Healthcare for London

A FRAMEWORK **FOR ACTION**
TECHNICAL PAPER

Introduction

1. This document describes the analytical work undertaken to underpin the Healthcare for London proposals. It includes an assessment of the likely future health needs of the population, and of future health activity across London. It describes and explains assumptions made about where care can be delivered in a future model of care delivery – for example at home, in a polyclinic, local hospital, elective centre or major acute hospital/specialist hospital – based on the findings of the clinical working groups and a review of the medical literature. It sets out assumptions made for the costs of delivery of care in future models, and the overall affordability to the healthcare system. Finally, a *high level* assessment of future capacity requirements is made, reconciled against current capacity in the system.

2. This analysis is not intended to be used as a planning tool within local NHS organisations – it has been developed to assess the overall feasibility (in terms of capacity and cost) of providing the models of care proposed in *the Framework for Action.* Any local plans will need to take into account local health needs and local circumstances influencing the delivery of care. Local organisations will need to involve clinicians in making their own assumptions about what care could best be provided in what settings. That said, the assumptions within this analysis can be used as a baseline to inform and challenge initial discussions at a local level.

3. The document is structured to describe each step undertaken in the analytical work. These include:

A. Overview of current healthcare activity across London

B. Projection of future activity across London, based on demographics, prevalence rates for common conditions and activity growth over and above demographics and prevalence

C. Assumptions about where different types of activity will be provided based on recommended models of care within *the Framework for Action*

D. Estimation of the costs of delivering healthcare in different settings, reconciled against expected funding available for healthcare services in London

E. Estimation of future capacity requirements (using beds as a proxy measure) for hospitals across London, based on assumptions about future length of stay

F. Sensitivity analysis to highlight areas where the assumptions may have under or over-estimated activity, costs and capacity requirements

4. It should be noted that mental health activity was not included in this piece of work and will be reviewed in a separate detailed piece of work.

Summary of key findings

5. Primary Care Trusts (PCTs) across London currently spend £10.1 billion on healthcare services for their populations – currently 7.5 million people.

6. In 2005/06 healthcare providers in London provided almost two million inpatient spells and care for day attenders, 8.2 million outpatient appointments, 3.8 million A&E attendances, 27.8 million primary care consultations and an estimated 8.1 million community care consultations.

7. Three scenarios have been developed for future healthcare activity. All three scenarios take into account the impact of projected demographic changes based on age-related consultation rates; and projected changes in the prevalence of long-term conditions. Additional growth has been factored in to take into account technological advances, and increasing consumer expectations.

8. The "low growth" scenario factors in an additional one per cent growth per annum in inpatient medical spells, A&E attendances and primary care consultations.

9. The "baseline" scenario assumes additional growth based on historical patterns. Over the last four years, inpatient medical activity has grown at 2.7 per cent per annum over and above that which would be expected from demographic changes alone. Inpatient surgical activity has grown at 0.5 per cent per annum, obstetrics at 1.5 per cent, outpatient attendances at 0.1 per cent, A&E at 8 per cent and primary care at 4.3 per cent. In the baseline scenario a growth rate of 4 per cent per annum has been used for A&E in recognition of particular changes which have influenced A&E attendances over the last few years.

10. The "high growth" scenario builds on the baseline scenario and factors in an additional one per cent per annum growth in inpatient medicine activity, an additional two per cent per annum growth in outpatient attendances and an additional one per cent growth in community contacts and primary care consultations.

11. In the baseline scenario, these projections result in a total growth, over the next ten years, of 46.7 per cent in inpatient medicine, 16 per cent in inpatient surgery, 10.8 per cent in outpatient consultations, 66.6 per cent in A&E attendances, 51.7 per cent in community care contacts and 73.8 per cent in primary care consultations. This translates into a growth in primary care consultations from just under four per head of population currently to between six per head and nearly seven per head by 2016/17.

12. Based on the recommendations of the clinical working groups, and proposed future healthcare models, it is estimated that around 41 per cent of future inpatient activity will take place at major acute hospitals, 20 per cent in elective centres, and 29 per cent in local hospitals, with 9 per cent of what would otherwise have been admissions managed at home or prevented through improved care of patients in polyclinics, and 2 per cent no longer commissioned, due to evidence suggesting lack of clinical benefit. 50 per cent of A&E activity, 40 per cent of outpatient consultations and 70 per cent of primary care consultations will take place in polyclinics.

13. Resource allocations to PCTs across London are projected to grow from £10.1 to £13.1 billion by 2016/17.

14. The cost of providing care within current models of provision is expected to grow to between £11.6 and £15.9 billion depending on growth in activity. Under the proposed future model of care, the cost of providing care is estimated to be between £10.5 and £14.3 billion depending on growth in activity. The difference is due to reduced spend on ineffective care,

reduced spend on inpatient care, replacing it with more care delivered outside of hospital, and more efficient models of care for out-of-hospital provision.

15. Under the baseline scenario for growth in healthcare activity, the proposed models of care will see a 7.2 per cent reduction in inpatient spend, compared to projected spend under current models of care.

16. Under the baseline scenario for growth in healthcare activity, hospitals across London are expected to need around 17,800 beds. There are currently approximately 18,850 beds in acute and specialist NHS Trusts in London, though this figure will be validated through a more detailed review of NHS estate in London.

A. Current healthcare activity in London

12. The current healthcare activity in London is summarised in the table below.

Table 1: Current healthcare activity provided across London

Type of activity	Volumes in 2005/06 (000s)	Data sources, assumptions made
Hospital admissions • Inpatient spells • Regular attenders	 1,821 186	Based on Hospital Episode Statistics (HES), Department of Health, 2005/06.
Outpatient appointments	8,255	Hospital Activity Statistics (HAS), Department of Health, 2005/06 Includes first and follow-up appointments
A&E attendances	3,849	Hospital Activity Statistics (HAS), Department of Health, 2005/06
Primary care consultations	27,836	Q research, 2005/06[1]
Community care consultations/contacts	2,088 – 8,147	Extrapolated from data collated in Brent and Croydon PCTs – upper figure used for analysis.

13. Based on a population of 7.5 million people in London, this means there are just under four primary care consultations, one community care contact, one outpatient consultation and 0.3 inpatient admissions per person per year.

14. For this analysis, activity provided by London NHS providers was used to estimate future activity. In contrast, money spent on healthcare services by PCTs across London was used to estimate current and future spend across London. This approach was taken as it was the most practical way to get both a full picture of London provider activity, and an assessment of the current and future spend of healthcare activity. It was felt to be a sufficiently robust approach as currently 87 per cent of activity in London providers is commissioned from London PCTs, with the remainder coming from PCTs outside of London. In parallel, 97 per cent of London PCT-commissioned activity is provided by London providers. The volumes, and associated revenue, for activity commissioned from outside of London by London PCTs is likely to be lower then the volumes of activity, and associated revenue, for work flowing into London from non-London PCTs. For the purpose of this high-level, long-term modelling, this has been discounted. On this dimension of the model therefore there may be a marginal overstatement of the cost of future activity to London PCTs.

15. Activity has been broken down into age bands to allow future activity projections to be based on age-specific growth rates and age-specific prevalence rates for common long-term conditions.

1 Q research reviews activity taking place across primary care serving a population of 300,000 people across London.

16. Use of healthcare services varies considerably by age group. The highest use of healthcare activity is in older people as shown below.

Usage of different service lines varies by age group, with generally higher rates for the older populations

Number of admissions/attendances per 1,000 population, 2005/06

Hospital admissions	Crude rate per 1,000	Age bands: 0-14	15-39	40-64	65-84	85+
Medicine	81	18	35	96	276	516
Surgery	107	45	72	130	271	290
Obstetrics	29	0	65	5	0	0
Paediatrics & Neonatology*	26	133	4	0	0	0
Attendances, consultations, callouts, etc.						
Regular attendances	25	2	9	38	95	36
Outpatients**	1,100	670	812	1,369	2,086	2,714
A&E***	513	576	545	401	599	1,188
Community care****	274-1,076	NA	NA	NA	NA	NA
Primary care*****	3,710	2,776	2,735	3,921	7,466	8,013

* HRGv3.5 Chapter P and N
** Outpatient first and follow up attendances. Age profile based on first appointments applied to total attendances
*** Age profile of A&E attendees at St. George's NHS Trust, Feb-Aug 2006. Figures may vary by provider and by season
**** Range derived from two samples, Croydon and Brent PCTs
***** GP and Nurse consultations. Based on attendances per registered population for sample GP practices

Source: Department of Health NHS London admitted patient care 2005/06, HAS 2005/06, St. George's NHS Trust, Croydon and Brent PCT community care consultations, QResearch 2006, London Ambulance Service, GLA, Team analysis

B. Future healthcare activity

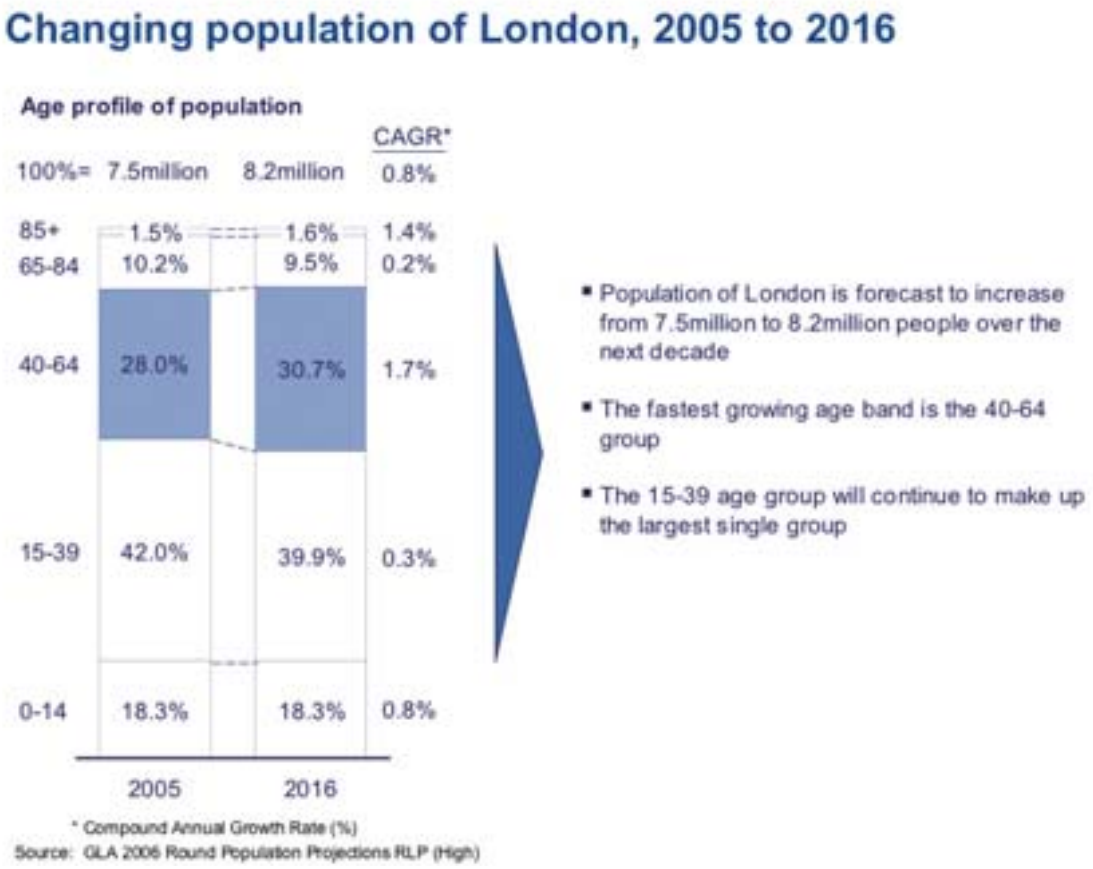
17. In order to estimate future healthcare activity, three factors were considered. These were:

- demographic changes – expected change in the population by age band by 2016/17
- prevalence of common conditions – expected changes in the prevalence of long-term conditions by 2016/17
- "historical growth"– expected growth in activity over and above demographic changes and prevalence growth in common conditions

Demographic changes

18. The overall population of London is expected to grow by 0.8 per cent each year – from 7.5 million people in 2005 to 8.2 million people in 2016. These projections are taken from the Greater London Authority (GLA) forecasts – GLA Round Population Projections[2].

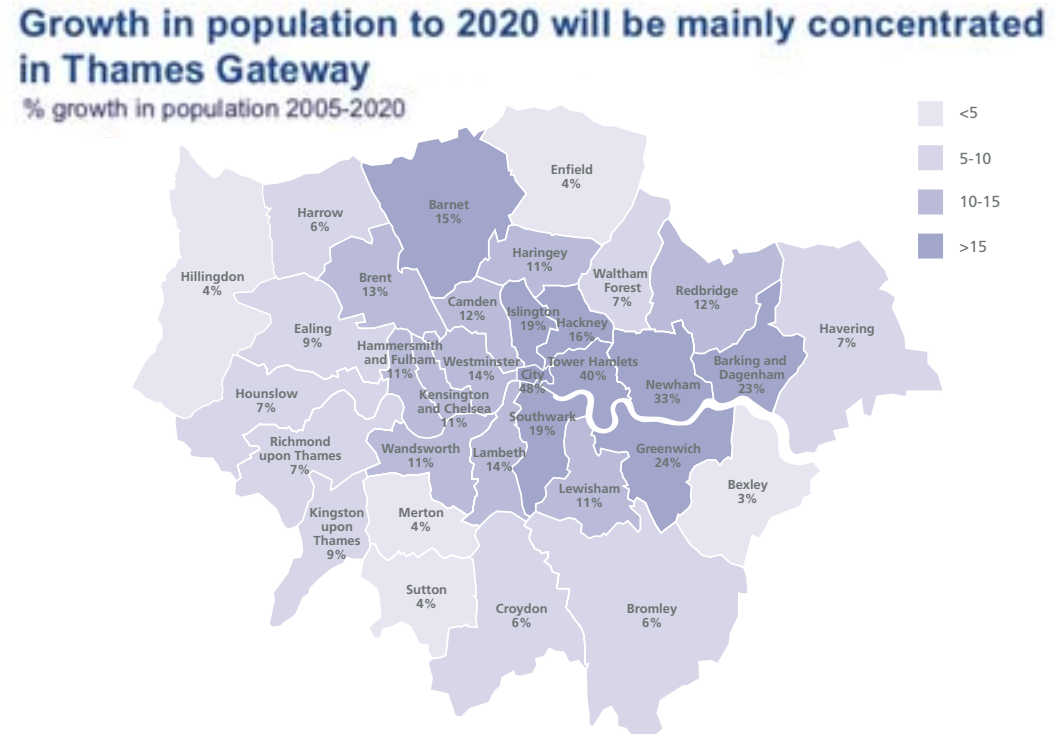
19. The pattern of growth varies by age band – the largest growth is in the 40 – 64 age band with 1.7 per cent growth[3] each year. The lowest expected growth is in the 15 – 39 age band with just 0.3 per cent growth each year, though this group still makes up the largest single age band.



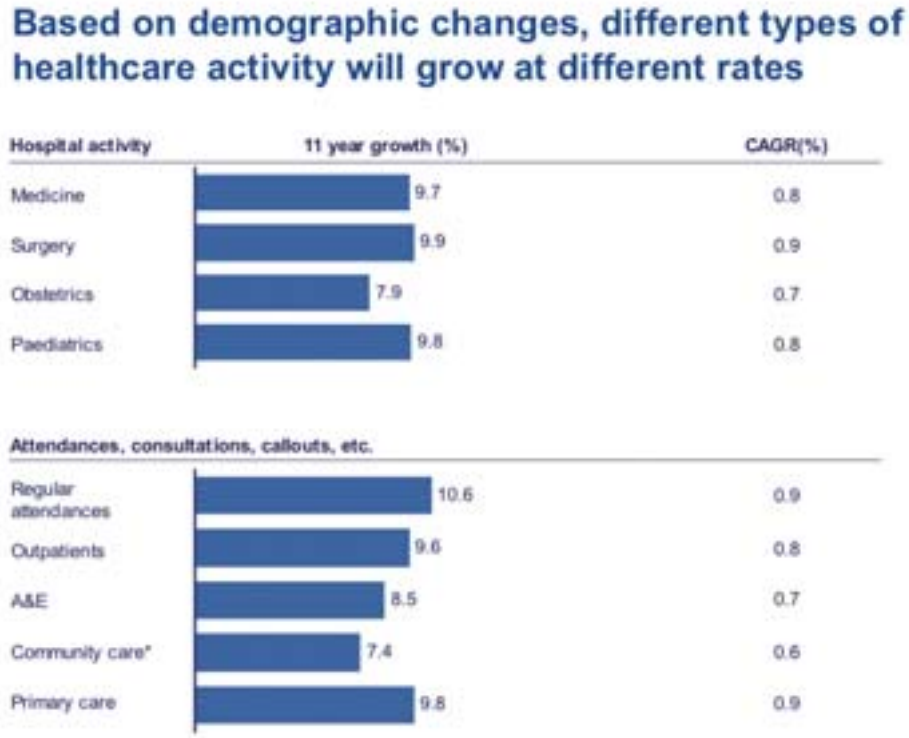
2 GLA long-term strategic projections (2016, 2025) have been used for a number of pieces of work including the GLA London plan and Review of the London plan. For this purpose, data from the Review of the London plan (high) projection was used on advice from the GLA demographics team. The GLA population projections incorporate ethnic group projections for London which were used to inform the prevalence modelling, as well as sub-regional (ie borough) estimates which were aggregated to give a London position.

3 Growth rates are compound annual growth rates (CAGR)

20. These rates of growth across London hide significant variations within London – growth is expected to be higher in some parts of London (eg in the Thames Gateway) than in other parts (eg Richmond & Twickenham).



21. The impact of the growth in the population and changes in the age-profile of the population is shown below.



22. The diagram above shows that some types of healthcare activity are expected to grow more than others. This is due to different rates of growth in different age groups. For example, the 40-64 age band accounts for more than one third of surgical admissions, and, as this is the fastest growing age band over the next ten years, there is relatively high growth in surgery over the next ten years. In contrast, just 15 per cent of community care is for the fast-growing 40-64 age group – with community care dominated by the 0-14 age band (41 per cent) and the over-65 age band (23 per cent). Both these groups grow at a relatively slower rate over the next ten years and so there is relatively low growth in community care.

Prevalence of common conditions

23. Work undertaken by NHS London public health staff and the London Health Observatory has estimated likely future prevalence of common conditions. Estimates of expected prevalence were calculated for four long-term conditions: chronic obstructive pulmonary disease (COPD), coronary heart disease, diabetes and hypertension. These conditions were chosen as they are the most common long-term conditions. Prevalence estimates were required as currently only detected prevalence of disease are available from disease registers from the Quality and Outcomes Framework (QOF), and these are known to be incomplete. Prevalence by age, sex and ethnicity are not routinely collated from disease registers.

24. Estimates were made by utilising existing models published by the Association of Public Health Observatories[4] and modified using London-specific demographic projections. The models are all based on estimates of prevalence by a number of risk factors, which are then applied to the distribution of the same risk factors in the local population, thereby providing an estimate of the number of prevalent cases. All estimates were calculated for individual boroughs and aggregated to provide an overall London estimate.

Table 2: Risk factors used in prevalence models

	Population structure (age, sex, time)	Ethnicity (grouped by age, sex and time)	Deprivation (borough level)	Smoking status (grouped by age, sex)	Obesity (national trends from HSE)
CHD	✔		✔		
COPD	✔	✔	✔	✔	
Diabetes Type 1	✔				
Diabetes Type 2	✔	✔	✔		✔
Hypertension	✔	✔			

25. It should be acknowledged the models were primarily designed to assist with case-finding rather than future projections and only two, COPD and diabetes, incorporate lifestyle factors (smoking and obesity) where trends in changes in risk factors could potentially be modelled.

26. Analysis carried out nationally to estimate the future burden of cancer[5] indicated that predicted increases are mainly due to the demographic effects of population growth and ageing. It is reasonable to assume this will apply in London. Decreasing incidence rates were predicted for some cancers, for example stomach, colon, lung and cervix, and increasing rates in others, for example oral and pharyngeal cancer, melanoma, testis cancer and non – Hodgkin's lymphomas. The overall cancer profile was not predicted to change significantly.

4 http://www.apho.org.uk/apho/models.aspx
5 Cancer in South East England 2004, *Thames Cancer Registry*, December 2006

27. The prevalence of **diabetes** is expected to increase from a rate of 4.5 per 1,000 population to 5.7 per 1,000 population by 2016. This is driven by expected levels of obesity and the growth in the Asian population which has a particular predisposition to diabetes.

28. Obesity rates in London are lower than average for England, and are not expected to rise by as much[6] though rates for children aged 2-15 years in London are, at 20 per cent, the highest of any strategic health authority in England.

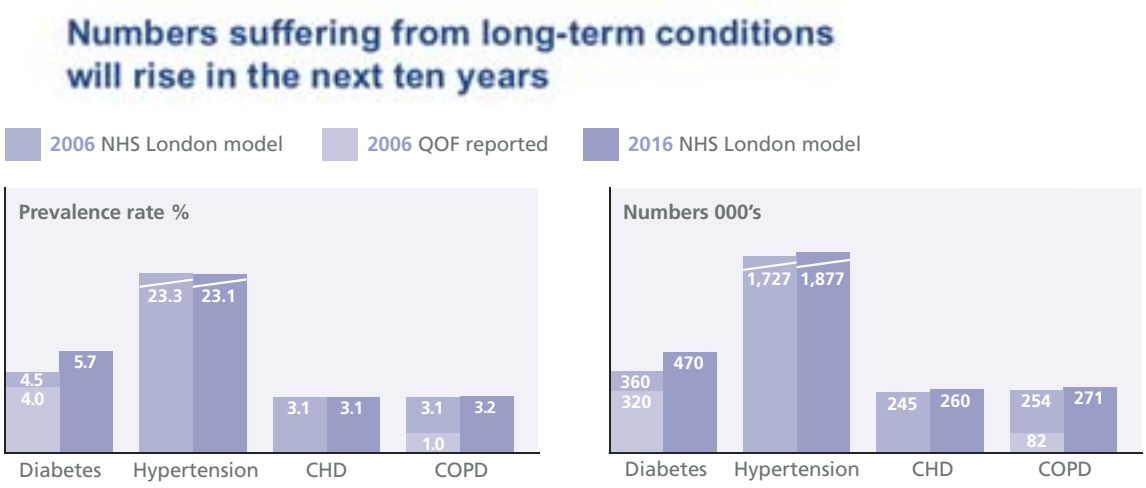
29. These high-level figures for obesity prevalence mask variation within London so future analysis of prevalence and resulting healthcare activity will need to be carried out at a local level to understand better the likely impact of obesity rates on health status locally.

30. The prevalence of **heart disease** across London is expected to fall over the next ten years largely due to falling rates of smoking. Trends from the Health Survey for England suggest smoking prevalence in London is falling faster than that for England overall, and this trend will receive an additional boost as the ban on smoking in public places begins to have impact. It is anticipated this could result in a 1.7 per cent reduction in smoking rates in the first year of the smoking ban.

6 Forecasting obesity to 2010, National Census. Accessed from http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsStatistics/PublicationsStatisticsArticle/fs/en?CONTENT_ID=4138630&chk=XVZ/60

31. Rates of **COPD** are expected to stay relatively stable, again due to falling rates of smoking in younger people.

32. These changes can be seen in the diagram below.



* Estimates of current prevalence are higher than the detected prevalence in the disease registers kept by GP practices as part of the Quality and Outcomes Framework, as we know that many people remain undiagnosed

Sources: NHS London Public Health/LHO, QOF, team analysis

33. The prevalence of these conditions affects healthcare activity. The table below shows the assumptions made in analysing the impact of prevalence rates for diabetes on hospital-based activity. Similar work was done to analyse the impact of prevalence rates for hypertension, CHD and COPD. The impact of changing prevalence rates of diabetes on out-of-hospital care was not quantified – there was no available information about what volumes of primary and community care services are due to specific long-term conditions. Rather, growth rates over and above demographic change (see below) were added to take into account additional activity due to long-term conditions such as diabetes.

Table 3: Impact of changes in diabetes prevalence on hospital activity

Type of activity	Current spells, 2005/06 (000s)	Impact of demographic changes – growth to 2016/17	Impact of prevalence changes – growth to 2016/17	Future spells, 2016/17 (000s)
Admissions for diabetes	7,439	8.5%	7.6%	8,636
Admissions for conditions strongly related to diabetes*	123,406	9.9%	4.9%	141,686
Admissions for conditions moderately related to diabetes**	7,073	9.1%	2.4%	7,887

* Includes relevant HRGs[7] for kidney transplant, renal replacement, foot procedures for diabetes, peripheral vascular disease. These conditions are assumed to be 50 per cent dependent on diabetes prevalence and so the impact on growth rates of prevalence change are adjusted to 50 per cent.

** Includes relevant HRGs for acute and chronic renal failure, endovascular procedures and amputations. These conditions are assumed to be 25 per cent dependent on diabetes prevalence and so the impact on growth rates of prevalence changes are adjusted to 25 per cent.

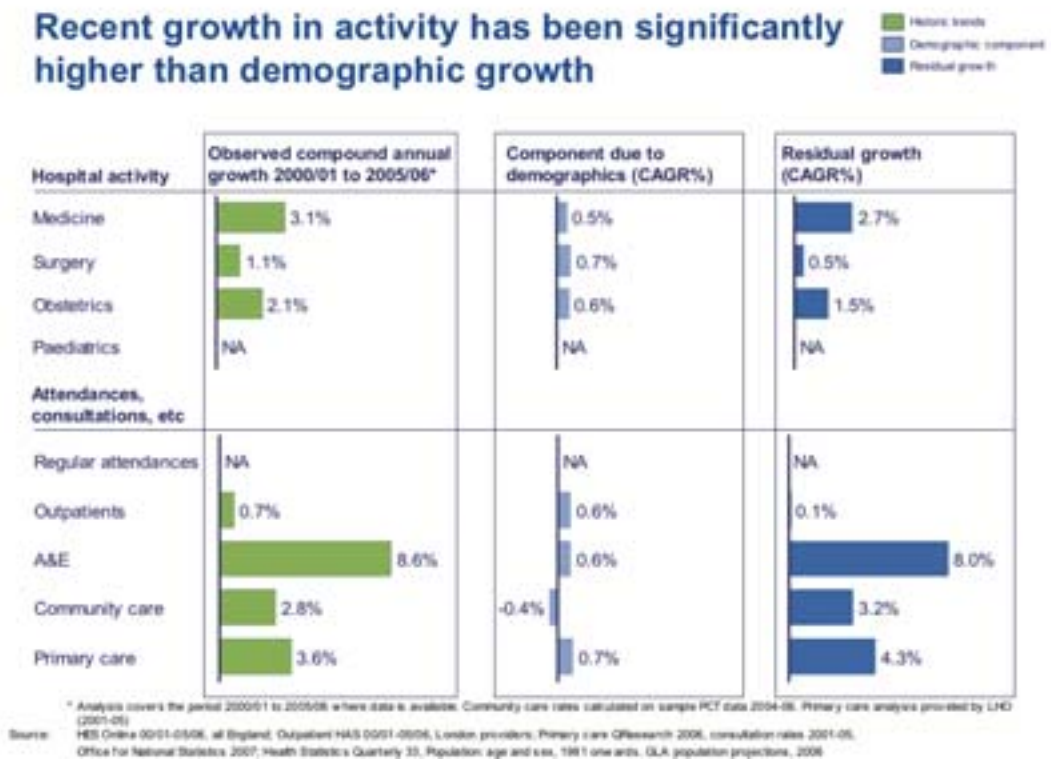
Activity growth over and above demographic and prevalence changes

34. There are a number of other factors which can influence healthcare activity, over and above changes in the population or the prevalence of common conditions. These include:

- increasing expectations and demand for healthcare services
- improving access to care
- changes in healthcare technology
- medical practice
- changes in disease profile over and above those seen in conditions outlined above
- government policy eg waiting list targets

35. The remit of this study did not permit a detailed evaluation of the potential impact of each of these, so rather historical growth rates were examined to provide an indication of the possible scale of change over and above demographics and prevalence rate changes.

36. Over the last five years, activity has grown by between 0.7 per cent (outpatients) and 8.6 per cent (A&E) per annum. Of this growth, about 0.5 – 0.7 per cent per annum growth is accounted for by demographic changes[8]. This leaves a residual activity growth of between 0.1 and 8.0 per cent per annum as shown in the diagram below.



7 Healthcare Resource Groups – groupings of different healthcare procedures which are used to underpin the tariff payments used to reimburse hospitals for healthcare activity

8 Data was not available about changes in prevalence rates so this could not be taken into account in looking at historical growth

37. From this analysis, three future scenarios for activity growth over and above demographics and prevalence changes have been developed. The three scenarios are set out below – all growth rates are compound **annual** growth rates (CAGR), over and above demographic growth and prevalence changes.

Table 4: Historical and projected growth over demographic and prevalence changes (compound annual growth rates – CAGR - %)

	Historical growth (%)	Low growth scenario (%)	Baseline scenario (%)	High growth scenario (%)
Medicine*	2.7	1.0	2.7	3.7
Surgery*	0.5	0.0	0.5	0.5
Obstetrics	1.5	0.0	1.5	1.5
Paediatrics*	0.1	0.0	0.0	0.0
Regular attenders		0.0	0.0	0.0
Outpatients	0.1	0.0	0.1	2.1
A&E	8.0	1.0	4.0	5.0
Community care	3.2	0.0	3.2	4.2
Primary care	4.3	1.0	4.3	5.3

* Inpatient spells, including day cases

38. The rationale for growing medicine at a higher rate than surgery is based on two assertions:

- first that there has been a disproportionate growth in surgical activity over the last five years due to waiting list targets and initiatives. While high growth may continue in the shorter term in order to meet the government's 18-week target in 2008,[9] it is unlikely to continue at a similar rate after 2008/09.
- second, there has been a shift in healthcare interventions away from surgical procedures and towards medical procedures. Examples of this include the management of heart disease through angioplasty (whereby a tube is inserted into the coronary arteries to remove fatty build-ups) rather than through open heart surgery, the management of renal stones through lithotripsy rather than through renal surgery, and the management of various abdominal conditions through scoping (whereby a fibre-optic tube is used to visualise and treat conditions) rather than surgery. This shift is likely to continue as imaging and scoping technology, in particular, continue to evolve.

39. The rationale for growing A&E at a lower rate than historical trends is based on an assertion that A&E growth has been strongly influenced by a combination of the four-hour A&E target (making A&E a more attractive option for patients), and removal of out-of-hours care from GP contracts (making it harder for patients to rapidly access their GP out of working hours).[10] These factors will persist for the foreseeable future under current models of care, but the year-on-year growth may not be as high going forward. We have, therefore, assumed a lower annual growth rate over and above demographic change and prevalence changes.

9 Government target for all patients to be treated within 18 weeks of referral from GPs by end 2008
10 NAO report into GP out of hours care

Combined impact of demographics, prevalence changes and historical trend

40. Adding the three drivers of growth together gives three scenarios for future growth. The growth rates from 2005/06 to 2016/17 are shown below.

Table 5: Overall growth rates to 2016/17

	Low growth (%)	Baseline (%)	High growth (%)
Medicine*	22.3	46.7	63.1
Surgery*	9.9	16.0	16.0
Obstetrics	7.9	27.0	27.0
Paediatrics*	9.3	9.3	9.3
Regular attenders	13.5	13.5	13.5
Outpatients	9.6	10.8	37.5
A&E	21.0	66.6	84.9
Community care	7.6	51.7	68.6
Primary care	22.4	73.8	92.9

* Inpatient admissions, including day cases

41. Applying these figures to 2005/06 London activity, assuming current models of care provision, would give the following levels of activity for 2016/17.

Table 6: Current and future activity (000's of spells/attendances/consultations)

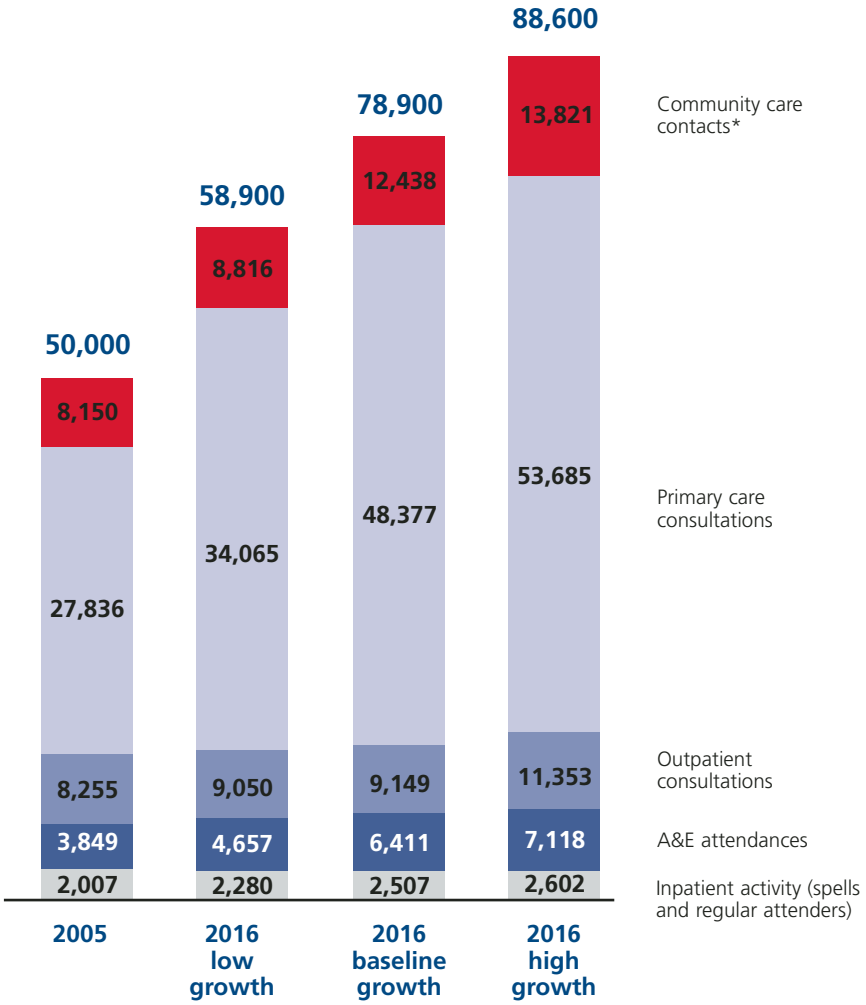
	2005/06 (000s)	Low growth (2016/17, 000s)	Baseline growth (2016/17, 000s)	High growth (2016/17, 000s)
Medicine*	605	737	878	973
Surgery*	803	883	928	928
Obstetrics	217	234	275	275
Paediatrics*	196	214	214	214
Regular attenders	186	212	212	212
Outpatients	8,255	9,050	9,149	11,353
A&E	3,849	4,657	6,411	7,118
Community care**	8,147	8,816	12,438	13,821
Primary care	27,836	34,065	48,377	53,685

* Inpatient admissions, including day cases

** Data for London extrapolated from data from Brent and Croydon PCTs which showed a broad range of activity – the higher level of current activity has been used in modelling future activity.

This is illustrated in the diagram below.

Current and future activity, 2005 to 2016, under current models of care (spells/attendances, 000s)



* No robust data source exists for community care contacts. Extrapolation from 2 PCTs suggests a range of 2,100 to 8,150 for whole of London. Upper figure of 8,150 used for analysis.
Sources: NHS London admitted patient data; HAS 2005/6; Q Research; GLA population projections

C. Location of care delivery

Approach taken

42. In order to quantify likely future activity under the new models of care proposed within the *Framework for London* assumptions were made about how much activity might be delivered by what sorts of organisation. The *Framework for Action* has identified the need for six different types of healthcare organisation: home, polyclinic, local hospital, elective centre, major acute hospital and specialist hospital.

43. For the purposes of the analysis, specialist hospitals and major acute hospitals have been considered together – the rationale being that both would provide more complex specialist care.

44. In order to make assumptions about activity that is currently hospital-based, a review of Healthcare Resource Groups (HRGs) was undertaken. This was a three step process.

45. First, all HRGs were allocated to groups known as "service lines" in order to make assumptions about future location of care on a more detailed basis than simply looking at hospital-based activity as a whole. HRGs were grouped together on the basis of their complexity and the likely level of care required. The service lines and current volumes of care are shown below.

Current healthcare activity by service line, 2005/06

Service lines		Activity 000s (Spells/attendances)	Examples
Elective medicine	• Complex	40	• PCI, hepato-biliary procedures
	• Non complex	165	• Neuropathies, sleep disorders, scoping, renal, haem
	• Long-term conditions	6	• Planned admission for asthma, diabetes
	• Under 17s	16	
Non elective medicine	• Complex	60	• Acute MI, stroke
	• Non complex	260	• DVT, pneumonia, pulmonary embolus
	• Long-term conditions	46	• Emergency admission for asthma, diabetes
	• Under 17s	12	
Elective surgery	• Complex	126	• Major GI procedures, transplants, neurosurgery
	• High throughput	344	• Cataracts, arthroscopy, hernia
	• Minor procedures	73	• Vasectomy, skin lesions
	• Under 17s	53	
Non elective surgery	• Complex	39	• Trauma, major GI procedures, burns
	• Non complex	147	• ENT, fractures
	• Minor procedures	2	• Minor skin procedures
	• Under 17s	19	
Obstetrics	• Deliveries	114	• Normal delivery, assisted delivery, caesarian section
	• Antenatal admissions	103	• Antenatal admissions
Paediatrics*	• Paediatrics	89	• Cystic fibrosis, neoplasms, epilepsy
	• Neonatology	107	• Neonates with major/minor diagnoses
Outpatient		8,255	• New and follow up outpatient consultations
A&E**	• Major	1,436	• Emergency admissions, trauma
	• Standard	581	• Fractures
	• Minor	1,832	• Minor illness and injury
Community care		8,197	• Health visitors, podiatrists, district nurses etc.
Primary care	• GP & Nurse consults	27,836	• GP and Nurse consultations

* HRGs3 X Chapter P. Children assigned non-chapter P HRG are included in other service lines
** Based on national HAD 05/06 returns, split by Major/standard/minor proportions derived from St. George's Healthcare NHS Trust Feb-Aug 2006.
Source: Department of Health NHS London admitted patient care 2005/06, HAD 2005/06, St. George's NHS Trust, Croydon and Brent PCT community care consultations, QResearch 2006, London Ambulance Service, GLA, Team analysis

46. Second, for each service line the top twenty HRGs by volume were reviewed. For each of these, an assumption was made about what proportion of the current activity would be provided where. This detailed analysis is shown in **Appendix 2**. These assumptions were based on

- a review of the evidence-base as described in the *Framework for Action* report in particular the rationale for centralisation and decentralisation of care
- recommendations of the clinical working groups
- the clinical experience of the analytical working group (see **Appendix 1**)
- interviews with a number of lead clinicians across London (see **Appendix 1**)
- review of international models of care, including the Polikum model of out-of-hospital care and the Kaiser system in North America (both described in the *Framework for Action*)

47. Third, an assumption about future location of care was made for the remainder of activity in each service line.

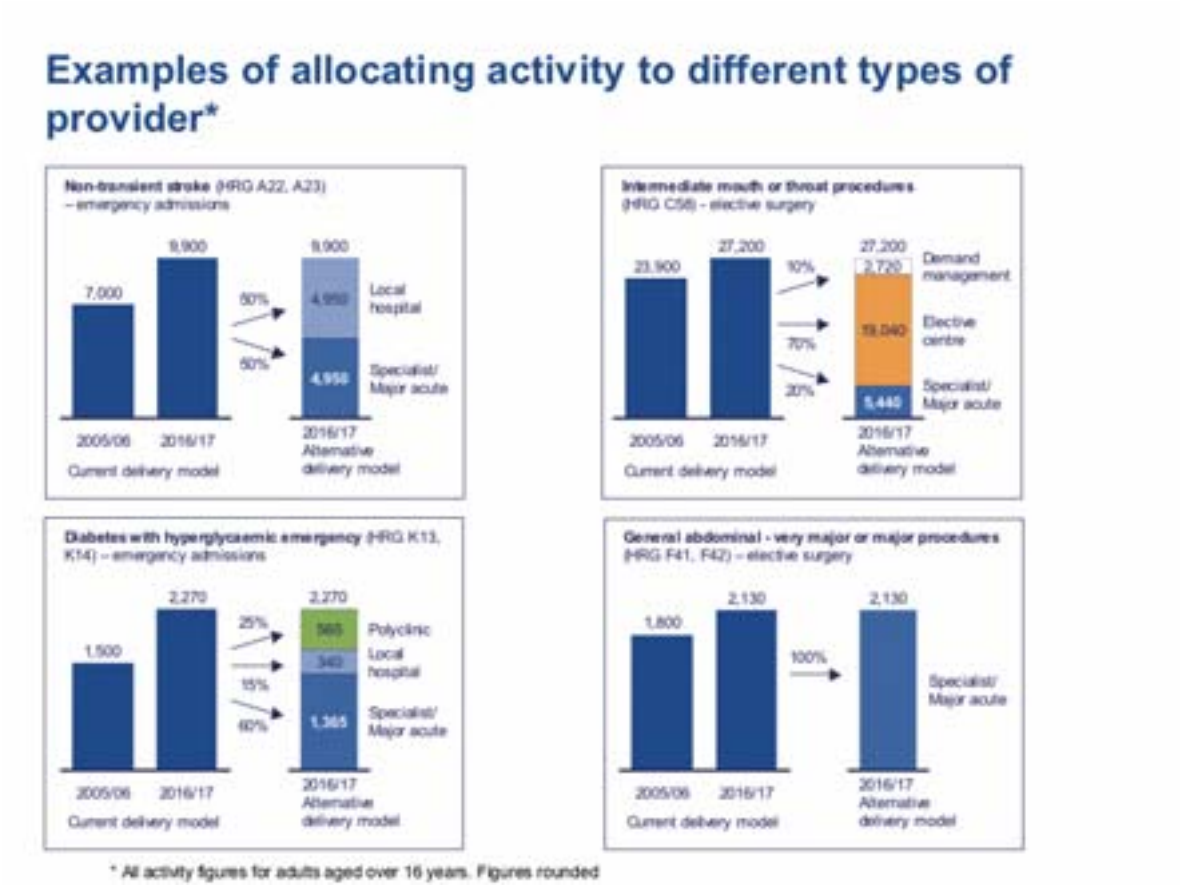
48. Throughout these assumptions, a set of "guiding principles" were used. These were:

- allocate to polyclinic setting when either the treatment can safely and more conveniently be provided in this setting, or when it would result in improved management of conditions (eg, replacing hospital admissions with pre-emptive outpatient care)
- allocate to local hospital or elective centre when polyclinic setting not viable or overnight stay is required, and specialist care is not necessary
- allocate to specialist/major acute when clinical evidence-base suggests improved safety would result from consolidation of services
- assume procedures will be 'not done' where recent research indicates a potential reduction in procedures carried out due to a lack of evidence as to their effectiveness.[11]

49. It should be noted that this analysis was not done on the basis of stipulating which HRGs should be provided in which setting, but rather was an estimate of how much activity might be provided by setting, assuming that commissioners increasingly stipulate the criteria required in order to ensure high-quality care, resulting in the centralisation of some services and the decentralisation of others – as described in the clinical working group reports.

11 London Health Observatory "Save to Invest". 15 February 2007.

50. Some examples of the rationale behind the assumptions about where activity might take place are shown in the diagram below, with an explanation below the diagram.



51. For stroke care, it is assumed that patients presenting within three hours of onset of symptoms go to a major acute hospital for CT scan and treatment during the acute phase. It is assumed all other patients go to a local hospital. The London Ambulance Service has estimated that about 50 per cent of patients will be suitable for rapid CT scan.[12]

52. For diabetes care, it is assumed that some spells will be replaced by outpatient appointments in polyclinics – based on the recommendations of the clinical working group. Tables six and eight show that it has been assumed that four half hour consultations (or the equivalent) will be required on average to reduce hospital admissions by 20 per cent. For mild acute cases, these admissions could be to local hospitals but most cases will require critical care and will go to a major acute hospital.

53. For some intermediate ear and throat procedures, recommendations from the London Health Observatory[13] suggest that some procedures are not clinically indicated and demand for these can be managed. The majority of the remainder should occur in elective centres except for some (eg, repair of cleft palate), which will occur in major acute hospitals** where there is a critical mass of expertise and volume.

54. Finally, for major abdominal procedures, these require the skills of specialists in major acute hospitals or specialist hospitals where there is a critical mass of expertise and volume.

55. The rationale for other service lines is given in **Appendix 3**.

12 Discussion with Dr Anthony Rudd, stroke lead for London
13 London Health Observatory "Save to Invest". 15 February 2007.

56. The table below shows the resulting assumptions made about future locations of care.

Table 7: Activity estimated to be provided at different types of organisation

	Major acute /specialist hospital (%)	Elective centre (%)	Local hospital (%)	Polyclinic (%)	Home (%)	Not Done (%)
Elective medicine						
• Complex	93		7			
• Non-complex	29	4	43	23	10	10
• LTC*	50		50			
• Under 17s	66	9	15	10		
Emergency medicine						
• Complex	88		12			
• Non-complex	16		73	11		
• LTC*	17		63	20		
• Under 17s	83		13	4		
Elective surgery						
• Complex	52	40				7
• High-throughput	10	85				5
• Minor procedures		32		59		8
• Under 17s	57	35				8
Emergency surgery						
• Complex	100					
• Non-complex	55		45			
• Minor procedures				100		
• Under 17s	84		12	4		
Paediatrics						
• Paediatrics	72		22	7		
• Neonatology	88		12			
Obstetrics	60		34		6	
Regular attenders	17		51	32		
Outpatients	13	13	13	40		20
A&E	20		20	50		10
Community care				50	50	
Primary care				70		

* Long-term condition eg diabetes

** assumes 30% takes place in GP practices outside of, but linked into, polyclinics

57. This analysis shows a shift in activity from inpatient-based care to an out-of–hospital-based setting, though the absolute amount of inpatient activity taking place in hospitals remains similar to today even in the low growth scenario due to overall population growth, prevalence changes and increases in demand over and above population growth and prevalence changes.

58. The breakdown of different types of care between different sorts of healthcare organisation is shown below in table 8 for the **baseline** (most likely) scenario for growth in healthcare activity. Applying the percentages shown in table 7 to the projected activity shown in table 6 gives the numbers in table 8. The equivalent numbers for the other two growth scenarios are shown in **Appendix 4**.

59. The diagram below summarises the volumes of activity at future locations of care within the baseline scenario. In this analysis, additional outpatient consultations are added to allow improved management of patients with long-term conditions in order to prevent admissions to hospital. This is discussed in more detail below.

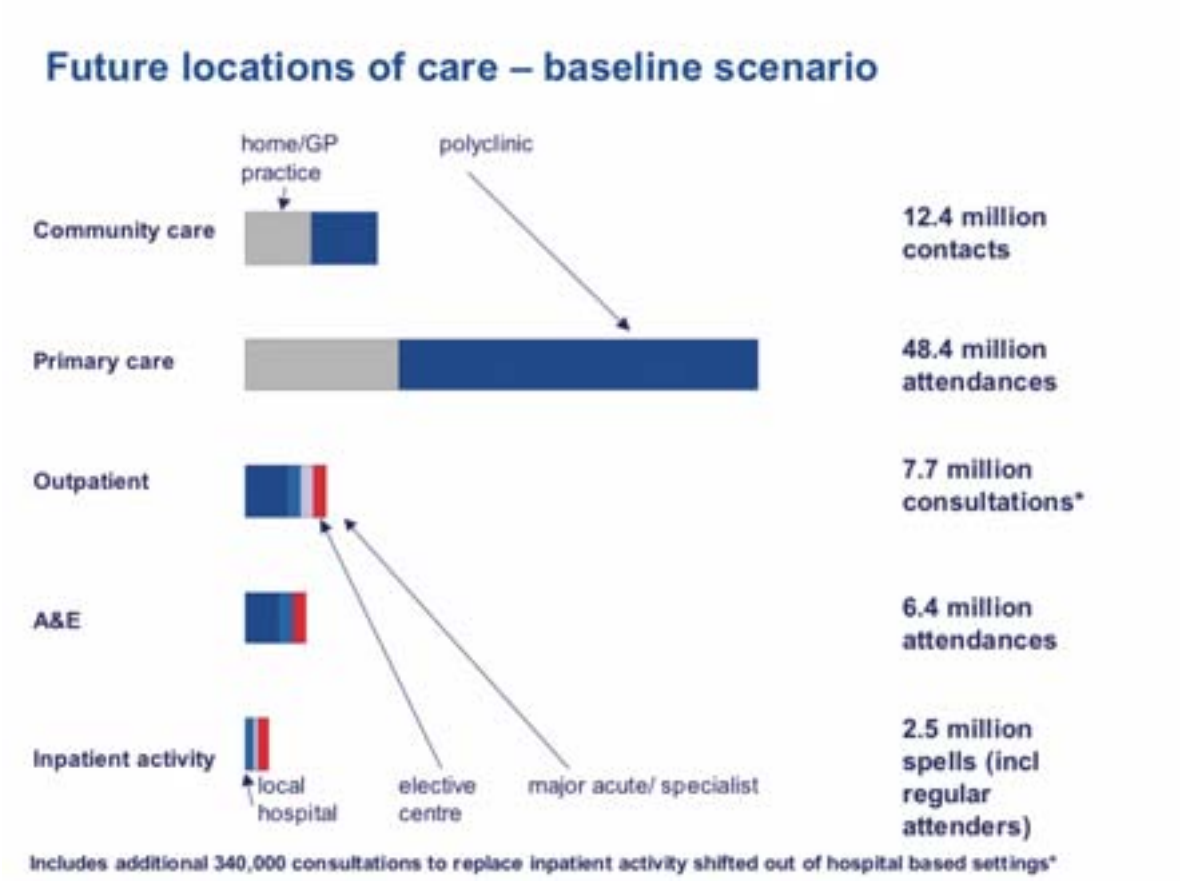


Table 8: Volumes of care (spells, attendances, consultation) by different organisation, baseline growth, 000s

	Major acute /specialist hospital	Elective centre	Local hospital	Polyclinic	Home	Not Done
Elective medicine						
• Complex	55		4			
• Non-complex	72	10	106	56		
• LTC*	4		4			
• Under 17s	11	2	3	2		
Emergency medicine						
• Complex	79		10			
• Non-complex	61		277	42		
• LTC*	11		42	14		
• Under 17s	11		2	1		
Elective surgery						
• Complex	77	60				10
• High-throughput	40	339				22
• Minor procedures		28		50		7
• Under 17s	33	20				5
Emergency Surgery						
• Complex	45					
• Non-complex	92		77			
• Minor procedures				3		
• Under 17s	17		2	1		
Paediatrics						
• Paediatrics	69		21	6		
• Neonatology	104		14			
Obstetrics	165		95		16	
Regular attenders	36		108	68		
Outpatients	1,221	1,221	1,221	3,657		1,830
A&E	1,282		1,282	3,206		641
Community care				6,219	6,219	
Primary care				33,864		

* with an additional 14,513 (30 per cent of total) provided in GP practices outside of, but linked to, polyclinics. A total of 48 million primary care consultations (~six per person per year).

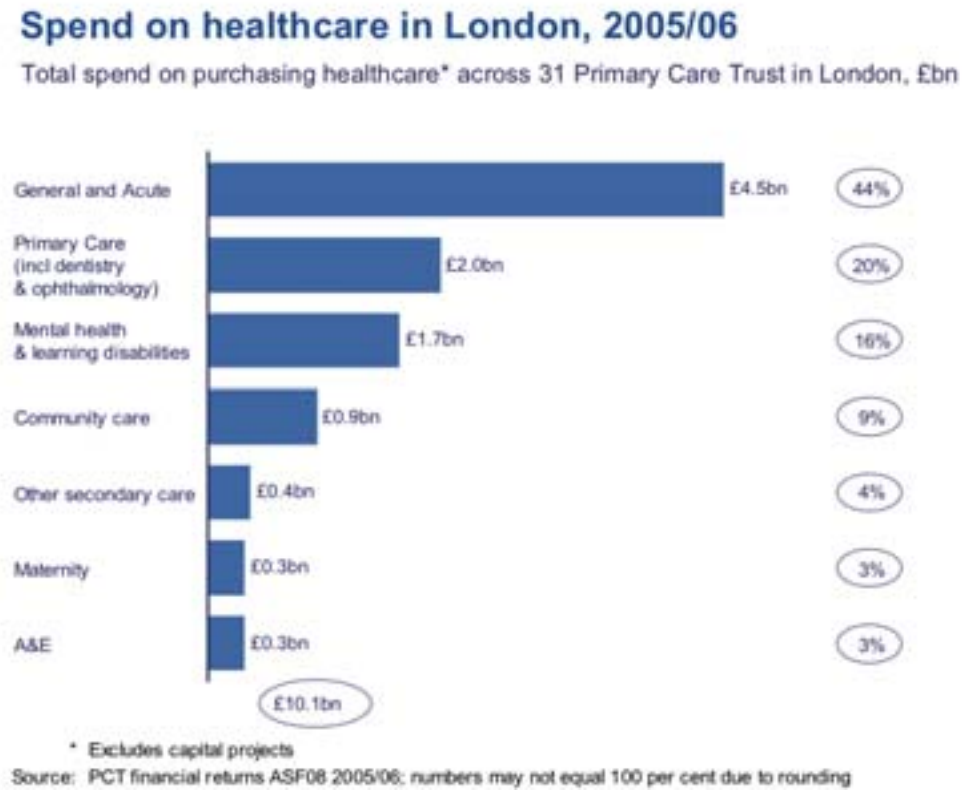
D. Financial analysis

60. The financial analysis seeks to understand what the likely impact of moving to new models of care will be on the cost of healthcare provision across London.

61. A commissioner perspective has been taken, in line with current healthcare financial flows. Assumptions have been made about the likely future resource allocation to PCTs across London, and assumptions made about the costs (to the PCT) of commissioning care as described in the *Framework for Action*.

62. All the financial modelling work has been done at 2005/06 prices.

63. The 2005/06 budget for healthcare spend across London PCTs is assumed to be £10.1bn (taken from initial resource baseline plus non-recurrent allocation for 2006/07). The breakdown of spend is shown below.



Future resource allocations

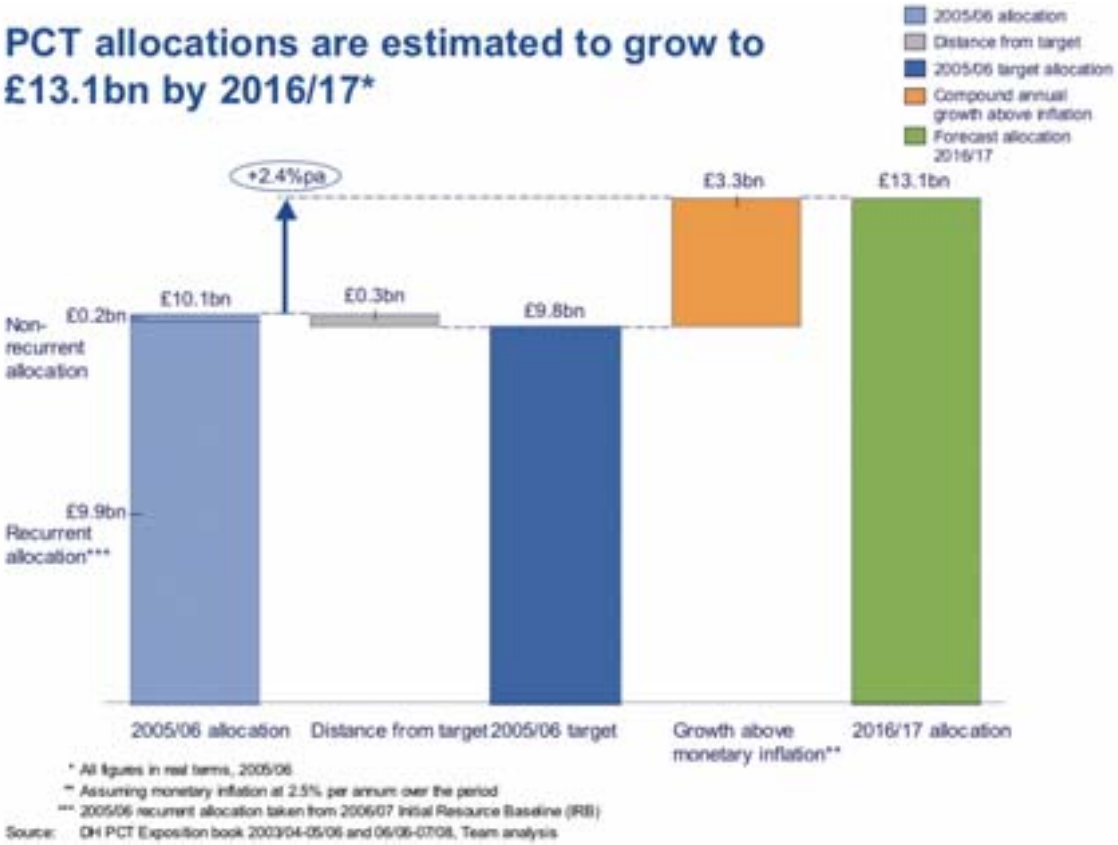
64. In terms of the expected level of resources into London PCTs, the following assumptions have been made:

- 3.5 per cent reduction from baseline to bring London to target allocations (based on a per capita calculation)
- 2005/06 to 2007/08 annual growth of 7.5 per cent in line with Department of Health publications – this will bring total healthcare funding to 9.5 per cent of GDP[14]
- 2007/08 to 2010/11 budget expected to track nominal GDP growth at 4.5 per cent to maintain spend as a proportion of GDP

14 Includes public and private healthcare spend. Assumes 2007/08 funding for NHS England is £92bn, scaled pro-rata to UK and with addition of private healthcare (13 per cent of total) to give a total spend of £131bn for UK. Treasury forecast for UK money GDP 2007/08 is £1,378bn

- 2010/11 to 2016/17 growth exceeds GDP growth by 0.25 per cent due to pressures from increased patient expectations
- monetary inflation is assumed to be 2.5 per cent per annum
- using these assumptions, the net compound annual growth 2005/06 to 2016/17, including the reduction to match "target" allocation for London is 4.9 per cent nominal growth per annum, 2.4 per cent real.

65. These assumptions result in the total resources allocated to PCTs across London rising from the current £10.1bn for 2005/06 to £13.1bn for 2016/17 – see diagram below.



Costs of providing care

66. In order to calculate expected future spend on healthcare across London, current spend and future spend by service line, under current and future models of care, was estimated. It has been assumed that all activity provided by a specialist, major acute or local hospital or at an elective centre will be paid for at tariff and/or current reference costs.

67. The current tariff for 2005/06 has been used wherever possible. Elsewhere, tariff costs have been derived from 2006/07 tariff or calculated as a weighted average for London provider reference costs. Tariff has been assumed to remain at constant real price.

68. For work carried out in a polyclinic, the cost has been calculated using a bottom-up costing analysis as described in the next few pages.

69. Throughout this analysis monetary inflation is assumed to be 2.5 per cent per annum. Hence, any cost inflation above this level will need to be accomodated by efficiency improvements.

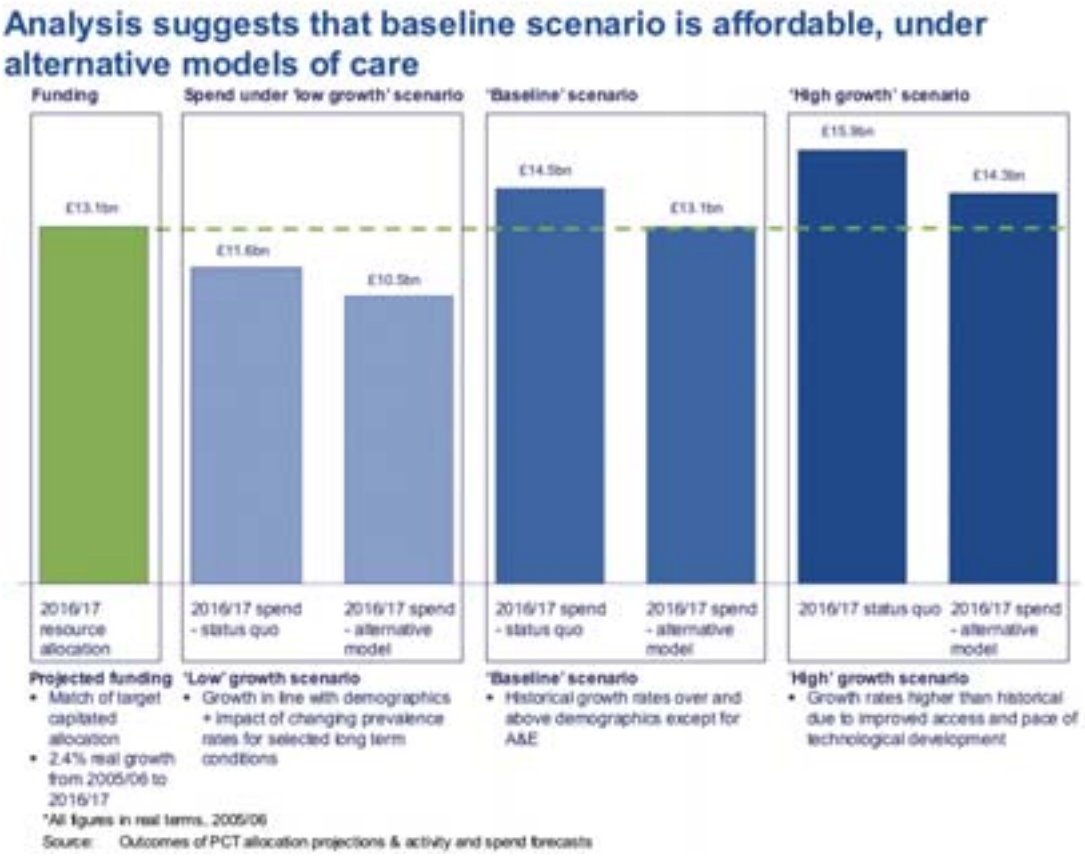
70. The table below shows the estimate of current and future unit cost and current and future total spend under the baseline scenario for growth in healthcare activity. Note that in calculating the future unit costs for hospital based work, the costs for critical care have been applied to work carried out at a major acute hospital but not at an elective centre or a local hospital.

Table 9: Projected unit cost and spend for baseline growth

	Tariff/unit cost, 2005/06 (£ per case)	Projected unit cost, 2016/17 (£ per case)				Projected spend, current models of care, 2016/17 (£000s)	Projected spend, new models of care, 2016/17 (£000s)
		Major acute/ specialist	Elective centre	Local hospital	Poly-clinic		
Elective medicine-							
• Complex	2,595	2,687		1,346		154.3	154.3
• Non-complex	1,230	1,315	990	1,150	138	300.9	234.3
• LTC	1,659	1,332		1,808		13.4	13.4
• Under 17s	1,683	2.086	906	921	143	28.4	27.1
Emergency medicine							
• Complex	4,901	4,900		4,910		433.5	433.5
• Non-complex	3,453	3,722		3,433	211	1,310.2	1,184.5
• LTC	3,200	2,907		3,309	359	216.3	178.4
• Under 17s	2,652	2,704		2,403	221	35.3	34.0
Elective surgery							
• Complex	3,806	4,427	3,061			562.0	525.8
• High-throughput	1,453	1,453	1,407			582.7	535.3
• Minor procedures	870		818		146	73.9	29.9
• Under 17s	1,845	1,920	1,744			106.0	97.4
Emergency surgery							
• Complex	8,233	8,233				373.1	373.1
• Non-complex	3,184	3,119		3,263		536.5	536.5
• Minor procedures	3,091			2,091	146	8.7	0.4
• Under 17s	3,655	3,699		3,479	231	73.0	70.6
Paediatrics							
• Paediatrics	1,117	1,117		1,118	224	107.3	101.6
• Neonatology	1,260	1,305		936		148.7	148.7
Obstetrics	1,468	1,573		1,334		404.2	404.2
Regular attenders	246	246		246	100	52.1	42.2
Outpatients	98	98	98	98	98	896.6	715.9
A&E	81	81		81	66	520.8	419.2
Community care	115				66	1,429.3	1,123.1
Primary care	72				61	3,488.0	3,103.1
Mental health	n/a					2,597.0	2,597.0
TOTAL						14,452.0	13,083.6

* The unit cost figures are casemix adjusted – they show the costs of the projected casemix in each location. The major acute hospitals also include the costs of critical care. The figure for polyclinics takes into account those areas where more than one consultation is provided to substitute for previously hospital-based care. In these cases, the number shown represents the unit cost (from bottom-up, as shown in the section below, multiplied by the conversion factor as shown in table 10).

71. Applying the cost assumptions to the three different scenarios for growth in healthcare activity gives three projected estimates of future spend on healthcare across London. These are shown in the diagram below.



72. The diagram above shows that the baseline scenario of growth is affordable under alternative models of care. However, for a concerted effort to improve health, through evidence-based health improvement initiatives, further savings in spend on healthcare services will need to be achieved.

73. The section below outlines the **bottom-up costing methodology** used to estimate the costs of care in a polyclinic.

74. The volumes of activity within the baseline scenario across polyclinics in London, and at each polyclinic, are shown in table 10 below. The first column of table 10 shows total activity across London and is taken from the baseline projection as shown in table 8.

75. In some instances, a conversion factor has been added. This is to take into account assumptions that have been made about shifting inpatient activity to a polyclinic setting. For example, it is assumed that providing additional care in a polyclinic could prevent hospital admission. For long-term conditions, it is assumed that 20 per cent of emergency hospital admissions for long-term conditions (or 13,800 spells by 2016/17) could be prevented through better care in a polyclinic. In this case, it is assumed that each admission will be replaced by the equivalent of **four** consultations, each lasting half an hour, taking place in a polyclinic. Similarly, in order to prevent eleven per cent of emergency non-complex medical admissions, four per cent of emergency medical and surgical admissions for under 17s, and seven per cent of paediatric admissions, **two** consultations per admission will be required in a polyclinic. For all other types of activity shifted out of hospital, it is assumed they will be replaced by **one** polyclinic consultation. These assumptions were made by drawing on the recommendations of the clinical working groups and through discussions with clinicians across London as in **Appendix 1**. Applying the conversion factor to the total activity gives a revised total for all polyclinics across London.

76. It was assumed, as above, that 70 per cent of future primary care activity would be delivered in polyclinics, with the remainder being delivered in traditional GP practices. Given a population of 8.2 million by 2016/17, and an estimated requirement of a population of 50,000 per polyclinic to ensure high-quality care, it is assumed for the analysis that there will be 150 polyclinics across London. The final column on table 10 shows the amounts of activity per clinic, assuming 150 polyclinics across London.

Table 10: Projected activity at polyclinics, baseline scenario

* Note 30 per cent of primary care provided in GP practices separate from, but linked in, to polyclinics

	Total activity across London (taken from table 6)	Total activity at polyclinics across London	Conv-ersion factor	Total activity	Activity per polyclinic
Elective medicine					
• Non-complex	245,000	56,460	1	56,460	376
• Under 17	16,900	1,660	1	1,660	11
Emergency medicine					
• Non-complex	379,400	42,140	2	84,280	562
• LTC	67,600	13,780	4	55,130	368
• Under 17s	13,300	570	2	1,150	8
Elective surgery Minor procedures	84,900	50,390	1	50,390	336
Emergency surgery					
• Minor procedures	2,800	2,820	1	2,820	19
• Under 17s	20,000	775	2	1,550	10
Paediatrics	96,000	6,350	2	12,700	85
Other inpatient activity	1,310	0	0	0	0
Regular attenders	212,000	68,000	1	68,000	453
Outpatients	9,149,200	3,657,400	1	3,657,400	24,383
A&E	6,411,300	3,205,650	1	3,205,650	21,371
Community care	12,438,400	6,219,200	1	6,219,200	41,461
Primary care*	48,376,800	33,863,700	1	33,863,700	225,758
TOTAL	78,872,700	47,188,900		47,280,133	315,201

77. The next step is to estimate how much time each consultation will take, and what sort of staff will be required for each consultation. These assumptions are shown in the table below.

Table 11: Estimated time per consultation and proportion of consultations managed by type of staff

	Time required per case (hours)	GP	Consultant	Nurse practitioner/ AHP*	Staff nurse
Elective medicine, non-complex	0.50	70%	10%	20%	60%
Elective medicine, under 17s	0.50	80%	15%	5%	60%
Emergency medicine, non-complex	0.50	70%	10%	20%	60%
Emergency medicine, LTC	0.50	70%	10%	20%	60%
Emergency medicine, under 17s	0.50	80%	15%	5%	60%
Elective surgery, minor procedures	0.50	70%	10%	20%	75%
Emergency surgery, minor procedures	0.50	70%	10%	20%	60%
Emergency surgery, under 17s	0.50	80%	15%	5%	60%
Paediatrics	0.50	80%	15%	5%	60%
Regular attenders	0.50	10%	10%	10%	70%
Outpatients	0.50	32%	33%	37%	60%
A&E	0.25**	60%		40%	60%
Community care	0.50			67%	33%
Primary care	0.25**	60%		40%	

* Allied health professional eg physiotherapist
** Assumes 20 minutes in room for space calculations.

78. It should be noted that the proportions add up to more than 100 per cent - this is because for many consultations it has been assumed that a staff nurse will also be required as part of the consultation – for example in elective minor procedures it is assumed that 70 per cent of these will be performed by a GP, 10 per cent by a consultant and 20 per cent by a nurse practitioner or allied health professional – with 75 per cent of cases also requiring a staff nurse to be present.

79. In order to calculate the cost of each polyclinic, and the space required, assumptions are made for the costs of

- staff
- buildings
- supplies and diagnostic tests
- administrative overheads.

Staff required and costs associated

80. From the above analysis of activity, time required and staff providing care, it is possible to work out how many staff will be required. It has been assumed that all staff work 40 hours a week, 40 weeks a year, to allow for training (two weeks), bank holidays (two weeks), holidays (six weeks) and sick leave (two weeks). This gives a total of 1,600 hours per year. It is then assumed that staff are available to provide patient care for 75 per cent of this time – the rest being downtime when there are no patients and/or time required to complete paperwork. This gives an availability of 1,200 hours per year per member of staff.

81. Applying assumptions about volumes of activity, time per consultation, and availability of staff, gives the following staff requirements for all polyclinics.

Table 12: Projected workforce required for polyclinics

	Total activity (consults)	GPs (WTEs)	Consultants (WTEs)	Nurse practitioner/ AHPs (WTEs)	Staff nurses (WTEs)
Elective medicine – non-complex	56,460	16.5	2.3	4.7	14.1
Elective medicine – under 17s	1,660	0.5	0.1	0.03	0.4
Emergency medicine – non complex	84,280	24.6	3.5	7.0	21.1
Emergency medicine – LTC	55,130	16.1	2.3	4.6	13.8
Emergency medicine – under 17s	1,150	0.4	0.1	0.02	0.3
Elective surgery – minor procedures	50,390	14.7	2.1	4.2	15.8
Emergency surgery – minor procedures	2,820	0.8	0.1	0.2	0.9
Under 17s	1,550	0.5	0.1	0.03	0.4
Paediatrics	12,700	4.2	0.8	0.3	3.2
Regular attenders	68,000	2.8	2.8	2.8	19.8
Outpatients	3,657,400	487.7	495.3	563.9	914.4
A&E	3,205,650	400.7		267.1	400.7
Community care	6,219,200			1,710.3	855.1
Primary care*	33,863,700	4,233.0		2,823.0	
TOTAL	47,280,133	5,202.5	509.5	5,387.2	2,259.9

* Modelling assumes 30 per cent of primary care activity is provided outside of polyclinics – so there will need to be additional primary care staff outside of polyclinics

82. The unit annual full costs of staff (including salary, pension, national insurance) were assumed to be:

- GP: £125,000
- consultant: £125,000
- nurse practitioner/AHP: £50,000
- staff nurse: £50,000

Consultation rooms required and associated costs

83. The analysis above suggests that each polyclinic will have around 95,800 hours of clinical activity each year. The amount of space required to conduct this activity was calculated using the following assumptions:

- opening hours per year: 3,000 (60 hours a week)[15]
- utilisation of consulting room: 75 per cent
- number of consulting rooms: 43
- size of consulting room: fourteen square metres[16]

84. Assuming opening hours and utilisation as above, there would need to be 43 consulting rooms per polyclinic. Additional space requirements are listed below under overheads.

85. The cost of space has been assumed to be £500 per square metre[17] – this assumes facilities are leased and includes costs of facilities management, heating and lighting.

Costs of administrative overheads

86. The administrative overhead costs consist of:

- staff – receptionists, administrative support personnel, and management
- IT support
- supplies
- additional floor space - circulation space (10 per cent of consulting room space[18]), waiting room space (105 square metres per polyclinic[19]) and space for offices, IT, other services (eg healthy living centres) – assumed to be a total of 1,000 square metres. There will also need to be space for diagnostics but the costs associated with this are assumed to be included in the tariff costs used to calculate the costs of diagnostic tests – see below.

87. Data was obtained from a large GP practice in London which has overhead costs of £4 per case. Applying this to the polyclinic activity as shown in table 10 would give a total cost of £1.26 million.

15 Urgent care centres in polyclinics will be open up to 24 x 7 but for modelling purposes we assumed a more conservative time of 60 hours a week. Longer opening times would result in lower costs for polyclinics.
16 Department of Health recommendation for LIFT schemes
17 From LIFT schemes
18 Assumptions used in LIFT schemes
19 Based on assumption of one square metre required per person waiting at any one time, assumes 105 people waiting each hour

Cost of supplies and diagnostic tests

88. Assumptions were made for the costs of supplies, drugs and diagnostic tests associated with work carried out in polyclinics. The figures used and the assumptions made are shown in the table below.

Table 13: Projected costs of supplies, eg bandages, at polyclinics (£)

	Consumable cost per case*	Diagnostic imaging cost per case**	Drug cost per case***	Pathology cost per case***	Total cost per case
Elective medicine – non-complex	5.00	44.41	20.00	2.00	71.41
Elective medicine – under 17s	5.00	44.41	20.00	2.00	71.41
Emergency medicine – non-complex	5.00	22.20	10.00	2.00	39.20
Emergency medicine – LTC	5.00	11.10	5.00	2.00	23.10
Emergency medicine – under 17s	5.00	22.20	10.00	2.00	39.20
Elective surgery – minor procedures	10.00	44.41	20.00	2.00	76.41
Emergency surgery – minor procedures	10.00	44.41	20.00	2.00	76.41
Under 17s	10.00	22.20	10.00	2.00	44.20
Paediatrics	5.00	22.20	10.00	2.00	39.20
Regular attenders	10.00	11.10	40.00	4.00	65.10
Outpatients	2.00	19.59	12.00	2.00	35.59
A&E	1.08	30.35	2.22	2.00	35.65
Community care	1.00	2.58	31.27	2.00	36.85
Primary care	1.00	2.58	31.27	2.00	36.85

* Costs for A&E consumables derived from data from St Mary's Hospital (provided by Rachel Davies in academic surgical department, April 2007). Costs for 37,088 minors of £40,000 giving cost per case of £1.08.

** Costs for diagnostic imaging calculated from volumes of activity by modality for NHS London – taken from Department of Health form KH12, published September 2006. Broken down to GP referral (16 per cent), outpatient (36 per cent), inpatient (18 per cent), A&E (26 per cent) based on study conducted in Hertfordshire (Investing in Your Health, Bedfordshire and Hertfordshire SHA). Allocated to polyclinic in proportion to activity based on costs of tariff (MRI £224, CT £104, ultrasound £65 and X-ray £16).

*** Team assumption. Costs for A+E drugs derived from data from St Mary's Hospital (provided by Rachel Davies in academic surgical department, April 2007). Costs for A&E drugs at St Mary's of £240,000. Minor A&E drug cost calculated based on tariff weighting (£87 major: £38 minor) – gives drug cost of £2.22 per case.

Total cost for polyclinic

89. The total annual running cost for each polyclinic, from the above assumptions, is estimated to be £20.6 million per year, or £3.1 billion for all 150 polyclinics. This is broken down as in table 14 below.

Table 14: Summary of projected costs of running a polyclinic per annum, assuming buildings are leased (£)

Spend area	Detail	Operating cost per annum (£)
Direct clinical staff	GP Consultant Nurse practitioner/AHP Staff nurse	4,337,500 425,000 1,800,000 755,000
Space	Consulting rooms (602sqm)	301,000
Administrative overhead	IT Management costs Circulation space (60sqm) Waiting area (105 sqm) Other (833 sqm)*	1,261,150
Supplies	Clinical supplies Diagnostic tests	11,762,200
TOTAL per polyclinic		20,641,850

* For additional capacity as required – e.g. prep rooms, procedure rooms, therapy suite (community care patients, urgent care patients and those requiring a procedure have all been allocated a single consultation room but may require additional space for certain procedures eg plaster room), inventory store cupboards, healthy living centre, staff room, management offices, records storage, diagnostic facilities.

E: Implications for capacity required

90. In order to test the feasibility of the proposed models in terms of capacity requirements across London, a high-level estimate of likely future capacity requirements for polyclinics and for hospitals has been estimated.

91. As outlined above, it is estimated that around 1,600 square metres will be required for each

polyclinic. An audit of current healthcare facilities across London is currently being undertaken – this should identify where current potential capacity for polyclinics exists. A number of polyclinics will be located on local hospital sites – likely at least one to two per site – in order to support financial viability of local hospitals. There will also be urgent care centres co-located with every major acute hospital that offers open access to patients and, potentially, may be scope to co-locate polyclinics with major acute hospitals.

92. In order to calculate the capacity required for hospitals, beds have been used as a proxy measure. Future bed requirements have been calculated by making assumptions about future length of stay, including assumptions about shifts from inpatient to day case procedures.

93. Assumptions for length of stay were supported by a review of current length of stays across London, England and internationally. After consideration, the Milliman[20] benchmark was used – this shows potential for a 28 per cent reduction in bed days across London. This is in line with the 26 per cent reduction which would be achieved through adoption of top quartile length of stays for London.

94. Applying these reductions to future activity would give a future requirement of beds as shown below.

Table 15: Projected beds required by 2016/17

	Major acute hospital/ specialist hospital	Elective centre	Local hospital	Total beds
Low growth	7,607	2,563	5,585	15,815
Baseline growth	8,359	2,706	6,496	17,561
High growth	8,637	2,713	6,985	18,335

95. There are currently around 18,850 beds across London's acute and specialist hospitals. These consist of 17,000 general and acute beds across 33 London District General Hospitals (DGHs) with an additional 650 beds in 28 peripheral sites. There are a further 1,200 beds across the seven specialist hospitals.

96. There are two broad options for how services, and beds, are distributed in future across the current 33 DGHs and seven specialist hospitals in London:

- option one would see major acute hospitals focus on more-complex and specialist activity, with less-complex work all being carried out at elective centres and local hospitals. This would mean that someone with a less-complex condition living close to a major acute hospital would not be admitted to that hospital, but rather be taken to the closest local hospital.
- option two would see major acute hospitals also providing "local hospital" type care for their "local population".

97. PCTs will need to decide how best to configure services at a local level to balance access to care, quality of services, and capacity requirements.

20 Milliman UK Limited – provider of benchmarking information about length of stays in hospitals internationally

F. Sensitivity analysis

98. The analysis outlined above is based on a wide range of assumptions. It is possible that some of the assumptions made will be inaccurate.

99. Below is a list of assumptions which may be inaccurate and an assessment of the likely impact on the conclusions drawn.

Assumption	Commentary and implications
• Inaccurate current activity	Possible that some activity data is inaccurate but analysis based on best available data sources. PCTs will need to build systems to monitor and understand activity in order to ensure baseline data to underpin commissioning plans.
• Under or over estimate of future activity	The baseline and high growth scenarios are based on assumptions higher than those traditionally used within NHS planning as they take into account historical trends and factor in growth over and above demographics and prevalence changes alone. It may be that increasing emphasis on self-care may result in lower rates of growth. Equally, higher rates of growth may occur if there are higher prevalence rates of long-term conditions, or if new conditions emerge such as HIV. Growth will need to be monitored on a regular basis by PCTs and commissioning plans adjusted as a result to ensure affordability.
• Under or over estimate of potential to shift work to polyclinics	The assumptions made about shifts in activity out of hospitals to polyclinics have been relatively cautious. In particular, activity has been projected to grow at a relatively high rate compared to that used in some PCT commissioning plans, and assumptions about shifts of activity out have been lower than those used elsewhere. The more cautious assumptions have been used to reflect the limited success to date of PCTs in shifting work out of hospitals. A lower rate of shift of activity out of hospitals than projected would result in higher costs for future healthcare activity across London. This would need to be addressed through either higher allocations (which is considered unlikely) or through more aggressive implementation of initiatives to shift activity. A higher rate of shift of activity out of hospitals than projected would result in less activity, and less income, for hospitals. Hospitals will need to be able to respond to this by reducing both fixed and variable costs. This could result in more radical hospital reconfigurations than described in the *Framework for Action* or in more creative solutions, for example, provision of more polyclinic services on hospital sites to offset fixed costs.

• Under or over estimate of procedures which will be de-commissioned	NICE and other bodies may increasingly indicate that some procedures or interventions are not effective and should be decommissioned, resulting in greater volumes of care being decommissioned. Equally, the analysis included in the report may have over-estimated the potential to decommission care. Again, PCTs will need to actively review future healthcare needs and adjust their commissioning plans accordingly.
• Errors in assumptions about relative volumes of care between major acute/specialist hospitals and local hospitals	The assumptions made about where future activity may take place are high-level assumptions and, as such, may have over or under-estimated volumes of care at different sorts of hospitals. In order to take forward the recommendations of the *Framework for Action* groups of PCTs will need to decide which services to commission from what types of hospitals in order to improve quality of care. This will require more detailed analysis at a local level which will determine future volumes by site.
• Under or over estimate of future allocations of resources to PCTs in London	Future allocations have been projected based on the best available data about future GDP growth and government spending on healthcare. Again, PCTs will need to adjust their commissioning plans to take into account actual allocations going forward.
• Under or over estimate of future tariff costs for hospital based care	Tariff has been assumed to stay constant – this is based on current government proposals to maintain tariff at constant prices.
• Under or over estimate of costs of polyclinics	Estimating costs of care in polyclinics is dependent on several assumptions about costs – these assumptions and the rationale for them are described in the text above. It is possible that some areas have over-estimated likely costs – for example, the model shows 50 per cent of the costs of a polyclinic as due to the costs of supplies, which may be an over-estimate. Further the allocation of costs of supplies between service lines is high level – it may well be that costs are lower in some service lines, and higher in others. Equally, the assumption of fifteen minutes per primary care consultation may be an over-estimate given the current seven minutes per consultation. This should allow for considerable flex – for example, it should allow for some time for administration associated with the consultation, or for time to discuss health improvement – a key recommendation of the staying healthy working group. Other areas may be an under-estimate – for example, the costs of staff, which are based on staff seeing patients for 1,200 hours a year.

• Inaccurate assumptions about future length of stay	Under or over-estimates about length of stay would result in more or less beds required going forward. Again this will need to be adjusted for at a local level.
• Inaccurate data about current capacity across London	NHS London is currently undergoing a review of NHS-owned facilities across London. This should clarify current capacity and facilitate plans for future capital requirements.

Appendix 1: membership of analytical working group and clinicians involved in making assumptions for future locations of care

Working Group

Name	*Organisation*
Dr Omar Aziz	Research Registrar, St Mary's Hospital, London
Dr Maggie Barker	London Public Health Group
Jacqui Foster	NHS London (workforce)
John Hamm	NHS London (public health)
Dr Trudi Kemp	Director of Strategy, St George's Hospital
Dr Erik Mayer	Research Registrar, St Mary's Hospital, London
Jonathon Phimster	NHS London (analytics)
Dr Michael Slojak	NHS London (public health)
Justine Fitzpatrick	London Health Observatory
Paul Deponte	London Health Observatory
Dr Penny Dash	McKinsey & Co
Dr Chris Llewellyn	McKinsey & Co
Eoin Leydon	McKinsey & Co
Dr Sameer Jatkar	McKinsey & Co

Clinicians interviewed

Name	*Organisation*
Dr Chris Streather	Medical Director, St George's Hospital
Dr Tom Coffey	GP and PEC Chair, Wandsworth PCT
Dr John Riorden	Ex Medical Director, Central Middlesex Hospital
Dr Charles Gutteridge	Medical Director, Barts and the London Hospitals
Samantha Prigmore	Nurse Consultant COPD, St George's Healthcare NHS Trust
Deborah Dawson	Nurse Consultant Critical Care, St George's Hospital
Heather Jarman	Nurse Consultant A&E, St George's Hospital
Mr Gavin Marsh	Orthopaedic Surgeon & Medical Director, Mayday University Hospital Croydon
Dr Mike Sharland	Consultant Paediatrician & Clinical Director for Children & Women's Services, St George's Healthcare NHS Trust
Dr Peta Longstaff	A&E Consultant, Chelsea and Westminster Hospital
Dr Martin Gore	Medical Director, Royal Marsden Hospital
Prof Lynne Pacanaowski	Head of Midwifery, St Mary's Hospital
Dr Julian Redhead	A&E Consultant, St Mary's Hospital. Chair of the London Emergency Medicine Consultants Group
Dr Hugh Millington	A&E Consultant, Charing Cross Hospital

Membership of clinical working groups

See individual reports from each clinical working group

Appendix 2: breakdown of HRGs by service line and detailed assumptions for shifts in care

Shifts of activity to alternative providers by HRG
Elective medicine

Complex

Spells Total: 40,018 — **Average tariff (weighted by volume) £1,547**

Rank	HRG		Spells	% Total	Tariff / Unit spend	Percentage of activity provided by setting: Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						1.04	-	0.52	-	-	-	-	100%	Cost Index
						93%	-	7%	-	-	-	-	100%	% Activity
1	E14	Cardiac Catheterisation and Angiography without complications	17,193	43%	£851	100%	-	-	-	-	-	-	100%	
2	E15	Percutaneous Coronary Intervention	7,184	18%	£3,144	100%	-	-	-	-	-	-	100%	
3	E38	Electrophysiological and other Percutaneous Cardiac Procedures >18	2,408	6%	£2,029	100%	-	-	-	-	-	-	100%	
4	E08	Pacemaker Implant except for AMI, Heart Failure or Shock	1,930	5%	£2,975	100%	-	-	-	-	-	-	100%	
5	G15	Therapeutic Pancreatic or Biliary Procedures	1,651	4%	£935	50%	-	50%	-	-	-	-	100%	
6	E09	Cardiac Pacemaker Replacement/Revision	1,452	4%	£2,623	100%	-	-	-	-	-	-	100%	
7	E30	Arrhythmia or Conduction Disorders <70 w/o cc	1,247	3%	£607	60%	-	40%	-	-	-	-	100%	
8	E29	Arrhythmia or Conduction Disorders >69 or w cc	964	2%	£646	60%	-	40%	-	-	-	-	100%	
9	E37	Other Cardiac Diagnoses	870	2%	£1,099	70%	-	30%	-	-	-	-	100%	
10	R16	Thoracic or Lumbar Spinal Disorders <70 w/o cc	870	2%	£569	40%	-	60%	-	-	-	-	100%	
11	S19	Complications of Procedures	642	2%	£1,503	100%	-	-	-	-	-	-	100%	
12	A15	Brain Tumours or Cerebral Cysts <70 w/o cc	418	1%	£760	100%	-	-	-	-	-	-	100%	
13	R15	Thoracic or Lumbar Spinal Disorders >69 or w cc	388	1%	£989	100%	-	-	-	-	-	-	100%	
14	G17	Diagnostic Pancreatic or Biliary Procedures w/o cc	380	1%	£756	100%	-	-	-	-	-	-	100%	
15	E13	Cardiac Catheterisation and Angiography with complications	264	1%	£809	100%	-	-	-	-	-	-	100%	
16	S15	Other Non-Viral Infections	260	1%	£1,039	30%	-	70%	-	-	-	-	100%	
17	R17	Non-Traumatic Spinal Cord Disorders	240	1%	£1,709	100%	-	-	-	-	-	-	100%	
18	E43	Congenital Disorders	189	0%	£4,840	100%	-	-	-	-	-	-	100%	
19	R18	Scoliosis or Other Spinal Deformity	167	0%	£1,680	100%	-	-	-	-	-	-	100%	
20	E23	Ischaemic Heart Disease without intervention <70 w/o cc	167	0%	£1,175	100%	-		-	-	-	-	100%	
	Other		1,132	3%	£1,443	93%	-	7%	-	-	-	-	100%	

Non-complex

Spells Total: 165,003 — **Average tariff (weighted by volume) £702**

Rank	HRG		Spells	% Total	Tariff / Unit spend	Percentage of activity provided by setting: Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						1.07	0.80	0.93	1.07	-	-	-	100%	Cost Index
						29%	4%	43%	23%	-	-	-	100%	% Activity
1	S22	Planned Procedures Not Carried Out	19,823	12%	£418	25%	25%	25%	25%	-	-	-	100%	
2	S27	Malignant Disorder of the Lymphatic/ Haematological Systems with los <2 days	17,901	11%	£359	20%	-	80%		-	-	-	100%	
3	S06	Red Blood Cell Disorders <70 w/o cc	11,026	7%	£391	20%	-	40%	40%	-	-	-	100%	
4	S98	Chemotherapy with a Haematology, Infectious Disease, Poisoning, or Non-specific Primary Diagnosis	10,122	6%	£1,253	40%	-	30%	30%	-	-	-	100%	
5	F98	Chemotherapy with a Digestive System Primary Diagnosis	9,746	6%	£789	40%	-	30%	30%	-	-	-	100%	
6	J98	Chemotherapy with a Skin, Breast or Burn Primary Diagnosis	8,496	5%	£913	40%	-	30%	30%	-	-	-	100%	
7	D98	Chemotherapy with a Respiratory System Primary Diagnosis	5,150	3%	£1,186	40%	-	30%	30%	-	-	-	100%	
8	S33	Examination, Follow up and Special Screening	4,189	3%	£429	10%	-	10%	80%	-	-	-	100%	
9	D07	Fibreoptic Bronchoscopy	3,662	2%	£449	20%	-	80%	-	-	-	-	100%	
10	S05	Red Blood Cell Disorders >69 or w cc	3,331	2%	£424	20%	-	40%	40%	-	-	-	100%	
11	S04	Coagulation Disorders	3,315	2%	£249	40%	-	60%	-	-	-	-	100%	
12	M98	Chemotherapy with a Female Reproductive System Primary Diagnosis	3,279	2%	£751	40%	-	30%	30%	-	-	-	100%	
13	K10	Inborn Errors of Metabolism	3,023	2%	£356	70%	-	30%	-	-	-	-	100%	
14	S36	Diagnostic Extraction of Bone Marrow	2,853	2%	£451	20%	-	80%	-	-	-	-	100%	
15	A10	Peripheral Nerve Disorder w/o cc	2,591	2%	£647	20%	-	40%	40%	-	-	-	100%	
16	H98	Chemotherapy with a Musculoskeletal System Primary Diagnosis	2,583	2%	£818	40%	-	30%	30%	-	-	-	100%	
17	L98	Chemotherapy with a Urinary Tract or Male Reproductive System Primary Diagnosis	2,445	1%	£762	40%	-	30%	30%	-	-	-	100%	
18	H26	Inflammatory Spine, Joint or Connective Tissue Disorders <70 w/o cc	2,296	1%	£510	20%	-	80%		-	-	-	100%	
19	D31	Sleep Disordered Breathing	1,986	1%	£489	20%	-	80%	-	-	-	-	100%	
20	A18	Multiple Sclerosis or other CNS Demyelinating Conditions	1,876	1%	£585	20%	-	80%		-	-	-	100%	
	Other		45,311	27%	£952	29%	4%	43%	23%	-	-	-	100%	

Long-term conditions

Spells Total: 5,652 | **Average tariff (weighted by volume) £922**

						Percentage of activity provided by setting								
						Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						0.85	-	1.15	-	-	-	-	100%	Cost Index
Rank	HRG		Spells	% Total	Tariff / Unit spend	50%	-	50%	-	-	-	-	100%	% Activity
1	D47	Fibrosis or Pneumoconiosis w/o cc	761	13%	£1,149	100%	-	-	-	-	-	-	100%	
2	D17	Cystic Fibrosis*	725	13%	£0	100%	-	-	-	-	-	-	100%	
3	D46	Fibrosis or Pneumoconiosis w cc	650	12%	£910	100%	-	-	-	-	-	-	100%	
4	K16	Diabetes and Other Hyperglycaemic Disorder <70 w/o cc	562	10%	£367	20%	-	80%	-	-	-	-	100%	
5	D53	Granulomatous, Allergic Alveolitis or Autoamune Lung Disease	531	9%	£764	20%	-	80%	-	-	-	-	100%	
6	D16	Bronchiectasis	336	6%	£1,527	20%	-	80%	-	-	-	-	100%	
7	D40	Chronic Obstructive Pulmonary Disease or Bronchitis w/o cc	319	6%	£544	20%	-	80%	-	-	-	-	100%	
8	E22	Ischaemic Heart Disease without intervention >69 or w cc	276	5%	£1,693	20%	-	80%	-	-	-	-	100%	
9	D22	Asthma w/o cc	249	4%	£905	20%	-	80%	-	-	-	-	100%	
10	K15	Diabetes and Other Hyperglycaemic Disorder >69 or w cc	204	4%	£434	20%	-	80%	-	-	-	-	100%	
11	E23	Ischaemic Heart Disease without intervention <70 w/o cc	188	3%	£1,175	20%	-	80%	-	-	-	-	100%	
12	D39	Chronic Obstructive Pulmonary Disease or Bronchitis w cc	174	3%	£1,068	20%	-	80%	-	-	-	-	100%	
13	E18	Heart Failure or Shock >69 or w cc	172	3%	£1,899	20%	-	80%	-	-	-	-	100%	
14	D21	Asthma w cc	142	3%	£1,939	20%	-	80%	-	-	-	-	100%	
15	E99	Complex Elderly with a Cardiac Primary Diagnosis	84	1%	£2,562	20%	-	80%	-	-	-	-	100%	
16	K17	Diabetes with Lower Limb Complications	84	1%	£2,562	20%	-	80%	-	-	-	-	100%	
17	E19	Heart Failure or Shock <70 w/o cc	64	1%	£1,240	20%	-	80%	-	-	-	-	100%	
18	E24	Hypertension >69 or w cc	37	1%	£1,167	20%	-	80%	-	-	-	-	100%	
19	K12	Diabetes with Hypoglycaemic Emergency <70 w/o cc	36	1%	£663	20%	-	80%	-	-	-	-	100%	
20	E25	Hypertension <70 w/o cc	32	1%	£990	20%	-	80%	-	-	-	-	100%	
	Other		27	0%	£1,827	50%	-	50%	-	-	-	-	100%	

*Cycstic Fibrosis costs calculated elsewhere (included in general uplift to medical admissions due to 'Other' category in RefCosts)

Under 17s

Spells Total: 15,625 | **Average tariff (weighted by volume) £975**

						Percentage of activity provided by setting								
						Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						1.24	0.54	0.55	0.55	-	-	-	100%	Cost Index
Rank	HRG		Spells	% Total	Tariff / Unit spend	66%	9%	15%	10%	-	-	-	100%	% Activity
1	S33	Examination, Follow up and Special Screening	2,338	15%	£429	25%	25%	25%	25%	-	-	-	100%	
2	S22	Planned Procedures Not Carried Out	2,241	14%	£418	25%	25%	25%	25%	-	-	-	100%	
3	L48	Renal Replacement Therapy w/o cc	1,509	10%	£863	100%	-	-	-	-	-	-	100%	
4	S24	Respite Care	1,159	7%	£1,534	100%	-	-	-	-	-	-	100%	
5	E43	Congenital Disorders	737	5%	£4,840	100%	-	-	-	-	-	-	100%	
6	F06	Diagnostic Procedures, Oesophagus and Stomach	713	5%	£363	60%	-	40%	-	-	-	-	100%	
7	S36	Diagnostic Extraction of Bone Marrow	589	4%	£451	60%	-	40%		-	-	-	100%	
8	A34	Miscellaneous Disorders of Nervous System	502	3%	£1,240	100%	-	-		-	-	-	100%	
9	D31	Sleep Disordered Breathing	464	3%	£489	100%	-			-	-	-	100%	
10	E39	Electrophysiological and other Percutaneous Cardiac Procedures <19	396	3%	£2,187	100%	-			-	-	-	100%	
11	S27	Malignant Disorder of the Lymphatic/ Haematological Systems with los <2 days	243	2%	£359	100%	-			-	-	-	100%	
12	S98	Chemotherapy with a Haematology, Infectious Disease, Poisoning, or Non-specific Primary Diagnosis	219	1%	£1,253	100%	-	-		-	-	-	100%	
13	R18	Scoliosis or Other Spinal Deformity	194	1%	£1,680	100%	-	-		-	-	-	100%	
14	E14	Cardiac Catheterisation and Angiography without complications	175	1%	£851	100%	-			-	-	-	100%	
15	S35	Other Specified Admissions and Counselling	172	1%	£654	60%	-	20%	20%	-	-	-	100%	
16	H24	Soft Tissue Disorders <70 w/o cc	162	1%	£505	60%	-	20%	20%	-	-	-	100%	
17	F35	Large Intestine - Endoscopic or Intermediate Procedures	137	1%	£438	60%	-	40%		-	-	-	100%	
18	F15	Stomach or Duodenum - Therapeutic Endoscopic or Intermediate Procedures	134	1%	£473	60%	-	40%		-	-	-	100%	
19	A15	Brain Tumours or Cerebral Cysts <70 w/o cc	130	1%	£760	60%	-	40%		-	-	-	100%	
20	S19	Complications of Procedures	116	1%	£1,503	100%	-	-		-	-	-	100%	
	Other		3,296	21%	£903	66%	9%	15%	10%	-	-	-	100%	

Shifts of activity to alternative providers by HRG (cont)
Non-elective medicine

Complex

Total: Spells 60,469 — **Average tariff (weighted by volume) £2,761**

Rank	HRG		Spells	% Total	Tariff / Unit spend	Percentage of activity provided by setting: Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						1.00	-	1.00	-	-	-	-	100%	Cost Index
						88%	-	12%	-	-	-	-	100%	% Activity
1	E15	Percutaneous Coronary Intervention	8,323	14%	£4,849	100%	-	-	-	-	-	-	100%	
2	E29	Arrhythmia or Conduction Disorders >69 or w cc	6,000	10%	£1,948	80%	-	20%	-	-	-	-	100%	
3	A22	Non-Transient Stroke or Cerebrovascular Accident >69 or w cc	5,366	9%	£4,170	50%	-	50%	-	-	-	-	100%	
4	E14	Cardiac Catheterisation and Angiography without complications	4,959	8%	£2,508	100%	-	-	-	-	-	-	100%	
5	S19	Complications of Procedures	4,664	8%	£1,703	100%	-	-	-	-	-	-	100%	
6	E30	Arrhythmia or Conduction Disorders <70 w/o cc	4,486	7%	£749	80%	-	20%	-	-	-	-	100%	
7	E12	Acute Myocardial Infarction w/o cc	4,093	7%	£2,037	100%	-	-	-	-	-	-	100%	
8	R16	Thoracic or Lumbar Spinal Disorders <70 w/o cc	2,994	5%	£1,069	80%	-	20%	-	-	-	-	100%	
9	R15	Thoracic or Lumbar Spinal Disorders >69 or w cc	2,779	5%	£2,269	80%	-	20%	-	-	-	-	100%	
10	A19	Haemorrhagic Cerebrovascular Disorders	2,245	4%	£3,216	100%	-	-	-	-	-	-	100%	
11	E08	Pacemaker Implant except for AMI, Heart Failure or Shock	2,057	3%	£4,427	100%	-	-	-	-	-	-	100%	
12	E11	Acute Myocardial Infarction w cc	1,674	3%	£3,029	100%	-	-	-	-	-	-	100%	
13	A23	Non-Transient Stroke or Cerebrovascular Accident <70 w/o cc	1,623	3%	£2,838	50%	-	50%	-	-	-	-	100%	
14	G15	Therapeutic Pancreatic or Biliary Procedures	1,596	3%	£3,474	80%	-	20%	-	-	-	-	100%	
15	A20	Transient Ischaemic Attack >69 or w cc	1,277	2%	£1,535	100%	-	-	-	-	-	-	100%	
16	A25	Nervous System Infections	898	1%	£2,563	100%	-	-	-	-	-	-	100%	
17	E38	Electrophysiological and other Percutaneous Cardiac Procedures >18	835	1%	£3,385	100%	-	-	-	-	-	-	100%	
18	A14	Brain Tumours or Cerebral Cysts >69 or w cc	666	1%	£3,676	100%	-	-	-	-	-	-	100%	
19	A15	Brain Tumours or Cerebral Cysts <70 w/o cc	516	1%	£2,269	100%	-	-	-	-	-	-	100%	
20	A21	Transient Ischaemic Attack <70 w/o cc	501	1%	£753	100%	-	-	-	-	-	-	100%	
	Other		2,918	5%	£2,843	88%	-	12%	-	-	-	-	100%	

Non-complex

Total: Spells 260,337 — **Average tariff (weighted by volume) £1.915**

Rank	HRG		Spells	% Total	Tariff / Unit spend	Percentage of activity provided by setting: Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						1.08	-	0.99	0.93	-	-	-	100%	Cost Index
						16%	-	73%	11%	-	-	-	100%	% Activity
1	E36	Chest Pain <70 w/o cc	17,938	7%	£540	10%	-	80%	10%	-	-	-	100%	
2	S16	Poisoning, Toxic, Environmental and Unspecified Effects	10,954	4%	£438	20%	-	80%	-	-	-	-	100%	
3	L09	Kidney or Urinary Tract Infections >69 or w cc	10,376	4%	£2,648	10%	-	70%	20%	-	-	-	100%	
4	D41	Unspecified Acute Lower Respiratory Infection	9,176	4%	£1,899	10%	-	70%	20%	-	-	-	100%	
5	S33	Examination, Follow up and Special Screening	8,018	3%	£408	10%	-	70%	20%	-	-	-	100%	
6	D99	Complex Elderly with a Respiratory System Primary Diagnosis	7,999	3%	£3,203	20%	-	80%	-	-	-	-	100%	
7	E35	Chest Pain >69 or w cc	7,512	3%	£797	10%	-	80%	10%	-	-	-	100%	
8	E31	Syncope or Collapse >69 or w cc	5,572	2%	£1,928	10%	-	70%	20%	-	-	-	100%	
9	F36	Large Intestinal Disorders >69 or w cc	5,223	2%	£2,364	40%	-	60%		-	-	-	100%	
10	D14	Lobar, Atypical or Viral Pneumonia w/o cc	4,791	2%	£1,761	10%	-	70%	20%	-	-	-	100%	
11	S31	Admission for Unexplained Symptoms	4,659	2%	£1,856	10%	-	70%	20%	-	-	-	100%	
12	F55	Inflammatory Bowel Disease >69 or w cc	4,600	2%	£1,985	30%	-	60%	10%	-	-	-	100%	
13	A30	Epilepsy <70 w/o cc	4,503	2%	£695	20%	-	80%		-	-	-	100%	
14	E99	Complex Elderly with a Cardiac Primary Diagnosis	4,355	2%	£3,720	40%	-	60%	-	-	-	-	100%	
15	A28	Headache or Migraine <70 w/o cc	4,201	2%	£570	10%	-	70%	20%	-	-	-	100%	
16	F17	Stomach or Duodenum Disorders >69 or w cc	4,148	2%	£2,179	30%	-	60%	10%	-	-	-	100%	
17	J41	Major Skin Infections >69 or w cc	4,003	2%	£2,249	10%	-	70%	20%	-	-	-	100%	
18	A99	Complex Elderly with a Nervous System Primary Diagnosis	3,680	1%	£5,773	20%	-	80%	-	-	-	-	100%	
19	S06	Red Blood Cell Disorders <70 w/o cc	3,616	1%	£1,121	10%	-	70%	20%	-	-	-	100%	
20	H99	Complex Elderly with a Musculoskeletal System Primary Diagnosis	3,460	1%	£6,883	20%	-	80%	-	-	-	-	100%	
	Other		131,554	51%	£2,024	16%	-	73%	11%	-	-	-	100%	

Long-term conditions

			Spells		Average tariff (weighted by volume)	Percentage of activity provided by setting								
		Total:	**46,024**		**£1,821**	Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						0.91	-	1.03	0.97	-	-	-	100%	Cost Index
Rank	HRG		Spells	% Total	Tariff / Unit spend									
						17%	-	63%	20%	-	-	-	100%	% Activity
1	D40	Chronic Obstructive Pulmonary Disease or Bronchitis w/o cc	7,803	17%	£1,726	20%	-	55%	25%	-	-	-	100%	
2	E22	Ischaemic Heart Disease without intervention >69 or w cc	6,353	14%	£1,963	10%	-	65%	25%	-	-	-	100%	
3	E23	Ischaemic Heart Disease without intervention <70 w/o cc	5,926	13%	£1,165	10%	-	65%	25%	-	-	-	100%	
4	E18	Heart Failure or Shock >69 or w cc	5,480	12%	£2,930	10%	-	80%	10%	-	-	-	100%	
5	D22	Asthma w/o cc	5,332	12%	£912	20%	-	62%	18%	-	-	-	100%	
6	D39	Chronic Obstructive Pulmonary Disease or Bronchitis w cc	4,072	9%	£2,367	20%	-	55%	25%	-	-	-	100%	
7	E19	Heart Failure or Shock <70 w/o cc	1,154	3%	£2,335	10%	-	80%	10%	-	-	-	100%	
8	D21	Asthma w cc	1,076	2%	£1,975	20%	-	62%	18%	-	-	-	100%	
9	K14	Diabetes with Hyperglycaemic Emergency <70 w/o cc	965	2%	£1,076	60%	-	15%	25%	-	-	-	100%	
10	D98	Chemotherapy with a Respiratory System Primary Diagnosis	946	2%	£1,813	10%	-	90%	-	-	-	-	100%	
11	K15	Diabetes and Other Hyperglycaemic Disorder >69 or w cc	937	2%	£2,280	10%	-	65%	25%	-	-	-	100%	
12	K16	Diabetes and Other Hyperglycaemic Disorder <70 w/o cc	912	2%	£896	10%	-	65%	25%	-	-	-	100%	
13	K11	Diabetes with Hypoglycaemic Emergency >69 or w cc	755	2%	£2,047	10%	-	65%	25%	-	-	-	100%	
14	K17	Diabetes with Lower Limb Complications	700	2%	£3,113	10%	-	65%	25%	-	-	-	100%	
15	E25	Hypertension <70 w/o cc	593	1%	£975	10%	-	80%	10%	-	-	-	100%	
16	E24	Hypertension >69 or w cc	577	1%	£2,011	10%	-	80%	10%	-	-	-	100%	
17	K13	Diabetes with Hyperglycaemic Emergency >69 or w cc	536	1%	£2,405	60%	-	15%	25%	-	-	-	100%	
18	D17	Cystic Fibrosis*	516	1%	£0	100%	-	-	-	-	-	-	100%	
19	D16	Bronchiectasis	442	1%	£2,549	20%	-	80%	-	-	-	-	100%	
20	K12	Diabetes with Hypoglycaemic Emergency <70 w/o cc	363	1%	£734	10%	-	65%	25%	-	-	-	100%	
	Other		589	1%	£2,943	17%	-	63%	20%	-	-	-	100%	

*Cycstic Fibrosis costs calculated elsewhere (included in general uplift to medical admissions due to 'Other' category in RefCosts)

Under 17s

			Spells		Average tariff (weighted by volume)	Percentage of activity provided by setting								
		Total:	**12,363**		**£1,400**	Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						1.02	-	0.91	0.91	-	-	-	100%	Cost Index
Rank	HRG		Spells	% Total	Tariff / Unit spend									
						83%	-	13%	4%	-	-	-	100%	% Activity
1	S13	Pyrexia of Unknown Origin	2,005	16%	£876	80%	-	15%	5%	-	-	-	100%	
2	S33	Examination, Follow up and Special Screening	1,135	9%	£408	80%	-	15%	5%	-	-	-	100%	
3	S21	Convalescent or Other Relief Care	602	5%	£2,114	100%	-		-	-	-	-	100%	
4	E43	Congenital Disorders	580	5%	£2,682	100%	-		-	-	-	-	100%	
5	S19	Complications of Procedures	509	4%	£1,703	80%	-	15%	5%	-	-	-	100%	
6	A28	Headache or Migraine <70 w/o cc	435	4%	£570	80%	-	15%	5%	-	-	-	100%	
7	S31	Admission for Unexplained Symptoms	369	3%	£1,856	80%	-	15%	5%	-	-	-	100%	
8	D34	Other Respiratory Diagnoses <70 w/o cc	337	3%	£743	80%	-	15%	5%	-	-	-	100%	
9	H24	Soft Tissue Disorders <70 w/o cc	293	2%	£426	80%	-	15%	5%	-	-	-	100%	
10	E32	Syncope or Collapse <70 w/o cc	271	2%	£628	80%	-	15%	5%	-	-	-	100%	
11	H32	Musculoskeletal Signs and Symptoms <70 w/o cc	252	2%	£760	80%	-	15%	5%	-	-	-	100%	
12	J40	Major Dermatological Conditions <70 w/o cc	237	2%	£2,049	80%	-	15%	5%	-	-	-	100%	
13	E36	Chest Pain <70 w/o cc	228	2%	£540	80%	-	15%	5%	-	-	-	100%	
14	H26	Inflammatory Spine, Joint or Connective Tissue Disorders <70 w/o cc	226	2%	£1,780	80%	-	15%	5%	-	-	-	100%	
15	A25	Nervous System Infections	206	2%	£2,563	80%	-	15%	5%	-	-	-	100%	
16	S16	Poisoning, Toxic, Environmental and Unspecified Effects	189	2%	£438	80%	-	15%	5%	-	-	-	100%	
17	S15	Other Non-Viral Infections	185	1%	£1,655	80%	-	15%	5%	-	-	-	100%	
18	L53	Renal General Disorders <70 w/o cc	164	1%	£991	80%	-	15%	5%	-	-	-	100%	
19	A34	Miscellaneous Disorders of Nervous System	162	1%	£2,155	80%	-	15%	5%	-	-	-	100%	
20	A17	Cerebral Degenerations <70 w/o cc	148	1%	£1,807	80%	-	15%	5%	-	-	-	100%	
	Other		3,829	31%	£1,833	83%	-	13%	4%	-	-	-	100%	

Shifts of activity to alternative providers by HRG (cont)
Elective surgery

Complex

Total: Spells 126,088 — **Average tariff (weighted by volume) £2,106**

						Percentage of activity provided by setting								
						Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						1.16	0.80	-	-	-	-	0.91	100%	Cost Index
Rank	HRG		Spells	% Total	Tariff / Unit spend	52%	40%	-	-	-	-	7%	100%	% Activity
1	C58	Intermediate Mouth or Throat Procedures	23,924	19%	£730	20%	70%	-	-	-	-	10%	100%	
2	M07	Upper Genital Tract Major Procedures	7,317	6%	£2,362	50%	29%	-	-	-	-	21%	100%	
3	G14	Cholecystectomy <70 w/o cc	3,713	3%	£1,672	20%	80%	-	-	-	-	-	100%	
4	E04	Coronary Bypass	3,684	3%	£7,101	100%	-	-	-	-	-	-	100%	
5	J05	Intermediate Breast Surgery w/o cc	3,481	3%	£853	20%	67%	-	-	-	-	13%	100%	
6	M03	Lower Genital Tract Major Procedures	3,253	3%	£1,875	50%	35%	-	-	-	-	15%	100%	
7	H19	Soft Tissue or Other Bone Procedures - Category 2 <70 w/o cc	2,923	2%	£1,698	20%	80%	-	-	-	-	-	100%	
8	C57	Major Mouth or Throat Procedures	2,439	2%	£1,694	100%	-	-	-	-	-	-	100%	
9	Q12	Therapeutic Endovascular Procedures	2,151	2%	£1,329	100%	-	-	-	-	-	-	100%	
10	Q14	Diagnostic Radiology - Arteries or Lymphatics w/o cc	1,997	2%	£1,017	100%	-	-	-	-	-	-	100%	
11	J10	Malignant Breast Disorders <70 w/o cc	1,993	2%	£308	100%	-	-	-	-	-	-	100%	
12	C31	Major Ear Procedures	1,987	2%	£1,568	100%	-	-	-	-	-	-	100%	
13	J49	Partial/Subtotal Mastectomy w/o cc	1,976	2%	£1,670	20%	80%	-	-	-	-	-	100%	
14	E03	Cardiac Valve Procedures	1,928	2%	£9,824	100%	-	-	-	-	-	-	100%	
15	G05	Liver - Major Procedures <70 w/o cc	1,773	1%	£422	100%	-	-	-	-	-	-	100%	
16	R03	Decompression and Effusion for Degenerative Spinal Disorders	1,647	1%	£4,567	86%	-	-	-	-	-	14%	100%	
17	F42	General Abdominal - Very Major or Major Procedures <70 w/o cc	1,538	1%	£1,209	100%	-	-	-	-	-	-	100%	
18	R02	Surgery for Prolapsed Intervertebral Disc	1,508	1%	£3,030	100%	-	-	-	-	-	-	100%	
19	E40	Other Cardiothoracic or Circulatory Procedures >18	1,501	1%	£1,240	100%	-	-	-	-	-	-	100%	
20	B32	Non Surgical Ophthalmology with los <2 days	1,484	1%	£439	100%	-	-	-	-	-	-	100%	
	Other		53,874	43%	£2,453	52%	40%	-	-	-	-	7%	100%	

High-throughput

Total: Spells 343,905 — **Average tariff (weighted by volume) £818**

						Percentage of activity provided by setting								
						Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						1.00	0.97	-	-	-	-	1.50	100%	Cost Index
Rank	HRG		Spells	% Total	Tariff / Unit spend	10%	85%	-	-	-	-	5%	100%	% Activity
1	F06	Diagnostic Procedures, Oesophagus and Stomach	45,737	13%	£363	10%	90%	-	-	-	-		100%	
2	F35	Large Intestine - Endoscopic or Intermediate Procedures	40,589	12%	£438	10%	90%	-	-	-	-		100%	
3	B13	Phakoemulsification Cataract Extraction and Insertion of Lens	37,502	11%	£715	10%	75%	-	-	-	-	15%	100%	
4	M05	Upper Genital Tract Minor Procedures	22,913	7%	£566	10%	89%	-	-	-	-	1%	100%	
5	A07	Intermediate Pain Procedures	14,772	4%	£491	10%	84%	-	-	-	-	6%	100%	
6	H10	Arthroscopies	13,787	4%	£985	10%	90%	-	-	-	-	-	100%	
7	M06	Upper Genital Tract Intermediate Procedures	11,282	3%	£725	10%	90%	-	-	-	-	-	100%	
8	M02	Lower Genital Tract Intermediate Procedures	8,620	3%	£599	10%	90%	-	-	-	-	-	100%	
9	M10	Surgical Termination of Pregnancy	7,575	2%	£498	10%	90%	-	-	-	-	-	100%	
10	H13	Hand Procedures - Category 1	7,452	2%	£695	10%	75%	-	-	-	-	15%	100%	
11	F54	Inflammatory Bowel Disease - Endoscopic or Intermediate Procedures <70 w/o cc	7,100	2%	£439	10%	90%	-	-	-	-	-	100%	
12	F74	Inguinal Umbilical or Femoral Hernia Repairs <70 w/o cc	7,017	2%	£963	10%	61%	-	-	-	-	29%	100%	
13	H04	Primary Knee Replacement	6,393	2%	£5,376	10%	68%	-	-	-	-	22%	100%	
14	Q11	Varicose Vein Procedures	5,520	2%	£950	10%	42%	-	-	-	-	48%	100%	
15	B16	Oculoplastic Low Complexity	4,805	1%	£569	10%	90%	-	-	-	-	-	100%	
16	C22	Intermediate Nose Procedures	4,144	1%	£1,004	10%	90%	-	-	-	-	-	100%	
17	C04	Minor Mouth or Throat Procedures	3,900	1%	£528	10%	90%	-	-	-	-	-	100%	
18	M01	Lower Genital Tract Minor Procedures	3,802	1%	£492	10%	90%	-	-	-	-	-	100%	
19	H17	Soft Tissue or Other Bone Procedures - Category 1 <70 w/o cc	3,754	1%	£1,178	10%	86%	-	-	-	-	4%	100%	
20	L19	Bladder Intermediate Endoscopic Procedure w/o cc	3,246	1%	£663	10%	90%	-	-	-	-	-	100%	
	Other	83,996	24%	£1,155		10%	85%	-	-	-	-	5%	100%	

Minor procedures

Total: Spells 72,794 — **Average tariff (weighted by volume) £483**

Rank	HRG		Spells	% Total	Tariff / Unit spend	Percentage of activity provided by setting							
						Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%
						-	0.94	-	1.01	-	-	1.15	100% Cost Index
						-	0.94	-	1.01	-	-	1.15	100% % Activity
1	L21	Bladder Minor Endoscopic Procedure w/o cc	25,616	35%	£408	-	35%	-	65%	-	-	-	100%
2	J37	Minor Skin Procedures - Category 1 w/o cc	24,591	34%	£554	-	-	-	77%	-	-	23%	100%
3	L20	Bladder Minor Endoscopic Procedure w cc	4,997	7%	£428	-	65%	-	35%	-	-	-	100%
4	L45	Extracorporeal Lithotripsy	4,015	6%	£450	-	100%	-	-	-	-	-	100%
5	H22	Minor Procedures to the Musculoskeletal System	2,866	4%	£581	-	50%	-	50%	-	-	-	100%
6	L30	Prostate or Bladder Neck Minor Endoscopic Procedure (Male and Female)	2,540	3%	£401	-	100%	-	-	-	-	-	100%
7	L41	Vasectomy Procedures	1,915	3%	£466	-	20%	-	80%	-	-	-	100%
8	J36	Minor Skin Procedures - Category 1 w cc	1,625	2%	£544	-	-	-	77%	-	-	23%	100%
9	C07	Minor Medical Head, Neck or Ear Diagnoses <70 w/o cc	1,363	2%	£560	-	100%	-	-	-	-	-	100%
10	J44	Minor Dermatological Conditions or Benign Tumours	976	1%	£438	-	-	-	100%	-	-	-	100%
11	S34	Other Procedures and Health Care Problems	484	1%	£538	-	10%	-	90%	-	-	-	100%
12	L23	Bladder or Urinary Mechanical Problems <70 w/o cc	367	1%	£347	-	100%	-	-	-	-	-	100%
13	F96	Anal Disorders	316	0%	£853	-	55%	-	45%	-	-	-	100%
14	L22	Bladder or Urinary Mechanical Problems >69 or w cc	298	0%	£480	-	100%	-	-	-	-	-	100%
15	C06	Minor Medical Head, Neck or Ear Diagnoses >69 or w cc	188	0%	£562	-	100%	-	-	-	-	-	100%
16	C17	Intermediate Medical Head, Neck or Ear Diagnoses w/o cc	155	0%	£900	-	100%	-	-	-	-	-	100%
17	J43	Major Skin Tumours	117	0%	£853	-	100%	-	-	-	-	-	100%
18	G19	Biliary Tract Disorders <70 w/o cc	90	0%	£823	-	100%	-	-	-	-	-	100%
19	G18	Biliary Tract Disorders >69 or w cc	85	0%	£1,014	-	100%	-	-	-	-	-	100%
20	H42	Sprains, Strains, or Minor Open Wounds <70 w/o cc	67	0%	£862	-	100%	-	-	-	-	-	100%
	Other		123	0%	£1,183	-	32%	-	59%	-	-	8%	100%

Under 17s

Total: Spells 53,158 8 — **Average tariff (weighted by volume) £1,019**

Rank	HRG		Spells	% Total	Tariff / Unit spend	Percentage of activity provided by setting							
						Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%
						1.04	0.95	-	-	-	-	0.95	100% Cost Index
						57%	35%	-	-	-	-	8%	100% % Activity
1	C58	Intermediate Mouth or Throat Procedures	17,316	33%	£730	55%	35%	-	-	-	-	10%	100%
2	C55	Minor Ear Procedures	3,067	6%	£647	48%	27%	-	-	-	-	25%	100%
3	L39	Penis Minor Open Procedure <70 w/o cc	2,133	4%	£618	60%	40%	-	-	-	-	-	100%
4	J37	Minor Skin Procedures - Category 1 w/o cc	1,917	4%	£554	51%	32%	-	-	-	-	17%	100%
5	C04	Minor Mouth or Throat Procedures	1,616	3%	£528	60%	40%	-	-	-	-	-	100%
6	L43	Scrotum Testis or Vas Deferens Open Procedures <70 w/o cc	1,176	2%	£788	60%	40%	-	-	-	-	-	100%
7	F75	Herniotomy Procedures	1,103	2%	£883	60%	40%	-	-	-	-	-	100%
8	H52	Removal of Fixation Device <70 w/o cc	916	2%	£984	60%	40%	-	-	-	-	-	100%
9	F06	Diagnostic Procedures, Oesophagus and Stomach	905	2%	£363	60%	40%	-	-	-	-	-	100%
10	H22	Minor Procedures to the Musculoskeletal System	891	2%	£581	60%	40%	-	-	-	-	-	100%
11	A07	Intermediate Pain Procedures	786	1%	£491	60%	40%	-	-	-	-	-	100%
12	F74	Inguinal Umbilical or Femoral Hernia Repairs <70 w/o cc	740	1%	£963	45%	26%	-	-	-	-	29%	100%
13	J35	Minor Skin Procedures - Category 2 w/o cc	718	1%	£600	51%	32%	-	-	-	-	17%	100%
14	B24	Ocular Motility Intermediate Complexity	696	1%	£820	60%	40%	-	-	-	-	-	100%
15	C57	Major Mouth or Throat Procedures	689	1%	£1,694	80%	20%	-	-	-	-	-	100%
16	C56	Minor Nose Procedures	676	1%	£625	56%	36%	-	-	-	-	8%	100%
17	R01	Minor Spinal Procedures	638	1%	£569	60%	40%	-	-	-	-	-	100%
18	M10	Surgical Termination of Pregnancy	628	1%	£498	60%	40%	-	-	-	-	-	100%
19	B29	Surgical Retina Low Complexity	621	1%	£379	60%	40%	-	-	-	-	-	100%
20	E41	Other Cardiothoracic or Circulatory Procedures <19	614	1%	£4,880	100%		-	-	-	-	-	100%
	Other		15,311	29%	£1,638	57%	35%	-	-	-	-	8%	100%

Shifts of activity to alternative providers by HRG (cont)
Non-elective surgery

Complex

Total: Spells 39,270 — Average tariff (weighted by volume) £4,274

Rank	HRG		Spells	% Total	Tariff / Unit spend	Percentage of activity provided by setting: Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						1.00	-	-	-	-	-	-	100%	Cost Index
						100%	-	-	-	-	-	-	100%	% Activity
1	H19	Soft Tissue or Other Bone Procedures - Category 2 <70 w/o cc	2,213	6%	£1,435	100%	-	-	-	-	-	-	100%	
2	H50	Multiple Injury <70	1,585	4%	£2,975	100%	-	-	-	-	-	-	100%	
3	E04	Coronary Bypass	1,484	4%	£9,429	100%	-	-	-	-	-	-	100%	
4	B32	Non Surgical Ophthalmology with los <2 days	1,102	3%	£518	100%	-	-	-	-	-	-	100%	
5	A31	Head Injury with Brain Injury	1,067	3%	£2,295	100%	-	-	-	-	-	-	100%	
6	F32	Large Intestine - Very Major Procedures	1,059	3%	£6,673	100%	-	-	-	-	-	-	100%	
7	B33	Non Surgical Ophthalmology with los >1 day	1,033	3%	£1,718	100%	-	-	-	-	-	-	100%	
8	C27	Major Medical, Head, Neck or Ear Diagnoses w/o cc	964	2%	£804	100%	-	-	-	-	-	-	100%	
9	Q18	Non-Surgical Peripheral Vascular Disease w/o cc	926	2%	£1,781	100%	-	-	-	-	-	-	100%	
10	C25	Intermediate Maxillo-facial/ENT procedures	870	2%	£1,758	100%	-	-	-	-	-	-	100%	
11	C59	Exteriorisation of Trachea	796	2%	£5,212	100%	-	-	-	-	-	-	100%	
12	H49	Multiple Injury >69	765	2%	£5,783	100%	-	-	-	-	-	-	100%	
13	A03	Intracranial Procedures Except Trauma - Category 3	743	2%	£6,084	100%	-	-	-	-	-	-	100%	
14	E40	Other Cardiothoracic or Circulatory Procedures >18	731	2%	£3,273	100%	-	-	-	-	-	-	100%	
15	A04	Intracranial Procedures Except Trauma - Category 4	703	2%	£8,272	100%	-	-	-	-	-	-	100%	
16	A02	Intracranial Procedures Except Trauma - Category 2	696	2%	£4,922	100%	-	-	-	-	-	-	100%	
17	Q15	Amputations	686	2%	£10,527	100%	-	-	-	-	-	-	100%	
18	E42	Valve Disorders	667	2%	£3,009	100%	-	-	-	-	-	-	100%	
19	L07	Non OR Admission for Kidney or Urinary Tract Neoplasms >69 or w cc	646	2%	£3,155	100%	-	-	-	-	-	-	100%	
20	E03	Cardiac Valve Procedures	638	2%	£13,702	100%	-	-	-	-	-	-	100%	
	Other		19,898	51%	£4,293	100%	-	-	-	-	-	-	100%	

Non-complex

Total: Spells 146,651 — Average tariff (weighted by volume) £1,647

Rank	HRG		Spells	% Total	Tariff / Unit spend	Percentage of activity provided by setting: Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						0.98	-	1.02	-	-	-	-	100%	Cost Index
						55%	-	45%	-	-	-	-	100%	% Activity
1	F47	General Abdominal Disorders <70 w/o cc	14,776	10%	£759	70%	-	30%	-	-	-	-	100%	
2	F46	General Abdominal Disorders >69 or w cc	8,375	6%	£1,619	70%	-	30%	-	-	-	-	100%	
3	M09	Threatened or Spontaneous Abortion	6,288	4%	£436	70%	-	30%	-	-	-	-	100%	
4	M05	Upper Genital Tract Minor Procedures	5,688	4%	£802	40%	-	60%	-	-	-	-	100%	
5	H41	Sprains, Strains, or Minor Open Wounds >69 or w cc	5,129	3%	£1,791	40%	-	60%	-	-	-	-	100%	
6	H42	Sprains, Strains, or Minor Open Wounds <70 w/o cc	4,813	3%	£573	40%	-	60%	-	-	-	-	100%	
7	C17	Intermediate Medical Head, Neck or Ear Diagnoses w/o cc	4,491	3%	£785	70%	-	30%	-	-	-	-	100%	
8	L69	Urinary Tract Stone Disease	4,115	3%	£773	30%	-	70%	-	-	-	-	100%	
9	F82	Appendicectomy Procedures <70 w/o cc	4,095	3%	£1,892	70%	-	30%	-	-	-	-	100%	
10	H37	Closed Pelvis or Lower Limb Fractures <70 w/o cc	3,939	3%	£2,417	40%	-	60%	-	-	-	-	100%	
11	H40	Closed Upper Limb Fractures or Dislocations <70 w/o cc	3,306	2%	£1,447	40%	-	60%	-	-	-	-	100%	
12	J35	Minor Skin Procedures - Category 2 w/o cc	3,164	2%	£1,070	70%	-	30%	-	-	-	-	100%	
13	M14	Non-Surgical Treatment of Fibroids, Menstrual Disorders, or Endometriosis	3,108	2%	£602	70%	-	30%	-	-	-	-	100%	
14	H64	Head Injury <70 w/o cc	2,978	2%	£552	40%	-	60%	-	-	-	-	100%	
15	H39	Closed Upper Limb Fractures or Dislocations >69 or w cc	2,741	2%	£2,762	40%	-	60%	-	-	-	-	100%	
16	F96	Anal Disorders	2,618	2%	£1,262	20%	-	80%	-	-	-	-	100%	
17	H36	Closed Pelvis or Lower Limb Fractures >69 or w cc	2,560	2%	£4,582	40%	-	60%	-	-	-	-	100%	
18	G19	Biliary Tract Disorders <70 w/o cc	2,131	1%	£1,078	30%	-	70%	-	-	-	-	100%	
19	M15	Non-Surgical Treatment of Ovary, Tube, or Pelvis Disorders	1,964	1%	£908	70%	-	30%	-	-	-	-	100%	
20	F93	Anus - Intermediate Procedures <70 w/o cc	1,959	1%	£931	30%	-	70%	-	-	-	-	100%	
	Other		58,412	40%	£2,282	55%	-	45%	-	-	-	-	100%	

Minor procedures

Spells Total: 2,472

Average tariff (weighted by volume) £1,527

Rank	HRG		Spells	% Total	Tariff / Unit spend	Percentage of activity provided by setting: Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						-	-	0.68	1.00	-	-	-	100%	Cost Index
						-	-	-	100%	-	-	-	100%	% Activity
1	J37	Minor Skin Procedures - Category 1 w/o cc	1,857	75%	£1,033	-	-	-	100%	-	-	-	100%	
2	J36	Minor Skin Procedures - Category 1 w cc	616	25%	£3,018	-	-	-	100%	-	-	-	100%	

Under 17s

Spells Total: 18,686

Average tariff (weighted by volume) £1,845

Rank	HRG		Spells	% Total	Tariff / Unit spend	Percentage of activity provided by setting: Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						1.01	-	0.95	0.90	-	-	-	100%	Cost Index
						84%	-	12%	4%	-	-	-	100%	% Activity
1	F82	Appendicectomy Procedures <70 w/o cc	1,575	8%	£1,892	100%	-	-	-	-	-	-	100%	
2	H64	Head Injury <70 w/o cc	1,396	7%	£552	70%	-	30%	-	-	-	-	100%	
3	J35	Minor Skin Procedures - Category 2 w/o cc	1,289	7%	£1,070	90%	-	-	10%	-	-	-	100%	
4	H37	Closed Pelvis or Lower Limb Fractures <70 w/o cc	839	4%	£2,417	70%	-	30%	-	-	-	-	100%	
5	J37	Minor Skin Procedures - Category 1 w/o cc	675	4%	£1,033	70%	-	20%	10%	-	-	-	100%	
6	C17	Intermediate Medical Head, Neck or Ear Diagnoses w/o cc	567	3%	£785	70%	-	20%	10%	-	-	-	100%	
7	B32	Non Surgical Ophthalmology with los <2 days	479	3%	£518	70%	-	20%	10%	-	-	-	100%	
8	H42	Sprains, Strains, or Minor Open Wounds <70 w/o cc	463	2%	£573	70%	-	20%	10%	-	-	-	100%	
9	B33	Non Surgical Ophthalmology with los >1 day	456	2%	£1,718	100%	-	-	-	-	-	-	100%	
10	L43	Scrotum Testis or Vas Deferens Open Procedures <70 w/o cc	447	2%	£1,098	100%	-	-	-	-	-	-	100%	
11	C58	Intermediate Mouth or Throat Procedures	365	2%	£1,271	100%	-	-	-	-	-		100%	
12	H40	Closed Upper Limb Fractures or Dislocations <70 w/o cc	290	2%	£1,447	70%	-	30%	-	-	-	-	100%	
13	H63	Head Injury >69 or w cc	288	2%	£732	100%	-	-	-	-	-	-	100%	
14	J45	Minor Skin Infections	284	2%	£1,128	70%	-	20%	10%	-	-	-	100%	
15	C04	Minor Mouth or Throat Procedures	270	1%	£1,001	100%	-	-	-	-	-	-	100%	
16	F14	Stomach or Duodenum - Major Procedures <70 or w/o cc	262	1%	£2,923	100%	-	-	-	-	-	-	100%	
17	H19	Soft Tissue or Other Bone Procedures - Category 2 <70 w/o cc	245	1%	£1,435	100%	-	-	-	-	-	-	100%	
18	H45	Minor Fractures or Dislocations	236	1%	£1,232	70%	-	20%	10%	-	-	-	100%	
19	J28	Other Burn without Significant Graft Procedure <19	220	1%	£1,073	70%	-	20%	10%	-	-	-	100%	
20	R01	Minor Spinal Procedures	220	1%	£513	100%	-	-	-	-	-	-	100%	
	Other		7,819	42%	£2,679	84%	-	12%	4%	-	-	-	100%	

Shifts of activity to alternative providers by HRG (cont)
Other activity

Paediatrics

			Elective	Non Elective	Total		Average tariff (weighted by volume)	Percentage of activity provided by setting								
			Total:	**22,873**	**66,134**	**89,007**	**£842**	Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
								1.00	-	1.00	1.00	-	-	-	100%	Cost Index
Rank	HRG		Elective	Non Elective	Total	% Total	Tariff / Unit spend	72%	-	22%	7%	-	-	-	100%	% Activity
1	P13	Other Gastrointestinal or Metabolic Disorders	1,512	8,152	9,664	11%	£712	70%	-	23%	7%	-	-	-	100%	
2	P03	Upper Respiratory Tract Disorders	337	7,376	7,713	9%	£546	70%	-	23%	7%	-	-	-	100%	
3	P06	Minor Infections (including Immune Disorders)	838	5,758	6,596	7%	£707	70%	-	23%	7%	-	-	-	100%	
4	P01	Asthma or Wheezing	141	5,681	5,822	7%	£657	70%	-	23%	7%	-	-	-	100%	
5	P98	Chemotherapy with a Disease of Childhood Primary Diagnosis	4,239	1,311	5,550	6%	£1,343	70%	-	23%	7%	-	-	-	100%	
6	P15	Accidental Injury without Brain Injury	323	5,173	5,496	6%	£890	70%	-	23%	7%	-	-	-	100%	
7	P23	Blood Cell Disorders	2,748	2,336	5,084	6%	£824	70%	-	23%	7%	-	-	-	100%	
8	P26	Infectious and Non-Infectious Gastroenteritis	136	4,936	5,072	6%	£598	70%	-	23%	7%	-	-	-	100%	
9	P04	Lower Respiratory Tract Disorders without Acute Bronchiolitis	249	4,450	4,699	5%	£1,083	70%	-	23%	7%	-	-	-	100%	
10	P07	Neoplasms	3,543	1,094	4,637	5%	£789	100%	-	-	-	-	-	-	100%	
11	P08	Febrile Convulsions	252	3,102	3,354	4%	£625	70%	-	23%	7%	-	-	-	100%	
12	P14	Ingestion Poisoning or Allergies	447	2,597	3,044	3%	£501	70%	-	23%	7%	-	-	-	100%	
13	P27	Acute Bronchiolitis	34	2,855	2,889	3%	£936	70%	-	23%	7%	-	-	-	100%	
14	P24	Skin, Musculoskeletal, or Connective Tissue Disorders	785	1,997	2,782	3%	£674	70%	-	23%	7%	-	-	-	100%	
15	P20	Other Congenital Conditions	678	1,633	2,311	3%	£835	70%	-	23%	7%	-	-	-	100%	
16	P28	Epilepsy Syndrome	704	1,390	2,094	2%	£998	70%	-	23%	7%	-	-	-	100%	
17	P12	Major Gastrointestinal or Metabolic Disorders	1,134	782	1,916	2%	£920	70%	-	23%	7%	-	-	-	100%	
18	P19	Major Congenital Conditions	1,096	682	1,778	2%	£1,417	70%	-	23%	7%	-	-	-	100%	
19	P21	Renal Disease	630	729	1,359	2%	£579	70%	-	23%	7%	-	-	-	100%	
20	P09	Nervous System Disorders	695	467	1,162	1%	£1,071	70%	-	23%	7%	-	-	-	100%	
	Other		2,352	3,633	5,985	7%	£1,416	72%	-	22%	7%	-	-	-	100%	

Neonatology

			Spells		Average tariff (weighted by volume)	Percentage of activity provided by setting								
			Total:	**106,809**	**£971**	Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						1.04	-	0.74	-	-	-	-	100%	Cost Index
Rank	HRG		Spells	% Total	Tariff / Unit spend	88%	-	12%	-	-	-	-	100%	% Activity
1	N03	Neonates with one Minor Diagnosis	87,094	82%	£721	85%	-	15%	-	-	-	-	100%	
2	N02	Neonates with Multiple Minor Diagnoses	10,277	10%	£1,196	100%	-	-	-	-	-	-	100%	
3	N05	Neonates with one Major Diagnosis	5,696	5%	£2,407	100%	-	-	-	-	-	-	100%	
4	N04	Neonates with Multiple Major Diagnoses	3,025	3%	£4,765	100%	-	-	-	-	-	-	100%	
5	N01	Neonates - Died <2 days old	717	1%	£666	100%	-	-	-	-	-	-	100%	

Obstetrics

			Spells		Average tariff (weighted by volume)	Percentage of activity provided by setting								
			Total:	**106,809**	**£971**	Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
						1.07	-	0.91	-	-	0.80	-	100%	Cost Index
Rank	HRG		Spells	% Total	Tariff / Unit spend	60%	-	34%	-	-	6%	-	100%	% Activity
1	N12	Antenatal Admissions not Related to Delivery Event	102,745	47%	£451	63%	-	32%	-	-	5%	-	100%	
2	N07	Normal Delivery w/o cc	68,041	31%	£801	45%	-	45%	-	-	10%	-	100%	
3	N11	Caesarean Section w/o cc	25,557	12%	£1,935	85%	-	15%	-	-	-	-	100%	
4	N09	Assisted Delivery w/o cc	11,945	6%	£1,229	60%	-	40%	-	-	-	-	100%	
5	N10	Caesarean Section w cc	4,208	2%	£2,709	85%	-	15%	-	-	-	-	100%	
6	N06	Normal Delivery w cc	3,447	2%	£1,490	45%	-	45%	-	-	10%	-	100%	
7	N08	Assisted Delivery w cc	934	0%	£1,753	60%	-	40%	-	-	-	-	100%	

Regular attendances

						Percentage of activity provided by setting								
					Regular attendances not distinguished by HRG*	Specialist / Major acute	Elective Centre	Local hospital	Polyclinic	GP	Home	Demand Management	Checksum(%) = 100%	
		Total:	**Spells 186,469**		**£246**	1.00	-	1.00	1.00	-	-	-	100%	Cost Index
Rank	HRG		Spells	% Total	Tariff / Unit spend	17%	-	51%	32%	-	-	-	100%	% Activity
1	L48	Renal Replacement Therapy w/o cc	12,624	60%	£246	10%	-	60%	30%	-	-	-	100%	
2	J98	Chemotherapy with a Skin, Breast or Burn Primary Diagnosis	9,493	5%	£246	20%	-	40%	40%	-	-	-	100%	
3	F98	Chemotherapy with a Digestive System Primary Diagnosis	7,894	4%	£246	20%	-	40%	40%	-	-	-	100%	
4	S27	Malignant Disorder of the Lymphatic/ Haematological Systems with los <2 days	7,565	4%	£246	40%	-	30%	30%	-	-	-	100%	
5	S98	Chemotherapy with a Haematology, Infectious Disease, Poisoning, or Non-specific Primary Diagnosis	5,919	3%	£246	20%	-	40%	40%	-	-	-	100%	
6	D98	Chemotherapy with a Respiratory System Primary Diagnosis	3,957	2%	£246	20%	-	40%	40%	-	-	-	100%	
7	M98	Chemotherapy with a Female Reproductive System Primary Diagnosis	3,737	2%	£246	20%	-	40%	40%	-	-	-	100%	
8	S06	Red Blood Cell Disorders <70 w/o cc	3,234	2%	£246	40%	-	30%	30%	-	-	-	100%	
9	G98	Chemotherapy with a Hepato-Biliary or Pancreatic System Primary Diagnosis	2,860 6	2%	£24	20%	-	40%	40%	-	-	-	100%	
10	J37	Minor Skin Procedures - Category 1 w/o cc	1,993	1%	£246	40%	-	30%	30%	-	-	-	100%	
11	L98	Chemotherapy with a Urinary Tract or Male Reproductive System Primary Diagnosis	1,799	1%	£246	20%	-	40%	40%	-	-	-	100%	
12	F37	Large Intestinal Disorders <70 w/o cc	1,643	1%	£246	40%	-	30%	30%	-	-	-	100%	
13	J10	Malignant Breast Disorders <70 w/o cc	1,603	1%	£246	40%	-	30%	30%	-	-	-	100%	
14	J40	Major Dermatological Conditions <70 w/o cc	1,396	1%	£246	40%	-	30%	30%	-	-	-	100%	
15	F36	Large Intestinal Disorders >69 or w cc	1,391	1%	£246	40%	-	30%	30%	-	-	-	100%	
16	S36	Diagnostic Extraction of Bone Marrow	1,274	1%	£246	40%	-	30%	30%	-	-	-	100%	
17	S05	Red Blood Cell Disorders >69 or w cc	1,206	1%	£246	40%	-	30%	30%	-	-	-	100%	
18	S04	Coagulation Disorders	872	0%	£246	40%	-	30%	30%	-	-	-	100%	
19	K10	Inborn Errors of Metabolism	855	0%	£246	40%	-	30%	30%	-	-	-	100%	
20	S33	Examination, Follow up and Special Screening	787	0%	£246	40%	-	30%	30%	-	-	-	100%	
21	S11	Disorders of Immunity without HIV/AIDS	673	0%	£246	40%	-	30%	30%	-	-	-	100%	
22	M17	Non-Surgical Treatment of Gynaecological Malignancy w/o cc	573	0%	£246	40%	-	30%	30%	-	-	-	100%	
23	H26	Inflammatory Spine, Joint or Connective Tissue Disorders <70 w/o cc	551	0%	£246	40%	-	30%	30%	-	-	-	100%	
24	P23	Blood Cell Disorders	546	0%	£246	40%	-	30%	30%	-	-	-	100%	
25	J09	Malignant Breast Disorders >69 or w cc	537	0%	£246	40%	-	30%	30%	-	-	-	100%	
26	D25	Respiratory Neoplasms	452	0%	£246	40%	-	30%	30%	-	-	-	100%	
27	L21	Bladder Minor Endoscopic Procedure w/o cc	401	0%	£246	-	-	50%	50%	-	-	-	100%	
28	A98	Chemotherapy with a Nervous System Primary Diagnosis	380	0%	£246	20%	-	40%	40%	-	-	-	100%	
29	H98	Chemotherapy with a Musculoskeletal System Primary Diagnosis	380	0%	£246	20%	-	40%	40%	-	-	-	100%	
30	D18	Pulmonary, Pleural or Other Tuberculosis	348	0%	£246	40%	-	30%	30%	-	-	-	100%	
31	C98	Chemotherapy with a Mouth, Head, Neck or Ear Primary Diagnosis	343	0%	£246	20%	-	40%	40%	-	-	-	100%	
32	S31	Admission for Unexplained Symptoms	326	0%	£246	40%	-	30%	30%	-	-	-	100%	
33	J44	Minor Dermatological Conditions or Benign Tumours	315	0%	£246	40%	-	30%	30%	-	-	-	100%	
34	J39	Major Dermatological Conditions >69 or w cc	300	0%	£246	40%	-	30%	30%	-	-	-	100%	
35	B13	Phakoemulsification Cataract Extraction and Insertion of Lens	252	0%	£246	40%	-	30%	30%	-	-	-	100%	
36	P12	Major Gastrointestinal or Metabolic Disorders	231	0%	£246	40%	-	30%	30%	-	-	-	100%	
37	S29	Other Admissions Related to Neoplasms	223	0%	£246	40%	-	30%	30%	-	-	-	100%	
38	P98	Chemotherapy with a Disease of Childhood Primary Diagnosis	219	0%	£246	20%	-	40%	40%	-	-	-	100%	
39	H22	Minor Procedures to the Musculoskeletal System	214	0%	£246	40%	-	30%	30%	-	-	-	100%	
40	P07	Neoplasms	204	0%	£246	40%	-	30%	30%	-	-	-	100%	
	Other		6,899	4%	£246	17%	-	51%	32%	-	-	-	100%	

*Reported cost of regular attenances (RefCosts0506) in all London providers divided by HES regular attendances activity

Note, this is a high-level planning excercise and is not intended for detailed operational planning
All patients under 17 years included in 'Under 17' service line, or 'Paediatrics' service line for HRG Chapter P
Standard tariff 2005/06 where available. Otherwise derived from 06/07 Tariff, or calculated as weighted average for London provider reference costs
Source: DH National Tariff 2005/06, 2006/07, Reference Costs 2005/06, Analytic Working Group

Appendix 3: rationale for assumptions for future location of care by service line

Rationale for activity distribution

Service lines		Rationale
Elective medicine	• Complex	• Majority of care delivered in major acute/specialist centres of excellence; where some HRGs allocated to the service line contain a mixture of complex and non-complex work (eg, other non-viral infections), ICD10 codes were used to agree proportion of activity in local setting.
	• Non-complex	• Starting assumption is that majority of care should be delivered in local hospital setting but with some cases (eg, comorbidities, patients receiving novel therapeutic agents, other complicating factors) requiring major acute hospital. Final distribution reflects fact that a large proportion of the service line is chemotherapy and red blood cell disorders a proportion of which it is assumed can be delivered in polyclinic setting.
	• Long-term conditions	• Hospital-based planned interventions for long-term conditions assumed to require local hospital setting except for patients with rarer chronic conditions or with comorbidities which require major acute setting.
	• Under 17s	• Majority of care assumed to require major acute or specialist hospital. Some opportunity to provide diagnostic procedures or minor interventions in local setting.
Non-elective medicine	• Complex	• Vast majority of emergency complex medicine will require major acute infrastructure, some cases will be appropriate for local setting (eg, stroke > three hours since onset of symptoms, non-complex portion of some HRGs allocated to the service line which contain a mixture of complex and non-complex work).
	• Non-complex	• Majority of care expected to be delivered at local hospital with escalation of a few more-complex cases to major acute setting. Some patients currently requiring hospital admission could be dealt with in polyclinics with good diagnostic and community infrastructure.
	• Long-term conditions	• Majority of care assumed to require local hospital setting. Shift to polyclinic driven by clinical evidence where available, or expert opinions. Some conditions or patients with comorbidities assumed to require major acute hospital setting.
	• Under 17s	• Similar rationale to elective medicine.
Elective surgery	• Complex	• Majority of care delivered in major acute/specialist centres of excellence. Where HRGs allocated to the service line contain a mixture of complex and non-complex work (eg intermediate breast surgery), procedure codes were used to agree proportion of activity in elective centre. Where published evidence exists that some procedures are not clinically indicated, this was used to determine level of demand management.
	• High-throughput	• Majority of procedures allocated to elective centre. Where published evidence exists that some procedures are not clinically indicated, this was used to determine level of demand management. Ten per cent of cases assumed to be more-complex patients and require infrastructure of major acute hospital.
	• Minor procedures	• Activity allocated to polyclinic setting where appropriate based on review of procedures within each HRG (eg, minor skin procedures). Where cases are not appropriate for polyclinic they are allocated to elective centre. Where published evidence exists that some procedures are not clinically indicated, this was used to determine level of demand management.
	• Under 17s	• Less-complex procedures can take place in dedicated paediatric wards at elective centre. More complex assumed to go to major acute or specialist. Where published evidence exists that some procedures are not clinically indicated, this was used to determine level of demand management. Majority of cases are intermediate mouth or throat procedures.
Non-elective surgery	• Complex	• All patients will be channelled to major acute setting.
	• Non-complex	• Local hospitals will serve their local catchment population for minor trauma (major trauma goes to major acute hospitals). Majority of other emergency surgery cases go to major acute hospitals if surgical intervention is indicated.
	• Minor procedures	• All emergency minor procedures would be dealt with in local hospitals.
	• Under 17s	• Majority of patients would be treated at major acute or specialist hospital. A few less-complex cases would be managed in paediatric assessment units at local hospitals or in dedicated paediatric urgent care facilities.

Rationale for activity distribution (cont)

Service lines		Rationale
Obstetrics	• Deliveries	• Roughly half of obstetric units would be co-located with major acute hospitals. In addition, high risk cases or cases with major complications would be treated at major acute hospital. Ten per cent of normal deliveries would take place at home.
	• Antenatal admissions	• Antenatal admission would be distributed among hospitals with a greater number going to major acutes to represent the fact that they would be higher risk patients. Some antenatal admissions could be avoided by use of the polyclinic and improved community infrastructure.
Paediatrics	• Paediatrics	• There is a clinical evidence base for consolidating the majority of paediatric "P-code" HRGs. However a proportion of less-complex cases could be treated at local hospitals (eg mild asthma) or even in polyclinics where admissions could be prevented through use of improved diagnostic and community infrastructure.
	• Neonatology	• Major acute hospitals will provide a level 2 or level 3 NICU. Local hospitals would have a level 1 or level 2 NICU when there is a co-located obstetric unit.
Outpatients		• A number of follow-up outpatient appointments are not necessary. Of the remainder, it is assumed that half could be devolved to a local setting and half would remain in the hospital setting for efficiency reasons and need for access to infrastructure.
Regular attendances		• The vast majority of these are renal dialysis of which the bulk could be delivered in the polyclinic or local hospital setting. There is also a high volume of chemotherapy which could also be delivered in the polyclinic or local hospital but some will require the major acute infrastructure (eg novel therapeutic agents, patients not tolerating treatment well).
A&E		• 60 per cent of A&E activity is typically minor illness or minor injury and can be dealt with either by telephone advice or within the polyclinic setting. Half of the remainder is likely to require step up to local hospital infrastructure (eg pneumonia) with the other half requiring major acute hospital infrastructure (eg acute stroke, major trauma).
Community care		• 50 per cent of community care assumed to be delivered within polyclinic and 50 per cent at home. The polyclinic would however form a base for all of these services.
Primary care		• It is assumed that 70 per cent of GPs work out of polyclinic facilities with the remainder working in large practices networked to polyclinics.

Appendix 4: future activity by organisation type under different growth scenarios

Future activity by setting, 2016/17

Low growth scenario, 000s spells and attendances

	Low growth scenario	Future setting (000s spells, attendances, etc.)						
Service Line	Forecast spells/attendances 2016/17 (000s)	Specialist / major acute	Elective centre	Local hospital	Polyclinic	GP	Home	Not done
Elective medicine	277	121	10	98	49			
- Complex	50	46		3				
- Non-complex	204	60	8	89	47			
- Long-term conditions	7	4		4				
- Under 17	17	11	2	3	2			
Non-elective medicine	460	136		277	47			
- Complex	74	65		9				
- Non-complex	316	50		231	35			
- Long-term conditions	56	9		35	11			
- Under 17	13	11		2	1			
Elective surgery	657	144	424		48			42
- Complex	140	73	57					10
- High-throughput	380	38	321					21
- Minor procedures	80		26		48			7
- Under 17	57	33	20					5
Non-elective surgery	225	147		75	3			
- Complex	43	43						
- Non-complex	160	87		73				
- Minor procedures	3			0	3			
- Under 17	20	17		2	1			
Paediatrics	214	172		35	6			
- Paediatrics	96	69		21	6			
- Neonatology	118	104		14				
Obstetrics	234	140		81			13	
Subtotal - spells	2,068	859	434	566	153		13	42
Regular attendances	212	36		108	68			
Outpatients	9,050	1,207	1,207	1,207	3,618			1,810
A&E	4,657	931		931	2,329			466
Community care	8,816				4,408		4,408	
Primary care	34,065				23,846	10,220		
Total	58,868	3,034	1,641	2,813	34,421	10,220	4,421	2,318

Source: Forecast model, Team analysis

Baseline scenario, 000s spells and attendances

	Baseline scenario	**Future setting (000s spells, attendances, etc.)**						
Service Line	Forecast spells/attendances 2016/17 (000s)	Specialist / major acute	Elective centre	Local hospital	Polyclinic	GP	Home	Not done
Elective medicine	329	142	12	117	58			
- Complex	59	55		4				
- Non-complex	245	72	10	106	56			
- Long-term conditions	9	4		4				
- Under 17	17	11	2	3	2			
Non elective medicine	549	161		332	56			
- Complex	88	78		11				
- Non-complex	379	61		277	42			
- Long-term conditions	68	11		42	14			
- Under 17	13	11		2	1			
Elective surgery	691	150	446		50			44
- Complex	148	77	60					10
- High-throughput	401	40	339					22
- Minor procedures	85		28		50			7
- Under 17	57	33	20					5
Non-elective surgery	237	154		79	4			
- Complex	45	45						
- Non-complex	168	92		77				
- Minor procedures	3			0	3			
- Under 17	20	17		2	1			
Paediatrics	214	172		35	6			
- Paediatrics	96	69		21	6			
- Neonatology	118	104		14				
Obstetrics	275	165		95			16	
Subtotal - spells	2,295	944	458	658	175		16	44
Regular attendances	212	36		108	68			
Outpatients	9,149	1,221	1,221	1,221	3,657			1,830
A&E	6,411	1,282		1,282	3,206			641
Community care	12,438				6,219		6,219	
Primary care	48,377				33,864	14,513		
Total	78,883	3,483	1,679	3,269	47,189	14,513	6,235	2,515

Source: Forecast model, Team analysis

High growth scenario, 000s spells and attendances

	High growth scenario	**Future setting (000s spells, attendances, etc.)**						
Service Line	Forecast spells/attendances 2016/17 (000s)	Specialist / major acute	Elective centre	Local hospital	Polyclinic	GP	Home	Not done
Elective medicine	364	157	13	130	64			
- Complex	66	62		5				
- Non-complex	272	80	11	118	63			
- Long-term conditions	10	5		5				
- Under 17	17	11	2	3	2			
Non-elective medicine	609	177		369	63			
- Complex	98	86		12				
- Non-complex	422	67		308	47			
- Long-term conditions	75	13		47	15			
- Under 17	13	11		2	1			
Elective surgery	691	150	446		50			44
- Complex	148	77	60					10
- High-throughput	401	40	339					22
- Minor procedures	85		28		50			7
- Under 17	57	33	20					5
Non-elective surgery	237	154		79	4			
- Complex	45	45						
- Non-complex	168	92		77				
- Minor procedures	3			0	3			
- Under 17	20	17		2	1			
Paediatrics	214	172		35	6			
- Paediatrics	96	69		21	6			
- Neonatology	118	104		14				
Obstetrics	275	165		95			16	
Subtotal - spells	2,390	976	459	708	187		16	44
Regular attendances	212	36		108	68			
Outpatients	11,353	1,515	1,515	1,515	4,538			2,271
A&E	7,118	1,424		1,424	3,559			712
Community care	13,821				6,911		6,911	
Primary care	53,685				37,580	16,106		
Total	88,578	3,950	1,974	3,754	52,843	16,106	6,926	3,026

Source: Forecast model, Team analysis