.uk/> [accessed 11 October 2018].

## 4.3 Residential care homes for adults requiring learning disability support (age 18-64)

The following schema draw on research carried out by Laing & Buisson<sup>1</sup> and commissioned by the Department of Health (now Department of Health and Social Care). 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)<sup>2</sup> for 2017/2018, the median cost per person for adults (18 to 64) requiring learning disability support in long-term residential care was £1,455 per week and the mean cost was £1,476 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 four bedrooms and one with eight 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 four-bedroom house is £2,186 per week and is £1,910 for a place in the eight-bedroom house.

Costs and unit estimation	2017/2018			
	4-bed house	Notes	8-bed house	Notes
<b>Staff costs</b>				
Salaries	£230,345	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 £30,939 per year.	£333,606	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 £38,674 per year plus one additional deputy manager.
Training	£6,895		£7,469	
Staff overheads	£7,929		£23,442	
<b>Capital costs</b>				
Building	£24,899	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.	£34,857	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.
Equipment	£9,959	Major adaptations cost £263,474. This amount has been annuitised over 60 years at 3.5 per cent, declining to 3 per cent after 30 years.	£19,918	Major adaptations cost £530,100. This amount has been annuitised over 60 years at 3.5 per cent, declining to 3 per cent after 30 years.
<b>Living expenses</b>				
Personal living expenses	£28,897	Living expenses per person per week cover £53 food, £53 travel, £27 service user activities and £8 for holidays.	£52,290	Living expenses per person per week cover £53 food, £53 travel, £27 service user activities and £8 for holidays.
Utilities	£8,257		£16,512	
<b>Direct overheads</b>				
Maintenance/service	£32,200	Includes the costs of boiler and other equipment maintenance, cleaning materials, maintenance staff costs, and damages and breakages.	£53,392	Includes the costs of boiler and other equipment maintenance, cleaning materials, maintenance staff costs, and damages and breakages.
<b>Indirect overheads</b>				
Head office costs	£20,110	Head office costs are charged at £92 per person per week, on the basis of full occupancy.	£40,220	Head office costs are charged at £93 per person per week, on the basis of full occupancy.
Total cost per year	£369,489		£581,708	
Total cost per person per year	£92,372		£72,714	
<b>Total cost per person per week</b>	<b>£1,770</b>		<b>£1,394</b>	

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

<sup>2</sup> Calculated using NHS Digital (2018) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital, Leeds. <https://digital.nhs.uk/data-and-information/publications/statistical/personal-social-services-adult-social-care-survey/2017-18> [accessed 30 October 2018], in collaboration with the Department of Health and Social Care.



### 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).<sup>1</sup>

<b>Costs and unit estimation</b>	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)	
<b>Income</b>	<b>Per person fee/cost per week (including oncosts)</b>	<b>2 residents Total per year</b>	<b>Per person fee/cost per week (including oncosts)</b>	<b>3 residents Total per year</b>
<b>Income</b>				
Fees	£994	£103,475	£994	£155,212
<b>Costs</b>				
Direct staff costs				
Senior support staff	£234	£24,285	£292	£45,801
Support staff	£398	£41,540	£323	£51,157
<b>Sub-total</b>	<b>£632</b>	<b>£65,825</b>	<b>£616</b>	<b>£96,958</b>
Waking nights Sleep-in staff	£121	£12,021	£77	£12,021
Manager	£43	£4,360	£99	£15,528
<b>Sub-total</b>	<b>£164</b>	<b>£16,381</b>	<b>£177</b>	<b>£27,549</b>
Recruitment	£5	£552	£5	£799
Training	£13	£1,431	£13	£2,202
Other staff overheads	£17	£1,817	£21	£3,193
<b>Total staff support costs</b>	<b>£831</b>	<b>£86,006</b>	<b>£831</b>	<b>£130,701</b>
<b>Management costs-area, division, central</b>	<b>£129</b>	<b>£14,112</b>	<b>£136</b>	<b>£21,366</b>

<sup>1</sup> 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 have been updated to 2017/2018 values using the PSS Pay and Prices Inflatons.

<b>Costs and unit estimation</b>	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.	
<b>Income</b>	<b>Per person fee/cost per week (including oncosts)</b>	<b>Total for all residents</b>
<b>Income</b>		
Fees	£1,554	£1,050,760
<b>Costs</b>		
Senior support staff	971	£656,432
<b>Sub-total</b>	<b>£971</b>	<b>£656,432</b>
Waking nights	£33	£22,041
Sleep in staff	£25	£17,047
Manager	£119	£80,385
<b>Sub-total</b>	<b>£177</b>	<b>£119,474</b>
Recruitment	£10.00	£6,748
Training	£9.50	£6,408
Other staff overheads	£33.40	£22,553
<b>Total staff support costs</b>	<b>£52.80</b>	<b>£35,710</b>
<b>Total costs (excluding management costs)</b>	<b>£1,200.60</b>	<b>£811,617</b>
<b>Management costs – area and central</b>	<b>£302</b>	<b>£204,300</b>

## 4.4.2 Residential care homes

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	2017/2018 value	Notes
A. Wages/salary	£47,994 per client year	Based on actual salaries of care staff, including support workers, service co-ordinators, team leaders, waking-night support and sleep-in workers. Therapists are included in this cost (includes positive behaviour and communication therapists).
B. Salary oncosts	£6,837 per client year	Employer's national insurance contribution plus employer's contribution to superannuation.
C. Direct overheads		
Management and supervision	£10,292 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	£11,654 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	£13,728 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	£4,053 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	£25,567 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	
<b>Unit costs available 2017/2018</b>		
Average annual cost per client (excluding day care); £94,558; average weekly cost per client £1,812.		
Average annual cost per client, (including day care); £120,125; average weekly cost per client £2,302.		

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

Positive behavioural support (PBS) 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 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 et al. (2015)<sup>1</sup> 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 £2,594 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 (£254). The total cost of the PBS intervention lasting 15 months is estimated to cost £16,525 per adult. The total cost of services received for adults in receipt of additional support was £134,926 per year. These costs have been updated from 2012/2013 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 £170 per week) and those with more severe behavioural needs in less service-intensive residential accommodations (£1,255 to £3,825 per week), the service may potentially reduce public services cost in the long term.<sup>1</sup>

See Hassiotis et al. (2014)<sup>2</sup> for a study addressing the clinical and cost effectiveness of staff training in PBS.

<sup>1</sup> 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.

<sup>2</sup> 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 (£2017/2018), mean (SD)
<b>Health and social care</b>				
Supported housing (days)	1	182		£345 (£597)
Other than residential home (days)	1	35.5		£104 (£180)
<b>Total residential care</b>				<b>£449 (£530)</b>
<b>Community-based care</b>				
Psychiatrist	2	2 (0)	0.9 (0.2)	£14.30 (£12)
Nurse	3	5 (2.6)	0.8 (0.1)	£7.90 (£4.10)
Social worker	3	48.3 (17.2)	0.4 (0)	£141 (£60)
Care worker	1	182	24	£1,519 (£2,630)
Other services (paid through direct payments)	2	78		£145 (£125)
<b>Total community-based care</b>				<b>£1,827 (£2,478)</b>
Day care centre	1	78	6	£64 (£112)
<b>Total health and social care</b>				<b>£2,341 (£2,935)</b>
Positive behavioural support for adults with intellectual disabilities and behaviour that challenges				£254
<b>Total health and social care (+PBSS)</b>				<b>£2,595 (£2,645)</b>

## **5. Services for adults requiring physical support**

- 5.1 Local authority own-provision care homes for adults requiring physical support (age 18-64)
- 5.2 Voluntary, private and independent sector care homes for adults requiring physical support (age 18-64)
- 5.3 Day care for adults requiring physical support (age 18-64)



## 5.1 Local authority own-provision care homes for adults requiring physical support (age 18-64, summary provided for 65+)

This table uses the ASC-FR data return (ASC-FR) for 2017/2018.<sup>1</sup>

Costs and unit estimation	2017/2018 value	Notes
Capital costs		
A. Buildings and oncosts	£154 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. <sup>2</sup> 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	£26 per resident week	Based on Ministry of Housing, Communities & Local Government land estimates. <sup>3</sup> 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)	£1,067 per resident week	The median revenue weekly cost estimate (£1,067) 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 £834 [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. <sup>4</sup> 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. <sup>1,2,3</sup>
<b>Unit costs available 2017/2018</b>		
<b>Age 18-64 (using unique identifier 8710701; numerator in thousands of pounds, 8710702; denominator)</b> £1,247 per resident week establishment costs (includes A to C); £1,272 per resident week (includes A to E). £178 per resident day establishment costs (includes A to C); £182 per resident day (includes A to E).		
<b>Age 65+ (using unique identifier 8713701; numerator in thousands of pounds, 8713702; denominator)</b> £963 (£930) median (mean) establishment cost per resident week. £138 (£133) median (mean) establishment cost per resident day.		

<sup>1</sup> Calculated using NHS Digital (2018) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital 2017/18, <https://digital.nhs.uk/data-and-information/publications/statistical/adult-social-care-activity-and-finance-report/2017-18> [accessed 30 October, 2018], in collaboration with the Department of Health and Social Care.

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

<sup>3</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>4</sup> 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](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 (age 18-64, summary provided for 65+)

This table uses the ASC-FR data return (ASC-FR) for 2017/2018.<sup>1</sup>

Costs and unit estimation	2017/2018 value	Notes
Capital costs		
A. Buildings and oncosts	£154 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. <sup>2</sup> 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	£26 per resident week	Based on Ministry of Housing, Communities & Local Government land estimates. <sup>3</sup> 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)	£772 per resident week	The median weekly expenditure (£772) 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 £770 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. <sup>4</sup> 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. <sup>1,2,3</sup>
<b>Unit costs available 2017/2018</b>		
<b>Age 18-64 (using unique identifier 8710801; numerator in thousands of pounds, 8710802; denominator)</b>		
£952 per resident week establishment costs (includes A to C); £977 per resident week (includes A to E). £136 per resident day establishment costs (includes A to C); £140 per resident day (includes A to E).		
<b>Age 65+ (using unique identifier 8713701; numerator in thousands of pounds, 8713702; denominator)</b>		
£555 (£574) median (mean) establishment cost per resident week. £79 (£82) median (mean) establishment cost per resident day.		

<sup>1</sup> Calculated using NHS Digital (2018) *Adult Social Care Finance Return (ASC-FR)*, NHS Digital 2017/18, <https://digital.nhs.uk/data-and-information/publications/statistical/adult-social-care-activity-and-finance-report/2017-18> [accessed 30 October, 2018], in collaboration with the Department of Health and Social Care.

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

<sup>3</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>4</sup> 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](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 (age 18-64)

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)<sup>1</sup> for 2013/2014 for expenditure costs which have been uprated using the PSS pay & prices inflator.

The median cost was £232 per client week and the mean cost was £231 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,<sup>2</sup> 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	2017/2018 value	Notes
Capital costs		
A. Buildings and oncosts	£6.20 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. <sup>3</sup>
B. Land	£2.20 per client attendance	Based on Ministry of Housing, Communities & Local Government land estimates. <sup>4</sup> 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	£86 per client attendance	The median cost per client week has been taken from PSS EX1 2013/2014 <sup>1</sup> 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), <sup>2</sup> the median cost per day care attendance is £86 and the mean cost per attendance is £85. 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. <sup>2</sup>
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. <sup>1,3,4</sup>
<b>Unit costs available 2017/2018</b>		
£92 per client attendance (includes A to D); £19 per client hour; £67 client per session lasting 4.8 hours.		

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

<sup>2</sup> Based on research carried out by PSSRU in 2014.

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

<sup>4</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].



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

- 6.1 NHS reference costs for children's health services
- 6.2 Department for Education's Social Care Innovation Programme
- 6.3 Care home for children—local authority
- 6.4 Voluntary and private sector care homes for children
- 6.5 Foster care for children
- 6.6 End-of-life care at home for children
- 6.7 Multi-systemic therapy (MST)
- 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 Parent training interventions for parents of disabled children with sleep problems
- 6.13 Early Years Teacher Classroom Management programme
- 6.14 Advocacy
- 6.15 Counselling



## 6.1 NHS reference costs for children's health services

'Reference costs are the average unit cost to the NHS of providing defined services to NHS patients in England in a given financial year. They show how NHS providers spend money to provide health care to patients.'<sup>1</sup> We have drawn on *NHS Improvement, Reference Costs 2016/2017* to report on the NHS reference costs for selected services for children and their families.<sup>1</sup> All costs have been updated to 2017/2018 prices using the Health Services (HS) inflator (see Preface for more information on this new inflator).

In previous years, the reference costs have been provided by the Department of Health (now Department of Health and Social Care) using the following guidance (<https://www.gov.uk/government/collections/nhs-reference-costs>). This year NHS Improvement have published new guidance (<https://improvement.nhs.uk/resources/approved-costing-guidance/>). Future plans for the reference cost collection can be found in the following weblink:

[https://improvement.nhs.uk/documents/2359/National cost collection guidance 2018 April.pdf](https://improvement.nhs.uk/documents/2359/National%20cost%20collection%20guidance%202018%20April.pdf).

	National average	Lower quartile	Upper quartile
<b>COMMUNITY SERVICES, average cost per group session (one-to-one)</b>			
<b>Therapy services</b>			
Physiotherapy	£40 (£96)	£29 (£71)	£46 (£120)
Occupational therapy	£84 (£141)	£80 (£94)	£83 (£1742)
Speech therapy services	£88 (£99)	£58 (£77)	£99 (£110)
<b>Community health services – nursing, average cost per care contact/group session</b>			
School-based children's health core (other) services – group multi professional	£56 (£69)	£52 (£67)	£52 (£67)
School-based children's health core (other) services – group single professional	£45 (£48)	£31 (£28)	£58 (£50)
School-based children's health core (other) services – one to one	£55 (£57)	£43 (£41)	£67 (£62)
<b>Elective inpatient (paediatrics), average cost per stay</b>			
Elective inpatient (paediatrics), average cost per stay, (inc. carbon impact 678 kgCO <sub>2</sub> e) <sup>2</sup>	£2,880 £2,908	£1,814	£3,646
<b>OUTPATIENT ATTENDANCES, average cost per attendance</b>			
Paediatrics	£194		
Paediatric consultant-led outpatient attendance	£201		
Paediatric non-consultant-led outpatient attendance	£151		
<b>SPECIALIST PALLIATIVE CARE, average cost per bed day</b>			
Hospital specialist palliative care support	£150	£68	£225
<b>CHILD AND ADOLESCENT MENTAL HEALTH SERVICES, average cost per patient contact</b>			
Day care facilities – regular attendance	£360	£99	£442
Admitted patients	£692	£600	£739
Admitted patients – psychiatric intensive care	£854	£595	£984
Community contact	£221	£178	£242
Community contact, crisis resolution	£176	£139	£218
Outpatient attendance	£294	£238	£336

<sup>1</sup> NHS Improvement (2017) *Reference Costs*, NHS Improvement, <https://improvement.nhs.uk/resources/reference-costs/> [accessed 1 November 2018].

<sup>2</sup> 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. Based on the Sustainable Development Unit carbon footprint of the health, social care and public health system: <https://www.sduhealth.org.uk/policy-strategy/reporting/natural-resource-footprint-2018.aspx>. See Preface for more information.

## 6.2. Department for Education’s Social Care Innovation Programme

The following services have been funded as part of the Department for Education’s Social Care Innovation Programme (<https://www.gov.uk/government/publications/childrens-services-innovation-programme>). We report the unit costs from the evaluation reports, and users are advised to confirm the approach fits their requirements (see also the DfE Innovation evaluation approach: <http://innovationcsc.co.uk/evaluation-approach/>). Unless specified below, we assume costs were reported at 2015/2016 values, the first year of receiving the DfE grant. New information will be added each year as further evaluations are published.

What is the programme	Who is involved?	Costs
<p><b>‘Pause’ A voluntary programme for women at risk of having children removed from their care.</b><sup>1</sup> An intense programme of emotional, psychological, practical and behavioural support which aims to reduce the number of children being removed into care and improve the health and wellbeing of the women.</p>	<p>Pause works with partner agencies (such as health and domestic violence services) to design individual programmes for caseloads of 6-8 women.</p>	<p>Costs were captured for a cohort of 125 women. The cost of delivering Pause over 18 months - £2,525,230 (£20,202 per woman), equivalent to £1,683,487 (£13,468 per woman) per annum, based on Round 1 evaluation figures. Includes staff running costs, office costs, and individual budgets. Set-up costs, strategic management costs, and in-kind costs were excluded from the estimations.</p>
<p><b>‘No Wrong Door’ An integrated service for young people.</b><sup>2</sup> Provides an integrated service for young people, aged 12 to 25, who either are in care, edging to or on the edge of care, or have recently moved to supported or independent accommodation while supported by No Wrong Door (NWD).</p>	<p>NWD operates from 2 hubs in Scarborough and Harrogate. Each hub has a team that consists of a manager, 2 deputy managers, NWD hub workers, a communications support worker, a life coach and a police liaison officer.</p>	<p>Bespoke packages of care were developed. Although an intensive package with daily face-to-face contact over 28 days is estimated to cost NWD around £5,000 per week, others received only low levels of outreach support (for example, 3 hours per month) costing much less.</p>
<p><b>Belhaven Service</b><sup>3</sup> provides mental health treatment in a local care home setting to reduce the risk of referral to mental health inpatient services and breakdown of educational and care arrangements for young people. It aims to integrate health, care and education delivery for the most vulnerable children.</p>	<p>A 5-bed residential home, in which 4 beds were funded as part of the DfE Innovation Programme (<a href="http://innovationcsc.co.uk/projects/belhaven-service/">http://innovationcsc.co.uk/projects/belhaven-service/</a>).</p>	<p>Full occupancy £676 per day. Actual occupancy during evaluation £849 per day. The planned length of stay was 90 days; at full occupancy this would cost £60,840.</p>

<sup>1</sup> McCracken, K., Priest, S., FitzSimons, A., Bracewell, K., Torchia, K. & Parry, W. with Stanley, N. (2017) Evaluation of Pause, Department for Education, <https://www.gov.uk/government/publications/social-care-pause-programme>.

<sup>2</sup> Lushey, C., Hyde-Dryden, G., Holmes, L. & Blackmore, J. (2017) Evaluation of the No Wrong Door Innovation Programme, Research Report, Department for Education, <https://www.gov.uk/government/publications/no-wrong-door-innovation-programme-evaluation>.

<sup>3</sup> Boxford, S., Harvey, J., Irani, M. & Spencer, H. (2017) Evaluation of the Belhaven Service, Department for Education, [http://innovationcsc.co.uk/wp-content/uploads/2017/11/1.2.67-Priory\\_Belhaven\\_IP\\_evaluation\\_report\\_July\\_17.pdf](http://innovationcsc.co.uk/wp-content/uploads/2017/11/1.2.67-Priory_Belhaven_IP_evaluation_report_July_17.pdf).

<p><b>The Mockingbird Family Model (MFM)</b><sup>1</sup> is an approach to supporting foster carers and the children and young people placed with them. It aims to ensure young people in foster care experience improved stability, stronger birth family and sibling relationships and more successful early reunifications with their birth family.</p>	<p>MFM brings together clusters of between 6 and 10 ‘satellite foster homes’ to form a ‘constellation’. The constellation is supported by hub carers, identified as key to MFM’s success, who provide range of supports to those within the constellation</p>	<p>The ongoing cost of running a constellation during the pilot phase was estimated to be around £30,491 per year (data from 5/8 MFM host services; 2015 prices) including payments to hub carers, additional payments for activities and mileage. This excludes payments for respite care or the costs for staffing, such as the constellation liaison worker.</p>
<p>The overall objective of the Innovation Programme in <b>Hampshire and the Isle of Wight</b> was to create the right conditions and capacity for professional to work as effectively as possible (p7).<sup>2</sup> Specific Social Care Innovations include :</p> <ul style="list-style-type: none"> <li>a) <b>An new offer for children on the edge of care</b></li> <li>b) <b>Piloting an approaching to volunteering with vulnerable children and families</b></li> <li>c) <b>A pilot intervention to address child sexual exploitation.</b></li> </ul>	<p><b>The edge of care offer</b> includes a key worker, a structured weekly activities programme and a volunteer mentor.</p> <p><b>Volunteering</b> The Hampshire model is a newly recruited team of 4 volunteer coordinators. The Isle of Wight model involves Home Start providing family support volunteers. The <b>child sexual exploitation team</b> includes a team manager, 3 social workers and two administrators. The team also includes 2 health safeguarding nurses, the specialist Barnardo’s worker and police inputs, however, the costs of these members are excluded from the unit costs provided..</p>	<p>A typical <b>edge of care</b> intervention costs £3,273. This includes £1,812 for the key worker, £1,065 for the Activities Programme, and £396.40 for support from the volunteer mentors.</p> <p><b>Volunteering</b> -Hampshire, £396.40 per substantive intervention, including the co-ordinator, marketing and admin, volunteer expenses, and overheads at 20%</p> <p>Isle of Wight, £304.65 per substantive intervention for the Volunteer Co-ordinator.</p> <p><b>Addressing child exploitation</b> - £262,980 per team including staffing and approximate overheads at 20%.</p>
<p><b>Sefton Community Adolescent Service (CAS)</b><sup>3</sup> aimed to:</p> <ul style="list-style-type: none"> <li>a) reduce numbers of young people entering the care system at age 13+;</li> <li>b) improve placement stability for LAC young people;</li> <li>c) reduce the number of children missing from home or care;</li> <li>d) achieve engagement in Education, Training and Employment;</li> <li>e) reduce involvement with the criminal justice system, and with guns and gangs; and</li> <li>f) reduce the number of young people at risk of Child Sexual Exploitation (p7).</li> </ul>	<p>The model centred on 2 multi-disciplinary hub teams working with young people and their families. These teams were supported by a 4-bed residential children’s home, commissioned to offer planned respite provision.</p>	<p>The residential respite unit has capacity for 4 young people to stay, totalling 1,440 overnight stays a year. During the evaluation period, the total number of young people did not exceed 139 (756 overnight stays). This under-occupancy meant the unit costs were higher than expected at £889 per night compared to £467 if operating at full capacity over the year. However, the unit was also used flexibly with some young people accessing it for just a few hours during the day (p36).</p>

<sup>1</sup> McDermid, S., Baker, C. & Lawson, D. with Holmes, L. (2016) The evaluation of the Mockingbird Family Model, Department for Education, [http://innovationcsc.co.uk/wp-content/uploads/2017/11/1.2.73-DFE-RR528-Mockingbird\\_family\\_model\\_evaluation.pdf](http://innovationcsc.co.uk/wp-content/uploads/2017/11/1.2.73-DFE-RR528-Mockingbird_family_model_evaluation.pdf).

<sup>2</sup> Burch, K., Green, C., Merrell, S., Taylor, V. & Wise, S. (2017) Social Care innovations in Hampshire and the Isle of Wight, Evaluation Report, Department for Education, [http://innovationcsc.co.uk/wp-content/uploads/2017/11/1.2.49-Hampshire\\_and\\_IOW\\_Evaluation\\_Report\\_March\\_2017.pdf](http://innovationcsc.co.uk/wp-content/uploads/2017/11/1.2.49-Hampshire_and_IOW_Evaluation_Report_March_2017.pdf).

<sup>3</sup> Day, L., Scott, L. & Smith, K. (2017) Evaluation of the Sefton Community Adolescent Service (CAS), Department for Education. [http://innovationcsc.co.uk/wp-content/uploads/2017/11/1.2.68-Evaluation\\_of\\_the\\_Sefton\\_Community\\_Adolescent\\_Service-1.pdf](http://innovationcsc.co.uk/wp-content/uploads/2017/11/1.2.68-Evaluation_of_the_Sefton_Community_Adolescent_Service-1.pdf).



### 6.3 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 £4,705 per resident week. All costs have been uprated using the PSS pay & prices index. Based on returns from 42 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 2017 was £956,200 compared with £1,080,800 in 2016. In 2017, 65 per cent of total spend was attributed to on-site social workers (including agency staff, floating staff, staff on sick leave) and includes pay, overtime, national insurance and any pension contributions. Nearly 12 per cent was allocated to costs relating to all other own-provision residential care staff, 10 per cent to other direct costs, 5 per cent to service overheads (property costs relating to service provision, cost of head of service and management, business support and procurement, and 8.5 per cent to corporate overheads.

Costs and unit estimation	2017/2018 value	Notes
Capital costs (A & B)		
A. Buildings	£147 per resident week	Based on the new-build requirements for local authority children's homes. These allow for 59.95 m <sup>2</sup> per person. <sup>1</sup> 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 resident week	Based on Ministry of Housing, Communities & Local Government land estimates. <sup>2</sup>
C. Total local authority expenditure (minus capital)	4,527 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 2016/17. <sup>3</sup>  The cost for a child for a week in an own-provision residential care home was £4,527. This was calculated by dividing total current expenditure for local authority (LA) provision children's care homes (£315,713,106) 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) (486,168). <sup>4</sup> This gives a cost of £649 per day or £4,546 per week, and £4,705 when inflated using the PSS pay and prices inflator. Capital charges for buildings and land have been excluded to give a cost per resident week of £4,527. Local authorities reporting costs of less than £400 per week (4 local authorities) or more than £14,000 per week (22 local authorities) have been excluded.
D. Overheads		No current information available. See previous editions of this volume for sources of information.
E. Other costs	£14.30 per resident week for school support	Using Section 251 data, <sup>3</sup> and dividing total expenditure for 'education of looked-after children' (£44,444,484) by total children looked-after aged 5 and over (59,680), <sup>5</sup> 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. <sup>6</sup>
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. <sup>1,2,3</sup>
<b>Unit costs available 2017/2018</b>		
£4,705 establishment costs per resident week (includes A to C); £672 establishment costs per resident day (includes A to C); £4,719 per resident week (includes A to E); £574 per resident day (includes A to E).		

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

<sup>2</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>3</sup> 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> [accessed 5 November 2018].

<sup>4</sup> Department for Education (2018) *Children looked-after in England including adoption and care leavers, year ending 31 March 2016*, Department for Education, London.

<sup>5</sup> Department for Education (2017) *Children looked after in England including adoption: 2016 to 2017*, <https://www.gov.uk/government/statistics/children-looked-after-in-england-including-adoption-2016-to-2017> [accessed 5 November 2018].

<sup>6</sup> 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 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 £3,414 per resident week.

Costs and unit estimation	2017/2018 value	Notes
Capital costs (A & B)		
A. Buildings	£147 per resident week	Based on the new-build requirements for local authority children's homes. These allow for 59.95 m <sup>2</sup> per person. <sup>1</sup> 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 resident week	Based on Ministry of Housing, Communities & Local Government land estimates. <sup>2</sup>
C. Total expenditure (minus capital)	£3,236 per resident week	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 251 outturn data for 2016/2017. <sup>3</sup>  The cost for a child for a week in a non-statutory residential care home for children was £3,236. This was calculated by dividing total expenditure for other provision children's care homes (private and voluntary/third sector) (£795,366,212) 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) (1,687,929). <sup>4</sup> This gives a cost of £471 per day (£3,298 per week, and £3,414 when uprated using the PSS pay and prices inflator). Capital charges for buildings and land have been excluded to give a cost per resident week of £3,236. Local authorities reporting costs of less than £400 per week (5 local authorities) or more than £14,000 per week have been excluded (no local authority data showed costs in this category).
D. Overheads		No current information available. See previous editions of this volume for sources of information.
E. Other costs External services	£14.30 per resident week for school support	Using Section 251 data, <sup>3</sup> and dividing total expenditure for 'education of looked-after children' (£44,444,484) by total children looked-after aged 5 and over (59,680), <sup>4</sup> 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. <sup>5</sup>
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. <sup>1,2,3</sup>
<b>Unit costs available 2017/2018</b>		
£3,414 establishment costs per resident week (includes A to C); £488 establishment costs per resident day (includes A to C) £3,428 per resident week (includes A to E); £490 per resident day (includes A to E).		

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

<sup>2</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>3</sup> 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 12 November 2018].

<sup>4</sup> Department for Education (2017) *Children looked after in England including adoption: 2016 to 2017*, <https://www.gov.uk/government/statistics/children-looked-after-in-england-including-adoption-2016-to-2017> [accessed 5 November 2018].

<sup>5</sup> 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).

## 6.5 Foster care for children

This table provides the cost of foster care for children.

Costs and unit estimation	2017/2018 value	Notes
A. Boarding out allowances, administration and the costs of social worker and other support staff who support foster carers	£646 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 £1,700,918,196 <sup>1</sup> 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) (19,090,059) <sup>2</sup> , the cost per day for all foster care for 2016/17 was £89 (£92 per day and £646 per week when uprated to 2017/18 prices using the Personal Social Services (PSS) pay & prices inflator). There were no outliers.  Using Section 251 data <sup>2</sup> and dividing total expenditure for LA provision foster care (including children placed with family and friends, own-provision and other public provision) of £924,039,524 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) (12,569,273), <sup>2</sup> the cost per day for 2016/17 was £74 (£76 per day or £533 per week when uprated to 2017/18 prices using the PSS pay & prices inflator). Local authorities reporting an average cost of more than £1,500 per week (7 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. <sup>3</sup>
C. Overheads		No current information available.
D. Other services, including education	£14.30 per resident week for school support	Using Section 251 data, <sup>1</sup> and dividing total expenditure for 'education of looked-after children' (£44,444,484) by total children looked-after aged 5 and over (59,680), <sup>4</sup> 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. <sup>1</sup>
<b>Unit costs available 2017/2018</b>		
£660 per child per week (excluding social care support directly related to fostered children but including additional education services).		

<sup>1</sup> 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].

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

<sup>3</sup> 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.

<sup>4</sup> Department for Education (2017) *Children looked after in England including adoption: 2016 to 2017*, <https://www.gov.uk/government/statistics/children-looked-after-in-england-including-adoption-2016-to-2017> [accessed 5 November 2018].

## 6.6 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 report<sup>1</sup> 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	2017/2018 value	Notes
A. Wages/salary	£294,125 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	£72,858 per year	Employer's national insurance plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Overheads Staff costs	£20,871 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. <sup>2</sup>
D. Travel costs	£27,261 per year	Based on information provided by a Rapid Response Service in the <i>Unit Costs of Health &amp; Social Care 2013</i> , 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.
<b>Unit costs available 2017/2018</b>		
Cost per week £7,955; cost per hour £47.40 (if working 24/7).		

<sup>1</sup> 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].

<sup>2</sup> Note these overhead costs are lower than used elsewhere in this volume.

## 6.7 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.<sup>1</sup>

Costs and unit estimation	Unit cost 2017/2018	Notes
A. Salary plus oncosts	£47,548 per year	Based on the salary of a chartered counselling psychologist. <sup>1</sup> 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.	£11,649 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	£18,163 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	£5,202 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. <sup>2</sup>
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.
<b>Unit costs available 2017/2018</b>		
£52 per hour; £124 per therapy session.		

<sup>1</sup> 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].

<sup>2</sup> Contracted hours are taken from NHS Careers (2017) *Pay and benefits, National Health Service*, London, <http://www.nhscareers.nhs.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].

## 6.8 Adoption

In 2013, an overview of the adoption research initiative was published.<sup>1</sup> 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 for 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 2017/2018, the total expenditure on adoption services is £325,858,763.<sup>2</sup> 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.<sup>2</sup>

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 2017 was £2,659,300 compared with £2,424,700 in 2016. In 2017, 23 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, 22 per cent to other direct costs (including adoption support), 3 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 nearly 7 per cent to corporate overheads. Thirty nine per cent of expenditure was attributed to the adoption allowance.

At year end 31 March 2017, 4,260 children had a placement order; 10,370 had a care order and there was a voluntary agreement (S20) in place for 14,980.<sup>3</sup> There were 4,350 looked-after children adopted during the year ending 31 March 2017.<sup>3</sup> 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.<sup>4</sup>

### 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 (2018) are shown in table 1 below (<https://corambaaf.org.uk/updates/interagency-fees>). From 1 June 2018, all members of the Consortium of Voluntary Adoption Agencies have been charging £31,000 for the placement of a child from English local authorities and regional adoption agencies. Further information can be found in Dance et al (2017).<sup>5</sup>

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

<sup>2</sup> 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> [accessed 5 November 2018].

<sup>3</sup> Department for Education (2017) *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>, latest available [accessed 5 November 2018].

<sup>4</sup> [http://trixresources.proceduresonline.com/nat\\_key/keywords/placement\\_order.html](http://trixresources.proceduresonline.com/nat_key/keywords/placement_order.html)

<sup>5</sup> 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](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].

**Table 1 Inter-agency fees**

Local authorities	Costs for 2017/2018 (see above for information on changes from June 2018)
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

## 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'<sup>1</sup> 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 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.

<sup>1</sup> 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.

**Table 2: Average costs (£) of adoption processes at 2017/2018 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	£2,101	£2,150	£1,611	£1,545	£2,091	£2,040
Preparation, assessment of adopters	£4,173	£3,484	£3,855	£4,597	£4,062	£4,346
Adoption panel	£1,845	£1,370	£887	£1,680	£1,620	£1,598
Linking & matching	£3,740	£3,719	£1,481	£5,521	£2,667	£4,953
Placement of the child	£1,837	£1,953	£718	£2,438	£1,781	£2,249
Assessment for adoption support	£2,667	£3,241	£1,759	£3,300	£2,150	£3,753

### Helping birth families

See previous editions for sources of information.

### Supporting direct contact after adoption

See previous editions for sources of information.

### 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).<sup>1,2</sup> 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. See previous editions for sources of information relating to post-adoption support.

<sup>1</sup> 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](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/270100/adoption_statutory_guidance_2013.pdf) [accessed 30 November 2016].

<sup>2</sup> 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/](http://www.basw.co.uk/social-work-careers/)



## 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),<sup>1</sup> short-break services for disabled children and their families,<sup>2</sup> and joint commissioning for children with additional needs.<sup>3</sup> 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	3 hours 10 minutes	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)	£54
Family support worker	£31
Social worker	£50
Team manager	£54
Administration	£32

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.

**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	£93				£156	£250
Short-breaks panel	£128	£71		£151		£349
Joint commissioning panel	£47	£80	£94	£107		£328

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

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

<sup>3</sup> 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.

## 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 services<sup>1</sup> to support successful reunification of all children and families following a care episode (Holmes, 2014).<sup>2</sup> 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).<sup>3</sup> 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 2017/2018 prices, the weighted average cost was £8,941 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., 2011<sup>4</sup>; Farmer et al., 2011<sup>3</sup>). 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	2017/2018 Cost per case	Notes
<b>High needs</b> Adult mental health (60%; fortnightly); Drug and alcohol services (50%; fortnightly); Parenting support (80%; weekly); CAMHS (45%; fortnightly).	£10,470	Based on Farmer et al. (2011) <sup>3</sup> and Meltzer et al. (2003) <sup>5</sup> . Based on Farmer et al. (2011) <sup>3</sup> and Meltzer et al. (2003) <sup>5</sup> Based on Farmer et al. (2011) <sup>3</sup> and costs for a family support worker (see Table 11.8). Based on Farmer et al. (2011) <sup>3</sup> and Meltzer et al. (2003). <sup>5</sup>
<b>Medium needs</b> Parenting support CAMHS	£1,810	80 per cent of parents receive parenting support, fortnightly, for one year (Farmer et al., 2011). <sup>3</sup> 45 per cent of children receive CAMHS services, monthly, for one year (Meltzer et al., 2003). <sup>5</sup>
<b>Low needs</b>		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.
<b>Social care support</b>		
<b>High needs</b>	£4,267	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). <sup>6</sup>
<b>Medium needs</b>	£2,676	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.
<b>Low needs</b>	£1,332	Comprises ongoing support as an open Child in Need case for 6 months at a low level.
<b>Unit costs available 2017/2018</b>		
£8,941 average weighted cost per case.		

<sup>1</sup> 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.

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

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> 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.

<sup>6</sup> 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.<sup>1</sup> The average cost for 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.<sup>1</sup> See Holmes & McDermid in Curtis (2010) for detailed information on methods.<sup>2</sup>

### 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.<sup>3</sup> 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 2017/2018 value		Range 2017/2018 value
		Mean cost	Median cost	
Residential	Per child per night (24-hour period)	£310	£340	£82-£477
Family-based overnight	Per child per night (24-hour period)	£201	£173	£165-£266
Day care	Per child per session (8 hours)	£154	£143	£117-£241
Home support	Per family per hour	£25	£25	£21-£30
Home sitting	Per family per hour	£22	£22	£13-£31
General groups	Per session	£392	£447	£114-£723
Afterschool clubs	Per session	£329	£320	£282-£389
Weekend clubs	Per session	£366	£367	£349-£380
Activity holidays	Per child per break	£1,510	£975	£133 <sup>a</sup> -£4,355 <sup>b</sup>

<sup>a</sup> Short break of two days

<sup>b</sup> 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 2017/2018 value	London cost 2017/2018 value
<b>Referral and assessment processes</b>		
Local Core Offer eligibility models <sup>4</sup>	Not available	£14
Common Assessment Framework panel	£219	Not available
Initial assessment	£395	£362
Core assessment	£594	£835
Resource panels for short-break services <sup>5</sup>	£112	£61
<b>Ongoing support</b>		
Ongoing support	£90	£117
Reviews	£228	£307

<sup>1</sup> 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.

<sup>2</sup> 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.

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

<sup>4</sup> '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.

<sup>5</sup> 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 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)<sup>1</sup> 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 <b>Ascend Programme</b> 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.	<b>Staff cost</b> £7,385 <b>Programme cost</b> £171 <b>Total</b> £7,555
The <b>Cygnnet programme</b> 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.	<b>Staff cost</b> £4,007 <b>Programme cost</b> £190 <b>Total</b> £4,197
The <b>Confident Parenting Programme</b> 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.	<b>Staff cost</b> £3,606 <b>Programme cost</b> £251 <b>Total cost</b> £3,857
<b>Riding the Rapids</b> 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.	<b>Staff cost</b> £3,223 <b>Programme cost</b> £283 <b>Total cost</b> £3,506
The <b>Promoting Better Sleep Programme</b> 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 attend 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.	<b>Staff cost</b> £1,799 <b>Programme cost</b> £123 <b>Total cost</b> £1,922

<sup>1</sup> 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.

## 6.13 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 practice 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.<sup>1</sup>

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 (2014 costs). Although not obligatory, group leaders are encouraged to apply for certification/accreditation (£270, 2014 costs). 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 2013/2014 costs and uprated using the appropriate inflators.

Costs and unit estimation	2017/2018 value	Notes
<b>Start-up costs</b>		
Group leader training	£1,588 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. Costs for video cameras should be included if sessions are to be filmed.
<b>Group leaders</b>		
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.
<b>Teachers attending programme</b>		
Supply cover	£10,525 per year	Supply cover provided for the 10 teachers attending the course at £162 per day for 6 days.
<b>Incredible Years professional</b>		
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
<b>Unit Costs for 2017/2018</b>		
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.		

<sup>1</sup> 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.

## 6.14 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. All costs have been updated from 2016/2017 to 2017/2018 levels using the PSS inflators.

Costs and unit estimation	2017/2018 value	Notes (for further clarification see Commentary)
A. Wages/salary	£88,679 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	£18,798 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	£35,389 per year	This includes a services manager (21 hours per week) and an administrative assistant (18 hours per week).
Direct overheads	£3,700 per year	This includes rent, utilities, venue hire
Indirect overheads	£17,614 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	£3,591	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 made available through partnerships with external suppliers.
F. Capital overheads	£20,261 per year	This includes an amount of £2,617 per head for equipment and buildings owned by the national children's charity.
G. Travel	£5,130 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	On average, advocates spend 10 hours per case: 85 per cent of cases require 10 hours or less face-to-face time.
<b>Unit costs available 2017/2018</b>		
Average cost per working hour £38, average cost per client-related hour £74. Average cost per advocacy intervention £743.		

\* as estimated by the provider organisation

## 6.15 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. All costs have been updated from 2016/2017 to 2017/2018 levels using the PSS inflators.

Costs and unit estimation	2017/2018 value	Notes (for further clarification see Commentary)
A. Wages/salary	£60,870 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	£13,820 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	£20,466 per year	This includes a services manager (PW111) (33% client-facing time) and an administrative assistant (12.5 hours per week).
Direct overheads	£2,467 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	£14,386 per year	This includes the finance, central management and human resources function.
D. Qualifications	No costs available	
E. Training	£2,052 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	£11,578 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	£5,387 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.
<b>Unit costs available 2017/2018</b>		
Average cost per working hour £46, average cost per client-related hour £91. Average cost per counselling intervention £1,092.		

## **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 NHS reference costs for sexual health

7.9 Screening interventions for sexually-transmitted infections





## 7.1 NHS reference costs for hospital services

'Reference costs are the average unit cost to the NHS of providing defined services to NHS patients in England in a given financial year. They show how NHS providers spend money to provide health care to patients.'<sup>1</sup> We have drawn on *NHS Improvement, Reference Costs 2016/2017* to report on the NHS reference costs for selected mental health services.<sup>1</sup> All costs have been updated to 2017/2018 prices using the Health Services (HS) inflator (see Preface for more information on this new inflator).

In previous years, the reference costs have been provided by the Department of Health (now Department of Health and Social Care) using the following guidance: <https://www.gov.uk/government/collections/nhs-reference-costs>. This year NHS Improvement have published new guidance: <https://improvement.nhs.uk/resources/approved-costing-guidance/>. Future plans for the reference cost collection can be found in the following weblink:

[https://improvement.nhs.uk/documents/2359/National\\_cost\\_collection\\_guidance\\_2018\\_April.pdf](https://improvement.nhs.uk/documents/2359/National_cost_collection_guidance_2018_April.pdf).

	National average	Lower quartile	Upper quartile
<b>Elective/non-elective Health Care Resource Group (HRG) data, average cost per episode</b>			
Elective inpatient stays	£3,720	£2,452	£4,055
Elective inpatient stays (inc. carbon impact 876 kgCO <sub>2</sub> e) <sup>2</sup>	£3,756		
Non-elective inpatient stays (long stays)	£3,026	£2,094	£3,377
Non-elective inpatient stays (long stays) (inc. carbon 712 kgCO <sub>2</sub> e) <sup>2</sup>	£3,056		
Non-elective inpatient stays (short stays)	£626	£414	£714
<b>Day cases HRG data (finished consultant episodes)</b>			
Weighted average of all stays	£745		
Weighted average of all stays (inc. carbon 175 kgCO <sub>2</sub> e) <sup>2</sup>	£752	£486	£848
<b>Outpatient attendances<sup>3</sup></b>			
Weighted average of all outpatient attendances	£134	£96	£160
Weighted average of all outpatient attendances (inc. carbon 32 kgCO <sub>2</sub> e) <sup>2</sup>	£135		
<b>PALLIATIVE CARE</b>			
Inpatient, specialist palliative care (adults only), average cost per bed day	£404	£301	£521
Inpatient, hospital specialist palliative care support (adults only)	£201	£27	£332
Outpatient, medical specialist palliative care attendance (adults and children)	£108	£48	£113
<b>AMBULANCE SERVICES (Weighted average of attendances)</b>			
Calls	£7	£6	£8
Hear and treat and refer	£38	£31	£24
See and treat and refer (including carbon 43 kgCO <sub>2</sub> e) <sup>2</sup>	£184 (£186)	£169	£200
See and treat and convey (including carbon 59 kgCO <sub>2</sub> e) <sup>2</sup>	£250 (£252)	£220	£260
Average of all	£120	£107	£127
<b>COMMUNITY SERVICES, average cost per group session (one-to-one)</b>			
Physiotherapy	£46 (£54)	£37 (£44)	£59 (£63)
Occupational therapy	£70 (£78)	£65 (£54)	£68 (£99)
Speech therapy services	£119 (£97)	£107 (£69)	£138 (£113)
Dietician	£86	£52	£103

<sup>1</sup> NHS Improvement (2017) *Reference Costs*, NHS Improvement, <https://improvement.nhs.uk/resources/reference-costs/> [accessed 1 November 2018].

<sup>2</sup> 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. Based on the Sustainable Development Unit carbon footprint of the health, social care and public health system: <https://www.sduhealth.org.uk/policy-strategy/reporting/natural-resource-footprint-2018.aspx>. See Preface for more information.

<sup>3</sup> 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.<sup>1</sup> 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 information<sup>2</sup> suggests that powered wheelchairs range from £1000-£5000 and self- or attendant-propelled wheelchairs range from £100-£1,300.

Type of chair	Total value 2017/2018	Annual cost 2017/2018	Notes
Capital costs			
Self- or attendant-propelled	£306	£68	Capital value has been annuitised over five years at a discount rate of 3.5 per cent to allow for the expected life of a new chair. In practice, 50 per cent of wheelchairs supplied have been reconditioned, not having been worn out by the time their first users ceased to need them.
Active user	£764	£169	
Powered	£1,528	£338	
Revenue costs			
Maintenance			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.
- non-powered		£33	
- powered		£129	
Agency overheads			No estimate of management overhead costs is available. They are likely to be minimal.
<b>Unit costs available 2017/2018</b>			
£101 per self or attendant propelled chair per year; £202 per active user per chair per year; £468 per powered chair per year.			

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

<sup>2</sup> 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/>). The aim of the study was to identify the process and resources used to supply equipment and adaptations, as well as quantifying the time inputs of the staff involved and the cost of the equipment or materials used. The research differentiated between the time taken to supply and install minor adaptations (generally those under £1,000) and major adaptations (those costing over £1,000) and also provided time inputs of the staff involved in administering the process and assessing clients.<sup>1</sup> See <https://www.pssru.ac.uk/blog/category/adaptation/> for further information.

In Tables 1-2, we have provided the total average mean costs of major and minor adaptations including ranges, and in Tables 3-4 the costs of staff preparation and assessment time are provided. Handyman/contractor time is included for minor adaptations in table 3. 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.<sup>2</sup> The costs have been updated from 2013/2014 costs using the PSS Pay and Prices inflator.

**Table 1 Major adaptations, including installation costs**

	Sample size	Lowest cost	Highest cost	Mean cost	Mean annual equipment cost (3.5% discount)
Level-access shower	21	£2,730	£13,102	£5,078	£609
Stair lift (straight)	21	£1,146	£3,088	£2,046	£245
Stair lift (more complex)	7	£2,511	£7,220	£4,983	£598
Convert room for downstairs WC /washroom	7	£3,057	£24,021	£10,761	£1,291
Build downstairs extension for WC/washroom	5	£13,102	£32,756	£24,635	£2,956
Build downstairs extension for bedroom	5	£13,102	£49,133	£29,168	£3,500
Build downstairs extension for bedroom and en suite facilities	6	£25,113	£49,133	£36,729	£4,407
<b>Total</b>	<b>52</b>				

<sup>1</sup> Curtis, L. & Beecham, J. (2018) A survey of local authorities and Home Improvement Agencies: Identifying the hidden costs of providing a home adaptations service, *British Journal of Occupational Therapy*, <http://journals.sagepub.com/doi/full/10.1177/0308022618771534> [accessed 6 November 2018].

<sup>2</sup> See <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government> [accessed 6 November 2018].

**Table 2 Minor adaptations (materials only)**

	Sample size	Lowest cost	Highest cost	Mean cost	Mean annual equipment cost (3.5% discount)
Fit handrail – external	8	£5	£25.30	£13.80	£1.70
Fit handrail – internal	10	£4.70	£20.90	£9.90	£1.20
Fit handrail to bath	8	£4.40	£13.10	£7.60	£0.90
Fit over bath shower	6	£271	£1878	£1098	£132
Create step to front/back door	8	£5	£1565	£742	£89
Create ramp to front/back door	5	£125	£417	£334	£40
Lay new path, per metre cost	3	£0	£0	£0	£0
Widen doorway for wheelchair access	6	£6	£497	£104	£12.60
Install lighting to outside steps/path	5	£3	£157	£63	£7.50
Move bed to downstairs room	3	£0	£0	£0	£0
Raise electrical sockets/lower light switches	6	£4	£93	£5.30	£0.63

**Table 3 Mean costs for staff involved in the process of providing minor adaptations**

	Average cost				Total mean staff cost
	Initial enquiry	OT	HIA administrator	Handyman/Contractor	
Fit handrail – external	£4	£53	£14	£11	£82
Fit handrail – internal	£4	£46	£17	£24	£90
Fit handrail to bath	£4	£27	£13	£15	£59
Fit over bath shower	£4	£53	£23	£296	£376
Create step to front/back door	£4	£84	£17	£33	£137
Create ramp to front/back door	£4	£228	£17	£323	£572
Lay new path, per metre cost	£4	£122	£27	NA	£153
Widen doorway for wheelchair access	£4	£286	£22	£219	£536
Install lighting to outside steps/path	£4	£202	£7	£230	£442
Move bed to downstairs room	£4	£49	£23	£41	£118
Raise electrical sockets/lower light switches	£4	£99	£20	£41	£164

**Table 4 Mean costs for staff involved in providing major adaptations**

	Initial enquiry	Average cost					Total cost
		OT	LA grants officer	HIA technical officer	HIA caseworker	Administrators (HIA and LA)	
Level access shower	£4	£133	£250	£431	£171	£119	£1,108
Stairlift (straight)	£4	£46	£101	£123	£283	£79	£636
Stairlift (more complex)	£4	£99	£409	£314	£57	£94	£977
Convert room for downstairs WC/washroom	£4	£316	£428	£689	£165	£229	£1,831
Build downstairs extension for WC washroom	£4	£517	£642	£1,619	£86	£198	£3,067
Build downstairs extension for bedroom and en-suite facilities	£4	£677	£733	£1,305	£222	£325	£3,267

Notes to tables: OT: Occupational Therapist, LA: Local Authority, HIA: Home improvement agency

## 7.4 Public health interventions

These costs are drawn from *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).<sup>1</sup> 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 2017/2018 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*<sup>2</sup> 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		£187	£710		£897
Workplace intervention	£604				£604
Physical activity education and workplace visit		£187	£710	£53	£951

### 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 £6 for a practice nurse to £34 for a GP (excluding qualifications) (see Tables 10.2 and 10.3b 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 £88 and £196 per person.

<sup>1</sup> North West Public Health Observatory (2011) *A review of the cost-effectiveness of individual level behaviour change interventions*, Health and Wellbeing Alliance, Manchester. <https://lx.iriss.org.uk/content/review-cost-effectiveness-individual-level-behaviour-change-interventions> [accessed 6 November 2018].

<sup>2</sup> <https://www.nice.org.uk/guidance/ph19>

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## 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 £2.21 per person. Estimates of cost are higher when the unit receiving the intervention is defined as those potentially exposed to the campaign (£29-£53).

**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 (£49-£169 per person), bupropion (£93-£99 per person), and combinations of NRT and bupropion (£186-£192 per person).

**A ten-minute opportunistic brief advice session** for smoking costs £34 with a GP and £6 with a practice nurse (excluding qualifications) (see Tables 10.2 and 10.3b of this publication).

### 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 £38.

## 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 as new costs become available.

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

Andrew Farmer & colleagues (2017)<sup>1</sup> 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 (£18). To provide an annual cost, we have used the costs provided by Farmer & colleagues (2017)<sup>1</sup> 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
<b>Equipment costs</b>		
Tablet computer (Android tablet computer (Samsung Galaxy Tab)	£331	£73
Bluetooth-enabled pulse oximeter probe	£415	£92
Clinician reviewing summary of the oxygen saturation, heart rate, and symptom diary module, twice weekly.		£466
<b>Total costs</b>		<b>£632</b>

<sup>1</sup> 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.imir.org/article/viewFile/imir\\_v19i5e144/2](https://www.imir.org/article/viewFile/imir_v19i5e144/2).



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

This 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 Failure 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.

Cockayne 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.<sup>1</sup> Table 2 provides the costs of the programme per patient. These costs have been updated from 2008/2009 to current values.

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

<b>Nurse training</b>	<b>Resources/unit costs per hour</b>	<b>Cost per patient</b>
Number of nurses in self-management	7	
Training (in hours, per nurse)	2	
Hourly cost of a practice nurse (with qualifications)	£36 (£42)	
Number of patients in self-management	95	
<b>Training cost per patient</b>		£5.30
<b>Nurse-facilitated self-management programme</b>		
First visit (minutes)	60	
Five follow-up visits, 20 minutes each		
<b>Costs of visits, per patient</b>	-	£96.10
<b>Total programme cost, per patient</b>	-	<b>£101.50</b>

<sup>1</sup> 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 (SEMAPHFOR): a randomised controlled trial, *International Journal of Nursing Studies*, 51, 1207-1213.

## 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.<sup>1</sup> 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 also *National Survey of Patient Activity Data* for more information on specialist palliative care services.<sup>2</sup>

Costs and unit Estimation	2017/2018 value	Notes
A. Wages/salary	£272,371 per year	Based on mean Agenda for Change (AfC) salaries for 18 band 3 health care assistants (HCAs) <sup>3</sup> who spend 85 per cent of their time on duties related to the RRS.
B. Salary oncosts	£59,517 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	£38,998 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	£16,595 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	£143,043 per year	Taken from <i>NHS foundation trusts accounts: consolidated (FTC) files 2014/15</i> . <sup>4</sup> 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	£4,407 per year	Based on the new-build and land requirements of NHS facilities. <sup>5,6</sup> 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	£124,386 per year	£12.30 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.
<b>Unit costs available 2017/2018</b>		
Total annual costs £659,318; cost per hour of service £76; average cost per patient (referral) £1,081 (£984).		

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> NHS Digital (2018) *NHS staff earnings estimates, 12-month period from May 2017 – April 2018* (not publicly available), NHS Digital, Leeds.

<sup>4</sup> 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]

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

<sup>6</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

## 7.7 Specialist neuro-rehabilitation services

Specialist rehabilitation services<sup>1</sup> 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. They are consultant-led and supported by a multi-professional team who have undergone recognised specialist training in rehabilitation.<sup>2,3</sup>

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.<sup>4</sup> 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).<sup>5</sup> 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.

**Table 1 2017/2018 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 <sup>b</sup> )	Mean cost (ranges) per weighted occupied bed day (excluding <sup>b</sup> )
<b>Level 1 - Tertiary 'specialised' rehabilitation services:</b> 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.		
<b>Level 1a</b> - for patients with high physical dependency	£585 (£508 - £672)	£438 (£377 - £482)
<b>Level 1b</b> - mixed dependency	£522 (£470 - £563)	£390 (£334 - £426)
<b>Level 1c</b> - mainly physically stable patients with cognitive/behavioural disabilities. <sup>a</sup>	£697 (£634 - £781)	£525 (£474 - £584)
<b>Level 2 – Local (district) specialist services:</b> 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.		
<b>Level 2a</b> - supra-district specialist rehabilitation services	£473 (£347 - £562)	£378 (£248 - £478)
<b>Level 2b</b> - local specialist rehabilitation services	£446 (£339 - £548)	£373 (£318 - £455)
<b>Hyper-acute</b> - 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.		
<b>Hyper-acute</b>	£718 (£683 - £752)	£448 (£423 - £473)

a. Based on only two services

b. MFF (Market Forces Factor)

<sup>1</sup> 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](mailto:lnwh-tr.ukroc@nhs.net).

<sup>2</sup> British Society of Rehabilitation Medicine (2015) *Specialised Neurorehabilitation Service Standards*, BSRM London.

<sup>3</sup> <http://www.england.nhs.uk/commissioning/spec-services/npc-crg/group-d/d02/>

<sup>4</sup> British Society of Rehabilitation Medicine (2013) *Core standards and major trauma*, London: <http://www.bsrm.co.uk/Publications.html#BSRMstandards> [accessed 10 November 2015]

<sup>5</sup> 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

'Reference costs are the average unit cost to the NHS of providing defined services to NHS patients in England in a given financial year. They show how NHS providers spend money to provide health care to patients.'<sup>1</sup> We have drawn on *NHS Improvement, Reference Costs 2016/2017* to report on the NHS reference costs for selected mental health services.<sup>1</sup> All costs have been updated to 2017/2018 prices using the Health Services (HS) inflator (see Preface for more information on this new inflator).

In previous years, the reference costs have been provided by the Department of Health (now Department of Health and Social Care) using the following guidance: <https://www.gov.uk/government/collections/nhs-reference-costs>. This year NHS Improvement have published new guidance: <https://improvement.nhs.uk/resources/approved-costing-guidance/>. Future plans for the reference cost collection can be found in the following weblink:

[https://improvement.nhs.uk/documents/2359/National\\_cost\\_collection\\_guidance\\_2018\\_April.pdf](https://improvement.nhs.uk/documents/2359/National_cost_collection_guidance_2018_April.pdf).

	National average
<b>Genito-Urinary Medicine (GUM) infections</b>	
<b>Elective/non elective Health Care Resource Group (HRG) data, average cost per episode</b>	
Elective inpatient stays	£3,452
Non-elective inpatient stays (long stays)	£2,209
Non-elective inpatient stays (short stays)	£744
<b>Day cases HRG data (finished consultant episodes)</b>	£405
<b>Consultant-led (Multi-professional)</b>	
Non-admitted, face-to-face, first	£140
<b>Non-consultant-led</b>	
Non-admitted, face-to-face, first	£107
Non-admitted, face-to-face, follow-up	£99
<b>Community health services</b>	
HIV/AIDS specialist nursing (adult)	
Face-to-face	£77
Non face-to-face	£43
<b>Outpatient attendances</b>	
Family planning clinic, consultant led	£89
Family planning clinic, non-consultant led	£93

<sup>1</sup> NHS Improvement (2017) *Reference Costs*, NHS Improvement, <https://improvement.nhs.uk/resources/reference-costs/> [accessed 1 November 2018].

## 7.9 Screening interventions for sexually transmitted infection (STI)

In 2013, Louise Jackson and colleagues (2014)<sup>1</sup> 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, sexual health advisor-led and poster-only), 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 2012/2013 costs using the appropriate inflators.

**Table 1**

### Health Service Costs per intervention and player

Resources used	Cost item	Unit cost £	N	Total cost £
<b>Intervention costs</b>				
Recruitment of club	Per club	£593	2	£1,188
Poster pack	Per pack	£57	2	£115
Test kit	Per player	£6.00	46	£277
Promotion	Per club	Captain-led <sup>1</sup> £143 Health advisor-led <sup>2</sup> £258 Poster-only <sup>3</sup> £143	2	Captain-led <sup>1</sup> £287 Health advisor-led <sup>2</sup> £517 Poster-only <sup>3</sup> £287
Specimen collection box <sup>4</sup>	Per club	£59		£118
Transport of specimen collection box	Per club	£144		£288
<b>Processing costs</b>				
Additional storage facilities <sup>4</sup>		£12		£25
Sample processing	Per player tested	£11	Captain-led 28 Health advisor-led 31 Poster-only 31	£320 £355 £355
Patient admin and notification of results	Per player tested	£5.40	Captain-led 28 Health advisor-led 31 Poster-only 31	£151 £167 £167
<b>Total cost per intervention</b>				<b>Captain-led - £2,768 Health advisor-led - £3,048 Poster-only - £2,819</b>
<b>Average cost per player screened</b>			<b>Captain-led 28 Health advisor-led 31 Poster-only 31</b>	<b>Captain-led - £99 Health advisor-led £98.30 Poster-only- £90.90</b>

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.

4) 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

<sup>1</sup> Jackson, L., Roberts, T., Fuller, T., Sebastian, S., Sutcliffe, L., Saunders, J., Copas, A., Mercer, C., Cassell, J. & Estcourt, C. (2014) Exploring the costs and outcomes of sexually transmitted infection (STI) screening interventions targeting men in football club settings: preliminary cost-consequence analysis of the SPORTSMART pilot randomised controlled trial. *Sexually Transmitted Infections*, 91 (2). Pp. 100-105. <http://sro.sussex.ac.uk/53486/1/100.full.pdf> [accessed 27 November 2018].

## **8. Care packages**

- 8.1 Health care support received by people with mental health problems, older people (over 75) and other service users
- 8.2 Services for children returning home from care
- 8.3 Patient costs following discharge from acute medical units
- 8.4 End of life care
- 8.5 Smoking cessation services
- 8.6 Social prescribing
- 8.7 Obsessive compulsive disorder



## 8.1 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*<sup>1</sup> and provides information on participants' health service use 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
<b>All service users</b>			
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
<b>People with mental health problems</b>			
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
<b>People aged over 75</b>			
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

<sup>1</sup> 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.



## 8.2 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.<sup>1</sup>

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 8.2.1 to 8.2.4 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.<sup>2</sup> They make use of existing unit costs that have been estimated in previous research studies carried out by the CCFR.<sup>2,3,4</sup> 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 2017/2018 financial year. Where costs have been taken from research completed in previous years, they have been inflated to 2017/2018. The unit costs of support foster care were estimated for the Fostering Network, and have been included in these case studies with their permission.<sup>5</sup>

<sup>1</sup> 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].

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

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

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

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

### 8.2.1 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 placing 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.

<b>Social care processes (case management)</b>			
<b>Process</b>	<b>Frequency</b>	<b>Unit cost</b>	<b>Sub-total</b>
LAC 1 – became LAC (looked-after child)	Twice	£1,431	£2,861
LAC 2 – care plan	Once a fortnight	£270	£540
LAC 3 – ongoing placement support	Six months in total	£3,280	£19,682
LAC 4 – return home	Once	£466	£466
LAC 6 – review	Twice	£694	£1,388
<b>Total social care case management costs per year</b>			<b>£24,937</b>

### 8.2.2 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.

<b>Social care processes (case management)</b>			
<b>Process</b>	<b>Frequency</b>	<b>Unit cost</b>	<b>Sub-total</b>
CiN 3 – ongoing support	12 months	£224	£2,685
CiN 6 – planning and review	3 times	£258	£773
<b>Cost of social care case management activity</b>			<b>£3,458</b>
Additional service costs (out of London)			
Drug and alcohol treatment services	Once a fortnight	£136	£3,526
<b>Total social care case management and service costs per year</b>			<b>£6,984</b>

### 8.2.3 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.<sup>1</sup> 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.

<b>Social care processes (case management)</b>			
<b>Process</b>	<b>Frequency</b>	<b>Unit cost</b>	<b>Sub-total</b>
LAC 2 – carer plan	Twice	£269	£538
LAC 3 – ongoing placement support	10 months	£13,396	£133,962
LAC 4 – return home	Once	£466	£466
LAC 6 – review	Twice	£694	£1,388
Support foster care – ongoing	2 months	£777	£1,555
Support foster care – referral	Once	£443	£443
<b>Total social care case management costs per year</b>			<b>£138,351</b>

### 8.2.4 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 Child in Need (CiN) support provided during the first three months of 2012.

<b>Social care processes (case management)</b>			
<b>Process</b>	<b>Frequency</b>	<b>Unit cost</b>	<b>Sub-total</b>
CiN 3 – ongoing support	3 months	£1,211	£3,634
CiN 4 – close case	Once	£111	£111
<b>Total social care case management costs per year</b>			<b>£3,745</b>

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

### 8.3 Patient costs following discharge from acute medical units

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 readmission rates for older people in the year following discharge from AMUs are high.<sup>1</sup> 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 2017/2018 prices using the Health Services (HS) 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 available. The mean cost for the 456 patients (excluding primary care) was £1,979, and £1,955 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 Health Services (HS) inflator).**

	No. of service users (mean number of events per service user) <sup>(a)</sup>	Mean (SD) cost (£) for 456 patients	Mean (SD) cost (£) per patient including primary care (n = 250)
Hospital care	360 (4)	£1,736 (£3,463)	£1,657 (£3,209)
Inpatient care <sup>(b)</sup>	119 (2)	£1,192 (£3,244)	£1,089 (£2,994)
Day case care	71 (1)	£146 (£424)	£156 (£471)
Outpatient care	358 (3)	£389 (£414)	£396 (£372)
Critical care <sup>(c)</sup>	8 (1)	£8 (£101)	£15 (£137)
Ambulance service	20 (2)	£20 (£119)	£16 (£85)
Intermediate care	11 (Not applicable)	£12 (£169)	£3 (£43)
Mental health care	28 (4)	£42 (£199)	£48 (£196)
Social care	76 (4)	£169 (£788)	£230 (£963)
<b>Total costs (exc. primary care)</b>	<b>377 (5)</b>	<b>£1,979 (£3,685)</b>	<b>£1,955 (£3,524)</b>
Primary care <sup>(d)</sup>	243 (6)	-	£249 (£262)
Consultations	113 (3)	-	£32 (£47)
Home visits	42 (7)	-	£27 (£110)
Procedures	25 (3)	-	£4 (£22)
Other events <sup>(e)</sup>	202 (22)	-	£58 (£61)
Medication	232 (21)	-	£117 (£149)
Wound dressings	64 (4)	-	£121 (£36)
<b>Total costs including primary care <sup>(f)</sup></b>	<b>248 (7)</b>	<b>-</b>	<b>£2,204 (£3,577)</b>

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))

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) where data were available.

<sup>1</sup> 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.

The mean cost for these high cost patients across all services excluding primary care was £6,337, and £6,731 when including primary care. These mean costs for high-cost patients are approximately three times higher than the mean cost estimates for all patients discharged from AMU shown in Table 1 (mean total cost excluding primary care: £6,337 versus £1,955; mean total cost including primary care: £6,731 versus £2,204).

**Table 2 High-cost patients discharged from AMU (top 25% of most costly patients - costs have been updated using the Health Services inflator)**

	No. of high-cost service users, (mean number of events per service user) (n = 63) <sup>(a)</sup>	Mean (SD) cost per high cost patient (n = 63)
Hospital care	62 (6)	£5,348 (£4,711)
Inpatient care <sup>(b)</sup>	52 (3)	£4,155 (£4,805)
Day case care	24 (1)	£495 (£801)
Outpatient care	61 (4)	£639 (£385)
Critical care <sup>(c)</sup>	3 (1)	£60 (£270)
Ambulance service	5 (2)	£33 (£129)
Intermediate care	2 (not applicable)	£14 (£86)
Mental health care	12 (4)	£136 (£331)
Social care	27 (4)	£806 (£1,784)
<b>Total costs (excl. primary care)</b>	<b>63 (9)</b>	<b>£6,337 (£4,798)</b>
Primary care <sup>(d)</sup>	27 (11)	£393 (£400)
Consultations	26 (3)	£30 (£48)
Home visits	16 (12)	£67 (£201)
Procedures	4 (1)	£1 (£5)
Other events <sup>(e)</sup>	53 (28)	£86 (£81)
Medication	57 (32)	£189 (£212)
Wound dressings	22 (5)	£20 (£49)
<b>Total costs including primary care <sup>(f)</sup></b>	<b>63 (14)</b>	<b>£6,731 (£4,759)</b>

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 non 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))

## 8.4 End of life care

Research carried out by the Nuffield Trust<sup>1</sup> 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 (£2,027 per decedent). Elective inpatient costs more than tripled in the same period (from £78 to £288 per decedent). Costs have been updated from 2010/2011 to 2017/2018 prices using the Personal Social Services (PSS) and Health Services (HS) pay and prices inflators.

**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
<b>Hospital care</b>	<b>£539</b>	<b>£7,361</b>	<b>66%</b>	<b>65,624</b>	<b>£8,216</b>
Inpatient emergency	£383	£5,231	47%	54,577	£7,020
Inpatient non-emergency	£102	£1,395	12%	58,165	£1,757
Outpatient	£44	£600	5%	50,155	£877
A&E	£10	£135	1%	48,000	£205
<b>Social care</b>	<b>£293</b>	<b>£3,995</b>	<b>34%</b>	<b>20,330</b>	<b>£14,394</b>
Residential and nursing care	£235	£3,203	28%	10,896	£20,817
Home care	£45	£619	5%	10,970	£4,135
Other	£13	£172	1%	4,084	£3,093
<b>Total</b>	<b>£832</b>	<b>£11,356</b>	<b>100%</b>	<b>73,243</b>	<b>NA</b>

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, and social care costs decreased with an increasing number of long-term conditions.

<sup>1</sup> 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	£7,361	£3,996	£11,357
No diagnoses	22,118	£3,624	£4,910	£8,535
Any diagnosis	51,125	£8,977	£3,600	£12,577
Hypertension	21,241	£10,047	£3,303	£13,350
Cancer	19,934	£10,524	£1,543	£12,066
Injury	17,540	£10,841	£4,799	£15,640
Atrial fibrillation	13,567	£10,150	£3,912	£14,062
Ischaemic heart disease	13,213	£10,297	£3,333	£13,630
Respiratory infection	11,136	£11,267	£2,654	£13,921
Falls	10,560	£9,961	£6,075	£16,036
Congestive heart failure	10,474	£10,346	£3,786	£14,131
Chronic obstructive pulmonary disease	9,392	£10,107	£2,983	£13,090
Anaemia	9,210	£11,868	£3,597	£15,465
Diabetes	8,697	£10,330	£3,715	£14,045
Cerebrovascular disease	8,290	£10,172	£4,944	£15,116
Peripheral vascular disease	6,780	£11,720	£3,295	£15,015
Dementia	6,735	£8,484	£10,591	£19,075
Renal failure	6,570	£11,828	£3,803	£15,631
Angina	6,549	£11,061	£3,370	£14,430
Mental disorders, not dementia	4,814	£11,093	£4,281	£15,374
Iatrogenic conditions	4,190	£15,987	£3,002	£18,989
Asthma	3,480	£10,737	£2,942	£13,680
Alcoholism	2,437	£9,792	£1,374	£11,166
Non-rheumatic valve disorder	2,059	£12,056	£2,595	£14,650

## 8.5 Smoking cessation services

Quit 51 offer a smoking cessation service in accordance with National Institute for Health and Care Excellence (NICE) guidelines (<https://www.nice.org.uk/guidance/ng92>). The remit of the service is to provide a maximum of 12 sessions of support with an accredited adviser and provision of tailored pharmacotherapy to smokers attempting to quit. A session is typically 15 minutes duration although the introduction to a session will generally take longer in order to cover triaging and discussions around individual background and requirements. Assuming a patient continues with the service for the full duration, they should receive a minimum of 90 minutes contact time with an adviser covering a period up to 12 weeks after quitting.

Information for this schema has been drawn from Walker et al. (2018)<sup>1</sup> who analysed data from Quit-51 smoking cessation service across five English regions between March 2013 and March 2016 (n=9116). A cost for each individual using the service was estimated based on the pharmacotherapy prescribed and time spent with an adviser. With respect to pharmacotherapy, the costs, including prescription and value added tax (VAT) for each treatment were as follows : NRT (combination) - £20.60 per week; Varenicline - £79.30 per month and Bupropion £71.70 per month. Service use data was multiplied by an hourly charge of £27.20 that included the cost of the adviser, room, equipment, travel and advertising. Central overhead costs for the service were not included and neither were costs to the individual for travel and parking.

The following table provides the average cost per person quitting (with approximate 95% CI) calculated at the 12 week time point, with supporting information. The average cost per quitter was £416.70 with a significant degree of variation seen across certain subgroups of the client population. Costs have been updated from 2015/2016 to current values using the Health Services (HS) pay and prices inflator. See <https://www.herc.ox.ac.uk/publications/830311> for a summary of the background and method used to derive the costs reported here.

**Table 1 Average cost per quit (with approximate 95% CI) calculated at the 12 week time point, with supporting information.**

Variable	Levels	12 weeks	Total cost	Cost per head	Number quitting	Quit rate (%)	Mean cost per quit (£)
Age	12-19	509	£50,724	£100	116	23	£437
	20-29	1189	£131,633	£111	296	25	£445
	30-49	3911	£528,874	£135	1262	32	£419
	50-69	2955	£433,563	£147	1068	36	£406
	70+	538	£77,480	£144	192	36	£404
Gender	Male	4249	£579,584	£136	1425	33	£407
	Female	4867	£643,306	£132	1510	31	£426
Treatment	Nicotine replacement therapy	7373	£877,723	£119	2117	29	£415
	Varenicline/champix	1708	£340,723	£199	799	47	£426
	Bupropion/Zyban	35	£4,444	£127	19	54	£234
FTND <sup>2</sup>	0-3	1534	£244,228	£159	622	41	£391
	4-5	1884	£309,056	£164	727	39	£425
	6-7	1676	£278,938	£166	641	38	£435
	8-10	766	£124,083	£162	236	31	£526
Deprivation	1-3	886	£140,444	£159	319	36	£440
	4-6	1838	£274,716	£149	635	35	£433
	7-8	2157	£310,050	£144	698	32	£444
	9-10	3321	£465,970	£140	1180	36	£395

<sup>1</sup> Walker, N., Yang, Y., Kiparoglou, V., Pokhrel, S., Robinson, H. & van Woerden, H. (2018) An examination of user costs in relation to smokers using a cessation service based in the UK, *BMC Health Services Research* (2018) 18:182

<sup>2</sup> FTND = Fagerstrom test for nicotine dependence.



## 8.6 Social prescribing

Social prescribing enables GPs, nurses and other primary care professionals to refer people to a range of local, non-clinical services. Social prescribing schemes can involve a variety of activities which are typically provided by voluntary and community sector organisations. Examples include volunteering, arts activities, group learning, gardening, befriending, cookery, healthy eating advice and a range of sports: <https://www.kingsfund.org.uk/publications/social-prescribing>.

There is a growing body of evidence assessing the impact of social prescribing to healthcare demand and cost.<sup>1</sup> Much of the focus has been on the benefit of social prescribing where policy makers and commissioners have drawn from areas of good practice like Rotherham. In 2014, the Healthy London Partnership published evidence demonstrating the effectiveness of Social Prescribing in reducing patients use of hospital resources by a fifth in the 12 months following referral to a scheme: [http://i5health.com/SPReports/COP\\_Report\\_SP\\_EPP\\_SouthWestLondonSTP\\_ver2.0.pdf](http://i5health.com/SPReports/COP_Report_SP_EPP_SouthWestLondonSTP_ver2.0.pdf).

The Rotherham Social Prescribing pilot was commissioned by NHS Rotherham as part of a GP-led Integrated Case Management Pilot and delivered by Voluntary Action Rotherham (VAR). It received around £1m as part of a programme to provide 'additional investment in the community'. Funded for two years from April 2012 to March 2014, it aimed to increase the capacity of GP practices to meet the non-clinical needs of their patients with long-term conditions. The five most common types of referral to funded services were for information and advice, community activity, physical activities, befriending and enabling. Twenty-four voluntary and community organisations (VCOs) received grants to deliver a menu of 31 separate social prescribing services. One thousand six hundred and seven patients were referred to the service.<sup>2</sup>

Table 1 provides the direct costs to the Clinical Commissioning Group of commissioning the Pilot, but excludes other costs such as for the time taken to develop the service model and consultations with GPs and voluntary sector organisations, costs to the Foundation Trust which supported the development of a complex client management system and also volunteer time.

Excluding the grants provided to the VCOs for delivering the social prescribing services, the average cost per person per year for those referred to the scheme was £168. Including grants to providers and additional support grants, the average cost per person per year was £545. All costs have been uprated to 2017/2018 levels using PSS Inflaters.

**Table 1 Overview of Social Prescribing Pilot (Inputs).**

	Year 1	Year 2	Total	Cost per person per year
Grants to providers and additional support grants	£345,158	£328,191	£673,349	£377
Salaries and overheads	£238,399	£301,069	£539,468	£168
<b>Total</b>	<b>£583,557</b>	<b>£629,260</b>	<b>£1,212,817</b>	<b>£545</b>

<sup>1</sup> Polley, M., Bertotti, M. Kimberlee, R., Pilkinton, K., & Refsum, C. (2017) A review of the evidence assessing impact of social prescribing on healthcare demand and cost implications, University of Westminster.

<sup>2</sup> Dayson, C. & Bashir, N. (2014) The social and economic impact of the Rotherham Social Prescribing Pilot: Main Evaluation Report, Sheffield Hallam University, Centre for Regional Economic Research. <https://www4.shu.ac.uk/research/crest/sites/shu.ac.uk/files/social-economic-impact-rotherham.pdf>.

## 8.7. Low intensity interventions for the management of obsessive-compulsive disorder

Information for this schema has been drawn from a study carried out by Lovell et al. (2017)<sup>1</sup> to explore the cost-effectiveness of the three low intensity interventions described below for the management of obsessive-compulsive disorder (OCD):

- a) Cognitive-behavioural therapy delivered using OCFighter (received by 157 in the study), a commercially produced cCBT program for people with OCD to design, carry out and monitor their treatment progress. Participants randomised to OCFighter were given an access ID and password to log in to the system and advised to use the program at least six times over a 12 week period. OCFighter was available to patients for 12 months following activation. Participants received six brief (10 minute) scheduled telephone calls from a Psychological Wellbeing practitioner (PWP); (total direct clinical input 60 minutes). The support offered consisted of a brief risk assessment, ensuring patients had been able to access OCFighter, reviewing progress and solving any difficulties that were impeding progress.
- b) Guided self-help (received by 158 people in the study) which consisted of a self-help book focused on information about OCD, maintenance and provided guidance on how to implement the NICE-recommended treatment for OCD (i.e. CBT using exposure response therapy). Participants received six brief (10-minute) scheduled telephone calls from a psychological wellbeing practitioner (PWP), with one initial session of up to 60 minutes (either face to face or by telephone, dependent on patient preference) followed by up to 10-30 minute sessions over a 12-week period (total direct clinical input 6 hours).
- c) Waiting list for high-intensity CBT (received by 158 people).

Table 1 provides a breakdown of mean costs associated with the supported cCBT and guided self-help intervention. Table 2 provides total societal costs: health and social care costs which include the cost of the intervention and employment losses, out-of-pocket expenses and out-of-pocket savings. The costs have been uprated from 2013/2014 to current values.

The mean cost of the guided self-help intervention was over twice that of supported cCBT (£404 v £164). From baseline to 12 months, health and social care costs were almost identical between the three groups (supported cCBT=£1,758, guided self-help= £1,770 and waiting list=£1,834. In terms of total costs which includes employment losses, out-of-pocket expenses and out-of-pocket savings, over the 12-month period, guided self-help was the least expensive group (£2,382) compared with £2,404 for the cCBT group and £2,601 for the waiting list option.

<sup>1</sup> Lovell, K. Bower, P., Gellatly, J., Byford, S., Bee, P., McMillan, D., Arundel, C., Gilbody, S., Gega, L., Hardy, G., Reynolds, S., Barkham, M., Mottram, P., Lidbetter, N., Pedley, R., Molle, J., Peckham, E., Knopp-Hoffer, J., Price, O., Connell, J., Heslin, M., Foley, C., Plummer, G. and Roberts, C. (2017) Clinical effectiveness, cost-effectiveness and acceptability of low-intensity interventions in the management of obsessive-compulsive disorder: the Obsessive-Compulsive Treatment Efficacy randomised controlled Trial (OCTET). *Health Technology Assessment* (Winchester, England) 21(37).pp.1-132.

**Table 1 Cost of supported cCBT and guided self-help**

Cost component	Intervention mean cost	
	Supported cCBT	Guided self-help
Number of sessions attended	2.3	4.11
Total session minutes	30.2	142.9
Cost of materials (£)	£67	£5.80
Cost of training (£)	£20	£36
Cost of PWP contacts (£)	£76	362
Total cost (£)	£164	£404

**Table 2 Total societal costs between baseline and 3 months and between baseline and 12 months**

Costs	Intervention					
	Supported cCBT		Guided self-help		Waiting list	
	Valid n	Mean cost £	Valid n	Mean cost £	Valid n	Mean cost £
<b>Baseline to 3 months</b>						
Health and social care costs	157	£564	158	£761	158	£468
Employment losses, out-of-pocket expenses and out-of-pocket savings.	157	£252		£227	158	£205
<b>Total costs</b>	<b>157</b>	<b>£817</b>	<b>158</b>	<b>£989</b>	<b>158</b>	<b>£672</b>
<b>Baseline to 12 months</b>						
Health and social care costs	157	£1,758	158	£1,770	158	£1,834
Employment losses, out-of-pocket expenses and out-of-pocket savings.	157	£646	158	£612	158	£767
<b>Total costs</b>	<b>157</b>	<b>£2,404</b>	<b>158</b>	<b>£2,382</b>	<b>158</b>	<b>£2,601</b>

## **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 previously 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.

<b>Job titles by band</b>	
<b>Band 2</b>	Clinical support worker (Physiotherapy, Occupational therapy, Speech and Language therapy.)
<b>Band 3</b>	Clinical support worker, higher level (Physiotherapy, Occupational therapy, Speech and Language therapy).
<b>Band 4</b>	Occupational therapy technician, Speech and language therapy assistant/associate practitioner, Podiatry technician, Clinical psychology assistant practitioner, Pharmacy technician.
<b>Band 5</b>	Physiotherapist, Occupational therapist, Speech and language therapist, Podiatrist, Clinical psychology assistant practitioner (higher level), Counsellor (entry level).
<b>Band 6</b>	Physiotherapist specialist, Occupational therapist specialist, Speech and Language therapist specialist, Podiatrist specialist, Clinical psychology trainee, Counsellor, Pharmacist, Arts therapist (entry level).
<b>Band 7</b>	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.
<b>Band 8a</b>	Physiotherapist principal, Occupational therapist principal, Speech and Language therapist principal, Podiatrist principal.
<b>Band 8a-b</b>	Physiotherapist consultant, Occupational therapist consultant, Clinical psychologist principal, Speech and language therapist principal, Podiatric consultant (surgery), Arts therapist principal.
<b>Band 8a-c</b>	Counsellor professional manager, Counsellor consultant, Consultant speech and language therapist.
<b>Band 8c-d</b>	Clinical psychologist consultant, Podiatric consultant (surgery), Head of arts therapies, Arts therapies consultant.
<b>Band 8d-9</b>	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 (AfC) bands 4-9 of the May 2017/April 2018 NHS staff earnings estimates for allied health professionals.<sup>1</sup> See NHS terms and conditions of service handbook for information on payment for unsocial hours.<sup>2</sup> 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 £33,735; hospital occupational therapists, £32,487; speech and language therapists, £33,719; dietitians, £33,719.

### 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).<sup>3</sup> Current cost information has been provided by the Department of Health and Social Care and Health Education England (HEE).<sup>4</sup> To calculate the cost per hour including qualifications for each profession, the appropriate expected annual cost shown in schema 18 should be divided by the number of working hours. This can then be added to the cost per working hour.

### D Overheads

Taken from the 2013/2014 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.<sup>5,6</sup>

### 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.<sup>7</sup>

### G Working time

Working hours for each AfC band have been calculated by deducting sickness absence days as reported for NHS staff groups<sup>8</sup> 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 2014/2015 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.<sup>5,6,9</sup>

<sup>1</sup> NHS Digital (2018) *NHS staff earnings estimates, 12-month period from May 2017 – April 2018* (not publicly available), NHS Digital, Leeds.

<sup>2</sup> NHS Employers (2018) *NHS Terms and Conditions of Service Handbook*, NHS Employers, London. <http://www.nhsemployers.org/tchandbook> [accessed 25 September 2018].

<sup>3</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS*, Vols 1 & 2, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>4</sup> Personal Communication with the Department of Health and Health Education England (HEE), 2017.

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

<sup>6</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>7</sup> NHS Employers (2017) *Mileage allowances – Section 17*, NHS Employers, <http://www.nhsemployers.org/your-workforce/pay-and-reward/agenda-for-change/nhs-terms-and-conditions-of-service-handbook/mileage-allowances> [accessed 25 September 2018].

<sup>8</sup> NHS Digital (2018), *NHS sickness absence rates, 2009-10 to 2017-18 annual tables*, NHS Digital, London. <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-sickness-absence-rates/nhs-sickness-absence-rates---january-2018-to-march-2018-and-annual-summary-2010-11-to-2017-18> [accessed 13 October 2017].

<sup>9</sup> NHS Improvement (2018) 2017/18 and 2018/19 National Tariff Payment System, [https://improvement.nhs.uk/documents/1044/2017-18\\_and\\_2018-19\\_National\\_Tariff\\_Payment\\_System.pdf](https://improvement.nhs.uk/documents/1044/2017-18_and_2018-19_National_Tariff_Payment_System.pdf) [accessed 5 December 2018].

## 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. See also Excel database on the PSSRU website. **Please note that there are no staff on Bands 1-3 for this staff group.**

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
<b>A Wages/salary</b>	£21,748	£23,625	£31,838	£39,181	£46,685	£55,863	£65,824	£79,941	£97,387
<b>B Salary oncosts</b>	£5,002	£5,531	£7,845	£9,915	£12,029	£14,616	£17,362	£21,401	£26,317
<b>C Qualification costs</b>	See note	See note	See note	See note	See note	See note	See note	See note	See note
<b>D Overheads</b>									
Management, admin and estates staff	£6,554	£7,143	£9,722	£12,028	£14,385	£17,267	£20,395	£24,829	£30,307
Non-staff	£10,218	£12,566	£15,159	£18,755	£22,265	£26,923	£31,800	£38,713	£47,255
<b>E Capital overheads</b>	£3,069	£5,202	£5,202	£5,202	£5,202	£5,202	£5,202	£5,202	£5,202
<b>F Travel</b>	See note	See note	See note	See note	See note	See note	See note	See note	See note
<b>G Working time</b>	43.2 weeks (1,618 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
<b>H Ratio of direct to indirect time</b>	See note	See note	See note	See note	See note	See note	See note	See note	See note
<b>I London multiplier</b>	2.28 x E	2.28 x E	2.28 x E	2.28 x E	2.28 x E	2.28 x E	2.28 x E	2.28 x E	2.28 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
<b>Unit costs available 2016/2017</b>									
<b>Cost per working hour</b>	<b>£29</b>	<b>£34</b>	<b>£44</b>	<b>£53</b>	<b>£63</b>	<b>£75</b>	<b>£88</b>	<b>£106</b>	<b>£129</b>





## **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 The cost of online consultations

10.5 Telephone triage

10.6 NHS dentist - Performer-only

10.7 Dentist - Providing-Performer

10.8 NHS dental charges

## 10.1. Nurses

### A. Wages/salary

Based on the mean full-time equivalent basic salary for Agenda for Change (AfC) bands 4-9 of the May 2017/April 2018 NHS staff earnings estimates for qualified nurses.<sup>1</sup> See NHS terms and conditions of service handbook for information on payment for unsocial hours.<sup>2</sup> See section V for further information on pay scales. The Electronic Staff Records (ESR) system shows that the mean basic salary for a community nurses is £32,253.<sup>1</sup> 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).<sup>3</sup> Current cost information has been provided by the Department of Health and Social Care, and Health Education England (HEE).<sup>4</sup> See schema 18 for more details.

### D. Overheads

Taken from the 2013/2014 financial accounts for ten community trusts. See 2015 edition of the Unit Costs of Health & Social Care 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.<sup>5,6</sup>

### 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.<sup>7</sup>

### G. Working time

Working hours for each AfC band have been calculated by deducting sickness absence days<sup>8</sup> 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 (2014)<sup>9</sup> on average 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 (2014)<sup>9</sup> for more detail and for the breakdown of time for different AfC bands which has been used to calculate the cost of an hour of face-to-face time. Also see the McKinsey report,<sup>10</sup> for comparative purposes.

<sup>1</sup> NHS Digital (2018) *NHS staff earnings estimates, 12-month period from May 2017 – April 2018* (not publicly available), NHS Digital, Leeds.

<sup>2</sup> NHS Employers (2018) *NHS Terms and Conditions of Service Handbook*, NHS Employers, London. <http://www.nhsemployers.org/tchandbook> [accessed 25 September 2018].

<sup>3</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>4</sup> Personal communication with the Department of Health and Health Education England (HEE), 2017.

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

<sup>6</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>7</sup> NHS Employers (2018) *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 1 October 2018].

<sup>8</sup> NHS Digital (2018), *NHS sickness absence rates, 2009-10 to 2017-18 annual tables*, NHS Digital, London. <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-sickness-absence-rates/nhs-sickness-absence-rates---january-2018-to-march-2018-and-annual-summary-2010-11-to-2017-18> [accessed 13 October 2018].

<sup>9</sup> 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.

<sup>10</sup> 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 qualified nurses. See notes facing for assistance in interpreting each cost item. See chapter 17 for examples of roles in each band. Refer to notes on facing page for references. See also Excel database on the PSSRU website. **Please note that there are no staff on Bands 1-3 in this staff group.**

	Band 4	Band 5	Band 6	Band 7	Band 8a	Band 8b	Band 8c	Band 8d	Band 9
<b>A Wages/salary</b>	£20,197	£26,231	£32,563	£39,039	£45,981	£54,766	£64,098	£75,384	£89,624
<b>B Salary oncosts</b>	£4,565	£6,265	£8,050	£9,875	£11,831	£14,306	£16,936	£20,117	£24,129
<b>C Qualification costs</b>	See note	See note	See note	See note	See note	See note	See note	See note	See note
<b>D Overheads</b>									
Management, admin and estates staff	£6,066	£7,962	£9,950	£11,984	£14,164	£16,923	£19,853	£23,398	£27,870
Non-staff	£9,459	£12,414	£15,514	£18,685	£22,084	£26,386	£30,955	£36,481	£43,454
<b>E Capital overheads</b>	£1,540	£4,440	£4,440	£4,440	£4,440	£4,440	£4,440	£4,440	£4,440
<b>F Travel</b>	See note	See note	See note	See note	See note	See note	See note	See note	See note
<b>G Working time</b>	42.9 weeks (1,589 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	42 weeks (1,573 hours) per year, 37.5 hours per week	42 weeks (1,573 hours) per year, 37.5 hours per week
<b>H Ratio of direct to indirect time</b>	See note	See note	See note	See note	See note	See note	See note	See note	See note
<b>Unit costs available 2017/2018</b>									
Cost per working hour	<b>£26</b>	<b>£36</b>	<b>£45</b>	<b>£53</b>	<b>£63</b>	<b>£74</b>	<b>£87</b>	<b>£102</b>	<b>£121</b>
Cost per hour of patient-related work	<b>NA</b>	<b>£59</b>	<b>£74</b>	<b>£87</b>	<b>£103</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>



## 10.2 Nurse (GP practice)

Costs and unit estimation	2017/2018 value	Notes
A. Wages/salary	£26,231 per year	Based on the mean full-time equivalent basic salary for Agenda for Change band 5 of the May 2017/April 2018 staff earnings estimates for nurses. <sup>1</sup> See NHS terms and conditions of service handbook for information on payment for unsocial hours. <sup>2</sup> See section V for further information on pay scales.
B. Salary oncosts	£6,265 per year	Employer's national insurance is included, plus 14.38 per cent of salary for employer's contribution to superannuation.
C. Qualifications	£8,687 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). <sup>3</sup> Current cost information has been provided by the Department of Health and Health Education England (HEE). <sup>4</sup> See schema 18 for more details.
D. Overheads		
Management and administration	£7,962 per year	Taken from the 2013/2014 financial accounts for 10 community trusts. See the Preface of the <i>Unit Costs of Health &amp; Social Care 2015</i> 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)	£12,383 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. <sup>5</sup> 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	£3,824 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. <sup>6, 7</sup>
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. <sup>8</sup>
Working time	41.9 weeks per year 37.5 hours per week	Unit costs are based on 1,573 hours per year: 225 working days minus sickness absence <sup>9</sup> 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. <sup>6,7,10</sup>
<b>Unit costs available 2017/2018 (costs including qualifications given in brackets)</b>		
£36 (£42) per hour		

<sup>1</sup> NHS Digital (2018) *NHS staff earnings estimates, 12-month period from May 2017 – April 2018* (not publicly available), NHS Digital, Leeds.

<sup>2</sup> NHS Employers (2018) *NHS Terms and Conditions of Service Handbook*, NHS Employers, London. <http://www.nhsemployers.org/tchandbook> [accessed 25 September 2018].

<sup>3</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>4</sup> Personal communication with the Department of Health and Health Education England (HEE), 2014.

<sup>5</sup> NHS Digital (2018) *GP earnings and expenses 2016/17*, NHS Digital, Leeds. <https://digital.nhs.uk/data-and-information/publications/statistical/gp-earnings-and-expenses-estimates/2016-17> [accessed 18 September, 2018].

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

<sup>7</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>8</sup> NHS Employers (2018) *Mileage allowances – Section 17*, NHS Employers, <http://www.nhsemployers.org/your-workforce/pay-and-reward/agenda-for-change/nhs-terms-and-conditions-of-service-handbook/mileage-allowances> [accessed 25 September 2018].

<sup>9</sup> NHS Digital (2018), *NHS sickness absence rates, annual summary tables, 2009-10 to 2016-17*, NHS Digital, Leeds. <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-sickness-absence-rates/nhs-sickness-absence-rates---january-2018-to-march-2018-and-annual-summary-2010-11-to-2017-18> [accessed 13 October 2017].

<sup>10</sup> NHS Improvement (2018) 2017/18 and 2018/19 National Tariff Payment System, [https://improvement.nhs.uk/documents/1044/2017-18\\_and\\_2018-19\\_National\\_Tariff\\_Payment\\_System.pdf](https://improvement.nhs.uk/documents/1044/2017-18_and_2018-19_National_Tariff_Payment_System.pdf) [accessed 5 December 2018].

## 10.3 General practitioner

### 10.3a General practitioner - cost elements

Costs and unit estimation	2017/2018 value	Notes (for further clarification see Commentary)
A. Net remuneration	£109,600 per year	Average income before tax for GPMS contractor GPs for England. <sup>1</sup>
B. Practice expenses:		
Direct care staff	£25,426 per year	Ninety one per cent of FTE equivalent practitioners (excluding GP registrars & GP retainers) employed 0.63 FTE nurse (including practice nurses, advanced level nurses and extended role and specialist nurses includes salary and oncosts. <sup>2,3</sup>
Administrative and clerical staff	£33,287 per year	Each FTE equivalent practitioner (excluding GP registrars & GP retainers) employed 1.15 FTE administrative and clerical staff <sup>1,2</sup> , includes salary and oncosts.
Office and general business	£9,289 per year	All office and general business, premises and other expenses, including advertising, promotion and entertainment, are based on expenditure taken from the GP earnings and expenses report. <sup>1</sup> Each GP employs 3.20 members of staff, including practice nurses, other patient care staff, plus administrators and clerical staff. <sup>1,2</sup>
Premises	£14,007 per year	Office and general business, premises, and other expenses calculated as the ratio of GP salary costs to all GP employees salary costs.
Other: includes advertising, promotion and entertainment	£14,351 per year	
Car and travel	£1,100 per year	Based on information taken from the GP earnings and expenses report. <sup>1,2</sup>
C. Qualifications	£42,074 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). <sup>4</sup> Current cost information has been provided by the Department of Health and Health Education England. <sup>5</sup>
D. Ongoing training		No estimates available.
E. Capital costs:		
Premises	£15,980 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. <sup>6,7</sup>
Working time	42.8 weeks per year 41.8 hours per week	Based on information taken from the 9 <sup>th</sup> National GP Worklife Survey. <sup>8</sup> Respondents to this survey reported working an average of 41.8 hours per week and a mean number of 6.7 sessions.
Ratio of direct to indirect time:		
face-to-face time (excludes travel time)	1:0.64	Based on information taken from the 9 <sup>th</sup> National GP Worklife Survey, <sup>8</sup> direct patient care (surgeries, clinics, telephone consultations & home visits) took 61 per cent of a GP's time. Indirect patient care (referral letters, arranging admissions) absorbed 21 per cent of time. General administration (practice management etc.) formed 8.4 per cent of time, 3.7 per cent was spent on external meetings, with other activities (continuing education/development, research, teaching etc.) taking 5.9 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	
<b>Consultations:</b>		
Surgery	9.22 minutes	Based on a study carried out by Hobbs et al. (2016) of 398 English general practices, <sup>9</sup> the mean duration of a GP surgery consultation was 9.22 minutes. Based on research carried out by Elmore et al. (2016) <sup>10</sup> 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 2017/2018 are given in table 10.3b

<sup>1</sup> NHS Digital (2018) *GP earnings and expenses 2016/17*, NHS Digital, Leeds. <https://digital.nhs.uk/data-and-information/publications/statistical/gp-earnings-and-expenses-estimates/2016-17> [accessed 18 September, 2018].

<sup>2</sup> NHS Digital (2018) *General and Personal Medical Services, England – March 2018: Report, Provisional Experimental statistics*, NHS Digital, <https://digital.nhs.uk/data-and-information/publications/statistical/general-and-personal-medical-services/final-31-december-2017-and-provisional-31-march-2018-experimental-statistics> [18 September, 2018].

<sup>3</sup> Based on personal correspondence with the Chairman of the East Midlands Regional Council, British Medical Association.

<sup>4</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>5</sup> Personal communication with the Department of Health and Health Education England (HEE), 2015.

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

<sup>7</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>8</sup> Gibson, J., Sutton, M., Spooner, S., & Checkland, K. (2018) *Ninth national GP worklife survey*, University of Manchester, Manchester. <http://blogs.lshmt.ac.uk/prucomm/files/2018/05/Ninth-National-GP-Worklife-Survey.pdf> [accessed 19 September 2018].]

<sup>9</sup> 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]

<sup>10</sup> 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)	£265,115	£223,040	£239,688	£197,613
Annual (excluding travel)	£264,015	£221,940	£238,588	£196,513
Per hour of GMS activity <sup>1</sup>	£148	£125	£134	£110
Per hour of patient contact <sup>1</sup>	£243	£204	£219	£181
Per minute of patient contact <sup>1</sup>	£4.00	£3.40	£3.66	£3.00
Per surgery consultation lasting 9.22 minutes <sup>1</sup>	£37	£31	£34	£28
Per patient contact lasting 9.22 minutes (including carbon emissions (8.9 KgCO <sub>2</sub> e) <sup>2</sup> (carbon costs less than £1)	£37.40	£31.30	£34.30	£28.30
Prescription costs per consultation (net ingredient cost)	£33.30 <sup>3</sup>			
Net ingredient cost including carbon emissions (14.7 KgCO <sub>2</sub> e) <sup>2</sup>	£33.90 <sup>2,3</sup>			
Prescription costs per consultation (actual cost)	£31 <sup>3</sup>			
Actual cost including carbon emissions (13.7 KgCO <sub>2</sub> e) <sup>2</sup>	£31.60 <sup>2,3</sup>			

<sup>1</sup> Excludes travel.<sup>2</sup> Costs provided by Richard Lomax, Sustainable Development Unit. See Preface for more information.<sup>3</sup> Personal communication with the Prescribing and Primary Care Group at the HSCIC, 2018.



### 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 2016/2017, which took effect from 1 April 2016: <https://www.england.nhs.uk/2016/02/gp-contract-16-17/>.

**Allowing for time equivalence (FTE).** NHS Digital has estimated that the number of FTE practitioners (excluding GP registrars and GP retainers) has reduced from 28,092 in 2017 to 27,773 in 2018.<sup>1</sup> FTE practice staff included 15,823 practice nurses (includes specialist nurses, advanced level nurses, extended role and specialist nurses), 12,913 direct patient care staff, and 64,857 administrative and clerical.<sup>2</sup> Assuming that administrative and clerical staff are shared equally between GP practitioners and direct patient care staff (including practice nurses), each FTE practitioner (n=56,509) employs 1.15 FTE administrative and clerical staff (n=64,857).

**Direct care staff.** On average in 2017, approximately 91 per cent of FTE equivalent practitioners (excluding GP registrars and GP retainers)<sup>2</sup> employed 0.63 FTE nursing staff (15,823/25,273). 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.<sup>3</sup> Post-graduate education costs have been calculated using information provided by the Department of Health and Health Education England.<sup>4</sup> 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.<sup>5</sup>

**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. Based on the Sustainable Development Unit carbon footprint of the health, social care and public health system: <https://www.sduhealth.org.uk/policy-strategy/reporting/natural-resource-footprint-2018.aspx>. See Preface for more information.

**Prescription costs.** Prescription costs per consultation are £33.30 (net ingredient cost) and £31 (actual cost). The net ingredient 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 (37,885/9,130)<sup>6,7</sup> to give the number of prescriptions per GP consultation (4.1) and multiplying this by the actual cost per GP prescription (£7.60) and the NIC per GP prescription (£8.10). The total NIC and actual cost of GP prescriptions were £8,617,908,857 and £8,019,445,305 respectively.

**Activity.** Hobbs and colleagues (2016)<sup>8</sup> 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 (CPRD), 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.

<sup>1</sup> NHS Digital (2017) *General and Personal Medical Services, England – March 2017: Report, Provisional Experimental statistics*, NHS Digital, Leeds.

<sup>2</sup> Based on personal correspondence with the Chairman of the East Midlands Regional Council, British Medical Association (2015).

<sup>3</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>4</sup> Personal communication with the Department of Health and Health Education England (HEE), 2015.

<sup>5</sup> NHS Employers (2006) *Modernising medical careers: a new era in medical training*, NHS Employers, London.

<sup>6</sup> See news item issued by the RCGP Press office which says that GPs have an average of 41.5 patient contacts per day. (41.5 consultations per day x 220 working days per year x the number of FTE GP registrars and retainers; 27,773, gives a total of 253,567,490 GP consultations per annum). <http://www.rcgp.org.uk/about-us/news/2018/january/workload-in-general-practice-a-real-concern-says-rcgp.aspx>.

<sup>7</sup> Personal communication with NHS Business Services Authority, 2018.

<sup>8</sup> 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 The cost of online consultations systems

Information for this schema was taken from a 15 month observational study carried out in South West England by Hannah Edwards and colleagues<sup>1</sup> to evaluate an online consultation system in primary care. Thirty-six general practices covering 396,828 patients took part in the pilot and 7472 patients completed an 'e-consultation'. Patient records (n=485) were abstracted for eight practices.

To contact their GP, a patient completed an online form describing the nature of their problem (hereafter referred to an 'e-consultation'). This was submitted to their practice, which committed to responding by the end of the next working day. The study calculated the average cost of all initial primary care actions in response to an e-consultation was £37.70. The cost was driven mainly by the time needed for a GP to triage the e-consultations (5 minutes assumed based on interviews with practice staff) and the relatively high proportion of e-consultations that resulted in a face-to-face or telephone consultation with a GP. When considering further follow-up actions taken in the subsequent 30 days, the average cost associated with an e-consultation increased to £47.20. Staff time was valued using data from the *Unit Costs of Health & Social Care 2015* and has been updated to current costs.

Table 1 shows that the cost needed for the GP to triage the e-consultations formed 32% of the total cost. Costs have been updated from 2015 to current values using the appropriate inflators.

**Table 1 Average cost of all initial primary care actions in response to an e-consultation**

All initial response actions	number	% all e-consultations (n=482)	Average cost per e-consultation
GP face-to-face appointments	186	39	£13.20
GP telephone calls	187	39	£8.10
Nurse face-to-face contacts	70	15	£1.80
Nurse telephone appointments	0	0	£0.00
Prescriptions	151	31	£1.30
Fit notes	31	6	£0.40
Routine referral letters	56	12	£0.70
2-week wait referral letters	10	2	£0.10
GP given advice by email	125	26	£0.00
Other GP actions	108	22	£0.00
Unknown GP actions	15	3	£0.00
GP-led triage cost	15	3	£12.10
<b>Average cost of e-consultation</b>			<b>£37.70</b>

<sup>1</sup> Edwards, H., Marques, E, Hollingworth, W., Horwood, J., Farr, M., Bernard, E., Salisbury, & Northstone, K. (2017) Use of a primary care online consultation system, by whom, when and why: evaluation of a pilot observational study in 36 general practices in South West England, *BMJ Open* 2017:7:e016901.

## 10.5 Telephone triage – GP-led and nurse-led

Telephone triage is increasingly used to manage workloads in primary care. A study carried out between 1 March 2011 and 31 March 2013 by John Campbell and colleagues<sup>1,2</sup> 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 10.2 and 10.3), a detailed breakdown of the costs is provided below. Mean costs per intervention, including training, were £14.90 for GP-led triage and £7.70 (including computer decision support software) for nurse-led triage.

Costs and unit estimation	Nurse-led triage	Notes	GP-led triage	Notes
	2017/2018 value		2017/2018 value	
A. Wages/salary and oncosts	£32,496 per year	Based on the salary of a GP practice nurse (AfC band 5) plus oncosts (see 10.2)	£109,600	Average income before tax. See 10.3.
B. Overheads				
Staff overheads	£7,962 per year	See schema 10.2	£37,247	See schema 10.3 (excludes cost for direct care staff)
Non-staff	£12,383 per year	See schema 10.2	£38,747	
C. Qualifications	£8,687 per year	See schema 10.2	£42,075	See schema 10.3
D. Capital	£3,824 per year	See schema 10.2	£15,980	See schema 10.3
E. Other costs				
Staff training	£5,793 per year	Taken from Table 25 <sup>2</sup> and uprated using the HS pay and prices inflator	£3,228	Taken from Table 25 <sup>2</sup> and uprated using the HS pay and prices inflator
Computer decision support software	£8,138 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 1,791 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 <sup>2</sup>	4 (SD 2.83)	See table 23 <sup>2</sup>
<b>Unit costs available 2017/18</b>				
Total annual costs excluding Other costs (including other costs)	£65,353 (£79,284)		£243,648 (£246,876)	
Cost per hour of face-to-face contact excluding Other costs (including set-up costs)	£54 (£70)		£223 (£226)	
Cost per intervention excluding Other costs (including other costs)	£6.00 (£7.70)		£14.90 (£15.10)	

<sup>1</sup> 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]

<sup>2</sup> 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*, 19,13, DOI 10.3310/hta 19130.

## 10.6 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.<sup>1</sup> 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 *Units Costs of Health & Social Care 2017* 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). Values (except remuneration) have been updated using the Health Services Inflation.

Costs and unit estimation	2017/2018 value	Notes
A. Net remuneration	£60,800 per year	This is the average taxable income (average gross earnings less average total expenses) for self-employed primary care Performer-Only dentists in 2016/2017. <sup>2</sup> It has not been possible to identify an inflator to provide estimated net remuneration for 2017/2018.
B. Practice expenses:	£57,120 per year	Employee expenses are taken from the <i>Dental Earnings and Expenses</i> report. <sup>2</sup> 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. <sup>2</sup>
Direct care staff		
Office and general business	£5,228 per year	
Premises	£3,485 per year	
Car and travel	£ 923 per year	Includes insurance, repairs, maintenance, rent and utilities.
Other	£25,756 per year	
C. Qualifications	No costs available	See <a href="http://www.gdc-uk.org/Dentalprofessionals/Education/Pages/Dentist-qualifications.aspx">http://www.gdc-uk.org/Dentalprofessionals/Education/Pages/Dentist-qualifications.aspx</a> .
D. Ongoing training	No costs available	See <a href="https://www.gdc-uk.org/professionals/cpd">https://www.gdc-uk.org/professionals/cpd</a> .
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 £8,617 per annum. <sup>3,4</sup>
F. Equipment costs	£ 6,877 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 £57,212 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 35.7 hours per week.	The average total number of weekly hours worked by Performer-Only dentists in 2017/2018 was 35.7. <sup>5</sup> The average total number of weekly NHS hours worked was 25.9. On average, dentists took 5 days of sickness leave and 4.5 weeks annual leave. Unit costs are based on 1,535 hours. <sup>5</sup>
Ratio of direct to indirect time: Clinical time	1:0.27	Based on information taken from the <i>Dental working hours</i> survey, Performer-Only dentists spent 78.5 per cent of their working time on clinical activities.
<b>Unit costs available 2017/2018</b>		
£104 per hour; £133 per hour of patient contact, £105 per hour (with 25 kgCO <sub>2</sub> e) <sup>6</sup> ; £134 per hour of patient contact (with 31 kgCO <sub>2</sub> e) <sup>6</sup> .		

<sup>1</sup> NHS Digital (2018) *A guide to NHS dental publications*, NHS Digital, Leeds. <https://files.digital.nhs.uk/39/9FE747/nhs-dent-stat-eng-17-18-anx4-gui.pdf> [accessed 25 September 2018].

<sup>2</sup> NHS Digital (2018) *Dental earnings and expenses, 2016/17*, NHS Digital, Leeds. <https://digital.nhs.uk/data-and-information/publications/statistical/dental-earnings-and-expenses-estimates/2016-17> [accessed 25 September 2018].

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

<sup>4</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>5</sup> NHS Digital (2018) *Dental working hours: Working Patterns, Motivation and Morale 2016/17 and 2017/18*, NHS Digital, Leeds. <https://files.digital.nhs.uk/D5/AB5837/Dental-Working-Hours-2016-17-and-2017-18-Working-Patterns-Motivation-and-Morale-Report.pdf> [accessed 25 September 2018].

<sup>6</sup> Costs provided by Richard Lomax, Sustainable Development Unit. See Preface for more information.

## 10.7 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.<sup>1</sup> 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 *Unit Costs of Health & Social Care 2017* 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. Values (except remuneration) have been uprated using the Health Services Inflator.

Costs and unit estimation	2017/2018 value	Notes
A. Net remuneration	£117,400 per year	This is the average taxable income of self-employed primary care Providing-Performer dentists in 2016/2017. <sup>2</sup> It has not been possible to agree an inflator to provide estimated net remuneration for 2016/2017.
B. Practice expenses:		
Employee expenses	£57,120 per year	As salary expenses for Performer-Only dentists are declared as an expense by Providing-Performer dentists, <sup>2</sup> to avoid double-counting, employee expenses have been calculated using the PSSRU survey. 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	£7,387 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 and uprated using the Health Services Inflator. <sup>2</sup>
Premises	£7,988 per year	Includes insurance, repairs, maintenance, rent and utilities.
Car and travel	£1,948 per year	
Other	£44,371 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). <sup>2</sup>
C. Qualifications	No costs available	See <a href="http://www.gdc-uk.org/Dentalprofessionals/Education/Pages/Dentist-qualifications.aspx">http://www.gdc-uk.org/Dentalprofessionals/Education/Pages/Dentist-qualifications.aspx</a> .
D. Ongoing training	No costs available	See <a href="https://www.gdc-uk.org/professionals/cpd">https://www.gdc-uk.org/professionals/cpd</a> .
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 £8,617 per annum. <sup>3,4</sup>
F. Equipment costs	£6,877 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 £57,212 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 41.3 hours per week.	The average total number of weekly hours worked by Providing-Performer dentists in 2017/2018 was 41.3, with 25.5 hours devoted to NHS work. On average dentists took 4.9 days of sickness leave and 4.4 weeks annual leave. Unit costs are based on 1,777 hours. <sup>4</sup>
Ratio of direct to indirect time: Clinical time	1:0.41	Based on information taken from the <i>Dental working hours survey</i> , <sup>4</sup> Providing-Performer dentists spent 70.7 per cent of their working time on clinical activities.
<b>Unit costs available 2017/2018</b>		
£137 per hour; £194 per hour of patient contact; £138 per hour (with 19 kgCO <sub>2</sub> e) <sup>5</sup> ; £196 per hour of patient contact (with 27 kgCO <sub>2</sub> e). <sup>5</sup>		

<sup>1</sup> NHS Digital (2018) *A guide to NHS dental publications*, NHS Digital, Leeds. <https://files.digital.nhs.uk/39/9FE747/nhs-dent-stat-eng-17-18-anx4-gui.pdf> [accessed 25 September 2018].

<sup>2</sup> NHS Digital (2018) *Dental earnings and expenses, 2016/17*, NHS Digital, Leeds. <https://digital.nhs.uk/data-and-information/publications/statistical/dental-earnings-and-expenses-estimates/2016-17> [accessed 25 September 2018].

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

<sup>4</sup> NHS Digital (2018) *Dental working hours: Working Patterns, Motivation and Morale 2016/17 and 2017/19*, NHS Digital, Leeds. <https://files.digital.nhs.uk/D5/AB5837/Dental-Working-Hours-2016-17-and-2017-18-Working-Patterns-Motivation-and-Morale-Report.pdf> [accessed 25 September 2018].

<sup>5</sup> Costs provided by Richard Lomax, Sustainable Development Unit.

## 10.8 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 2018.

Treatment Band	Charges from 1 April 2018	
Emergency dental treatment	£21.60	This covers emergency care in a primary care NHS dental practice such as pain relief or a temporary filling.
Band 1	£21.60	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	£59.10	This covers everything listed in Band 1 above, plus any further treatment such as fillings, root canal work or removal of teeth.
Band 3	£256.50	This covers everything listed in Bands 1 and 2 above, plus crowns, dentures and bridges.

See: <https://www.nhs.uk/using-the-nhs/nhs-services/dentists/understanding-nhs-dental-charges/> for further information on NHS dental charges.



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





## **11. Social care staff and services**

11.1 Social worker (adult services)

11.2 Social worker (children's services)

11.3 Social work assistant

11.4 Community occupational therapist (local authority)

11.5 Home care worker

11.6 Home care manager

11.7 Support and outreach worker

11.8 Peer intern

11.9 Time banks

11.10 Reablement



## 11.1 Social worker (adult services)

Costs and unit estimation	2017/2018 value	Notes
A. Salary	£34,008 per year	Information taken from the National Minimum Data Set for Social Care 2018 <sup>1</sup> showed that the mean basic salary, based on the weighted mean annual salary for a local authority and independent sector social worker working in adult services was £34,008.
B. Salary oncosts	£9,348 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation. <sup>2</sup>
C. Qualifications	£25,417 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). <sup>3</sup> Current cost information is drawn from research carried out by Curtis et al. (2011). <sup>4</sup>
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. <sup>5</sup> No costs are available.
E. Overheads		
Direct overheads	£12,573 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	£6,937 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 resources departments. <sup>6</sup>
F. Capital overheads	£3,175 per year	Based on the new-build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. <sup>7,8</sup> 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> . <sup>9</sup>
Working time	40.9 weeks per year 37 hours per week	Includes 29 days annual leave and 8 statutory leave days. <sup>9</sup> Ten days for study/training and 8.7 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. <sup>10</sup> 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). <sup>11</sup>
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. <sup>1,7,8</sup>
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. <sup>7,8</sup>
<b>Unit costs available 2017/2018 (costs including qualifications given in brackets)</b>		
£44 (£60) per hour; £61 (£84) per hour of client-related work.		

<sup>1</sup> Skills for Care (2018) *National Minimum Dataset-Social Care online*, <https://www.nmds-sc-online.org.uk/> [accessed 11 October 2018].

<sup>2</sup> Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

<sup>3</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>4</sup> 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?rs=1> [accessed 26 September 2013].

<sup>5</sup> British Association of Social Workers (2011) *Social work careers*, The British Association of Social Workers, [www.basw.co.uk/social-work-careers/](http://www.basw.co.uk/social-work-careers/) [accessed 9 October 2013].

<sup>6</sup> 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.

<sup>7</sup> Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

<sup>8</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>9</sup> Local Government Employers (2018) *Green Book: National Agreement on pay and conditions of service*, Local Government Association, London.

<https://www.local.gov.uk/sites/default/files/documents/workforce%20-%20Green%20Book%202021May18%20tracked%20version.pdf> [accessed 9 October 2018].

<sup>10</sup> Local Government Association (2018) *Local government workforce survey 2016/17*, Local Government Association, London.

<https://www.local.gov.uk/sites/default/files/documents/LG%20Workforce%20Survey%202016-17%20-%20report%20final%2020180718.pdf> [accessed 20 October 2018].

<sup>11</sup> 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 (children's services)

Costs and unit estimation	2017/2018 value	Notes
A. Salary	£34,008 per year	Information taken from the National Minimum Data Set for Social Care 2018 <sup>1</sup> showed that the mean basic salary for a social worker, based on the weighted mean annual salary for a local authority and independent sector social worker, working in children's services was £34,008.
B. Salary oncosts	£9,348 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation. <sup>2</sup>
C. Qualifications	£25,417 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). <sup>3</sup> Current cost information is drawn from research carried out by Curtis et al. (2011). <sup>4</sup>
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. <sup>5</sup> No costs are available.
E. Overheads		
Direct overheads	£12,573 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	£6,937 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 resources departments. <sup>6</sup>
F. Capital overheads	£3,175 per year	Based on the new-build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. <sup>7,8</sup> 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> . <sup>9</sup>
Working time	41.2 weeks per year 37 hours per week	Includes 29 days annual leave and 8 statutory leave days. Ten days for study/training and 6.9 days sickness based on the Children's Social Work workforce statistics for England. <sup>10</sup> Unit costs are based on 1,525 hours per year.
Caseload	17.8	Average caseload per children and family social worker. <sup>11</sup>
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). <sup>11</sup> See also Holmes et al. (2009). <sup>12</sup>
London multiplier	1.10 x A 1.59 x F	Allows for the higher costs associated with London compared to the national average cost. <sup>1,7,8</sup>
Non-London multiplier	0.96 x F	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>7,8</sup>
<b>Unit costs available 2017/2018 (costs including qualifications given in brackets)</b>		
£44 (£60) per hour; £60 (£83) per hour of client-related work, Cost per case £3,710		

<sup>1</sup> Skills for Care (2018) *National Minimum Dataset-Social Care online*, <https://www.nmds-sc-online.org.uk/> [accessed 11 October 2018].

<sup>2</sup> Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

<sup>3</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

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

<sup>5</sup> 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].

<sup>6</sup> 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.

<sup>7</sup> Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

<sup>8</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>9</sup> Local Government Employers (2018) *Green Book: National Agreement on pay and conditions of service*, Local Government Association, London. <https://www.local.gov.uk/sites/default/files/documents/workforce%20-%20Green%20Book%2021May18%20tracked%20version.pdf> [accessed 9 October 2018].

<sup>10</sup> Department for Education (2018) *Experimental statistics: Children and family social work workforce in England, year ending 30 September 2017*. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/681546/SFR09-2018\\_Main\\_Text.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/681546/SFR09-2018_Main_Text.pdf) [accessed 6 September 2018].

<sup>11</sup> 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.

<sup>12</sup> 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].

### 11.3 Social work assistant

Costs and unit estimation	2017/2018 value	Notes
A. Salary	£24,700 per year	The mean basic salary of a social work assistant was £22,715 in 2012/13 <sup>1</sup> . 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	£6,481 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation. <sup>2</sup>
C. Overheads		
Direct overheads	£9,043 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	£4,989 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. <sup>3</sup>
D. Capital overheads	£3,175 per year	Based on the new-build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. <sup>4,5</sup> 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> . <sup>6</sup>
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 8.7 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. <sup>7</sup> 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. <sup>1,4,5</sup>
Non-London multiplier	0.96 x D	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>4,5</sup>
<b>Unit costs available 2017/2018</b>		
£32 per hour.		

<sup>1</sup> Local Government Association Analysis and Research (2012) *Local Government Earnings Survey 2011/2012*, Local Government Association, London.

<sup>2</sup> Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London.  
<http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

<sup>3</sup> 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.

<sup>4</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*,  
<https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

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

<sup>6</sup> Local Government Employers (2018) *Green Book: National Agreement on pay and conditions of service*, Local Government Association, London.  
<https://www.local.gov.uk/sites/default/files/documents/workforce%20-%20Green%20Book%2021May18%20tracked%20version.pdf> [accessed 9 October 2018].

<sup>7</sup> Local Government Association (2018) *Local government workforce survey 2016/17*, Local Government Association, London.  
<https://www.local.gov.uk/sites/default/files/documents/LG%20Workforce%20Survey%202016-17%20-%20report%20final%2020180718.pdf> [accessed 20 October 2018].

## 11.4 Community occupational therapist (local authority)

Costs and unit estimation	2017/2018 value	Notes
A. Wages/salary	£33,730 per year	Information taken from the National Minimum Data Set for Social Care 2018 <sup>1</sup> showed that the mean basic salary for an occupational therapist, based on the weighted mean annual salary for a local authority and independent sector occupational therapist, was £33,730.
B. Salary oncosts	£9,262 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation. <sup>2</sup>
C. Qualifications	£5,419 per year	Qualification costs have been calculated using the method described in Netten et al. (1998). <sup>3</sup> Current cost information has been provided by the Department of Health and the Higher Education Funding Council for England (HEFCE). <sup>4</sup>
D. Overheads		
Direct overheads	£12,468 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. <sup>5</sup>
Indirect overheads	£6,879 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 resources departments. <sup>5</sup>
E. Capital overheads	£3,175 per year	Based on the new-build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. <sup>6,7</sup> 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 8.7 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. <sup>8</sup> 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. <sup>1,6,7</sup>
Non-London multiplier	0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>6,7</sup>
<b>Unit costs available 2017/2018 (costs including training given in brackets)</b>		
£43 (£47) per hour.		

<sup>1</sup> Skills for Care (2018) *National Minimum Dataset-Social Care online*, <https://www.nmds-sc-online.org.uk/> [accessed 11 October 2018].

<sup>2</sup> Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

<sup>3</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>4</sup> Personal communication with the Department of Health and the Higher Education Funding Council for England (HEFCE) Higher Education Funding Council for England (HEFCE), 2011.

<sup>5</sup> 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.

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

<sup>7</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>8</sup> Local Government Association (2018) *Local government workforce survey 2016/17*, Local Government Association, London. <https://www.local.gov.uk/sites/default/files/documents/LG%20Workforce%20Survey%202016-17%20-%20report%20final%2020180718.pdf> [accessed 20 October 2018].

## 11.5 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, 2018).<sup>1</sup> See Mickelborough (2011)<sup>2</sup> 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 (£32.90); and one for the average hourly rate paid to external providers of home care services (£16.04).<sup>3</sup> NHS Digital do not analyse the rate by primary support reason or age group.

Costs and unit estimation	2017/2018 value	Notes
A. Wages/salary	£15,830 per year	Based on the weighted mean annual salary for a local authority and independent sector care worker for 2017/2018. The weighted mean hourly pay rate was £7.85. A senior care worker would earn £17,279 per year (£8.65 gross hourly salary). <sup>1</sup>
B. Salary oncosts	£3,749 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation. <sup>4</sup>
C. Overheads		
Direct overheads	£5,678 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. <sup>5</sup>
Indirect overheads	£3,133 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. <sup>6</sup>
D. 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> . <sup>6</sup>
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 8.7 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. <sup>7,8</sup> 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), <sup>7</sup> 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. <sup>8</sup>
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 2014/2015 (7.1 hours per week). The average local authority-commissioned home care per person per week was 12.8 hours. <sup>8</sup>
Price multipliers for unsocial hours <sup>3</sup>	1.00 1.086 1.035 1.093 1.036 1.031 1.039	Day-time weekday 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
<b>Unit costs available 2017/2018</b>		
<b>Based on the price multipliers for independent sector home care provided for private purchasers:</b> £22 per weekday hour (£24 per day-time weekend, £23 per night-time weekday, £24 per night-time weekend). <b>Face-to-face:</b> £27 per hour weekday (£30 per day-time weekend, £28 per night-time weekday, £30 per night-time weekend).		
<b>Based on the price multipliers for independent sector home care provided for social services:</b> £22 per weekday hour (£23 per day-time weekend, £23 per night-time weekday, £23 per night-time weekend). <b>Face-to-face:</b> £27 per hour weekday (£28 per day-time weekend, £28 per night-time weekday, £28 per night-time weekend).		

<sup>1</sup> Skills for Care (2018) *National Minimum Dataset-Social Care online*, <https://www.nmds-sc-online.org.uk/> [accessed 11 October 2018].

<sup>2</sup> Mickelborough, P. (2011) *Domiciliary care*, UK Market Report, Laing & Buisson, London.

<sup>3</sup> Calculated using NHS Digital (2018) *Adult Social Care Finance Return (ASC-FR) (reference data table T49)*, NHS Digital 2017/18, <https://digital.nhs.uk/data-and-information/publications/statistical/adult-social-care-activity-and-finance-report/2017-18> [accessed 30 October, 2018].

<sup>4</sup> Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

<sup>5</sup> 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.

<sup>6</sup> Local Government Employers (2018) *Green Book: National Agreement on pay and conditions of service*, Local Government Association, London. <https://www.local.gov.uk/sites/default/files/documents/workforce%20-%20Green%20Book%202021May18%20tracked%20version.pdf> [accessed 9 October 2018].

<sup>7</sup> United Kingdom Home Care Association (UKHCA) (2015) *A Minimum Price for HomeCare*. [http://www.ukhca.co.uk/pdfs/AMPFHC\\_150719.pdf](http://www.ukhca.co.uk/pdfs/AMPFHC_150719.pdf) [accessed 20 October 2016].

<sup>8</sup> United Kingdom Home Care Association (UKHCA) (2016) *An overview of the domiciliary care sector in the United Kingdom*, Home Care Association Limited, London. <http://www.ukhca.co.uk/pdfs/MarketOverviewV352016FINAL.pdf> [accessed 20 October 2016].



## 11.6 Home care manager

Salary information in this table is taken from the National Minimum Dataset for Social Care (NMDS-SC)<sup>1</sup> and has been based on the salary of a registered manager.

Costs and unit estimation	2017/2018 value	Notes
A. Wages/salary	£30,925 per year	Based on the weighted mean annual salary for a local authority and independent sector registered manager for 2017/2018. The weighted mean hourly pay rate was £15. <sup>1</sup>
B. Salary oncosts	£8,398 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation. <sup>2</sup>
C. Qualifications		No information available.
D. Overheads:		
Direct	£11,404 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	£6,292 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 resources departments. <sup>3</sup>
E. Capital overheads	£3,175 per year	Based on the new-build and land requirements of a local office and shared facilities for waiting, interviews and clerical support. <sup>4,5</sup> 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> . <sup>6</sup>
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 8.7 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. <sup>7</sup> 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.
London multiplier	1.25 x A 1.49 x E	Allows for the higher costs associated with London compared to the national average cost. <sup>1,4,5</sup>
Non-London multiplier	0.97 x E	Relative London costs are drawn from the same source as the base data for each cost element. <sup>4,5</sup>
<b>Unit costs available 2017/2018</b>		
£40 per hour.		

<sup>1</sup> Skills for Care (2018) *National Minimum Dataset-Social Care online*, <https://www.nmds-sc-online.org.uk/> [accessed 11 October 2018].

<sup>2</sup> Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

<sup>3</sup> 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.

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

<sup>5</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>6</sup> Local Government Employers (2018) *Green Book: National Agreement on pay and conditions of service*, Local Government Association, London. <https://www.local.gov.uk/sites/default/files/documents/workforce%20-%20Green%20Book%2021May18%20tracked%20version.pdf> [accessed 9 October 2018].

<sup>7</sup> Local Government Association (2018) *Local government workforce survey 2016/17*, Local Government Association, London. <https://www.local.gov.uk/sites/default/files/documents/LG%20Workforce%20Survey%202016-17%20-%20report%20final%2020180718.pdf> [accessed 20 October 2018].

## 11.7 Support and outreach worker

Community outreach workers act as a liaison between community programmes, services and community members. Their focus might be on health or education, and they often assist a particular ethnic group or segment of the population, such as older people. The job description varies according to the organisation and responsibilities.<sup>1</sup>

Costs and unit estimation	2017/2018 value	Notes
A. Wages/salary	£18,094 per year	Information taken from the National Minimum Data Set for Social Care 2018 <sup>2</sup> showed that the mean basic salary for a support and outreach worker, based on the weighted mean annual salary for a local authority and independent sector outreach worker, was £18,094.
B. Salary oncosts	£4,446 per year	Employer's national insurance contribution is included, plus 17 per cent of salary for employer's contribution to superannuation. <sup>3</sup>
C. Qualifications		
D. Overheads		
Direct overheads	£6,537 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 were 16 per cent of direct care salary costs. They include general management and support services such as finance and human resources departments. <sup>4</sup>
Indirect overheads	£3,606 per year	
E. Capital overheads	£3,175 per year	Based on the new-build and land requirements for a local authority office and shared facilities for waiting, interviews and clerical support. <sup>5,6</sup> 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. Five days for study/training and 8.7 days sickness leave have been assumed, based on the median average sickness absence level in England for all authorities. <sup>7</sup> Unit costs are based on 1,562 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. <sup>4,5,6</sup>
Non-London multiplier	0.97 x E	Allows for the lower costs associated with working outside London compared to the national average cost. <sup>5,6</sup>
<b>Unit costs available 2017/2018 (costs including training given in brackets)</b>		
£23 per hour.		

<sup>1</sup> Career Trend (2017) What is the job description of a community outreach worker? <https://careertrend.com/about-4618849-job-description-community-outreach-worker.html> [17 October 2018].

<sup>2</sup> Skills for Care (2018) *National Minimum Dataset-Social Care online*, <https://www.nmds-sc-online.org.uk/> [accessed 11 October 2018].

<sup>3</sup> Local Government Pension Scheme Advisory Board (2017) *Fund Valuations 2016*, LGPS Advisory Board, London. <http://lgpsboard.org/index.php/schemedata> [accessed 12 November 2017].

<sup>4</sup> 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.

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

<sup>6</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>7</sup> Local Government Association (2018) *Local government workforce survey 2016/17*, Local Government Association, London. <https://www.local.gov.uk/sites/default/files/documents/LG%20Workforce%20Survey%202016-17%20-%20report%20final%2020180718.pdf> [accessed 20 October 2018].

## 11.8 Peer intern

Information for this schema has been drawn from an evaluation of the Lambeth Living Well Network Hub ([http://lambethcollaborative.org.uk/wp-content/uploads/2018/03/LWN-Hub-Year-Two-Evaluation-Report-December-2017\\_04.01.18.pdf](http://lambethcollaborative.org.uk/wp-content/uploads/2018/03/LWN-Hub-Year-Two-Evaluation-Report-December-2017_04.01.18.pdf)) an innovative primary care mental health service that was developed to reduce the flow of people into secondary care by providing personalised networked support to people in Lambeth. It acts as the front door to mental health services and offers a shared care approach with general practitioners to support users of mental health and social care services at an earlier point (<http://www.lambethccg.nhs.uk/our-plans/mental-health-services/lambeth-living-well-network/Pages/default.aspx>).

The peer intern is a new and developing role with a very broad remit, from providing support throughout a person's care journey with the Hub to contributing in daily operations. They build on skills and knowledge to support other people with mental health issues whilst being supported themselves to develop the required skills to gain meaningful employment experience. This hub employs around 60 fte members of staff.

The costs for this schema have been prepared in collaboration with Alexandra Melaugh<sup>1</sup> and Andy Healey of King's College, London and Mahir Demir, Helena Demetriou and Mark Schueler of the LWN Hub. Costs have been updated using PSS Inflatons.

Costs and unit estimation	2017/2018 value	Notes
A. Wages/salary	£7,281 per year	Based on information taken from the Lambeth Living Well Network accounts. The Peer Interns in the study worked on <b>average 15 hours per week</b> . The FTE salary is £18,930.
B. Salary oncosts	£1,238 per year	Employer's national insurance is included, plus 17 per cent of salary for employer's contribution to superannuation.
C. Qualifications		
D. Overheads		
Direct overheads Management and administration	£2,720 per year	The peer intern is supported by an administrator (cost per hour £27), administrative assistant (cost per hour £15.10) and the Training and Education placement staff (cost per hour £24.30) who help with the smooth running of the office and referrals that are introduced to the Hub (3 hours in total per week, for 40.9 weeks per year).
	£674 per year	A programme manager oversees the running of the Hub. This cost has been calculated by dividing their salary costs between 60 fte members of staff which is then pro-rated to reflect part-time working.
Office, general business and premises (including advertising and promotion)	£910 per year	The total cost of rent for the two buildings plus utility bills divided by the number of FTE staff (60) and pro-rated to reflect part-time working.
Indirect overheads	£926 per year	Based on the salary costs of the programme director and divided by the number of FTE staff (60) and pro-rated to reflect part-time working. Also includes 20 hours per year for contracts/payroll and other human resources issues which are based on salary costs of a certified human resources advisor (cost per hour £26).
E. Capital		Rent has been included as a proxy for capital
Working time	40.9 weeks per year 15 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. Unit costs are based on 614 hours.
Ratio of direct to indirect time on: Face-to face contacts	1:0:38	Based on an activity log which was developed with peer interns so they could record their client-contact and client-related activity to allow the ratio of direct to indirect time to be calculated.
<b>Unit costs available 2017/2018 (costs including qualifications given in brackets)</b>		
£22 per hour (based on 15 working hours per week); £31 per hour of client related activities (based on 15 working hours per week).		

<sup>1</sup> For more information, please contact Alexandra Melaugh ([Alexandra.melaugh@phe.gov.uk](mailto:Alexandra.melaugh@phe.gov.uk)).

## 11.9 Time banks

Rushey Green time bank was 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](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 and Social Care 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.<sup>1,2</sup>

All costs have been updated to 2017/2018 levels using the PSS inflators.

Costs and unit estimation	2017/2018 value	Notes
A. Salaries	£88,860 per year	In total, the service employs 1 full-time manager, 1 part-time and 1 full-time broker/co-ordinator. Salaries have been based on the midpoint of the NJC paycales <sup>3</sup> for a PO2-3 and 1 PT and 1 FT SO1 (Senior officers, 35 and 30 hours per week).
B. Oncosts	£13,151 per year	Employer's national insurance contribution is included, plus 5 per cent employer's contribution to superannuation.
C. Overheads <b>Direct overheads</b> Telephone, internet, software Printing, stationery, postage Volunteer expenses  Events Training costs Workshops/consultancy <b>Indirect overheads</b>	£1,979 per year £3,189 per year £550 per year  £2,199 per year £986 per year £2,749 per year £3,299 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.  This includes the training of staff, volunteers and board members.  This includes human resources, legal, payroll and accounts.
D. Travel costs	£880 per year	Based on travel costs for staff and volunteers.
E. Capital costs Office costs Equipment costs	£3,824 per year £1,979 per year	Based on the office costs for a practice nurse (see schema 10.2). 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.
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.
<b>Unit costs available 2017/2018</b>		
Total annual cost if fully funded £123,646.		
Annual cost per member based on 360 members £343.		

<sup>1</sup> 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](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.

<sup>2</sup> 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.

<sup>3</sup> National Joint Council (NJC) Salary scales for Local Government Services, *NJC paycales 2017-18*, <https://www.derbyshirealc.gov.uk/uploads/2016-2018-national-salary-award.pdf> [accessed 20 October 2018].

## 11.10 Re-ablement services

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.<sup>1</sup> The table below shows the average costs across four re-ablement services participating in the evaluation.<sup>2</sup> All the services were based outside London, and one service had occupational therapists (OTs) working closely with the team. Cost data were provided for 2008/2009 and have been updated using the PSS inflators.

Costs per service user for the four sites ranged from £1,816 to £2,466 at 2017/2018 prices.

Costs and unit estimation	2017/2018 value	Notes
A. Salary plus oncosts	£2,619,512 per year	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	£965,998 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	£52,023 per year	The costs of uniforms and training costs are included here. These accounted for 1 per cent of the total.
C. Indirect overheads	£181,358 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 local authorities and annuitised over 60 years at a discount rate of 3.5 per cent, declining to 3 per cent after 30 years.
Equipment costs	£2,899 per year	Based on information supplied by local authorities.
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 and in each authority 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.
<b>Unit costs available 2017/2018</b>		
£24 per hour; £46 per hour of contact; £2,261 average cost per service user.		

<sup>1</sup> 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.

<sup>2</sup> 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**



## 12. Hospital-based scientific and professional staff

The table overleaf provides the unit costs for hospital-based scientific and professional staff. 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 schema 17. Reference should also be made to the explanatory notes when interpreting the unit costs.

Job titles by band	
<b>Band 2</b>	Clinical support worker (Physiotherapy, Occupational therapy, Speech and language therapy).
<b>Band 3</b>	Clinical support worker, (higher level) (Physiotherapy, Occupational therapy, Speech and language therapy).
<b>Band 4</b>	Occupational therapy technician, Speech and language therapy assistant/associate practitioner, Podiatry technician, Clinical psychology assistant practitioner, Pharmacy technician.
<b>Band 5</b>	Physiotherapist, Occupational therapist, Speech and language therapist, Podiatrist, Clinical psychology assistant practitioner (higher level), Counsellor (entry level).
<b>Band 6</b>	Physiotherapist specialist, Occupational therapist specialist, Speech and language therapist specialist, Podiatrist specialist, Clinical psychology trainee, Counsellor, Pharmacist, Arts therapist (entry level).
<b>Band 7</b>	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.
<b>Band 8a</b>	Physiotherapist principal, Occupational therapist principal, Speech and language therapist principal, Podiatrist principal.
<b>Band 8a-b</b>	Physiotherapist consultant, Occupational therapist consultant, Clinical psychologist principal, Speech and language therapist principal, Podiatric consultant (surgery), Arts therapist principal.
<b>Band 8a-c</b>	Counsellor professional manager, Counsellor consultant, Consultant speech and language therapist.
<b>Band 8c-d</b>	Clinical psychologist consultant, Podiatric consultant (surgery), Head of arts therapies, Arts therapies consultant.
<b>Band 8d-9</b>	Clinical psychologist consultant (professional), Lead/head of psychology services, Podiatric consultant (surgery) Head of service.



## 12. 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 May 2017/April 2018 NHS staff earnings estimates for allied health professionals.<sup>1</sup> See *NHS terms and conditions of service handbook* for information on payment for unsocial hours.<sup>2</sup> The Electronic Staff Records (ESR) system shows that the mean basic salary for all physiotherapists is £33,735; occupational therapists £32,487; speech and language therapists, £33,895; dietitians, £33,719; and radiographers (diagnostic and therapeutic), £33,495.

### 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).<sup>3</sup> Current cost information has been provided by the Department of Health and Health Education England.<sup>4</sup> To calculate the cost per hour including qualifications for each profession, the appropriate expected annual cost shown in chapter 18 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.<sup>5</sup> 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 18 for more details on training.

### D Overheads

Taken from *NHS foundation trusts accounts: consolidated (FTC) files 2014/2015*.<sup>6</sup> 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.<sup>7,8</sup>

### F Working time

Working hours for each AfC band have been calculated by deducting sickness absence days as reported for NHS staff groups<sup>9</sup> 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 2014/2015 providing estimates of time use for hospital-based staff.

<sup>1</sup> NHS Digital (2018) *NHS staff earnings estimates, 12-month period from May 2017 – April 2018* (not publicly available), NHS Digital, Leeds.

<sup>2</sup> NHS Employers (2018) *NHS Terms and Conditions of Service Handbook*, NHS Employers, London. <http://www.nhsemployers.org/tchandbook> [accessed 25 September 2018].

<sup>3</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS*, Vols 1 & 2, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>4</sup> Personal Communication with the Department of Health and Health Education England, 2017.

<sup>5</sup> Bollington, L. & John, D. (2012) *Pharmacy education and training in the hospital service in Wales: Identifying demand and developing capacity*. STS Publishing, Cardiff.

<sup>6</sup> 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]

<sup>7</sup> Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

<sup>8</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>9</sup> NHS Digital, NHS sickness absence rates, 2009-10 to 2017-18 annual tables, NHS Digital, London. <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-sickness-absence-rates/nhs-sickness-absence-rates---january-2018-to-march-2018-and-annual-summary-2010-11-to-2017-18> [accessed 13 October 2018].

## 12. 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. See also Excel database on the PSSRU website. **Please note that there are no staff on Bands 1-3 for this staff group.**

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
<b>A Wages/salary</b>	£21,748	£23,625	£31,838	£39,181	£46,685	£55,863	£65,824	£79,941	£97,387
<b>B Salary on-costs</b>	£5,002	£5,531	£7,845	£9,915	£12,029	£14,616	£17,362	£21,401	£26,317
<b>C Qualification</b>									
<b>D Overheads</b>									
Management, admin and estates staff	£6,473	£7,056	£9,603	£11,881	£14,209	£17,056	£20,131	£24,525	£29,936
Non-staff	£11,529	£12,566	£17,104	£21,160	£25,306	£30,376	£35,853	£43,678	£53,316
<b>E Capital overheads</b>									
-physiotherapists/OTs	£6,543	£6,543	£6,543	£6,543	£6,543	£6,543	£6,543	£6,543	£6,543
-radiographers	£9,597	£9,597	£9,597	£9,597	£9,597	£9,597	£9,597	£9,597	£9,597
-dietitians/speech and language therapists (or other professionals with a small treatment space or sharing facilities).	£5,332	£5,332	£5,332	£5,332	£5,332	£5,332	£5,332	£5,332	£5,332
<b>F Travel</b>									
<b>G Working time</b>	43.2 (1,619 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
<b>H Ratio of direct to indirect time</b>	See note	See note	See note	See note	See note	See note	See note	See note	See note
<b>I Multipliers</b>									
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
<b>Unit costs available 2016/2017</b>									
<b>Cost per working hour</b>									
-physiotherapists/OTs	<b>£32</b>	<b>£35</b>	<b>£46</b>	<b>£55</b>	<b>£66</b>	<b>£78</b>	<b>£91</b>	<b>£110</b>	<b>£134</b>
-radiographers	<b>£34</b>	<b>£37</b>	<b>£48</b>	<b>£57</b>	<b>£67</b>	<b>£80</b>	<b>£93</b>	<b>£112</b>	<b>£135</b>
-dietitians/speech and language therapists	<b>£31</b>	<b>£34</b>	<b>£45</b>	<b>£55</b>	<b>£65</b>	<b>£77</b>	<b>£90</b>	<b>£109</b>	<b>£133</b>



## 13. Hospital-based nurses

The table overleaf provides the unit costs for hospital nurses bands 4-9. 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.

<b>Job titles by band</b>	
<b>Band 2</b>	Clinical support worker nursing (hospital)
<b>Band 3</b>	Clinical support worker higher level nursing (hospital/mental health)
<b>Band 4</b>	Nurse associate practitioner acute, Nursery nurse (neonatal)
<b>Band 5</b>	Nurse, Nurse (mental health)
<b>Band 6</b>	Nurse specialist/team leader
<b>Band 7</b>	Nurse advanced/team manager
<b>Band 8a</b>	Modern matron
<b>Bands 8a-c</b>	Nurse consultant
<b>Bands 8c-8d &amp; 9</b>	Nurse/Midwife consultant higher level

## 13. Hospital-based nurses

### A Wages/salary

Based on the mean full-time equivalent basic salary for Agenda for Change bands 4-9 of the May 2017/April 2018 NHS staff earnings estimates for nurses.<sup>1</sup> See *NHS terms and conditions of service handbook* for information on payment for unsocial hours.<sup>2</sup> The Electronic Staff Records (ESR) system shows that the mean basic salary for a staff nurse is £30,197; a matron is £46,370, and a nurse manager is £48,206.

### 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).<sup>3</sup> Current cost information has been provided by the Department of Health and Health Education England.<sup>4</sup> To calculate the cost per hour including qualifications for each profession, the appropriate expected annual cost shown in chapter 18 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 2014/2015*.<sup>5</sup>

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.<sup>6,7</sup>

### F Working time

Working hours for each AfC band have been calculated by deducting sickness absence days as reported for NHS staff groups<sup>8</sup> 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,<sup>9</sup> 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. As this report did not specify which Bands these ratios apply to, the cost per hour of patient contact has been calculated only for Bands 5 and 6.

<sup>1</sup> NHS Digital (2018) *NHS staff earnings estimates, 12-month period from May 2017 – April 2018* (not publicly available), NHS Digital, Leeds.

<sup>2</sup> NHS Employers (2018) *NHS Terms and Conditions of Service Handbook*, NHS Employers, London. <http://www.nhsemployers.org/tchandbook> [accessed 25 September 2018].

<sup>3</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS*, Vols 1 & 2, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>4</sup> Personal Communication with the Department of Health and Health Education England, 2015.

<sup>5</sup> 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]

<sup>6</sup> Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London

<sup>7</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>8</sup> NHS Digital, NHS sickness absence rates, 2009-10 to 2017-18 annual tables, NHS Digital, London. <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-sickness-absence-rates/nhs-sickness-absence-rates---january-2018-to-march-2018-and-annual-summary-2010-11-to-2017-18> [accessed 13 October 2017].

<sup>9</sup> Department of Health (2010) *Achieving a world class productivity in the NHS, 2009/10-2013/14: the McKinsey report*, Department of Health, London.

## 13. 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. See also Excel database on the PSSRU website. **Please note that there are no staff on Bands 1-3 for this staff group.**

<b>Hospital-based nurses</b>										
<b>Refer to notes on facing page for references</b>	<b>Band 4</b>	<b>Band 5</b>	<b>Band 6</b>	<b>Band 7</b>	<b>Band 8a</b>	<b>Band 8b</b>	<b>Band 8c</b>	<b>Band 8d</b>	<b>Band 9</b>	
<b>A Wages/salary</b>	£20,197	£26,231	£32,563	£39,039	£45,981	£54,766	£64,098	£75,384	£89,624	
<b>B Salary oncosts</b>	£4,565	£6,265	£8,050	£9,875	£11,831	£14,306	£16,936	£20,117	£24,129	
<b>C Qualifications (see notes)</b>										
<b>D Overheads</b>										
Management, admin and estates staff	£5,992	£7,864	£9,828	£11,837	£13,990	£16,716	£19,610	£23,111	£27,528	
Non-staff	£10,672	£14,006	£17,504	£21,082	£24,917	£29,770	£34,926	£41,161	£49,028	
<b>E Capital overheads</b>	£2,325	£3,462	£3,462	£3,462	£3,462	£3,462	£3,462	£3,462	£3,462	
<b>F Working time</b>	42.4 weeks (1,589 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	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
<b>G Ratio of direct to indirect time on :</b>										
Face to face contacts	N/A	1:1.44	1:1.44	1:1.44	N/A	N/A	N/A	N/A	N/A	
<b>H London multiplier</b>	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	1.55 x E	
<b>Non-London multiplier</b>	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	0.42 x E	
Cost per working hour	£28	£37	£45	£54	£64	£76	£88	£104	£123	
Cost per hour of patient contact	N/A	£90	£111	N/A	N/A	N/A	N/A	N/A	N/A	



## 14. Hospital-based doctors

The table overleaf provides the unit costs for hospital doctors. Reference should be made to the explanatory notes when interpreting the unit costs. See below for examples of work performed under each title.

<b>Work performed under each job title</b>	
<b>Foundation doctor FY1</b>	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. <sup>1</sup>
<b>Foundation doctor FY2</b>	
<b>Registrar</b>	A registrar is a specialist in training for medical consultancy. <sup>2</sup>
<b>Associate specialist</b>	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. <sup>2</sup>
<b>Consultant: medical, surgical and psychiatric</b>	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. <sup>2</sup>

<sup>1</sup> NHS, UK (2016) *The Foundation Programme*, <http://www.foundationprogramme.nhs.uk/pages/home>

<sup>2</sup> Prospects (2016) *Job profile, hospital doctors*, <https://www.prospects.ac.uk/job-profiles/hospital-doctor>



## 14. Hospital-based doctors

### A. Wages/salary

The mean basic salary for hospital doctors has been taken from the May 2017/April 2018 Electronic Staff Record (ESR).<sup>1</sup> See NHS terms and conditions of service handbook for information on payment for unsocial hours and shift work.<sup>2</sup> 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).<sup>3</sup> Current cost information has been provided by the Department of Health and Health Education England.<sup>4</sup> 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.<sup>5</sup>

### D. Overheads

Taken from NHS foundation trusts accounts: consolidated (FTC) files 2014/2015.<sup>6</sup>

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.<sup>7,8</sup> Adjustments have been made to reflect shared use of administration and recreational facilities, including accommodation for night-time duties. Treatment space has not been included. Capital costs have been annuitised over 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 groups<sup>9</sup> 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.<sup>10</sup>

### 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.<sup>7,8</sup>

<sup>1</sup> NHS Digital (2018) *NHS staff earnings estimates, 12-month period from May 2017 – April 2018* (not publicly available), NHS Digital, Leeds.

<sup>2</sup> NHS Employers (2018) *NHS Terms and Conditions of Service Handbook*, NHS Employers, London. <http://www.nhsemployers.org/tchandbook> [accessed 25 September 2018]

<sup>3</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>4</sup> Personal communication with the Department of Health and Health Education England, 2014.

<sup>5</sup> National Health Service (2008) *Modernising medical careers*, National Health Service, London.

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

<sup>7</sup> Building Cost Information Service (2017) *Surveys of tender prices*, Royal Institute of Chartered Surveyors, London.

<sup>8</sup> Ministry of Housing, Communities & Local Government (2018) *Land value estimates for policy appraisal 2017*, <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2017> [accessed 25 September 2018].

<sup>9</sup> NHS Digital, NHS sickness absence rates, 2009-10 to 2017-18 annual tables, NHS Digital, London. <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-sickness-absence-rates/nhs-sickness-absence-rates---january-2018-to-march-2018-and-annual-summary-2010-11-to-2017-18> [accessed 13 October 2017].

<sup>10</sup> Provided by the Department of Health, 2009.

## 14. 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. See also Excel database on the PSSRU website.

<b>Hospital-based doctors</b>							
<b>Refer to notes on facing page for references</b>	<b>Foundation doctor FY1</b>	<b>Foundation doctor FY2</b>	<b>Registrar</b>	<b>Associate specialist</b>	<b>Consultant: medical</b>	<b>Consultant: surgical</b>	<b>Consultant: psychiatric</b>
<b>A Wages/salary</b>	£26,635	£30,354	£41,583	£82,346	£90,947	£90,535	£91,926
<b>B Salary oncosts</b>	£6,379	£7,427	£10,591	£22,078	£24,375	£24,386	£24,778
<b>C Overheads</b>							
Management, admin and estates staff	£7,989	£9,143	£12,626	£25,271	£27,799	£27,811	£28,242
Non-staff	£14,229	£16,284	£22,487	£45,007	£49,510	£49,531	£50,299
<b>D Capital overheads</b>	£4,710	£4,710	£4,710	£4,710	£6,115	£6,115	£6,115
<b>E Working time</b>	44.4 weeks (2,138 hours) per year 48 hours per week	44.4 weeks (2,138 hours) per year 48 hours per week	42.5 weeks (2,138 hours) per year 48 hours per week	42.5 weeks (1,702 hours) per year 40 hours per week	42.4 weeks (1,842 hours) per year 43.3 hours per week	42.4 weeks (1,842 hours) per year 43.3 hours per week	42.4 weeks (1,842 hours) per year 43.3 hours per week
<b>F London multiplier</b>	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
<b>G Non-London multiplier</b>	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
<b>Units costs available 2016/2017</b>							
Cost per working hour	£28	£32	£43	£105	£108	£108	£109
Cost per working hour, 56-hr week	£24	£27	£37	NA	NA	NA	NA
Cost per working hour, 40-hr week	£34	£38	£52	NA	NA	NA	NA



## **V. SOURCES OF INFORMATION**

15. Inflation indices
16. NHS staff earnings estimates
17. Examples of roles in each Agenda for Change band
18. Training costs of health and social care professionals
19. Care home fees
20. Time use of community care professionals
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## 15. Inflation indices

### 15.1 The Building Cost Information Service (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 as regional trends, labour and materials contents differ.<sup>1</sup> The retail price index is a measure of inflation published monthly by the Office for National Statistics (ONS). It measures the change in the cost of a basket of retail goods and services.<sup>2</sup>

Year	BCIS/ABI <sup>1</sup>		Retail price <sup>2</sup>	
	Rebuilding cost index (1988=100)	Annual % increases on previous year	Index (1986/87= 100)	Annual % increases on previous year
2007	228.7	4.1	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	252.0	5.2	239.4	4.8
2012	253.0	0.4	246.8	3.1
2013	257.8	1.9	253.4	2.7
2014	274.8	6.6	257.5	1.6
2015	283.6	3.2	260.6	1.2
2016	292.1	3.0	267.1	2.5
2017	304.4	4.2	278.1	4.1

### 15.2 Gross domestic product (GDP) deflator and the tender price index for public sector buildings

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 <sup>3</sup> annual % increases	Tender price index for public sector building (non-housing) (PUBSEC) <sup>3</sup>	
		Index (1995=100)	Annual % increases on previous year
2007/08	2.4	190	9.5
2008/09	2.7	188	-1.2
2009/10	1.4	168	-10.9
2010/11	1.8	171	2.2
2011/12	1.3	177	3.1
2012/13	2.0	184	4.0
2013/14	1.8	194	5.9
2014/15	1.3	207	6.4
2015/16	0.8	209	1.0
2016/17	2.2	227 (Provisional)	8.9 (Provisional)
2017/18	1.7	251(Provisional)	10.6 (Provisional)

<sup>1</sup> Building Cost Information Service (2018) *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 October 2018].

<sup>2</sup> See: <http://www.swanlowpark.co.uk/retail-price-index> [accessed 1 October 2018].

<sup>3</sup> Provided by the Department of Health, 2018.

## 15.3 The hospital & community health services (HCHS) index

Until 2016/2017, a hospital & community health services (HCHS) index was calculated by the Department of Health (now DHSC). The hospital and community health services (HCHS) pay and price inflation was a weighted average of two separate inflation indices: the pay cost index was calculated using the annual increase in NHS salaries and the Health Service Cost Index (HSCI) measured the price change for each of 40 sub-indices of goods and services purchased by the HCHS. These were weighted according to the proportion of expenditure on pay and prices to give the HCHS pay and prices index. In 2016, this index was discontinued, and in 2018, in collaboration with the DHSC, PSSRU have developed a new inflation index.

We have calculated the pay index using the same method, but have explored the use of four indices for a replacement prices index; GDP deflator, the retail prices index, Consumer Prices Index (CPI) and the CPI (Health) index. These were weighted using the 2017/2018 NHS Foundation Trust consolidated accounts which showed that 72 per cent of health expenditure is allocated to pay and 28 per cent to non-pay items. Table 16.3 provides the annual percentage increases on the previous year for three of these indices (from 2014/2015) using the new weightings, but excludes analysis carried out with the retail prices index as ONS no longer recommends its use.

The Health Services (HS) index using the CPI (Health) has been used to uprate health services in this volume, but table 16.3 provides the inflators for all three indices (see Preface).

	Annual % increases on previous year				
	Pre-2018 index	Pay index	HCHS index	NA	NA
2008/2009	5.2	3.0	3.9		
2009/2010	-1.3	1.8	0.6		
2010/2011	2.8	3.1	3.0		
2011/2012	4.1	0.9	2.1		
2012/2013	3.1	0.9	1.7		
2013/2014	1.8	0.7	1.1		
2014/2015	1.7	0.3	0.9		
2015/2016	2.7	0.3	1.3		
2016/2017	3.9	0.3	1.8		
	New prices index (using CPI Health)*	New Pay index (unchanged)	<b>New Health Services (HS) Index using CPI (Health)</b>	Health Services using CPI	Health Services using GDP deflator
2014/2015	2.6	0.3	<b>0.9</b>	0.3	0.6
2015/2016	1.9	0.3	<b>0.8</b>	0.5	0.4
2016/2017	2.2	0.3	<b>0.8</b>	0.9	0.8
2017/2018	2.5	1.0	<b>1.4</b>	1.3	1.2

\* average for year to end July

## 15.4 The Personal Social Services (PSS) pay & prices index

The Adults PSS pay and prices index is calculated by the Department of Health and Social Care (DHSC). The DHSC have made significant changes to the index this year. These changes are designed to prioritise the most recent years (which show the impact of the National Living Wage) and to prioritise independent sector services, which now absorb a major share of the market.

The first change is to the **timing** of the index's three components (pay, prices and capital). Previously, the 2016/2017 index value would have comprised the April 2017 Annual Survey of Hours and Earnings (ASHE) pay change on previous year, the 2016/2017 HM Treasury GDP Deflator change on previous year, and the average of 2016 quarterly changes on the average of 2015 quarterly changes for the Tender Price Index of Public Sector Building Non-Housing (PUBSEC index). The National Minimum Wage and National Living Wage now increase at the start of April each year, rather than in October. For 2016/2017, ASHE pay change is now calculated as April 2016 change on previous year, as minimum wage April 2016 pay rates are likely to remain for the rest of the financial year. The PUBSEC index has been slightly refined by calculating it as the average of 2016/2017 quarterly changes on the average of 2015/2016 quarterly changes. As before, pay increases for different occupations are weighted together using job numbers from Skills for Care.

The second change is to how the three Pay, Prices and Capital indices are **weighted**. A single set of weights are now used for all years of the index: 65.2 per cent pay, 23.7 per cent prices, and 11.2 per cent capital. These are derived by combining pay, prices and capital splits for several different service types (such as for care homes using LaingBuisson data) using expenditure weights

derived from the 2016-2017 Adult Social Care Finance Return (ASC-FR) published by NHS Digital. The previous approach involved a complex set of assumptions and showed little change across years. The use of the same weights for local authority run services is a potentially inaccurate simplification, though they are now less common and recent conclusive data on costs is not available.

The timing changes are the more significant of the two. The changes make the index more consistent, better capture the impact of the National Living Wage, and make the index more timely (for example, this year's volume uses the 2017/2018 index value rather than 2016/2017). The index values for certain years have changed significantly, although changes calculated over longer periods are less significant.

#### 15.4.1 The PSS annual percentage increases for adult services (all sectors)

Year	PSS all sectors, adults only <sup>1</sup>		
	Annual % increases on previous year		
	Pay & prices (excluding capital)	Pay & prices (including capital)	Pay
2007/2008	4.4	4.9	5.1
2008/2009	2.9	2.5	3.0
2009/2010	2.1	0.7	2.4
2010/2011	2.1	2.1	2.2
2011/2012	0.1	0.4	-0.4
2012/2013	0.6	1.0	0.2
2013/2014	1.0	1.5	0.7
2014/2015	1.0	1.6	0.9
2015/2016	1.9	1.8	2.3
2016/2017	3.4	4.0	3.8
2017/2018	2.6	3.5	2.9

#### 15.4.2 The PSS annual percentage increases for adult local authority services

Year	PSS local authority, adults only <sup>1</sup>		
	Annual % increases on previous year		
	Pay & prices (excluding capital)	Pay & prices (including capital)	Pay
2007/2008	4.1	4.7	4.7
2008/2009	3.1	2.6	3.2
2009/2010	2.1	0.6	2.3
2010/2011	1.9	1.9	1.9
2011/2012	0.5	0.8	0.2
2012/2013	0.4	0.8	-0.1
2013/2014	1.5	2.0	1.4
2014/2015	1.0	1.6	0.9
2015/2016	3.2	3.0	4.1
2016/2017	1.2	2.1	0.9
2017/2018	2.6	3.5	3.0

#### 15.4.3 The PSS annual percentage increases for adult independent services

Year	PSS independent care, adults only <sup>1</sup>		
	Annual % increases on previous year		
	Pay & prices (excluding capital)	Pay & prices (including capital)	Pay
2010/2011	2.1	2.1	2.2
2011/2012	0.0	0.4	-0.4
2012/2013	0.7	1.1	0.2
2013/2014	0.9	1.4	0.6
2014/2015	1.0	1.6	0.9
2015/2016	1.8	1.7	2.1
2016/2017	3.6	4.2	4.1
2017/2018	2.6	3.5	2.9

<sup>1</sup> Provided by the Department of Health, 2018.



## 16. NHS staff earnings estimates<sup>1</sup>

### 16.1 Mean annual basic pay per FTE for non-medical occupational groupings, NHS England

	Mean annual basic pay per FTE
Ambulance staff	£25,252
Administration and estates staff	£28,299
Healthcare assistants and other support staff	£17,409
Nursing, midwifery and health visiting staff	£29,631
Nursing, midwifery and health visiting learners	£20,785
Scientific, therapeutic and technical staff	£32,026
Healthcare scientists	£29,662

### 16.2 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	
Band 3	
Band 4	£20,197
Band 5	£26,231
Band 6	£32,563
Band 7	£39,039
Band 8a	£45,981
Band 8b	£54,766
Band 8c	£64,098
Band 8d	£75,384
Band 9	£89,624

### 16.3 Mean annual basic pay per FTE for allied health professional staff by Agenda for Change band, NHS England

	Mean annual basic pay per FTE
Band 4	£21,748
Band 5	£23,625
Band 6	£31,838
Band 7	£39,181
Band 8a	£46,685
Band 8b	£55,863
Band 8c	£65,824
Band 8d	£79,941
Band 9	£97,387

<sup>1</sup> 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/>.

## 16.4 Mean annual basic pay per FTE for administration and estates staff by Agenda for Change band, NHS England

	Mean annual basic pay per FTE
Band 1	£15,616
Band 2	£17,099
Band 3	£18,835
Band 4	£21,674
Band 5	£25,792
Band 6	£31,404
Band 7	£37,725
Band 8a	£45,458
Band 8b	£54,389
Band 8c	£64,505
Band 8d	£77,677
Band 9	£94,102

## 16.5 Mean annual basic pay per FTE for NHS staff groups

	Mean basic salary per full-time equivalent
<b>All nurses, midwives and health visiting staff</b>	
Qualified	£31,688
Nursery nurses and nursing assistants	£18,517
<b>Science technical &amp; therapeutic staff (ST&amp;T): allied health professionals</b>	
Qualified	£34,042
Unqualified	£19,363
<b>ST&amp;T staff: other</b>	
Qualified	£36,399
Unqualified	£20,423
<b>Ambulance staff</b>	
Qualified	£27,656
Unqualified	£19,012
<b>Former pay negotiating council groups</b>	
Senior managers	£80,114
Managers	£50,113
Administrative & clerical staff	£23,505
Maintenance & works staff	£22,588

Source of tables 17.1-17.6: NHS Digital (2018) *NHS staff earnings estimates, 12-month period from May 2017 – April 2018* (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).

## 17. 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

## 18. Training costs of health and social care professionals

Tables 18.1 and 18.2 provide a breakdown of the training costs incurred using standard estimation approaches.<sup>1</sup> 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 NHS 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 18.1 after the title of the professional group.<sup>2</sup>

The cost of training for health service professionals covers both pre-registration and post-graduation 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 employing NHS Trust.

### 18.1 Training costs of health and social care professionals, excluding doctors

Professional (working life in years)	Pre-registration			Totals	
	Tuition <sup>3</sup>	Living expenses/lost production costs <sup>4</sup>	Clinical placement <sup>5</sup>	Total investment	Expected annual cost discounted at 3.5%
<b>Scientific and professional</b>					
Physiotherapist (24.3)	£26,642	£34,728	£4,742	£66,112	£5,410
Occupational therapist (23.5)	£26,642	£34,728	£4,742	£66,112	£5,419
Speech and language therapist (24.7)	£26,642	£34,728	£4,742	£66,112	£5,556
Dietitian (23.3)	£26,642	£34,728	£4,742	£66,112	£5,622
Radiographer (24.3)	£26,642	£34,728	£4,742	£66,112	£5,388
Hospital pharmacist (27.6)	£34,929	£44,588	£37,714	£117,232	£9,238
Community pharmacist (27.6)	£34,929	£44,588	£25,338	£104,855	£8,263
Psychologists (not estimated by PSSRU) <sup>6</sup>					
<b>Nurses (15.7)</b>	£26,642	£34,728	£4,742	£66,112	£8,687
<b>Social workers (8) (degree)</b>	£26,642	£34,728	£6,939	£68,309	£25,417

<sup>1</sup> Netten, A., Knight, J., Dennett, J., Cooley, R. & Slight, A. (1998) *Development of a ready reckoner for staff costs in the NHS, Vols 1 & 2*, Personal Social Services Research Unit, University of Kent, Canterbury.

<sup>2</sup> Estimates of expected working life have been calculated using the 2001 census.

<sup>3</sup> Drawn from <https://www.kent.ac.uk/finance-student/livingcosts.html> [26/09/2017] and <https://www.independent.co.uk/news/education/university-tuition-fees-england-highest-world-compare-students-student-loan-calculator-a7654276.html> [29/09/2018] [18 October 2018].

<sup>4</sup> Estimate is midway between the Kent and Oxford University 2017/18 cost of living estimates.

<sup>5</sup> The placement tariff for non-medical placements is £3,112+MFF per annum in 2017/18. Gov.uk (2018) *Healthcare education and training placement tariffs 2017-2018*, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/629492/2017-18\\_ET\\_tariff\\_guidance\\_FINAL\\_July\\_v2.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/629492/2017-18_ET_tariff_guidance_FINAL_July_v2.pdf) [accessed September, 2018].

<sup>6</sup> NHS England (2016) *Review of clinical and educational psychology training arrangements*, National College for Teaching and Leadership, London.

## 18.2 Training costs of doctors (after discounting)

Doctors (working life in years)	Tuition	Living expenses/lost production costs	Clinical placement	Placement fee <sup>1,2</sup> plus Market Forces Factor (a)	Salary (inc overheads) and post-graduate centre costs	Total investment	Expected annual cost discounted at 3.5%
Doctors (26)							
Pre-registration training: years 1-5	£45,134	£55,024	£143,859	NA		£244,017	£19,807
Post-graduate							
Foundation officer 1 (included in pre-reg training)	£45,134	£55,024	£143,859	£10,754	£50,909	£305,680	£24,812
Foundation officer 2	£45,134	£55,024	£143,859	£20,276	£55,513	£319,807	£27,809
Registrar group	£45,134	£55,024	£143,859	£40,155	£104,669	£388,841	£39,229
Associate specialist	£45,134	£55,024	£143,859	£48,496	£140,551	£433,065	£46,268
GP	£45,134	£55,024	£143,859	NA	£149,802	£393,820	£42,075
Consultants	£45,134	£55,024	£143,859	£65,144	£207,227	£516,389	£59,219

<sup>1</sup> Gov.uk (2016) *Healthcare education and training placement tariffs 2017 to 2018*, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/629492/2017-18\\_ET\\_tariff\\_guidance\\_FINAL\\_July\\_v2.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/629492/2017-18_ET_tariff_guidance_FINAL_July_v2.pdf) [accessed September, 2018].

<sup>2</sup> Placement fees for post-graduate doctors in training before discounting are: Foundation Officer 1 £12,152; Foundation Officer 2 £24,304; Registrar £48,608; Associate specialist £60,760; Consultants £85,064. Tariff for placement activity should also include a contribution to basic salary costs of 2.0408% and a market forces factor. Placement fees are not provided for GP placements.

## 19. Care home fees

The fees reported in this Schema have been calculated using the Laing & Buisson Care Homes Complete Dataset 2017/2018.<sup>1</sup> Table 1 provides the midpoints of the minimum and maximum fees for profit providers of nursing and residential homes in England, broken down by client group. It also provides the median of the minimum and maximum fee. Table 2 provides the same information but for not-for-profit providers.

**Table 1 - Care home fees in England – for-profit providers**

### Minimum and maximum fees for 2017/2018

	Midpoint of Minimum fee	Midpoint of Maximum fee	Median of min and max fee	Midpoint of Minimum fee	Midpoint of Maximum fee	Median of min and max fee
	Nursing Homes			Residential Homes		
Brain Injury	£1,600	£3,500	£2,250			
Dementia	£784	£1,099	£942	£599	£746	£673
Learning disability	£665	£1,090	£878	£575	£1,559	£1,067
Mental health	£1,089	£1,163	£1,126	£546	£812	£679
Older people (65+)	£763	£934	£849	£570	£687	£629
Physical disability	£614	£1,535	£1,075	£487	£671	£579
<b>Average fee for profit providers</b>	<b>£775</b>	<b>£990</b>	<b>£883</b>	<b>£598</b>	<b>£747</b>	<b>£673</b>

**Table 2 Care home fees in England – not-for-profit providers**

### Minimum and maximum fees for 2017/2018

	Midpoint of Minimum fee	Midpoint of Maximum fee	Midpoint between min and max fee	Midpoint of Minimum fee	Midpoint of Maximum fee	Midpoint between min and max fee
	Nursing Homes			Residential Homes		
Dementia	£1,328	£1,627	£1,478	£727	£854	£791
Learning disability	£1,250		£625	£812	£1,502	£1,157
Mental health	£709	£765	737	£432	£747	£590
Older people (65+)	£869	£1,039	£954	£649	£765	£707
Physical disability	£1,213	£2,100	£608	£1,080	£2,300	£1,690
Sensory impairment				£525	£1,417	£971
<b>Average fee for not for profit providers</b>	<b>£888</b>	<b>£1,083</b>	<b>£986</b>	<b>£679</b>	<b>£842</b>	<b>£761</b>

<sup>1</sup> Laing & Buisson (2018) *Laing & Buisson Care Homes Complete Dataset 2017/2018*, Laing & Buisson, London.

## 20. Time use of community care professionals

The following table provides information from an online survey carried out by PSSRU in 2014/2015 (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
<b>Nurses</b>								
(bands 5 and 6)	<b>44</b>	39	54%	29%	13%	5%	102	1:0.20
(bands 7 and 8)	<b>31</b>	40	42%	33%	19%	6%	71	1:0.33
<b>Physiotherapists</b>	<b>11</b>	41	35%	38%	22%	5%	132	1:0.37
(bands 5-8)								
<b>Occupational therapists</b>	<b>6</b>	40	51%	36%	11%	2%	42	1:0.15
(bands 4-7)								
<b>Speech and language therapists</b>	<b>7</b>	40	38%	50%	9%	3%	84	1:0.14
(bands 5-6)								

References from past editions:

Clinical Psychologist: Ratio of face-to-face contacts to all activity: 1:1:25. Based on the National Child and Adolescent Mental Health Service Mapping data and returns from over 500 principal clinical psychologists, 44.5 per cent of time was spent on direct clinical work. (See: Department of Health (2002) National child and adolescent mental health service mapping data, Department of Health, London).

GP Practice Nurse: Ratio of direct to indirect time on face-to-face contacts to all activity: 1:0:30. Time spent on surgery consultations (67.9%), phone consultations (5.2%), clinics (2.5%) and home and care home visits (1.2%). Taken from the 2006/2007 UK General Practice Workload Survey. (See: Information Centre (2007) 2006/2007 UK General practice workload survey, Primary Care Statistics, Information Centre, Leeds).

Nurse advanced/nurse practitioners: Ratio of patient contacts to all activity: 1:0:71. Based on information provided by 27 nurse practitioners, 58% of time was spent on surgery consultations, 0.4% on home visits, 6.4% on telephone consultations and 1.4% of time was spent on getting prescriptions signed. See Cutis, L. & Netten, A. (See: The costs of training a nurse practitioner in primary care: the importance of allowing for the cost of education and training when making decisions about changing the professional mix, *Journal of Nursing Management*, 15, 4, 449-457).

- 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.



## 21. 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.

**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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## 23. 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 and Social Care : <https://www.gov.uk/government/organisations/department-of-health-and-social-care>

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.

NHS Improvement: <https://improvement.nhs.uk>

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://improvement.nhs.uk/resources/reference-costs/>

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/>

The King's Fund: <https://www.kingsfund.org.uk/>

YoungMinds: <http://www.youngminds.org.uk/>

YoungMinds is a national charity committed to improving the mental health of all children and young people.

## 24. 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

#### 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

**2017**

Guest editorial: Estimating medication costs for economic evaluation  
Health care costs in the English NHS  
A survey of English dental practices with costs in mind

**Tables****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)

**2017**

Extra-care housing for older people  
 Geriatric resources for assessment and care of elders (GRACE)  
 Mindfulness-based cognitive therapy – group-based intervention  
 Residential rehabilitation for people who misuse drugs or alcohol  
 Inpatient detoxification for people who misuse drugs or alcohol  
 Specialist prescribing  
 Cognitive Behavioural Therapy  
 Local safeguarding children's boards  
 Parenting programmes for prevention of persistent conduct disorder  
 Independent reviewing officer (IRO)  
 Social care support for older people/people with learning disabilities/people with mental health problems and people with physical disabilities  
 Support for children and adults with autism  
 Support care for children  
 Young adults with acquired brain injury in the UK  
 Residential parenting assessments

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Social work team leader/senior practitioner/senior social worker

Family support worker

Health and social care teams

