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Financing Mental Health Services in London

Central funding and local expenditure

Fayaz Aziz, Paul McCrone, Seán Boyle and Martin Knapp

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This is one of a series of papers produced in 2002/03 as part of the King's Fund Mental Health Inquiry. The Inquiry aims to assess whether London's mental health and mental health services have improved over the last five years. In 1997 the King's Fund produced a report entitled London's Mental Health, describing services in inner London 'that cannot be sustained'. The recent Inquiry asked what, if anything, has changed since then, as well as tackling some new questions.

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Executive summary

The 1997 King's Fund report into mental health in London found wide variations in the cost of services across the capital. It was estimated that service costs amounted to £335 million in 1995/96, but that was around £56 million less than required. The King's Fund commissioned the current report to analyse current expenditure on London's mental health services.

The objectives of the report were to answer the following questions:

- What is the level of expenditure on mental health services in London?
- How does mental health expenditure in London compare to that in other areas in England?
- How is expenditure distributed across different service types?
- How does current spending on mental health services compare with spending in 1996/97?
- To what extent are funds spent on services with evidence of effectiveness?
- What central funds have been specifically allocated for mental health services, and how have these funds been spent?
- To what extent can variations in spending across London be explained by variations in population need?

London's mental health trusts provided this study with expenditure data for all working-age adult mental health services at trust and borough levels. In addition, they provided details of the level of spending on certain key services:

- acute inpatient care
- psychiatric intensive care beds
- forensic care
- day care
- assertive outreach teams
- crisis resolution teams.

The total level of expenditure in London by NHS trusts was estimated to be £477 million in 2001/02. At the local authority level, Kensington and Chelsea had the highest level of per capita NHS expenditure, at £160, and Hillingdon had the lowest, at £41.

Social services expenditure also varied greatly, with the highest per capita amount being in Westminster (£82) and the lowest in Havering (£16). Social services expenditure accounted for between 19 and 44 per cent of the total spent on mental health services in London boroughs, and in total came to £172 million.

Expenditure on key mental health services varied between trusts and local authority areas. Some areas had much higher levels of spending on assertive outreach and crisis resolution services than others.

In 2001/02, some £27.8 million was allocated to local authority areas within London, in the form of the mental health grant. The amount allocated to each area varied, mainly due to differences in the need for mental health services. Funding via the NHS Modernisation Fund was estimated to have been around £20 million over three years (approximately £7 million in 2001/02).

Expenditure per capita in London as a whole was – not surprisingly – much higher than other regions in England. However, it was also much higher than other deprived inner-city areas in England.

In order to investigate the variation in expenditure further, we used three multi-variate models. The first used four factors obtained from a factor analysis of socio-demographic data for all local authorities in England. The second and third models used two established indicators of need: the York index and the MINI. To each model were added the number of asylum seekers in an area, and a variable to indicate relative price levels.

The factor analysis model was able to explain 69 per cent of variation in NHS expenditure and 83 per cent of variation in SSD expenditure. The York model could explain 49 per cent of variation in NHS expenditure and 73 per cent of variation in SSD expenditure. Finally, the MINI model could explain 45 per cent of NHS expenditure variation and 74 per cent of SSD variation. All models therefore performed well, although the factor analysis model had the most predictive power.

The factor analysis model revealed that in some areas, the level of expenditure was substantially above or below the expected level. In Wandsworth, for example, NHS and social services spending appeared to be 38 per cent less per head than predicted by the factor analysis needs model, whereas, in Haringey spending was around 25 per cent higher than expected.

Key messages

- The previous King's Fund report estimated that the costs of mental health services in London in 1995/96 were £335 million. However, only costs for inpatient, residential care and medium-secure places were included in that analysis, and calculations were made by combining activity data with estimates for standard unit costs. For this new assessment, we obtained actual expenditure data directly from trusts on all adult mental health services. The total expenditure (NHS plus social services) was £649 million.

- Using a similar cost calculation method adopted by the King's Fund's original 1997 study, we show that mental health costs increased by around 14 per cent over the past six years. Although this is markedly less than the 28 per cent increase in total NHS funding, it should be stressed that it is a 'lower-bound' estimate.

- Spending on mental health by social services accounted for between 19 and 44 per cent. Local authorities play a major role, being responsible for a substantial amount of the resources used to provide mental health care to the population of London.

It is also important to recognise that social services expenditure is more closely related to variations in deprivation than is NHS expenditure.

- Some areas have expenditure that is far higher or lower than expected, based on the predictions made by models of the need for mental health services. The reasons for this variation include differences in:
  - the priority attached to mental health services
  - the efficiency with which services are delivered
  - the configuration of services, particularly where services are provided across borough boundaries, leading to apparent 'over' spending in one borough (from where services are provided) and 'under' spending in one or more other boroughs (where some of these services will be consumed).

  These possibilities are speculative. However, boroughs and NHS trusts at both ends of the 'under' and 'over' spend range need to examine their own local situations with respect to these results.

- We were able to identify how the mental health grant was allocated across London, and it was encouraging to note that it was strongly associated with deprivation. However, we were not able to ascertain how it was spent as data on this were not routinely recorded. Likewise, Modernisation Fund monies distributed through the unified allocations to health authorities could not be traced. We therefore had to make an estimate of the amount involved: £20 million over three years, £7 million in 2001/02.

- Reasonably good evidence exists to suggest that crisis intervention and assertive outreach are cost-effective services. However, expenditure per head differed greatly between areas. This could mean either that the dissemination of such evidence needs to be improved, or that the way in which service changes are facilitated needs to be refined.

- As is only too apparent, there is a real problem in compiling a properly comprehensive and accurate picture of mental health services spending across London. While we have been able to track some spending over time, this has been incomplete. Given the importance of mental health services to the population of London, and the large sums of public money likely to be involved, this is not a satisfactory situation.

Introduction

An important component of the King's Fund 1997 Inquiry into London's mental health (Johnson et al 1997) was to analyse the costs of service provision. The report set out:

i to establish the cost implications of existing mental health service provision in London
ii to compare these derived costs with the costs associated with predicted service requirements
iii to explore... the efficiency with which resources are being utilised in different localities in the capital

(Chisholm et al 1997, p 329)

The 1997 study estimated the costs of inpatient and residential care mental health services in London at around £335 million. The study was unable to obtain costs for all mental health services, due to data limitations – a problem that persists in this updated study. However, it was also estimated that, based on the Mental Illness Needs Index (MINI), actual costs fell short of meeting mental health needs in London by £56 million (a deficit of 17 per cent). The 1997 study also revealed substantial variation across London in service provision.

Over the six years since 1997, there have been some major policy and practice developments in the provision of mental health services in the UK. In particular, the publication of the National Service Framework for Mental Health (Department of Health 1999a) identified specific standards that should be attained by service providers. Emphasis has also been given to innovative forms of service delivery, such as assertive outreach teams and crisis resolution services, which were not in widespread use at the time of the 1997 report.

Moreover, the global NHS budget has grown by 28 per cent after allowing for NHS-specific inflation, with a significant part of these extra resources earmarked for declared government priorities such as mental health (along with heart disease and cancer), through the Health Modernisation Fund.

While such changes in policy and financial resources have been welcomed, many of the concerns raised by the King's Fund's original study of mental health services, in 1997, remain. Two particular concerns are the extent of the gap between actual spending and predicted spending (based on measures of need for mental health services), and the degree to which unexplained variations in service funding and provision across London have reduced.

To address the current resource issues, the King's Fund invited a team of researchers from the London School of Economics and the Institute of Psychiatry to compile this working paper.

Aims and objectives

- The broad aim of this component of the King's Fund Mental Health Inquiry was to estimate and analyse expenditure on London's mental health services.

In particular, the work aimed to address the following questions:

- What is the level of expenditure on mental health services in London?
- How does mental health expenditure in London compare to that in other areas in England?
- How is expenditure distributed across different service types?
- How does current spending on mental health services compare with spending in 1996/97?
- What central funds have been specifically allocated for mental health services, and how have these funds been spent?
- To what extent are funds spent on services with evidence of effectiveness?
- To what extent can variations in spending across London be explained by variations in population need?

Spending on mental health services

Spending on mental health services can be analysed from various viewpoints. In this section, we examine services provided by the NHS and social services for people aged between 16 and 64 and detail:

- the change in total per capita spending by NHS trusts between 1999/2000 and 2001/2002 and how this spending compares with other areas of the country
- spending by NHS trusts at the borough level
- per capita spending by social services by borough
- how the expected cost of providing services has changed over the past six years.

Data on patterns of NHS expenditure were obtained from two sources: NHS trusts providing mental health services, and data collated by the Institute of Public Finance. For social services departments, we obtained data from the Department of Health website at: www.doh.gov.uk/public/pss_stat.htm#0102. (For further details, see Appendices.)

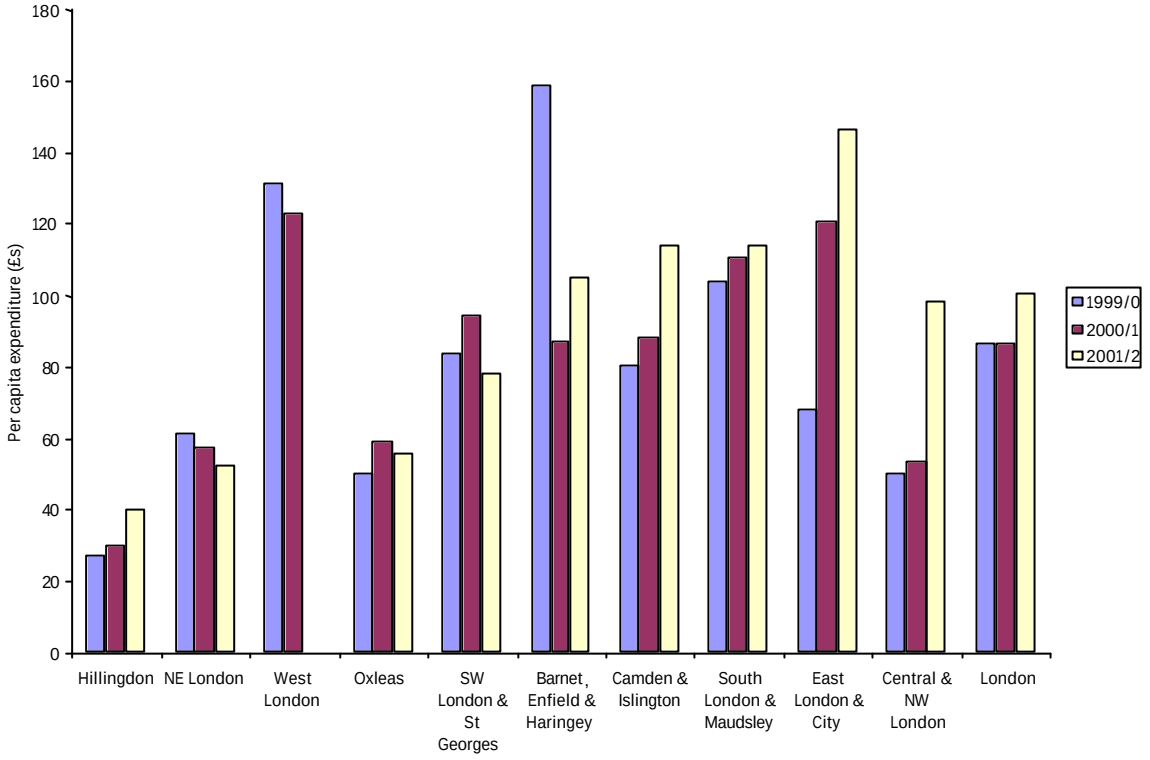
The picture that emerges is a strong indication that NHS spending has increased gradually, and that there remains considerable variation in spending across London. Explanations for this variation are addressed later in this working paper.

NHS trust spending

Figure 1 (opposite) shows how expenditure per person on inpatient and outpatient care changed between 1999/2000 and 2001/02 (as recorded by the Institute for Public Finance). We have reported figures for trusts as they currently exist. In the case of mergers, this meant combining data for a larger number of trusts for the earlier years. (Data for West London in 2001/02 included expenditure on high-secure places in Broadmoor, so we have excluded these figures.)

It can be seen that there was a relatively high level of variation for some trusts from year to year. Expenditure in Barnet, Enfield and Haringey decreased sharply, while spending in East London and the City and Central and North West London increased over time. It is not clear what led to such changes in expenditure, but there was a high level of merger activity during this period, and this may have led to such changes. Overall there was a 16 per cent increase in spending in London over these three years. Some of this increase is likely to reflect the extra resources allocated to mental health care for the development of new services. (For detailed information on spending for individual trusts, see Appendices.)

Figure 1: Per capita trust expenditure on adult inpatient and outpatient mental health services (1999–2001)



Data source: Health service financial database (2001), Institute of Public Finance

Table 1 (overleaf) provides details of expenditure by NHS trusts as it maps on to London boroughs. These figures were provided directly by the trusts and, due to differences in definitions used, will not be the same as those reported by the Institute for Public Finance. Because forensic expenditure often does not relate to a defined borough population, the per capita figures exclude this element. Spending for inner London expenditure is generally higher than that for outer London. However, the area with the second-highest level of expenditure per head (£162) is Haringey, in outer London. Hillingdon has the lowest level of expenditure per head. It is clear that there is substantial variation in spending across London.

Table 1: NHS trust expenditure (£) by borough (2001/02)

Borough	Expenditure on all adult services	Expenditure on adult services, excluding forensic	Per capita expenditure excluding forensic
Inner London			
Camden	21,143,608	21,143,608	146.83
City and Hackney*	17,026,000	12,016,000	84.38
Greenwich	14,412,165	12,826,425	91.23
Hammersmith and Fulham	11,523,012	9,951,712	82.52
Islington	12,945,370	12,945,370	102.99
Kensington and Chelsea	18,423,416	18,423,416	160.34
Lambeth	31,097,000	27,080,000	141.78
Lewisham	25,865,992	23,591,544	139.18
Southwark	18,953,116	16,063,969	94.33
Tower Hamlets	12,089,000	10,413,000	78.06
Wandsworth	19,469,903	17,200,214	90.10
Westminster	25,299,294	25,221,468	187.52
Outer London			
Barking and Dagenham	6,518,000	4,971,000	48.88
Barnet	18,897,538	18,897,538	91.87
Bexley	9,520,489	8,771,667	63.42
Brent	13,569,203	12,860,365	70.90
Bromley	10,850,107	10,233,428	54.64
Croydon	15,265,078	14,862,653	68.78
Ealing	12,917,761	11,250,811	54.35
Enfield	33,261,540	14,823,916	83.00
Haringey	24,427,877	24,427,877	161.77
Harrow	10,072,478	9,809,150	72.02
Havering	6,474,000	6,474,000	46.11
Hillingdon	6,455,000	6,455,000	40.91
Hounslow	9,065,759	8,475,809	58.66
Kingston	9,630,397	9,128,057	91.28
Merton	9,831,609	9,110,013	71.51
Newham	10,262,000	7,314,000	46.09
Redbridge	9,918,000	9,918,000	64.11
Richmond	10,643,092	10,128,342	86.86
Sutton	9,831,609	9,173,840	78.95
Waltham Forest	11,216,000	11,216,000	76.72
Total for London	476,875,413	425,178,192	87.78

* East London and City NHS Trust reported one figure for City and Hackney combined.

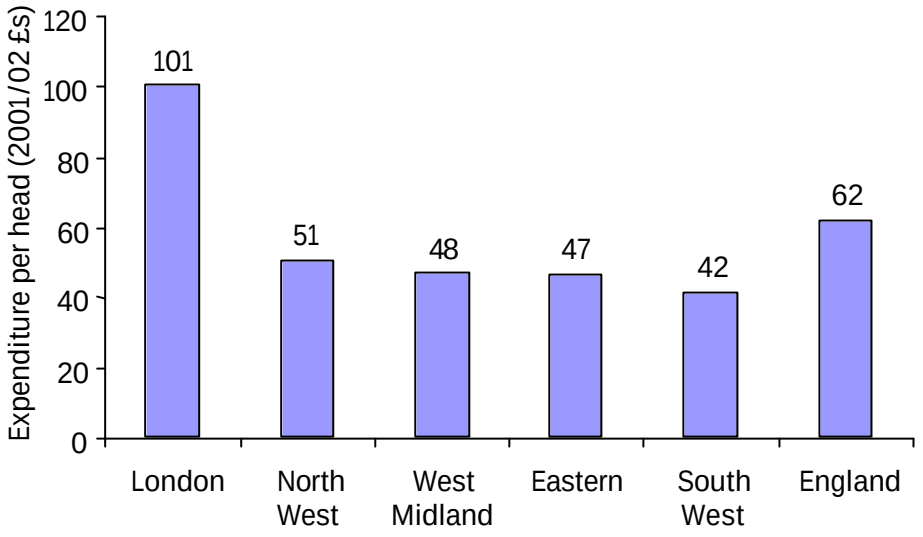
Source: Trusts providing mental health services in London

Regional comparisons

The data presented in the previous section shows that there is substantial variation in mental health expenditure across the capital. It is important, however, to compare the London region with other areas. We did not collect new data from trusts outside London, so for these comparisons we have used the figures obtained from the Institute for Public Finance database.

Figure 2 clearly shows that the expenditure per capita on adult inpatient and outpatient mental health services is substantially greater than that for other regions, or for England as a whole. This was not surprising, as the non-London regions all contain sparsely populated rural areas where the prevalence of serious mental health problems is substantially less than urban and inner-city areas.

Figure 2: NHS expenditure per head on mental health in English regions



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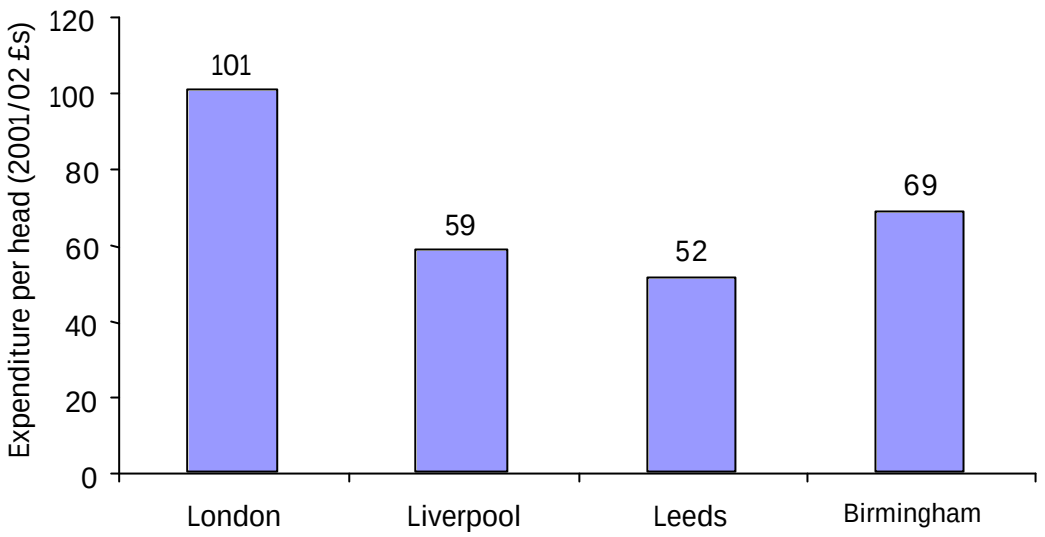
Because of this, it is more appropriate to compare London to other inner-city areas. Figure 3 (overleaf) makes such a comparison with Leeds, Liverpool and Birmingham. It can be seen that expenditure in London is again much higher than elsewhere. This variation would be expected to reflect a difference in mental health need. However, while the MINI 2000 score for London, at 1.16, was higher than Leeds (1.02) and Birmingham (0.94), it was substantially less than that of Liverpool (2.21).

Figure 3: NHS expenditure per head on mental health in four inner-city areas



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Social services spending

Table 2 (opposite) shows the level of social services expenditure across London. The total level of expenditure comes to around £172 million. It can be seen that Westminster has the highest level of per capita spending of any London borough, at £82. Other high-spend areas are Hackney, Kensington and Chelsea, Lambeth, Camden and Tower Hamlets. Areas with the lowest social services spending were in outer London: Havering, Barking and Dagenham, Bromley and Redbridge. The highest proportion of social services spending devoted to mental health was in Westminster (11 per cent), while the lowest was in Barking and Dagenham (3 per cent).

Table 2: Personal and social services expenditure (£000s) on adults aged under 65 with mental health needs, by borough (2001/02)

Borough	Total PSS expenditure	PSS expenditure on mental health	Per capita PSS expenditure on mental health	% PSS expenditure spent on mental health
Inner London				
Camden	94,026	7,575	52.60	8.05
Greenwich	88,668	5,506	39.16	6.21
Hackney and City	102,474	7,849	55.12	7.66
Hammersmith and Fulham	83,714	5,885	48.80	7.03
Islington	104,421	6,423	51.10	6.15
Kensington and Chelsea	68,196	6,176	53.75	9.06
Lambeth	133,160	9,832	51.48	7.38
Lewisham	107,343	6,682	39.42	6.22
Southwark	126,310	7,764	45.59	6.15
Tower Hamlets	98,163	8,194	61.42	8.35
Wandsworth	87,331	4,524	23.70	5.18
Westminster	103,031	11,087	82.43	10.76
Outer London				
Barking and Dagenham	63,857	1,690	16.62	2.65
Barnet	89,265	4,506	21.91	5.04
Bexley	50,312	3,029	21.90	6.02
Brent	73,416	6,706	36.97	9.1
Bromley	67,818	3,356	17.92	4.95
Croydon	88,682	6,820	31.56	7.69
Ealing	93,287	6,141	29.67	6.58
Enfield	77,786	4,859	27.21	6.25
Haringey	115,624	5,972	39.55	5.17
Harrow	56,608	5,153	37.83	9.10
Havering	51,025	2,307	16.43	4.52
Hillingdon	76,891	3,454	21.89	4.49
Hounslow	63,008	3,751	25.96	5.95
Kingston	35,374	2,580	25.80	7.29
Merton	49,070	3,520	27.63	7.17
Newham	106,273	6,023	37.95	5.67
Redbridge	63,800	3,129	20.23	4.90
Richmond	54,117	3,247	27.85	6.00
Sutton	40,178	3,471	29.87	8.64
Waltham Forest	77,395	4,564	31.22	5.90
London	2,590,623	171,775	35.46	6.63
England	11,369,372	645,745	20.98	5.68

Source: Department of Health at: www.doh.gov.uk/public/pss_stat.htm#0102

The total per capita expenditure on mental health services across London boroughs (excluding forensic care) is shown in Table 3 (overleaf). The areas with the highest spend were Westminster, Kensington and Chelsea, Haringey and Camden. The lowest levels were in Barking and Dagenham, Havering and Hillingdon. Social services expenditure accounted for over 40 per cent of expenditure in the two east London boroughs of Newham and Tower Hamlets. Barnet had the lowest level of social services expenditure relative to NHS expenditure (Figure 4, see p 13).

Table 3: Summary of NHS and social services expenditure per capita on adult mental health services across boroughs

Borough	NHS trust	Social services	Total	% NHS trust	% Social services
Inner London					
Camden	147	53	200	74	27
Hackney and City	84	55	139	60	40
Greenwich	91	39	130	70	30
Hammersmith and Fulham	83	49	132	63	37
Islington	103	51	154	67	33
Kensington and Chelsea	160	54	214	75	25
Lambeth	142	51	193	74	26
Lewisham	139	39	178	78	22
Southwark	94	46	140	67	33
Tower Hamlets	78	61	139	56	44
Wandsworth	90	24	114	79	21
Westminster	188	82	270	70	30
Outer London					
Barking and Dagenham	49	17	66	74	26
Barnet	92	22	114	81	19
Bexley	63	37	85	74	26
Brent	71	18	108	66	34
Bromley	55	32	73	75	25
Croydon	69	30	101	68	32
Ealing	54	27	84	64	36
Enfield	83	40	110	75	25
Haringey	162	38	202	80	20
Harrow	72	16	110	65	35
Havering	46	22	62	74	26
Hillingdon	41	26	63	65	35
Hounslow	59	26	85	69	31
Kingston	91	28	117	78	22
Merton	72	38	100	72	28
Newham	46	20	84	55	45
Redbridge	64	28	84	76	24
Richmond	87	30	115	76	24
Sutton	79	31	109	72	28
Waltham Forest	77		108	71	29

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The relationship between NHS and SSD is further examined in Figure 5. Here, it can be seen that there is a positive relationship between both types of expenditure, so there is no apparent evidence of a substitution effect between SSD and NHS funding. (The number in the bottom right indicates that 49 per cent of variation in SSD expenditure can be explained by NHS expenditure, and vice versa.)

Figure 4: Percentage of mental health expenditure by NHS trusts and social service departments

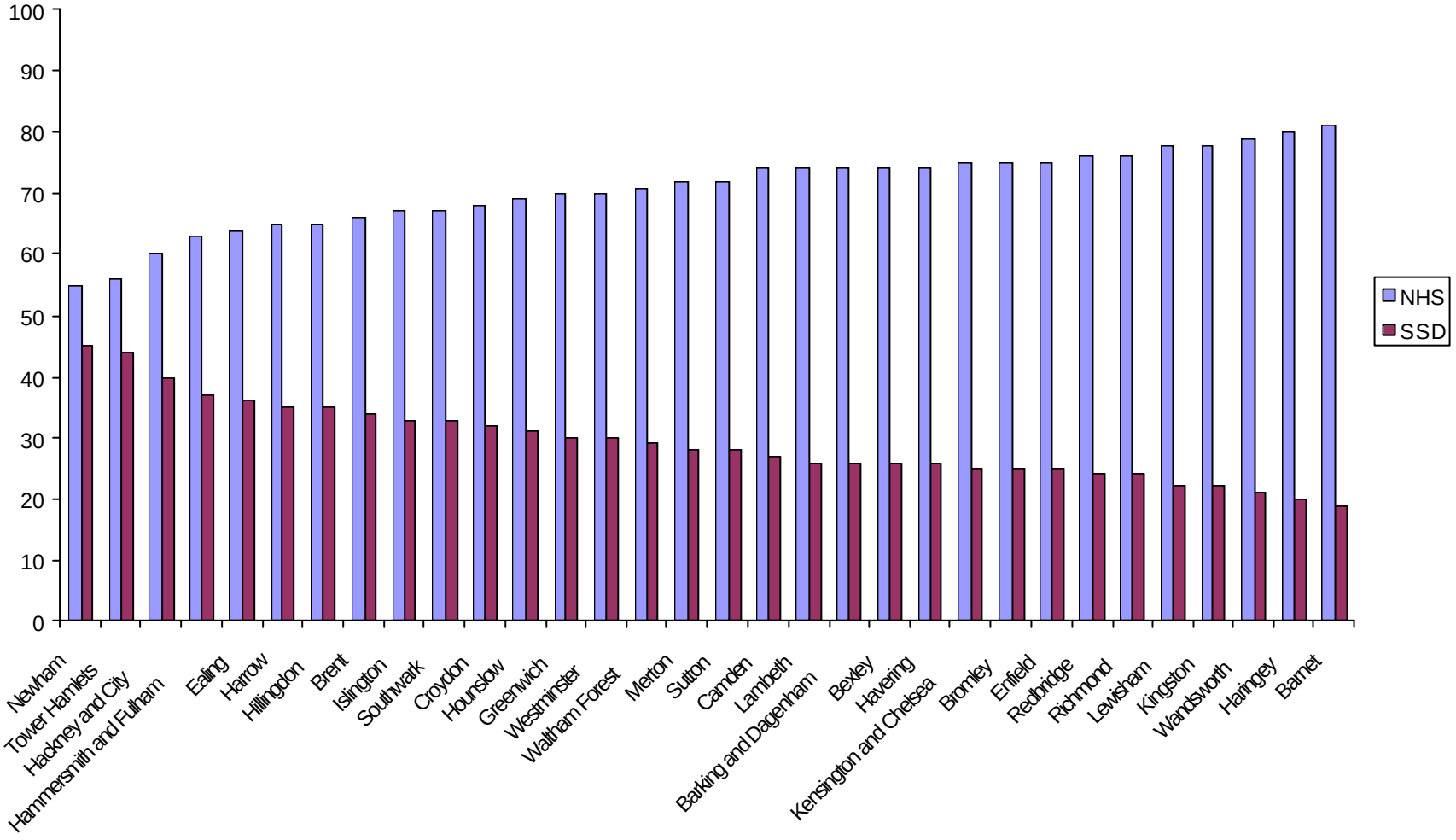
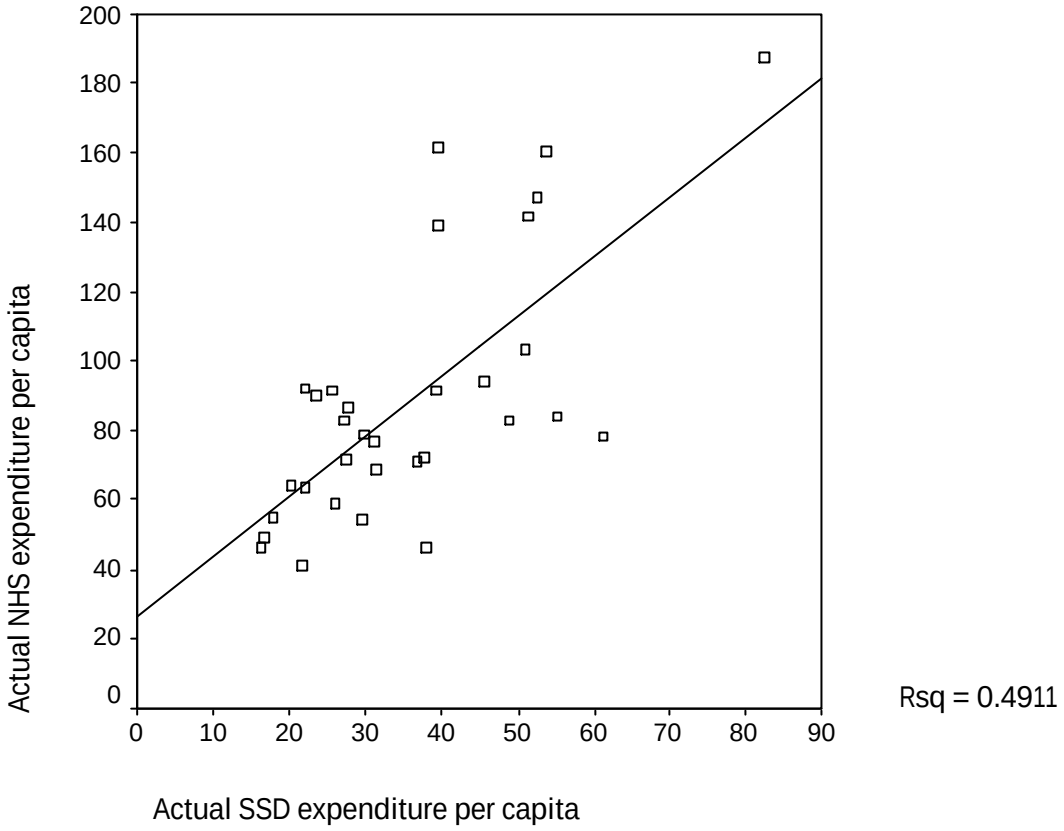


Figure 5: Relationship between NHS and social services expenditure on adult mental health services in London (£s)



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Changes in the cost of mental health services: 1996/97 to 2001/02

One key issue that this study has attempted to address is the change in spending on London's mental health services since the original King's Fund review in 1997. In 1996/97, the costs of providing residential and medium-secure places amounted to an estimated £335 million.

The 1997 report was unable to provide spending figures for the full range of mental health services (including day hospitals, day care services, community mental health teams, and employment or work schemes) because of a lack of data, although it estimated the cost of these services at between £136 million and £267 million. The original estimates were calculated by multiplying activity in various services (inpatients, residential care, and so on) by the costs of providing one unit of activity (for example, a bed or a place).

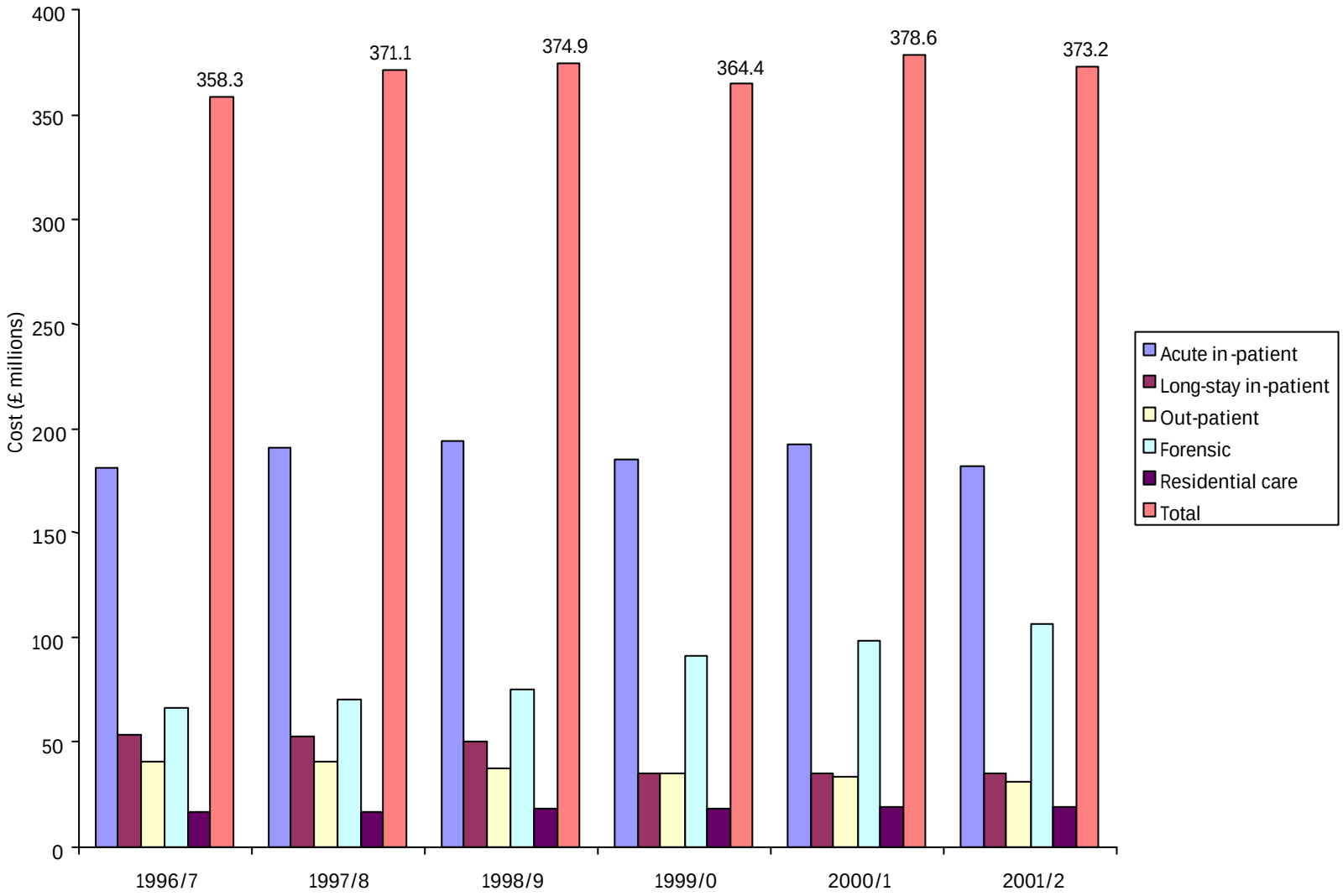
However, the spending levels reported here are based on actual returns from trusts and social services departments, and are also more comprehensive (including, for

example, assertive outreach teams and community mental health teams). This makes comparing the spending estimates detailed above for 2001/02 with the findings of the original 1997 report problematic. Nevertheless, by using a similar estimation method (activity multiplied by unit costs) and making estimates for the costs of services that have developed over the last few years, it is possible to make some tentative cost comparisons.

Figure 6 (overleaf) details trends in spending for five elements of mental health services between 1996/97 and 2001/02, using activity levels in each year, and multiplying by unit costs for 2001/02. This provides a roughly comparable set of spending figures for each year that also adjusts (in a crude way) for inflation. (It assumes, of course, that the 'standard' for each unit of service has not changed over time.) It can be seen that the total cost of providing these services has increased only marginally (by 4 per cent) over the period. However, there have been substantial distributional changes, with forensic costs increasing by 59 per cent and long-stay costs falling by 35 per cent.

One element of the recent King's Fund review is a report on the level of mental health service activity. That report has identified that there are at least 46 crisis resolution and assertive outreach teams currently operating in London. Cost data are not available for these, but a conservative estimate would be £500,000 per team per year. This translates to £23 million for London. If we assume that there has also been an increase in the number of community mental health teams during the period, then the increased cost of teams is probably around £35 million. This would lead to an overall cost increase of around 14 per cent over the six-year period. However, this should be seen as a lower bound estimate. The true increase may be rather higher.

Figure 6: Spending on 'traditional' mental health services in London: 1996/7 to 2001/2



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Distribution of spending across service types

To obtain a more detailed picture of spending on different types of services within mental health services as a whole, and as an indication of the spread of new forms of intervention – such as assertive outreach and crisis resolution – London's ten mental health trusts provided the spending figures detailed in Table 4. It can be seen that expenditure per head on acute inpatient care is highest in Camden and Islington, followed by Central and North-West London. The lowest figure was for Hillingdon. There were substantial variations in the per capita expenditure for all service categories.

Three trusts reported a zero spend on forensic services. Care must be taken in interpreting this, because other trusts do provide forensic services to these areas. Establishing the specific catchment areas for forensic services is problematic, so the totals are presented with and without the forensic component.

Table 4: Per capita trust expenditure (£) on key adult mental health services (2001/02)

Trust	Acute beds	Intensive care beds	Assertive outreach teams	Crisis resolution teams	Day care	Forensic	Sub total	Subtotal excluding forensic
Hillingdon Hospital	13.92	-	1.17	-	2.00	-	17.08	17.08
NE London	28.51	4.32	1.01	1.06	1.03	-	35.93	35.93
West London	22.84	1.86	1.46	1.93	0.79	8.11	36.99	28.88
Oxleas	17.70	2.72	2.55	1.47	1.23	15.87	41.24	25.37
SW London and St G's	14.92	2.25	2.11	-	1.12	7.62	28.02	20.40
Barnet, Enfield and Haringey	22.58	4.57	0.69	0.30	8.83	34.44	71.42	36.97
Camden and Islington	49.63	9.54	2.86	8.21	8.60	-	78.84	78.84
Central and NW London	38.27	7.27	1.07	2.41	12.09	1.85	62.98	61.13
S London and Maudsley	35.21	8.44	0.88	0.85	0.88	13.88	60.13	46.25
East London and City	27.09	4.44	2.12	0.82	0.72	25.73	60.92	35.19
Total for London	27.18	4.82	1.51	1.43	3.60	11.81	50.32	38.50

Source: Trusts providing mental health services in London

Details of spending on these services at borough level are provided in Table 5. Caution must be taken when interpreting the forensic data, as these costs have in some cases been apportioned across boroughs using the same weighting as for other services.

Table 5: Per capita trust expenditure (£) on key adult mental health services, by borough (2001/02)

Borough	Acute beds (£)	Intensive care beds (£)	Assertive outreach teams (£)	Crisis resolution teams (£)	Day care (£)	Forensic (£)	Subtotal (£)	Subtotal (£) excl forensic
Inner London								
Camden	59.90	17.56	1.93	11.08	13.95	-	104.43	104.43
City and Hackney	29.52	7.77	4.42	0.82	-	35.18	77.70	42.52
Greenwich	23.37	6.31	3.12	4.88	2.45	11.28	51.41	40.13
Hammersmith and Fulham	36.14	3.82	1.76	1.34	1.25	13.03	57.34	44.31
Islington	38.41	0.35	3.93	4.92	2.46	-	50.06	50.06
Kensington and Chelsea	49.50	9.88	0.32	6.39	15.17	-	81.34	81.34
Lambeth	36.12	7.93	2.22	0.40	-	21.03	67.70	46.67
Lewisham	28.02	2.96	-	3.27	1.68	13.42	49.35	35.93
Southwark	38.20	6.62	-	-	2.18	16.97	63.97	47.00
Tower Hamlets	33.16	6.18	2.10	1.81	0.30	12.56	56.10	43.54
Wandsworth	22.63	4.93	4.84	-	0.51	11.89	44.81	32.92
Westminster	54.59	11.52	2.98	3.00	22.20	0.58	94.87	94.29
Outer London								
Barking and Dagenham	21.36	1.33	1.47	-	0.86	15.21	40.23	25.01
Barnet	27.94	5.94	0.92	0.70	6.52	-	42.01	42.01
Bexley	14.52	0.92	2.33	-	1.64	5.41	24.82	19.41
Brent	25.92	4.76	0.10	-	7.52	3.91	42.21	38.30
Bromley	15.79	1.36	1.54	-	-	3.29	21.98	18.69
Croydon	21.37	4.36	1.08	-	-	1.86	28.66	26.80
Ealing	20.51	1.65	2.31	1.33	0.18	8.05	34.04	25.98
Enfield	8.74	1.46	-	0.08	7.59	103.23	121.10	17.87
Haringey	31.82	6.40	1.19	-	13.46	-	52.87	52.87
Harrow	25.84	3.93	1.12	1.70	4.90	1.93	39.43	37.49
Havering	20.78	1.12	2.34	-	2.44	-	26.67	26.67
Hillingdon	13.92	-	1.32	-	2.00	-	17.08	17.08
Hounslow	18.18	0.78	-	3.27	1.92	4.08	28.23	24.15
Kingston	9.62	-	0.90	-	2.11	5.02	17.65	12.63
Merton	12.73	1.10	1.69	-	0.77	5.66	21.95	16.29
Newham	19.22	-	0.07	-	1.71	18.58	39.58	21.00
Redbridge	31.38	5.42	0.30	-	0.59	-	37.70	37.70
Richmond	10.22	-	0.77	-	0.20	4.41	15.61	11.19
Sutton	11.61	3.27	0.48	-	2.60	5.66	23.62	17.96
Waltham Forest	34.10	8.32	0.18	3.93	-	-	46.53	46.53
Total London	27.18	4.82	1.51	1.43	3.60	11.81	50.32	38.50

Source: Trusts providing mental health services in London

Spending on services with evidence of effectiveness

Reasonably good evidence exists to suggest that assertive outreach and crisis resolution are effective interventions, although the quality of the evidence for the former is greater (NHS Centre for Reviews and Dissemination 2001). Recently, these interventions have been highlighted as services that should be implemented in all areas (Department of Health 1999a).

However, as Tables 4 and 5 (see pp 17 and 18) clearly show, expenditure per head differed greatly between areas. For example, Barnet, Enfield and Haringey had the lowest per capita spend on assertive outreach, while two trusts (South West London and Hillingdon) stated that they did not spend anything on specialised crisis resolution services. On the other hand, in Camden and Islington spending on crisis resolution teams was nearly six times higher than the average for London and twice as high for assertive outreach teams. This is particularly interesting given the high level of spending on inpatient care in that area.

The wide variations in spending could mean one of two things: either the dissemination of evidence of the effectiveness and cost effectiveness of services such as assertive outreach needs to be improved, or the way in which service changes are facilitated needs to be refined.

Special allocations for mental health care

The Department of Health operates a global strategy for ensuring that the Government's key NHS priorities (which include mental health) receive the necessary financial resources to reform and modernise. Accordingly, a significant part of the total increase in NHS funding over the last few years has been topsliced from the total budget and allocated to purchasers (formerly health authorities, latterly primary care trusts) and, in some instances, directly to NHS trusts and local authorities.

Five years ago, the Government published Modernising Mental Health Services (Department of Health 1998). This promised an increase in mental health spending of £700 million, spread over the three years from 1999/2000 to 2001/02. It is not clear whether all of this money was eventually allocated for mental health, nor how it was distributed across the country.

However, detailed information about funds committed for mental health via the Health Modernisation Fund was set out in a health circular (Department of Health 1999b). This showed that £120 million over three years was to be spent, via the Modernisation Fund, on services such as assertive outreach, crisis resolution and secure care. Almost half of this money went to health authorities as part of their unified allocation. The rest was held by the Department of Health for centrally funded initiatives and services.

London received 16.3 per cent of all NHS money allocated in 2001/02, so of the approximately £60 million allocated to health authorities over three years from 1999/2000 to 2001/02, we have estimated that £9.8 million went to London. The remaining £60 million held centrally has proved difficult to track, but London will have received at least the same proportion as that directly allocated to health authorities. So overall, the NHS in London received an estimated £20 million in total over three years, from the Modernisation Fund, to spend on mental health services. However, this is likely to be an under-estimate, given London's special range and volume of mental health services.

In addition, increased funding for mental health was allocated to local authorities in the form of the mental health grant. In 2001/02, £27.8 million was allocated to London, while in the two previous years, the figures were £21.1 million and £27.7 million respectively (Department of Health 1999b and 2000). Table 6 shows how this money was distributed across London. Hackney and City and Tower Hamlets received the greatest amount per capita, while the lowest amounts were for Sutton and Bromley.

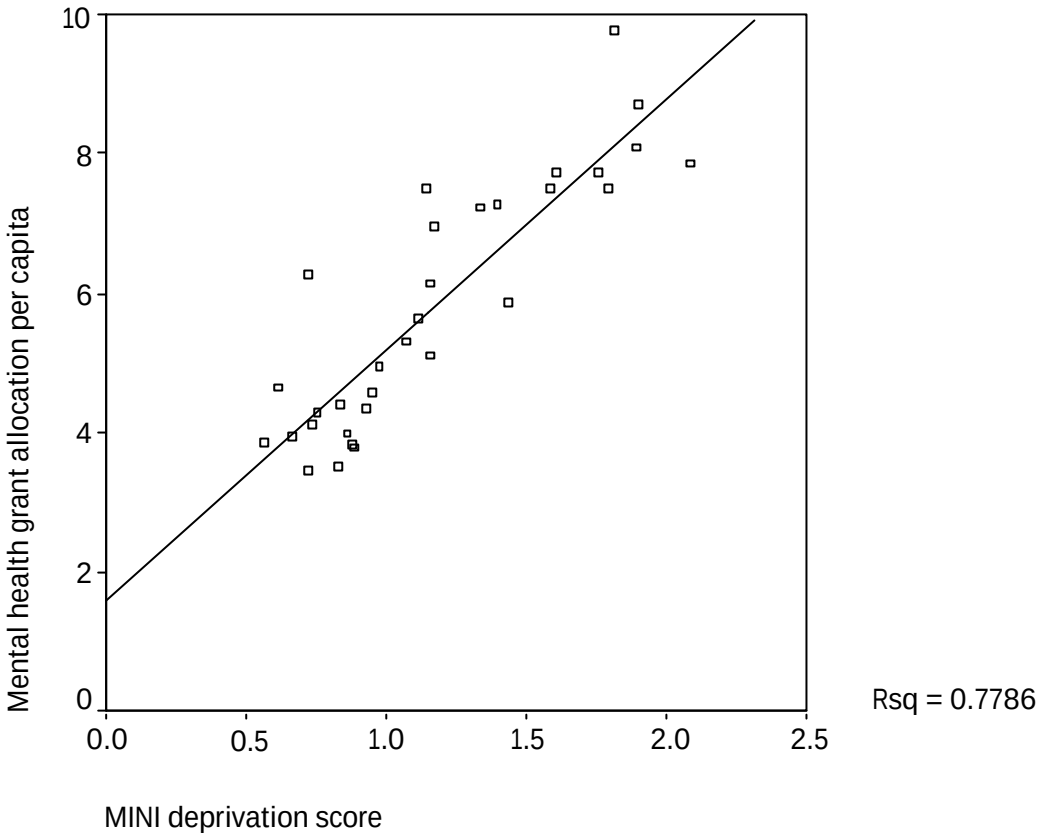
Table 6: Distribution of mental health grant funds (£)

Borough	Allocation	Per capita allocation
Barking and Dagenham	519,989	5.11
Barnet	809,850	3.94
Bexley	547,031	3.96
Brent	959,048	5.29
Bromley	645,735	3.45
Camden	1,129,486	7.84
Croydon	921,789	4.27
Ealing	1,022,083	4.94
Enfield	773,580	4.33
Greenwich	980,676	6.97
Hackney and City	1,391,703	9.77
Hammersmith and Fulham	972,859	8.07
Haringey	926,270	6.13
Harrow	556,912	4.09
Havering	535,767	3.82
Hillingdon	696,613	4.41
Hounslow	662,525	4.58
Islington	938,862	7.47
Kensington and Chelsea	829,585	7.22
Kingston upon Thames	462,319	4.62
Lambeth	1,383,411	7.24
Lewisham	1,267,749	7.48
Merton	798,667	6.27
Newham	1,222,345	7.70
Redbridge	582,361	3.76
Richmond upon Thames	447,889	3.84
Southwark	1,310,637	7.70
Sutton	408,028	3.51
Tower Hamlets	1,160,820	8.70
Waltham Forest	823,724	5.63
Wandsworth	1,117,556	5.85
Westminster	1,006,384	7.48
London	27,812,253	Average 5.74

King's Fund (2003)

The relationship between the allocation and the level of deprivation in an area (as represented by the MINI score) was strong, with over three-quarters of variation in the allocation being explained by deprivation (see Figure 7, overleaf).

Figure 7: Relationship between deprivation and mental health grant allocation (£s)



King's Fund (2003)

We had originally hoped to see how such funds were spent. This, however, did not prove possible. A recent Audit Commission report that attempted to address the same question found that tracing specially allocated funds proved difficult because 'the DH does not require trusts to record in a standard way how the money was spent' (Audit Commission 2003, p 21). It goes on to state that 'sometimes the extra funding was not separately identified by the health authorities and PCTs. As a result funding may not have been applied to the intended priority area because the hospital trust would not have known which area it was intended for' (Op cit, p 22). The Audit Commission concluded that in many cases, trusts were using special allocations to address underlying financial difficulties.

Explaining variations in mental health expenditure

As we have shown earlier, there is substantial variation in mental health spending across London. Part of this will be entirely appropriate, and will reflect variations in the population's need for mental health services. However, it is also likely that part of the variation in spending will reflect other factors, such as differences in priorities accorded to mental health services, variations in efficiency, and so on.

To ascertain the extent to which spending variations could be explained by variations in need for services, we examined the relationship between per capita expenditure by NHS trusts and social service departments and socio-demographic factors at the local authority level. Models were produced for three measures of expenditure:

- NHS trust spending on adult mental health services (excluding forensic care)
- Social services departments' expenditure on mental health services
- Total NHS and social services expenditure.

(NHS forensic expenditure was not included in these analyses because of the difficulty already described in linking it to specific geographical areas.)

For each of these types of expenditure, we constructed three models that differed in terms of the variables used to explain differences in spending across London boroughs. In the first set of models, we examined the relationship that a set of variables (derived from a factor analysis of area characteristics for the whole of England) had with expenditure. In the second set, we used the (updated) Mental Illness Needs Index (Glover et al 1998). This was felt to be appropriate, as the MINI has become an increasingly popular index for describing population needs and also it was used in the 1997 King's Fund report.

Finally, we examined the relationship between actual spending on mental health services and the revised version of the psychiatric index, which contributes to the determination of part of the allocations received by NHS purchasers (primary care trusts). (Details of this index are available at: www.doh.gov.uk/allocations/review/pdf/weightedcapitationformula.pdf.) We have called this 'the York index' because of the origins of the earlier version of this index (Smith et al 1996).

The York index and the MINI are both largely based on 1991 census data, although the York index does include some extra variables. The variables derived from the factor analysis were produced specifically for this project, based on the following variables:

- population density
- percentage aged 0–15
- percentage aged 65 and over
- percentage female
- percentage single
- percentage Asian ethnicity
- percentage black Caribbean ethnicity
- percentage black other ethnicity

- violent offences per 1,000 population
- sexual offences per 1,000 population
- robberies per 1,000 population
- burglaries per 1,000 population
- car theft per 1,000 population
- theft from car per 1,000 population
- percentage with no educational qualifications
- percentage unemployed
- percentage of the population aged 18–74 who are students
- percentage of households with a resident with a long-term illness.

These categories were chosen because from our knowledge of the literature, we felt that they might be linked to mental health need. A further reason was purely pragmatic – these figures were readily available from published sources. (The crime figures were obtained from the ONS website at: www.neighbourhood.statistics.gov.uk/Downloads/C1la.xls, and refer to notifiable offences recorded by the police. The unemployment variable was also obtained from the ONS website at: www.neighbourhood.statistics.gov.uk/Downloads/I8la.xls, while the other data were obtained from the 2001 census.)

Four factors were derived from the analysis (which was based on all English local authorities), and these were then used in the regression models. The four factors are shown in Table 7 (opposite). The figures are the factor loadings, which indicate the importance of each particular variable to the factor. For the purposes of clarity, only those factor loadings with an absolute value of 0.4 or above are shown.

Table 7: Factors obtained from factor analysis

Variable	Factor 1	Factor 2	Factor 3	Factor 4
Age 0–17			0.406	-0.767
Age 65+		-0.474		0.686
Violent offences	0.744	0.463		
Sexual offences	0.622	0.571		
Robberies	0.583	0.722		
Burglaries	0.721			
Car theft	0.794			
Theft from car	0.857			
No qualifications			0.905	
Irish		0.730		
Black Caribbean		0.891		
Black other		0.900		
Asian		0.609		
Single/widowed/divorced	0.758	0.553		
Unemployment			0.831	
Women			0.440	0.628
Living alone	0.757			0.444
Population density	0.515	0.763		
Long-term illness			0.909	
Students	0.628			
Variation explained	28%	26%	15%	10%

King's Fund (2003)

Areas that score highly on factor 1 are likely to have:

- high crime rates
- many people who are single, widowed or divorced
- a large number of people living alone
- high population density
- relatively high numbers of students.

This factor explains 28 per cent of variation between local authorities in England.

Areas scoring highly on factor 2 are characterised by:

- high levels of the more serious crimes
- large ethnic minority populations
- many single, widowed or divorced residents
- high population density
- relatively few older people.

Variation between areas explained by this factor is 26 per cent.

Factor 3 is representative of areas with:

- many younger people
- large numbers of people with no formal qualifications
- high unemployment rates

- a high percentage of women
- a large number of households containing residents with long-term illness.

Fifteen per cent of variation between areas could be explained by this factor.

Finally, areas with high scores on factor 4 tended to have:

- fewer young and more elderly residents
- a relatively large number of residents living alone
- a relatively high proportion of women.

The final factor explained ten per cent of variation. Two further variables were added to each regression model. One was the number of asylum seekers per 1,000 people on a social workers caseload (produced by the Association of London Government and accessed from the London Health Observatory website, at: www.lho.org.uk/hil/excel/refuge/caseload.xls). The other was the 'market forces factor', used by the Department of Health to account for differences in prices across the country when allocating resources (available at: www.doh.gov.uk/allocations).

Regression models were used to calculate the predicted level of expenditure, and this was then compared graphically to the actual level of expenditure. A model that fits the data well results in a relatively low discrepancy between predicted and actual expenditure.

Table 8 summarises the extent to which the three models 'explained' variations in NHS mental health trust spending (as this spending mapped on to London boroughs), local authority social services department spending and both sets of spending combined.

Table 8: Power of three models to 'explain' variations in NHS trust and social services spending on mental health services

Type of spending	Explanatory power (R^2)*
NHS trust spend	
Factor analysis model	0.69
MINI model	0.45
York index model	0.49
Social services spending	
Factor analysis model	0.83
MINI model	0.74
York index model	0.73
NHS trust and social services spending	
Factor analysis model	0.76
MINI model	0.56
York index model	0.58
*R^2 is a statistical measure of association between, in this case, the various models and the variation in spending. R^2 lies between zero (no association) and one (perfect association).	

King's Fund (2003)

Table 8 shows that over two-thirds of variation in trust expenditure can be explained by the factor analysis model, with just under half explained by both the York and MINI models. It should be noted that while the York index is used to determine target

allocations for PCTs, the psychiatric element of the current weighted capitation formulae only influences a small proportion of the total unified allocations of PCTs. PCTs are under no obligation to spend their actual allocations (which will differ slightly from target) in the exact proportion followed by the weighted capitation formulae.

For social services spending, the factor analysis model was able to account for 83 per cent of variation, followed by 74 per cent for the MINI model and 73 per cent for the York model.

These models show that the factor analysis model had substantially greater power to predict NHS spending in London than either the York model or the MINI model. Nonetheless, all three models performed well in predicting social services spending, although the factor analysis model was marginally better. It should be noted that the ability to predict expenditure by the York and MINI models was to some degree a result of including the two extra variables: the market forces factor and the number of asylum seekers on social workers' caseloads. On their own, the York index and the MINI would not be able to explain as much variation.

In terms of total spending on mental health services by both the NHS and local authorities, the factor analysis models could explain 76 per cent of variation. The York and MINI models had similar predictive power, explaining 58 per cent and 56 per cent of expenditure variation respectively.

Differences between actual and predicted spending on mental health services

The regression models provide an indication of the level of spending that is above or below that predicted on the basis of need. We used the results from the factor analysis model to calculate the difference between actual and predicted (or expected) spending, as this was relatively more successful in explaining variations in expenditure than the other two models. In reading the following results of this analysis, it should be remembered that the total of 'under' and 'over' spending across the whole of London will sum to zero by definition.

This does not mean, of course, that London is perfectly provided for in terms of NHS and social services spending on mental health and that it is only a case of reallocating total spending. Here we are concerned only with the extent to which current spending matches what we would predict on the basis of the factor analysis model.

Figure 8 (see p 29) shows the difference between actual and predicted NHS expenditure (excluding forensic care) at the level of local authorities based on the factor analysis model as a percentage of actual spend.

It can be seen that Haringey has per capita spending 29 per cent above that predicted by the model, followed by Lewisham (27 per cent) and Tower Hamlets (24 per cent). Hammersmith and Fulham has spending 59 per cent below that expected. Hillingdon, Brent and Islington all have spending that is around one-third below the expected level.

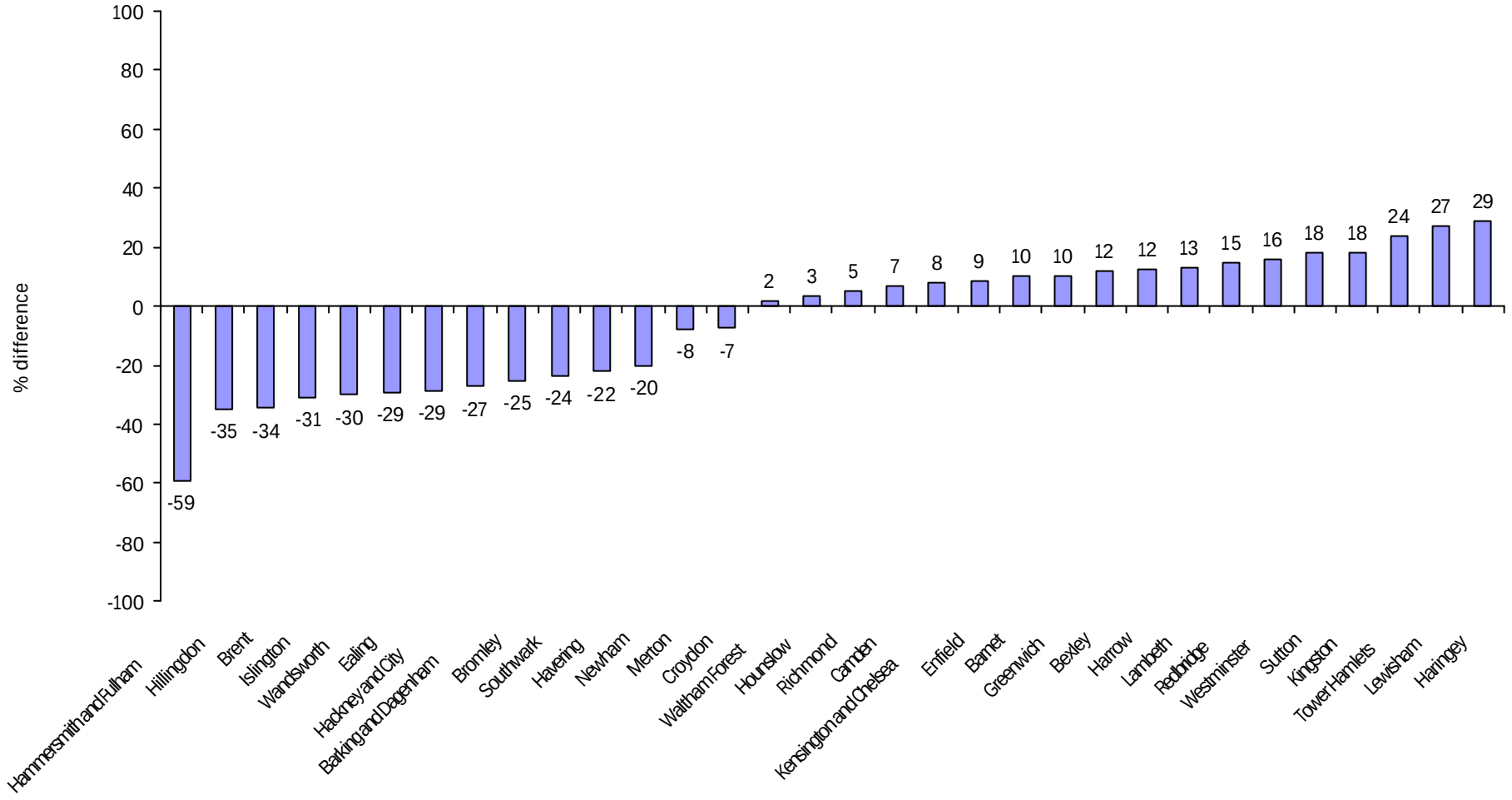
From Figure 9 (see p 30), we can see that Harrow has the highest level of social services spending above that predicted by the model, followed by Sutton, Greenwich and Westminster. Wandsworth, in contrast, spends 67 per cent less per person than predicted.

Figure 10 (see p 31) shows the difference between actual and predicted NHS and social services expenditure as a percentage of the actual figures. As with the NHS expenditure, Haringey and Lewisham have the highest levels of spending above the predicted levels, while Hammersmith and Fulham and Wandsworth have the lowest.

The 1997 King's Fund report examined the difference between actual and expected costs, rather than expenditure. In addition, the earlier work covered a much narrower range of services. Nevertheless, it is possible to make some tentative comparisons.

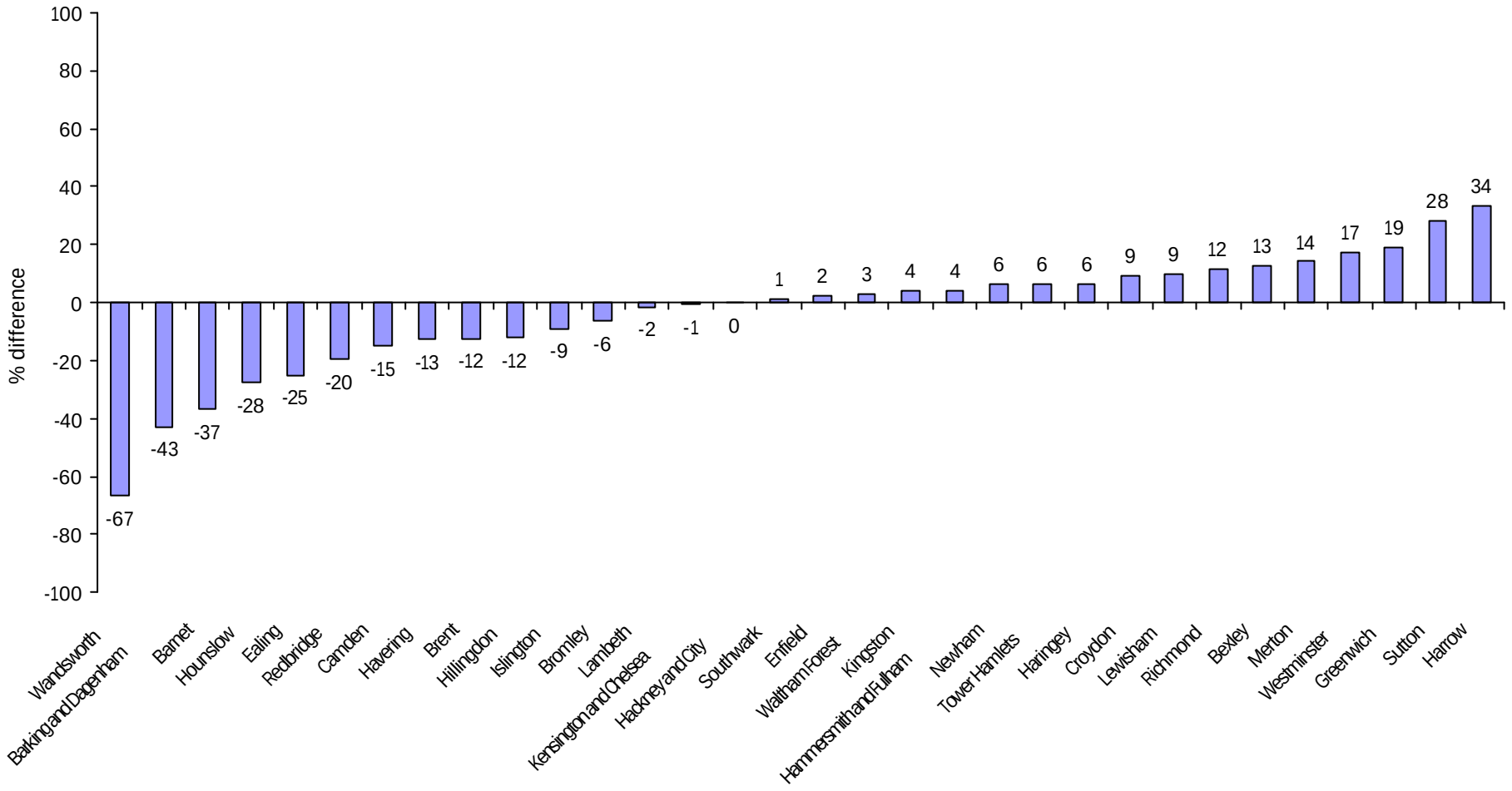
In general, the 1997 report found that costs for areas in London had a greater tendency to be lower than expected. In this report, the same is true – Figures 8–10 (see pp 29–31) show that expenditure per capita that is below the expected amount tends to be greater in magnitude than expenditure that is above the expected amount. However, those boroughs that had the greatest 'deficits' in 1997 are not the same as those of 2002/03. One exception is Wandsworth, which had the greatest difference between actual and expected costs in 1997, and the largest per capita difference in the current review.

Figure 8: Difference between actual and predicted NHS expenditure per person on adult mental health services as a percentage of actual expenditure: local authority level



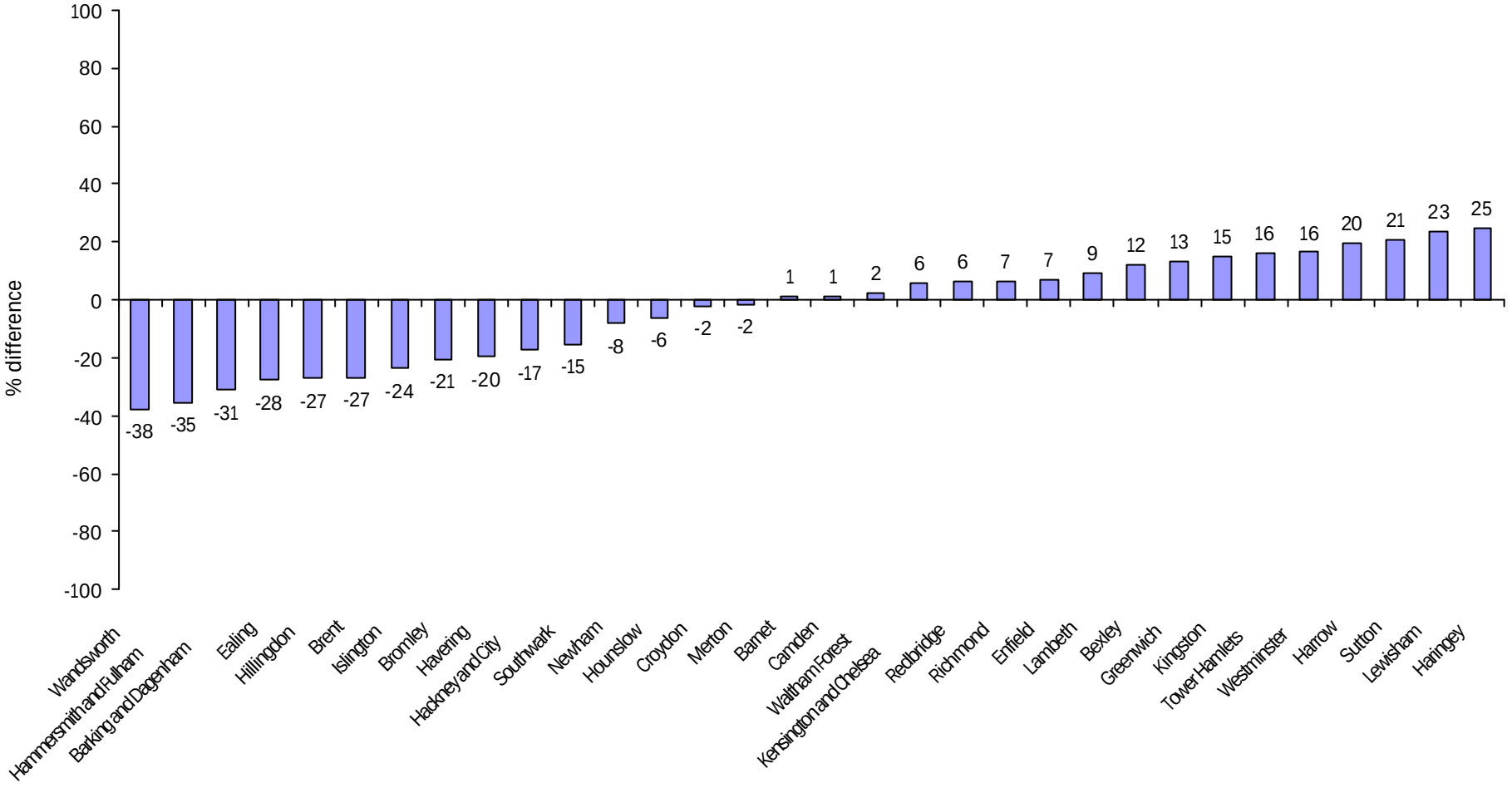
King's Fund 2003

Figure 9: Difference between actual and predicted social services expenditure per person on adult mental health services as a percentage of actual expenditure: local authority level



King's Fund 2003

Figure 10: Difference between actual and predicted NHS and social services expenditure per person on adult mental health services as a percentage of actual expenditure: local authority level



King's Fund 2003

Even though the factor analysis model was able to 'explain' around 70 per cent of the variation in NHS and social services mental health spending across London's boroughs, there were some boroughs in which the level of expenditure was far above or below that predicted. This does not necessarily mean that such areas are spending too much or too little – or, indeed, that those boroughs where predicted and actual spending were very similar were necessarily spending the 'right amount' more or less than is necessary. Strictly speaking, it means that they are spending amounts that cannot be explained by our model.

Judgements about the interpretation of the 'over' and 'under' spends identified earlier depend on views about the specification, robustness and reliability of the factor analysis model. However, a relatively high proportion of the variation in spending is explained by variables that are generally recognised in the literature as reasonable indicators of need for mental health services. Given that fact, we are confident that the differences between actual and predicted spending at borough level are largely the result of factors unrelated to the need for mental health services.

As we noted earlier, such factors will include differences in:

- the priority attached to mental health services spending by different boroughs
- the efficiency with which services are delivered
- the configuration of services (particularly where services are provided across borough boundaries, leading to apparent 'over' spending in one borough (from where services are provided) and 'under' spending in one or more other boroughs (where some of these services will be consumed).

Interpretations of findings, and limitations

The 1997 King's Fund report found a marked variation in the cost of mental health service provision across London, and suggested that services were generally under-funded in the capital. The purpose of this report has been to examine current levels of expenditure. At this stage, it is helpful to consider the key questions that were asked at the beginning of the report and our summarised answers:

- What is the level of expenditure on mental health services in London?

  If we consider those services provided within each trust's catchment area, the total NHS expenditure is £477 million, and social services expenditure amounts to £172 million, so the total spent in London is around £650 million.

- How does mental health expenditure in London compare to that in other areas in England?

  Expenditure per head in London is substantially greater than other regions (as would be expected), but is also higher than other inner-city areas. This partly reflects greater needs, but other reasons remain to be identified.

- How is expenditure distributed across different service types?

  Trusts spent substantial amounts on certain key services. However, there was considerable variation in per capita expenditure, with some trusts spending large sums on innovative services, such as assertive outreach and crisis care, while others spent relatively little on these services.

- How has spending on mental health services changed over time?

  The Institute for Public Finance data show that expenditure has risen 16 per cent since 1999/2000. In our analysis of costs since 1996/97, there appears to have been a more modest increase of 14 per cent (in other words, a year-on-year increase of 2.33 per cent), which is substantially less than the 28 per cent growth in total NHS resources since 1996/97. However, this is based on a cost estimate of crisis teams and assertive outreach services that may be too conservative.

- What central funds have been specifically allocated for mental health services, and how have these funds been spent?

  In 1998, the Government promised £700 million for new service developments. £120 million of Modernisation Fund money was distributed to health authorities through unified allocations, and tracing it has proved extremely difficult. We estimate that approximately £20 million of Modernisation Fund money was allocated to London's health authorities between 1999 and 2002, with £7 million being allocated in 2001/02. A recent Audit Commission report suggests that much of the money was used to address underlying financial difficulties.

- To what extent are funds spent on services with evidence of effectiveness?
  Assertive outreach and crisis resolution services show the best evidence of effectiveness. We have shown that there is great variability in the expenditure on these services across London.

- To what extent can variations in spending across London be explained by variations in population need?
  The York index, which has been used in the Government's allocation formula, was able to explain around half the variation in NHS expenditure and around three-quarters of variation in social services expenditure. Other indicators of need, based on the factor analysis of socio-demographic data, were able to explain much more variation in NHS expenditure (two-thirds), and slightly more variation in social services expenditure. This revealed significant 'over' and 'under' spends on mental health services across London for some boroughs.

There were limitations to the study. Although we have focused on working-age adult mental health services, there is also substantial expenditure by trusts on services for children and older people, as well as services for people with learning difficulties. Changes in expenditure in one part of the system may well impact upon spending elsewhere, so ideally, we would not want to look at adult services in isolation from other services. However, the task of analysing the whole of the mental health care system would be a major challenge.

Some of the service definitions were not consistent between trusts, and variations in accounting procedures meant that in some cases capital and overhead costs had to be removed, based on assumptions about how much these contributed to the total expenditure. The factor analysis model was effective, but still requires refining and testing for robustness.

Key messages

- The 1997 King's Fund report estimated that the costs of mental health services in London in 1995/96 were £335 million (Chisholm et al 1997). However, only costs for inpatient, residential and medium-secure care were included in that analysis, and calculations were made by combining activity data with standard unit costs estimates. For this new assessment, we used actual expenditure data on all adult mental health services, obtained directly from trusts. The total expenditure was estimated to be £649 million.

- Using a similar cost calculation method adopted by the King's Fund's original 1997 study, we show that mental health expenditure in London has risen by approximately 14 per cent since 1996/97. This is markedly less than the 28 per cent increase in total NHS funding, but we do need to be cautious about the figures.

- Spending by social services on mental health accounted for between 19 and 44 per cent. Local authorities play a major role, being responsible for a substantial amount of the resources used to provide mental health care to the population of London. It is also important to recognise that social services expenditure is more closely related to variations in deprivation than is NHS expenditure.

- Some areas have expenditure that is far higher or lower than expected, based on the predictions made by models of the need for mental health services. The reasons for these differences will include variations in:
  - the priority attached to mental health services spending by different boroughs
  - the efficiency with which services are delivered
  - the configuration of services, particularly where services are provided across borough boundaries, leading to apparent 'over' spending in one borough (from where services are provided) and 'under' spending in one or more other boroughs (where some of these services will be consumed), and so on.

These possibilities are speculative. However, boroughs and NHS trusts at both ends of the 'under' and 'over' spend range need to examine their own local situations with respect to these results.

- In 2001/02, £27.8 million was allocated to local authority areas within London, in the form of the mental health grant. The amount allocated to each area varied, mainly due to differences in the need for mental health services. Funding via the NHS Modernisation Fund was more difficult to trace, however, we have estimated it to have been around £20 million over three years (approximately £7 million in 2001/02). What we do not know is what these monies were spent on.

- Reasonably good evidence exists to suggest that crisis intervention and assertive outreach are cost-effective services. However, expenditure per head differed greatly between areas. This could mean either that the dissemination of such evidence needs to be improved, or that the way in which service changes are facilitated needs to be refined.

- As is only too apparent, there is a real problem in compiling a properly comprehensive and accurate picture of mental health services spending across London. While we have been able to track some spending over time, this has been incomplete. Given the importance of mental health services to the population of London and the large sums of public money involved, this is not a satisfactory situation.

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Appendix 1: Estimating expenditure

Data from NHS trusts

To obtain our data, we sent letters to the trusts providing mental health services in London outlining the aims of our study, and requesting their most recent expenditure data on all adult mental health services at the trust level, and across local authority areas within the trust catchment area. In addition, we asked for information on services that were felt to be of particular interest. The key mental health services included:

- adult acute beds
- intensive care beds
- low-secure and medium-secure beds
- other forensic services
- assertive outreach teams
- crisis resolution teams
- day care.

We calculated total and per capita expenditure on services at the trust and local authority levels. For the per capita figures, we used population data provided directly by the Office for National Statistics and from the 2001 census.

There was a potential problem in asking for information on key services, in that definitions differed from one trust to the next. A further difficulty was that there were several inconsistencies in the data we received from the various trusts – particularly in relation to the year of expenditure, and the inclusion or exclusion of indirect, overhead and capital costs.

In these circumstances, we made adjustments, based on the proportion of expenditure on these items by other trusts. Some trusts provided budget data for the financial year 2002/03 and others gave figures for their actual expenditure for 2001/02. To allow for comparison, we estimated levels of expenditure for 2001/02 from 2002/03 budget data, by applying a deflation value of 5 per cent to the data provided.

For a few trusts, expenditure on forensic services was not disaggregated to the local authority level. In this working paper, it has been assumed that the proportion of expenditure on forensic services for each area within a trust would be similar to that for other expenditure on mental health services. However, because some trusts provide forensic services to areas outside their usual catchment area, it was decided to present data both with and without the forensic component, and the analysis presented later is based on non-forensic expenditure.

In May 2003, we held a seminar to discuss and obtain feedback on the interim findings of the draft report. At this seminar, some participants raised concerns about the accuracy of the levels of expenditure reported for some trusts. It was agreed that due to the assumptions and adjustments made by our team to allow for comparison of the data received, the expenditure figures would be sent to the relevant trusts for any feedback before their use in the final report.

We received feedback from six trusts. They either provided amended expenditure figures, stated that the adjustments made were reasonable, highlighted certain points to be considered when interpreting the data, or were not able to provide any feedback within the set timescale. Based on the feedback received from the trusts, further amendments were made to the expenditure data.

Health service financial database

Expenditure figures at the trust level were also obtained from a database produced by the Institute for Public Finance, which provides financial information on all NHS trusts in England and Wales. This information was useful because it allowed comparisons to be made between London and other areas, and also to examine changes over time. Such comparisons were not possible with the data collected directly from trusts. Patterns of trust expenditure on adult inpatient and outpatient mental health services were analysed for the 1999–2002 period.

For the 2001/02 financial year, we calculated trust expenditure on adult inpatient and outpatient services for the following psychiatric specialities:

- forensic services
- adult mental illness
- psychotherapy.

We excluded expenditure on mental handicap [the term used by the Institute for Public Finance], child, adolescent and old age psychiatric services. The IPF data represents only a subset of total trust expenditure, as it appears to exclude much expenditure on community mental health services.

For the financial years 1999/2000 and 2000/01, the database provided the overall expenditure on psychiatric outpatient services, but not the level of expenditure by psychiatric speciality. The trust outpatient expenditure for these years was adjusted to match the psychiatric specialities calculated for 2001/02, to allow for comparison between all three years. The proportion of the total inpatient expenditure attributable to the psychiatric specialities of interest in 2001/02 was multiplied by the outpatient expenditure for 1999/2000 and 2000/01, to calculate the respective outpatient expenditure.

Social services expenditure

Personal social services (PSS) expenditure by local authorities for adults aged under 65 years with mental health needs was obtained for the 2001/02 period. The dataset reported per capita expenditure and the proportion of overall PSS expenditure spent on adult mental health needs for each borough.

Trust catchment areas

Although trusts can in principal provide services to any area, in practice they deliver care largely within defined catchment areas. Table 9 lists the trusts that are currently providing mental health services in London, and the boroughs to which they provide the majority of their mental health services. It should be noted that mental health services provided by Hounslow and Spelthorne Community and Mental Health Trust in London are now provided by West London Mental Health NHS Trust, and that Brent, and Kensington, Chelsea and Westminster Mental Health Trust have now been replaced by Central and North West London NHS Trust.

Trusts providing mental health services in London during 1999–2001 were combined where necessary to reflect the current structure of trusts to allow for comparisons over time. Expenditure data for Hounslow and Spelthorne Community and Mental Health Trust (1999–2001) has been included in the expenditure for West London Mental Health NHS Trust (1999–2001) to ensure that any relevant expenditure for Hounslow during this period was considered.

One trust that was not included in the analyses was the Tavistock and Portman NHS Trust. We recognise that this trust does provide adult services, but it was not felt possible to link its expenditure to a defined catchment area.

Table 9: Trusts currently providing mental health services in London

Trust	Boroughs in main catchment area
Hillingdon Hospital NHS Trust	Hillingdon
NE London Mental Health NHS Trust	Barking and Dagenham, Havering, Redbridge, Waltham Forest
West London Mental Health NHS Trust	Hammersmith and Fulham, Ealing, Hounslow
Oxleas NHS Trust	Greenwich, Bromley, Bexley
SW London and St George's Mental Health Trust	Kingston, Merton, Richmond, Sutton, Wandsworth
Barnet, Enfield and Haringey MH Trust	Barnet, Enfield, Haringey
Camden and Islington Mental Health Trust	Camden, Islington
Central and NW London NHS Trust	Brent, Kensington and Chelsea, Westminster, Harrow
South London and Maudsley NHS Trust	Lambeth, Lewisham, Croydon, Southwark
E London and City Mental Health NHS Trust	City, Hackney, Tower Hamlets, Newham

Source: King's Fund (2003)

Appendix 2: Inpatient and outpatient spending by NHS trusts

Tables 10–12 show the level of inpatient and outpatient expenditure for equivalent trust areas in 2001/02, 2000/01 and 1999/2000 respectively, based on figures obtained from the Institute for Public Finance.

Table 10: Trust expenditure (£) on adult inpatient and outpatient mental health services (2001/02)

Trust	Total expenditure*	Population aged 16–64 years	Per capita expenditure
Hillingdon Hospital NHS Trust	6,394,097	157,800	40.52
NE London MH NHS Trust	28,330,981	543,000	52.31
West London MH NHS Trust	110,127,192	472,100	**
Oxleas NHS Trust	26,034,064	466,200	55.79
SW London and St George's MH Trust	50,736,313	651,100	78.18
Barnet, Enfield and Haringey MH Trust	56,009,750	535,300	105.04
Camden and Islington MH Trust	30,727,593	269,700	114.36
Central and NW London	55,862,771	567,000	98.51
South London and Maudsley NHS Trust	85,591,483	746,900	114.48
East London and City MH NHS Trust	64,216,251	434,500	146.84
Total for London trusts	488,022,465	4,843,600	100.76
*Excludes expenditure on child, adolescent and old age psychiatry and mental handicap **West London expenditure includes spending on Broadmoor, so per capita figures have not been shown			

Data source: Health Service Financial Database 2001 (Institute for Public Finance)

Table 11: Trust expenditure (£000s) on adult inpatient and outpatient mental health services (2000/01)

Current trust	Trust configuration during 2000/01	Total expenditure inpatient and outpatient	Total expenditure inpatient and outpatient	Per capita expenditure inpatient and outpatient
Barnet, Enfield and Haringey	Barnet Community Healthcare	14,179	46,615	87.42
	Enfield Community Care	16,631		
	Haringey Health Care	15,805		
NE London	BHB Community Health	15,630	31,001	57.23
	Forest Healthcare	6,336		
	Redbridge Health Care	9,035		
Central and NW London	Brent, Kensington, Chelsea and Westminster MH	30,343	30,481	53.75
	Parkside Health	138		
Camden and Islington	Camden and Islington Community Health Service	17,720	23,756	88.41
	Royal Free	6,036		
East London and City	East London and City	52,174	52,470	120.91
	City and Hackney Community Services	296		
West London	Ealing, Hammersmith and Fulham MH	50,433	58,355	123.37
	Hounslow and Spelthorne Community and MH	7,922		
Hillingdon Hospital	Hillingdon Hospital	4,738	4,738	29.92
South West London	Pathfinder	41,891	61,396	94.62
	Kingston and District Community	19,505		
Oxleas	Oxleas	27,576	27,576	59.10
South London and Maudsley	South London and Maudsley	82,725	82,725	110.65
Total for London trusts		419,113	419,113	86.53
*Excludes expenditure on child, adolescent and old age psychiatry and mental handicap				

Data source: Health service financial database 2001 (Institute for Public Finance)

Table 12: Trust expenditure (£000s) on adult inpatient and outpatient mental health services (1999/2000)

Current trusts	Trust configuration during period 1999–2000	Expenditure inpatient and outpatient	Total expenditure inpatient and outpatient	Per capita expenditure inpatient and outpatient
Barnet Enfield and Haringey	Barnet Community Healthcare	9,894	84,679	158.80
	Enfield Community Care	60,803		
	Haringey Health Care	13,982		
NE London	BHB Community Health	14,775	33,499	61.84
	Forest Healthcare	8,439		
	Redbridge Health Care	10,285		
Central and NWLondon	Brent, Kensington, Chelsea and Westminster MH	28,593	28,726	50.66
	Parkside Health	133		
Camden and Islington	Camden and Islington Community Health Service	14,843	21,583	80.33
	Royal Free	6,740		
East London and City	City and Hackney Community Services	20,480	29,617	68.25
	Tower Hamlets Healthcare	9,137		
West London	Ealing, Hammersmith and Fulham Mental Health	46,802	62,246	131.59
	Hounslow and Spelthorne Community and Mental Health	7,713		
	Harrow and Hillingdon Healthcare	7,731		
Hillingdon Hospital	Hillingdon Hospital	4,362	4,362	27.55
SW London	Pathfinder	36,086	54,239	83.59
	Kingston and District Community	18,153		
Oxleas	Oxleas	23,392	23,392	50.13
South London and Maudsley	South London and Maudsley	77,918	77,918	104.22
Total for London		420,262	420,262	86.77
* Excludes expenditure on child, adolescent and old age psychiatry and mental handicap				

Source: Health service financial database 2001 (Institute for Public Finance)

Appendix 3: Distribution of expenditure across service types

Tables 13 and 14 provide details of spending on key services, by trust area and local authority area. Note that the totals are only for these services, so they will differ from expenditure cited earlier in the working paper for all services.

Table 13: Trust expenditure (£) on key adult mental health services (2001/02)

Trust	Acute beds	Intensive care beds	Assertive outreach teams	Crisis teams	Day care	Forensic	Subtotal	Subtotal excluding forensic
Hillingdon Hospital	2,196,000	-	185,000	-	315,000	-	2,696,000	2,696,000
NE London	15,479,000	2,348,000	550,000	574,000	560,000	-	19,511,000	19,511,000
West London	10,783,450	876,850	690,650	910,100	373,350	3,828,500	17,462,900	13,634,400
Oxleas	8,251,824	1,268,680	1,049,207	686,536	571,998	7,400,120	19,228,365	11,828,245
SW London and St G's	9,713,000	1,462,000	1,375,000	-	732,000	4,959,570	18,241,570	13,282,000
Barnet, Enfield and Haringey	12,086,009	2,448,663	368,942	157,938	4,729,282	18,437,624	38,228,458	19,790,834
Camden and Islington	13,386,407	2,572,653	772,430	2,213,890	2,318,691	-	21,264,071	21,264,071
Central and NW London	21,697,640	4,121,025	609,026	1,369,076	6,853,055	1,049,992	35,709,815	34,659,823
South London and Maudsley	26,297,000	6,304,000	657,000	632,000	656,000	10,367,000	44,913,000	34,546,000
East London and City	11,769,000	1,930,000	920,000	358,000	311,000	11,181,000	26,469,000	15,288,000
Total for London	131,659,330	23,331,871	7,177,255	6,901,540	17,420,376	57,223,806	243,724,179	186,500,373

Source: Data provided by trusts

Table 14: Trust expenditure (£) on key adult mental health services, by borough (2001/02)

Borough	Acute beds	Intensive care beds	Assertive outreach teams	Crisis resolution teams	Day care	Forensic	Subtotal	Subtotal excluding forensic
Inner London								
Camden	8,625,451	2,528,653	278,580	1,596,009	2,009,253	-	15,037,946	15,037,946
City and Hackney	4,203,000	1,106,000	629,000	117,000	-	5,010,000	11,065,000	6,055,000
Greenwich	3,286,138	886,643	438,858	686,536	344,723	1,585,740	7,228,638	5,642,898
Hammersmith and Fulham	4,358,941	460,759	212,800	161,500	150,340	1,571,300	6,915,640	5,344,340
Islington	4,827,957	44,000	493,870	617,881	309,438	-	6,293,146	6,293,146
Kensington and Chelsea	5,687,093	1,134,855	37,024	734,058	1,743,340	-	9,346,370	9,346,370
Lambeth	6,898,000	1,515,000	424,000	77,000	-	4,017,000	12,931,000	8,914,000
Lewisham	4,749,000	502,000	-	555,000	284,000	2,274,448	8,364,448	6,090,000
Southwark	6,505,000	1,128,000	-	-	372,000	2,889,147	10,894,147	8,005,000
Tower Hamlets	4,423,000	824,000	280,000	241,000	40,000	1,676,000	7,484,000	5,808,000
Wandsworth	4,320,000	942,000	924,000	-	98,000	2,269,689	8,553,689	6,284,000
Westminster	7,342,107	1,549,293	401,017	403,752	2,986,160	77,826	12,760,155	12,682,329
Outer London								
Barking and Dagenham	2,172,000	135,000	150,000	-	87,000	1,547,000	4,091,000	2,544,000
Barnet	5,746,398	1,221,805	189,525	143,407	1,340,573	-	8,641,708	8,641,708
Bexley	2,007,572	126,868	322,364	0	227,276	748,821	3,432,901	2,684,080
Brent	4,701,691	863,299	18,278	-	1,364,100	708,838	7,656,207	6,947,369
Bromley	2,958,114	255,170	287,984	0	0	616,679	4,117,947	3,501,268
Croydon	4,617,000	942,000	233,000	-	-	402,425	6,194,425	5,792,000
Ealing	4,245,238	341,815	477,850	275,500	37,621	1,667,250	7,045,274	5,378,024
Enfield	1,560,152	260,913	-	14,530	1,355,736	18,437,624	21,628,955	3,191,331
Haringey	4,804,459	965,946	179,417	-	2,032,972	-	7,982,794	7,982,794
Harrow	3,519,276	535,418	152,707	231,266	667,982	263,328	5,369,977	5,106,649
Havering	2,917,000	157,000	329,000	-	342,000	-	3,745,000	3,745,000
Hillingdon	2,196,000	-	185,000	-	315,000	-	2,696,000	2,696,000
Hounslow	2,626,744	112,436	-	473,100	276,862	589,950	4,079,092	3,489,142
Kingston	962,000	-	90,000	-	211,000	502,340	1,765,340	1,263,000
Merton	1,622,000	140,000	215,000	-	98,000	721,596	2,796,596	2,075,000
Newham	3,051,000	-	11,000	-	271,000	2,948,000	6,281,000	3,333,000
Redbridge	4,855,000	839,000	46,000	-	92,000	-	5,832,000	5,832,000
Richmond	1,192,000	-	90,000	-	23,000	514,750	1,819,750	1,305,000
Sutton	1,349,000	380,000	56,000	-	302,000	657,769	2,744,769	2,087,000
Waltham Forest	4,986,000	1,217,000	26,000	574,000	-	-	6,803,000	6,803,000
Total for London	127,314,331	21,114,873	7,178,274	6,901,539	17,381,376	51,697,520	231,597,914	179,900,394

Source: Trusts providing mental health services in London

Appendix 4: Local authority expenditure on mental health services

Table 15: Personal social services expenditure (£000s) on adults under 65, by service type and borough

	Assessment and care management	Nursing home placements	Residential care home placement	Supported and other accommodation	Direct payments	Home care	Day care	Equipment and adaptations	Meals	Other services	Total expenditure– mental health	Total PSS expenditure
Barking and Dagenham	875	0	265	119	0	20	303	0	0	108	1,690	63,857
Barnet	1,287	-19	1,497	0	13	71	1,555	0	0	102	4,506	89,265
Bexley	1,410	41	1,093	72	0	85	219	0	0	109	3,029	50,312
Brent	2,161	1,655	562	511	0	75	855	0	6	881	6,706	73,416
Bromley	819	153	1,049	0	0	249	121	17	4	944	3,356	67,818
Croydon	1,765	579	2,890	275	16	82	767	0	0	446	6,820	88,682
Ealing	1,750	355	2,572	262	13	170	390	0	0	627	6,141	93,287
Enfield	992	67	1,671	1,039	10	34	680	2	2	363	4,859	77,786
Haringey	1,541	7	3,161	0	0	113	394	0	0	756	5,972	115,624
Harrow	1,771	0	2,186	88	0	128	589	16	6	368	5,153	56,608
Havering	1,057	11	634	11	0	55	221	0	0	319	2,307	51,025
Hillingdon	1,332	484	837	24	0	67	489	0	0	221	3,454	76,891
Hounslow	1,731	53	1,137	0	0	97	658	0	0	75	3,751	63,008
Kingston	1,084	158	634	-40	0	147	331	0	0	266	2,580	35,374

(continued overleaf)

(continued from p 45)

Merton	1,251	96	1,185	37	0	16	493	32	0	410	3,520	49,070
Newham	2,729	0	2,130	0	0	86	564	8	3	503	6,023	106,273
Redbridge	1,360	59	635	372	0	87	273	0	0	344	3,129	63,800
Richmond	895	66	1,315	0	0	118	853	0	0	0	3,247	54,117
Sutton	702	334	989	101	0	204	685	0	0	456	3,471	40,178
Walt Forest	1,592	0	905	391	0	259	768	0	0	649	4,564	77,395
Camden	1,606	297	1,982	104	0	133	359	0	0	3,094	7,575	94,026
City	144	0	218	20	0	0	18	0	0	5	405	6,827
Greenwich	1,421	36	2,042	-37	0	168	809	0	0	1,068	5,506	88,668
Hackney	1,430	42	2,568	1701	0	135	917	0	0	651	7,444	95,647
Hammersmith and Fulham	1,623	370	1,686	463	5	193	569	0	0	976	5,885	83,714
Islington	2,076	0	2,347	76	0	98	1,079	38	0	709	6,423	104,421
Kensington and Chelsea	1,255	0	2,264	26	0	388	1,442	0	0	801	6,176	68,196
Lambeth	3,744	0	3,924	1	0	177	1,162	0	13	811	9,832	133,160
Lewisham	1,823	627	2,056	0	0	396	684	0	0	1,096	6,682	107,343
Southwark	2,090	731	2,662	117	0	323	1,140	0	0	701	7,764	126,310
Tower Ham	2,231	25	3,614	0	0	264	1,055	2	0	1,003	8,194	98,163
Wandsworth	1,589	208	2,038	0	0	80	896	0	14	-301	4,524	87,331
Westminster	4,675	818	1,125	3,368	0	199	902	0	0	0	11,087	103,031

Source: www.doh.gov.uk/public/pss_stat.htm#0102