

Decision Making Business Case

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A foreword from our Joint Clinical Directors

Our vision for north east London is of well-supported, safe, efficient and comprehensive services; with extended senior clinical presence in place at all hospitals with A&E services and the best possible use of available resources.

Patients and the public are not satisfied with current services in north east London and we know that care could be improved. The population of north east London is rising rapidly leading to greater demand on health services. We need to improve the health of people in north east London and ensure healthcare services are meeting public expectations. We must ensure that if people are ill, they get the right services at the right location from the best clinical teams.

As joint clinical directors for the Health for north east London programme, we have ensured that the development of the Health for north east London proposals has had strong clinical leadership and engagement from the outset. We have drawn on a wide range of clinical evidence to understand the case for change, identify and assess options for change and develop recommendations. We have worked closely with a wide range of stakeholders to look at how we can provide the best quality care for local residents; including local clinicians in community care, primary care and hospitals; patients, the public and their representatives; and expert groups, such as the Royal Colleges.

As a result, we believe the proposals we have developed offer the best approach to achieving our vision and improving services for local residents. We want patients who are admitted to hospital to be seen quickly by a senior doctor. We want to give patients a viable alternative to A&E, ensuring that emergency services are available for those who need them most. We want to dedicate teams of staff to planned care so we can avoid cancelling operations when emergencies arise. We want to offer women increased choice over where and how they give birth; with increased access to midwife-led care, in hospital or at home. We want pregnant women who need a higher level of care or experience complications in labour to have rapid access to consultant delivered care 24 hours a day, 7 days a week.

We would like to thank our colleagues in all the north east London hospitals, GP practices and primary care trusts (PCTs) for the time, energy and commitment that they have given in helping us to develop these proposals for change.



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Executive Summary

1 Introduction

1.1 Background and Purpose of the Decision Making Business Case

Health for north east London is a clinically-led programme, hosted by all the PCTs in the area¹ in partnership with the local hospitals².

Following public consultation on the options for changes to hospital services developed by local clinicians, the proposals for change have been finalised and are set out within this final decision making business case (DMBC).

The DMBC builds on the pre-consultation business case³ (PCBC) which was published in November 2009. It reflects changes to proposals that are recommended in the light of consultation feedback and further work by local clinicians to describe proposed future models of care. All activity and financial data has been updated to reflect the most up to date available information – including for example updated population projections for north east London.

The DMBC has been developed to support decision making on a final set of clinical proposals for change. Detailed work on proposed models of care is set out in four Clinical Working Groups (CWG) reports that are available separately and are referenced as appropriate in this document. The DMBC considers the activity, finance and implementation implications of proposals for change and seeks to demonstrate the potential benefits of implementing the proposed changes, as well as demonstrating the overall deliverability of the proposals.

1.2 Scope

This decision making business case focuses on proposals for unscheduled care, scheduled care and maternity care and the vision for King George Hospital.

Decision making on proposals for change to complex vascular surgery have been taken forward separately and were approved by the inner north east London (INEL) and outer north east London (ONEL) Joint Committees of Primary Care Trusts (JCPCTs) in October 2010.

¹ NHS Barking and Dagenham, NHS City and Hackney, NHS Havering, NHS Newham, NHS Redbridge, NHS Tower Hamlets, NHS Waltham Forest

² Barts and the London NHS Trust; Barking, Havering and Redbridge University Hospitals NHS Trust; Homerton University Hospital NHS Foundation Trust; Newham University NHS Trust; Whipps Cross University Hospital NHS Trust.

³ <http://www.healthfornel.nhs.uk/resources/consultation-materials/>

A separate paper has been developed to support decision making in relation to the north east London-wide proposals for children and young people's care. Issues relating to the model of care for children and young people are therefore only covered in this paper where specifically relevant to proposals for change at King George Hospital.

2 Case for change and final clinical proposals

2.1 The strategic drivers for change

The PCBC set out six key drivers for making significant changes in the way healthcare is delivered in north east London:

Reason one: the need to improve the health of people in north east London and ensure healthcare services are meeting public expectations.

Reason two: the population of north east London is rising rapidly leading to greater demand on health services.

Reason three: hospital is not always the answer; more care can be delivered in community settings than ever before⁴ and patients benefit from care closer to home.

Reason four: there are workforce challenges which currently prevent delivery of the best quality care and optimal patient outcomes.

Reason five: the need to adopt new models of care and best practice which can deliver better outcomes for patients.

Reason six: the need to make best use of taxpayers' money.

2.2 The case for reconfiguration of services in north east London

The PCBC then looked at the specific case for reconfiguration of services in north east London in order to respond to these drivers:

Emergency care pathway - Consolidation of services would enable north east London to move towards provision of a 24/7 consultant delivered service for unscheduled care and access to the full range of supporting clinical services on all A&E hospital sites.

⁴ as set out in *Healthcare for London: a Framework for Action* and the White Paper: *Our health, our care, our say*

The College of Emergency Medicine (CEM) recommends⁵ that 24/7 senior clinical cover should be provided in A&E departments. At present, this level of senior staffing is out of reach due to workforce shortages. Local clinicians also believe that providing 24/7 consultant delivered care in Acute Admission Units would improve patient care and safety; which is supported by a 2009 study⁶ by the National Confidential Enquiry into Patient Outcome and Death. In addition:

- Where patients in A&E are reviewed by a senior clinician, this can reduce admissions to the acute medical assessment unit by over 20 per cent and inpatient admissions by over 10 per cent⁷.
- There is a higher risk of death among patients admitted at the weekend (when there is typically less senior clinical cover) compared with patients admitted during a weekday⁸.
- Wherever possible, children should be treated by paediatric specialists in separate dedicated or child-focused facilities⁹. Currently, more children are admitted into hospital than need to be¹⁰ and, because of the lack of early specialist review, stay longer than they need to.
- The Royal College of Surgeons (RCS) has recommended that hospitals with A&E departments must have 24/7 surgical services present.
- For a number of specialties improved patient outcomes are achieved when patients are treated by clinicians and teams who perform a higher volume of that specific care type.

Local clinicians agree that fewer but larger A&E departments with acute medical and surgical care would support a move towards a 24/7 consultant delivered service in north east London; enabling earlier and more regular review of patients by senior clinicians. Local workforce challenges mean that north east London is unable to recruit and retain enough staff to maintain services on six sites. By creating a critical mass of workforce, consolidation also allows greater supervision of junior staff and increased training opportunities.

⁵ The College of Emergency Medicine – “The Way Ahead 2008-2012” – *December 2008*

⁶ Deaths in Acute Hospitals: Caring to the End? (2009) National Confidential Enquiry into Patient Outcome and Death *NCEPOD, 2009*

⁷ Avoiding hospital admissions – lessons from evidence and experience - The King’s Fund – April 2010

⁸ Weekend mortality for emergency admissions. A large, multicentre study. *Quality and Safety in Care, Imperial College London, 2010.*

⁹ Supporting Paediatric Reconfiguration - A Framework for Standards; Royal College of Paediatrics and Child Health July 2008

¹⁰ Dr S. Shribman, National Clinical Director for Children, Young People and Maternity Services, The Health Challenge; Launch of ChiMat, University of York (2009)

Maternity pathway - *Consolidation of services would support a move towards 24/7 (168 hour) consultant presence for obstetrics and increase patient choice by enabling the creation of more midwife-led care.*

If more care was to be delivered directly by fully trained consultant obstetricians, outcomes for women and their babies would improve, meaning less maternal morbidity, less foetal morbidity and reduced foetal death rates¹¹. Better management could make a difference in 35% of all stillbirths and deaths in infancy¹². Four royal colleges recommend that maternity units of over 5,000 births per year should aim for round-the-clock (168 hours) senior doctor presence¹³.

Local clinicians agree that, in order to achieve 24/7 obstetrician consultant cover and to ensure that these consultants regularly see a high enough volume of patients to maintain and develop their skills; obstetrics services should be consolidated into fewer units with increased overall capacity for more births.

The Royal College of Midwives has recently completed a systematic review, meta-analysis, meta-synthesis and economic analysis of midwife-led models of care¹⁴ which endorsed the findings of the Cochrane Review demonstrating improvement in outcomes for low-risk women accessing of midwife-led models of care. Local clinicians agree that an increase in the use of midwife-led care in north east London should result in improved outcomes for low risk women without adversely affecting higher-risk women.

Scheduled care pathways – *Separation of emergency and planned care pathways would improve patient outcomes.*

Separating elective care from emergency pressures through the use of dedicated beds, theatres and staff can reduce cancellations of operations, achieve a more predictable workflow (and therefore save money) and increase senior supervision of complex/emergency cases. The quality

¹¹ Better supervision of junior staff, and the presence of a more experienced doctor at the time of a complication in pregnancy, could have prevented more than three-quarters of all serious problems in childbirth. The Future Role of the Consultant, Royal College of Obstetrics and Gynaecology, Dec 2005

¹² Summary of findings from the root cause analysis of 37 adverse events and near misses in obstetrics: A report for the NPSA, 2000

¹³ Safer Childbirth, Minimum standards for the organisation and delivery of care in labour; Royal College of Obstetricians and Gynaecologists, Royal College of Midwives, Royal College of Anaesthetists and Royal College of Paediatrics and Child Health, Oct 2007

¹⁴ The Socioeconomic Value of the Midwife; Royal College of Midwives, December 2010.

of care delivered to patients would improve as a result¹⁵. Separating planned care patients from emergency patients also reduces rates of infection for both sets of patients. Local clinicians agree that, in order to improve patient outcomes, emergency and planned care pathways should be separated in north east London.

2.3 Clinical co-dependencies

Local physicians and emergency medicine physicians recommend that a high-quality A&E service requires 24/7 on-site access to acute medicine, acute surgery, critical care, maternity and paediatric services. They do not support models where an A&E does not have 24/7 access to these services. Local clinicians agree that in north east London fewer A&Es with acute medical and surgical services would provide patients requiring emergency treatment with better access to appropriate clinicians across the whole emergency pathway and better clinical outcomes.

Local clinicians agree that we need to reduce the number of obstetrics-led units in north east London in order to support delivery of 168 hour consultant cover for obstetrics and that obstetric-led maternity units should be co-located on acute hospital sites i.e. those fully supported with anaesthetics, surgery, blood transfusion and medical specialties.

Local clinicians believe that the location of A&E departments and maternity services must be considered together and have strong views against the creation of 'standalone' obstetric-led units. In other words local clinicians do not support the concept of standalone obstetric delivery units on non A&E hospital sites and as such 'ruled out' the idea of continuing to provide obstetric delivery care at King George Hospital should proposed changes to urgent and emergency care services at King George Hospital go forward.

(See PCBC option appraisal chapter which sets the rationale out for this in more detail).¹⁶

¹⁵ Separating emergency and elective surgical care: Recommendations for practice, Royal College of Surgeons of England, 2007

¹⁶ <http://www.healthforneel.nhs.uk/resources/consultation-materials/>

2.4 Final clinical proposals for change

Our vision for north east London is of well-supported, safe, efficient and comprehensive acute hospital services, working in an integrated way with the full range of primary care, out of hospital and preventative health services. We are committed to delivering increased senior clinical cover across the full range of specialties at all hospitals providing acute medical and surgical care to enable early and regular senior clinical review.

Final proposals for change

To reduce from six hospitals with A&E, acute medical, acute surgical, critical care, maternity and paediatric services to five, to ensure:

- All A&Es are fully supported by appropriate specialty cover; and
- There is early senior clinical review for all patients and a full range of available expertise for ongoing care.

King George Hospital, Ilford to provide 24/7 urgent care services but A&E, together with unscheduled inpatient medical and surgical services, including critical care and paediatrics, to be provided at other sites (Queen's, Whipps Cross and Newham).

King George was identified as the most suitable hospital to be reconfigured following a detailed option appraisal in the PCBC¹⁷. A number of factors were taken into consideration, including the impact of travel times and access and current quality and sustainability issues. A key clinical reason for this selection is because King George's current configuration is furthest away from the desired model for a hospital with A&E, as it does not provide trauma, acute stroke or orthopaedics services, and therefore would require the greatest development to be in a position to deliver the comprehensive service model described by clinicians as the desired model for north east London. The clinical option appraisal also took into consideration the fact that both King George and Queen's Hospital currently face significant workforce and clinical quality challenges and that making changes to services at King George Hospital would support a better overall model of care and improved quality and outcomes across the two hospitals.

¹⁷ <http://www.healthfornel.nhs.uk/resources/consultation-materials/>

Unscheduled Care

- Five hospitals providing urgent and emergency care, including 24/7 A&E (with separate 24/7 paediatrics facilities led by paediatrics specialists)
- The Royal London and Queen's Hospital: major acute hospitals with 24/7 A&E, unplanned medical and surgical inpatient care, including critical care and 24/7 paediatrics and extended range of specialist services including major trauma and heart attack centre (The Royal London) and hyper acute stroke care, complex vascular surgery and 24/7 interventional radiology (The Royal London and Queen's)
- Newham, Homerton and Whipps Cross as local hospitals with 24/7 A&E, unplanned medical and surgical inpatient care, including critical care and 24/7 paediatrics
- King George Hospital Ilford to provide 24/7 urgent care and extended range of ambulatory and planned care services, including 24/7 short stay assessment and treatment services for adults and children.
- Enhanced hospital based urgent care at all hospitals, with access to diagnostics and to specialist advice. Recommended co-location with GP out of hours services.

The full Unscheduled Care CWG report can be found at:

www.healthforneel.nhs.uk/resources/evidence-sources/clinical/

Local clinicians have been clear that they wish to see Barts and the London and Queen's Hospital, as the 'major acute' providers for north east London. These hospitals would develop close and effective clinical networks with local hospitals to ensure that all patients across the sector benefit from the skills and expertise available, including local outreach and service delivery where appropriate.

Maternity and Newborn Care

- Five maternity campuses aligned to the five trusts in north east London providing comprehensive maternity and newborn care including obstetric and midwife-led delivery care and neonatal care (The Royal London, Homerton, Newham, Whipps Cross, and Queen's).
- Every campus to offer choice of home birth or alongside midwifery-led unit (co-located with obstetric unit) and access to free standing MLUs at Barkantine and Barking Hospital, with a target of a minimum of 40% of all births to be provided in midwife-led settings.
- King George Hospital to continue to provide antenatal and postnatal care, including maternity day care – foetal heart rate monitoring, ultrasound and triage.
- In addition more antenatal care will be provided closer to home in children's centres and local health facilities.

The full Maternity and Newborn CWG report can be found at:

www.healthforneel.nhs.uk/resources/evidence-sources/clinical/

The birth rate in north east London continues to rise rapidly. In addition to the clinical recommendations outlined above, this business case sets out a number of recommendations designed to ensure that local services develop capacity to meet the growing demand whilst addressing the quality and patient experience challenges currently facing services. Queen's, Whipps Cross and Newham Hospitals all need to develop additional midwife-led delivery capacity to meet this continued rise in births and to deliver the 40% of midwife-led births described in the model of care developed by the CWG. The majority of this new capacity will be delivered in alongside midwifery-led units, ensuring that the number of births managed within obstetric delivery units is kept to a manageable number.

Our modelling shows that 30% of women who currently give birth at Queen's or King George Hospital live closer to Whipps Cross or Newham Hospitals. Under the new model it is therefore anticipated that a significant proportion of these women will in future chose to have their babies at one of Whipps Cross or Newham Hospitals. Local research undertaken on behalf of Health for north east London by Opinion Leader¹⁸ demonstrates that local women currently feel they have little real choice within maternity services, including place and type of birth. A key factor was identified as lack of clear and consistent information at the appropriate time in the antenatal

¹⁸ See volume 3, paper 5 of December 15th JCPCT decision making papers.

pathway, as well as lack of flexibility between services. Clinical leaders from all north east London maternity services (Barking, Havering and Redbridge University Hospitals NHS Trust (BHRUT), Whipps Cross, Newham, Homerton and Barts and The London) have given a firm commitment to working together to address this issue and support improved patient choice across the sector.

Scheduled Care

- Planned surgery pathway in north east London should be separated from emergency surgery pathway.
- All planned surgery should move from Queen’s Hospital to King George Hospital except where there are benefits in co-locating services or clinical need.
- Establish a planned care centre at King George Hospital.
- No patients admitted for emergency surgery at King George Hospital.
- Development of a local kidney dialysis service at King George Hospital.

The full Scheduled Care CWG report can be found at:

www.healthforneel.nhs.uk/resources/evidence-sources/clinical/

The Scheduled Care CWG report sets out in more detail the proposals for planned surgical care at King George Hospital and Queen’s Hospital. In essence where there are clinical co-dependencies, critical mass issues or where patients are likely to need level III ITU care, the expectation is that surgery will take place at Queen’s. However a significant proportion of planned surgery (and planned medical procedures) currently undertaken at Queen’s would be suitable for a planned care centre at King George Hospital and the proposal is to move majority of this work to King George Hospital.

Local clinicians tell us that these proposals will allow earlier and more regular senior clinical review, resulting in reduced mortality rates, reduced morbidity rates and a reduced reliance on long-term care. Patients are more likely to recover and more likely to do so more quickly.

Vision for King George Hospital

King George Hospital would continue to play an extremely important role in meeting the health needs of local residents as well as providing some specialist services. Services would include:

- **24/7 urgent care and GP services** - with 12 hour-a-day walk-in GP practice, booked appointments, better access to tests, GP out-of-hours service and telephone advice.
- **Short stay assessment and treatment** services for adults and children who are not expected to require a hospital inpatient admission.
- **Diagnostics** - Expected to include ECG, pulse oximetry, spirometry, x-ray, ultrasound, vascular doppler, colonoscopy, and standard haematology, microbiology and pathology.
- **Antenatal and postnatal maternity day care** - Midwife-led antenatal and postnatal care including obstetric review, ultrasound and foetal heart-rate monitoring.
- **Child health centre** - non-acute children's services, enabling co-location of several inter-linked service areas and specialist practitioners.
- **Outpatient facilities and diagnostic services** - including long-term condition management.
- **Cancer day care (Cedar Unit)** - will continue to provide chemotherapy, supportive treatments such as blood transfusions and patient advice.
- **Renal dialysis** - 16 to 24 renal haemodialysis stations to provide a local service.
- **Inpatient and day care rehabilitation services** - Rehabilitation and intermediate care beds. Stroke rehabilitation service.
- **Planned care centre** – to include planned surgery relocated from Queen's.

Local GP commissioners have given a clear and strong commitment to King George Hospital as a provider of urgent care, planned care and other services including rehabilitation. They have indicated that they wish to take a lead role in developing and strengthening the range of services provided at King George Hospital, specifically the model of care and use of the bed capacity on that site. They have also stated that they would like to give further consideration to the possibility of developing GP-led admitting beds at the hospital – this will be considered further during detailed implementation planning, if the proposals set out within this business case are approved.

2.5 Expected benefits

Expected benefits of these proposals include:

- **Safer, more effective emergency medical care** - Consolidation of acute services will deliver safer, more effective emergency medical care.
- **Improved access, continuity and quality of care for minor injuries and illnesses** - A consistent, enhanced 24/7 urgent care model across north east London with creation of a short stay assessment service at King George Hospital will improve access, continuity and quality of care for minor injuries and illnesses.
- **Improved access to dedicated paediatric services** - Consolidation of acute services and creation of short stay assessment facilities will improve access to paediatric specialists and therefore improve outcomes.
- **Improved outcomes for emergency surgery** - Consolidation of acute services will support improved outcomes for emergency surgery. Surgical teams will perform higher volumes of specific treatments which will support them in maintaining their skill base and therefore improve patient outcomes. Consolidation also allows for better medical support to the whole emergency pathway, including emergency surgery.
- **Improved maternity outcomes** - Consolidation of maternity services supports improvements in outcomes for mothers and their babies through increased senior doctor presence.
- **Increased maternity capacity and improved choice for pregnant women** - The campus approach will increase capacity in north east London by using staff flexibly according to demand. It will also improve the choice available for antenatal care, birth setting, delivery method and postnatal care and increase provision of specialist support to women, such as increased access to perinatal mental health services.
- **Improved scheduled care outcomes** - Separation of emergency and planned surgery pathways will improve both clinical outcomes and patient satisfaction by ring-fencing resources for planned surgery; reducing cancellation of operations and reducing the rate of hospital acquired infections.

2.6 Summary of implications by hospital

Queen's Hospital would be further developed as one of two major acute hospitals for north east London, with an A&E department supported 24/7 by acute medicine, acute surgery, critical care, maternity and paediatric services, as well as a range of more specialist acute services (e.g. hyper acute stroke unit, neuro-surgery, complex vascular services, 24/7 interventional radiology). Key changes to service provision would be:

- Further development of the "A&E front door" urgent care service, with increased capacity and open 24/7.
- Strengthened model of care across the whole emergency pathway, increased caseload due to change in model of care at King George Hospital. Reduced length of stay supported by increased senior clinical decision making early in the pathway.
- Majority of non-complex planned surgery moved to King George Hospital. Separation of care pathways for emergency surgery and the remaining planned surgery.
- 24/7 consultant presence on obstetric labour ward. Development of a midwifery-led unit alongside the existing obstetrics-led unit. Increased opportunities for women to choose to have a home birth.

The Royal London Hospital would continue to fulfil its current role of major acute hospital for north east London and provide a range of specialist services (e.g. major trauma care, hyper acute stroke care, heart attack care) in addition to local A&E services supported 24/7 by acute medicine, acute surgery, critical care, maternity and paediatric services. Key changes to service provision would be:

- Further development of the "A&E front door" urgent care service; to include opening 24/7.
- Separation of care pathways for emergency surgery and planned surgery.
- As part of the new development, to make provision for a minimum of 30% of births to be midwife-led. Increased opportunities for women to choose to have a home birth. Increased consultant presence on obstetric delivery unit.
- A small increase in clinical flows related to proposed model of care for children and young people, builds on current pathways and offers a more specialist level of care for children with very complex or high dependency needs.

Homerton Hospital would remain a local hospital with an A&E department supported 24/7 by acute medicine, acute surgery, critical care, maternity and paediatric services. Key changes to service provision would be:

- Further development of the “A&E front door” urgent care service; to include opening 24/7.
- Separation of care pathways for emergency surgery and planned surgery.
- Continued development of the new alongside midwifery-led unit. Increased opportunities for women to choose to have a home birth. Increased consultant presence on obstetric delivery unit.

Whipps Cross Hospital would remain a local hospital with an A&E department supported 24/7 by acute medicine, acute surgery, critical care, maternity and paediatric services. Key changes to service provision would be:

- Further development of the “A&E front door” urgent care service; to include opening 24/7.
- Strengthened model of care across the whole emergency pathway, increased caseload due to change in model of care at King George Hospital. Reduced length of stay supported by increased senior clinical decision making early in the pathway.
- Separation of care pathways for emergency surgery and planned surgery.
- Further development of existing alongside midwifery-led unit. Increased opportunities for women to choose to have a home birth.

Newham Hospital would remain a local hospital with an A&E department supported 24/7 by acute medicine, acute surgery, critical care, maternity and paediatric services. Key changes to service provision would be:

- Further development of the “A&E front door” urgent care service; to include opening 24/7.
- Strengthened model of care across the whole emergency pathway, increased caseload due to change in model of care at King George Hospital. Reduced length of stay supported by increased senior clinical decision making early in the pathway.

- *Separation of care pathways for emergency surgery and planned surgery.*
- *Enhancement of new midwifery-led unit. Increased opportunities for women to choose to have a home birth.*

King George Hospital would be remodelled as a local hospital with 24/7 urgent care and a wide range of ambulatory and planned care services. Key changes to service provision would be:

- *Strengthened urgent care services; to include opening 24/7; provision of short stay assessment service for adults and children and increased access to diagnostics and specialist advice (**but no A&E or non-elective inpatient medical or surgical care for adults or children**)*
- *Development of planned care centre delivering wide range of planned surgical and medical procedures.*
- *Enhanced range of planned and unplanned ambulatory services including outpatient facilities and diagnostic services; long-term condition management, local kidney dialysis service and specialist children's community health and child and adolescent mental health services (and Cedar Cancer day care service retained).*
- *Maternity day care including midwife-led and obstetric antenatal and postnatal care (**but no maternity delivery care service**).*

It is expected that the quality of care would improve across all hospitals if these changes were made. Successful delivery of these changes would require close working across all parts of the health and social care system to deliver the vision.

2.7 Whole systems improvements in north east London

The Health for north east London programme has been developed within the context of a wider drive by local NHS organisations to reduce demand on acute hospitals and deliver care closer to home in north east London.

Commissioners in ONEL and INEL are currently developing commissioning strategy plans (CSPs) which will set out how they intend to reduce demand on acute hospitals and deliver care closer to home. Their priorities include:

1. **A greater focus on supporting self care and preventing ill health**, particularly for those with long-term conditions.
2. **Continued improvements in out of hospital care provision** – increased, better coordinated community provision can support admission prevention, reduce lengths of stay at hospitals and reduce readmissions.
3. **Strengthened clinical pathways across primary and secondary care** including better access to diagnostics and specialist advice to support primary care clinicians to manage acutely unwell patients in out of hospital settings. (For example to develop a range of same day / next day urgent outpatient clinics as an alternative to A&E / inpatient referral).

Together with the Health for north east London proposals, this work is expected to drive real improvements in health care provision across north east London.

The inter-relationship between changes to hospital services described in this business case and whole system improvements is recognised in the proposed approach to implementation and governance of the programme set out in Chapter Six.

3 Activity and Capacity

3.1 Activity and Bed Capacity Analysis of the Clinical Proposals

This chapter of the business case looks at the activity and capacity implications of the proposals for change and forecasts the effects that reconfiguration proposals would have on:

- The volume of activity flowing to each trust
- The effect this activity change would have on demand for beds
- The change to income to each trust that would result from each change in activity.

A modelling tool has been developed to support this analysis. The model is built up from historic activity data and target activity in 2010-11 to which a range of planning assumptions have been applied, as follows:

- Growth in demand linked to projected population growth and changes in medical technology and patterns of care
- Reductions in demand for hospital care linked to out of hospital care strategies and commissioning initiatives (as set out in PCT CSPs)

- Hospital productivity improvements
- How activity flows are expected to be affected by the reconfiguration of services
- Changes to prices.

Three scenarios were modelled, as follows:

- *A “Do Minimum” scenario*: which models population and commissioning changes but assumes no reconfiguration changes – this is used as the comparator against which other scenarios can be measured
- *The baseline scenario*: which models the impact of the original proposals for change (i.e. as per original consultation proposals)
- *The variant scenario*: which models the impact of the revised clinical recommendations that have been developed following consultation.

The key changes between the baseline and variant scenario from a modelling perspective relate to:

- Enhanced urgent care services at King George Hospital including the proposed short-stay assessment unit at King George Hospital
- A revised pattern of maternity flows, with more deliveries for residents of Redbridge and Barking & Dagenham performed at Whipps Cross and Newham Hospitals rather than Queen’s Hospital. (This reflects more women choosing to access care at their nearest available maternity campus whereas the baseline scenario assumed current patterns of access would remain).

3.2 Activity and capacity implications of proposed changes to urgent and emergency care at King George Hospital (A&E and non-elective admissions)

The modelling shows how clinical activity flows would be expected to change if the proposed changes to A&E and non-elective care at King George Hospital are taken forward. The majority of activity currently at King George Hospital would be displaced to Queen’s Hospital, but with some flows also going to Newham and Whipps Cross Hospitals.

Displacement of Activity following Closure of the KGH A&E Department

	King George Hospital	Queen's Hospital	Newham Hospital	Whipps Cross Hospital	Other sites
Non-Elective Admissions	-25,436 (-100.0%)	17,298 (68.0%)	2,961 (11.6%)	4,419 (17.4%)	758 (3.0%)
Accident & Emergency Attenders	-40,987 (-100.0%)	33,604 (82.0%)	3,279 (8.0%)	4,099 (10.0%)	5 (0.0%)

The shift in activity from King George Hospital taken together with other changes to demand (movement of elective surgery from Queen's to King George Hospital, activity growth, and demand management initiatives) changes the number of beds that each hospital would need in the future.

Variant - Forecast Bed Movements: 2010/11 - 2016/17

	King George Hospital	Queen's Hospital	BHRUT Total	Barts & the London	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital
Growth	57	107	163	113	41	43	65
Demand Management	-14	-23	-37	-25	-17	-8	-18
Reconfiguration +	27	281	308	3	1	47	74
Reconfiguration -	-406	-35	-441	0	0	0	-2
Net Movement	-336	329	-7	91	24	82	119

The table shows the net movement in beds that each hospital can expect if the reconfiguration goes ahead, before length of stay savings are taken into account. With the exception of King George Hospital all hospitals would need to create capacity to manage additional inpatient activity.

The expectation is that this additional demand for beds can largely be met by improving hospital productivity leading to shorter length of stay and therefore only minor changes to the number of beds are required on 'receiving' hospital sites. All hospitals are forecasting shorter stays in hospitals that can be achieved through:

- Changes to clinical practice and models of care
- Better hospital processes
- Smoother discharge processes.

Each hospital has developed a target bed saving linked to reducing length of stay which takes account of the hospital’s current performance against national best practice benchmarks (i.e. the further away from best practice benchmarks trusts are currently, the bigger the opportunity for bed savings going forward).

The bed savings targets by trust are illustrated in the table below.

Forecast Bed Movements: 2010-11 - 2016-17

	Queen’s Hospital	King George Hospital	BHRUT Total	Barts & the London	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital
Net Movement	329	-336	-7	91	24	82	119
Forecast LOS Saving 2016-17	-331	0	-331	-204	-24	-72	-138
Bed Shortfall/(Surplus)	-2	-336	-338	-113	0	11	-19

With the exception of Newham, all trusts are predicting that the total increase in beds required could be met by a reduction in their lengths of stay – so effectively all additional bed capacity required would be delivered through improved use of the current bed base. The bed base at Whipps Cross is expected to reduce marginally (by around 20 beds). At Queen’s the modelling demonstrates that additional work could be managed through the existing bed base if length of stay improvements are delivered. The forecast for Newham Hospital shows an 11 bed shortfall after taking account of their length of stay savings forecast. The trust anticipates that this can be managed without having to invest in new capacity.

The length of stay reductions for both BHRUT and Whipps Cross will be challenging but release of this capacity is a core element of the trusts’ clinical and financial strategies regardless of reconfiguration proposals. It will take time to deliver the new models of care required to support this reduction in length of stay. The draft implementation plan outlined in chapter six of this document describes how changes at King George Hospital could be staggered to match the release of capacity on neighbouring sites, if the proposals set out in this business case are approved by the JCPCT.

3.3 Activity and capacity implications of proposed changes to maternity services, including closure of King George Hospital maternity delivery services.

The modelling of future births by site takes into account four factors:

- Most up-to-date birth rate forecasts available (continued significant growth projected)
- A change to the model of care for maternity that includes the development of midwifery-led units to be co-located with obstetric departments. This has minimal effect on the numbers of births to each trust, but does have a bearing on capital development and workforce
- The proposed closure of the King George Hospital obstetric unit
- Changing the pattern of flows to each trust.

Maternity referrals are to trust providers rather than hospitals and this appears to be influenced principally by the pattern of community midwifery provision. If the service at King George Hospital is closed but current patterns of service use remain unchanged the modelling suggests that the majority of births currently taking place at King George Hospital would be displaced to Queen’s, with relatively small increases in flows to either Whipps Cross and Newham Hospital.

Currently 30% of women who give birth at either King George Hospital or Queen’s Hospital live closer to either Whipps Cross Hospital or Newham Hospital. In the ‘variant scenario’ future flows have been modelled based on an assumption that under the new model of care most women would choose to access maternity services at their nearest available hospital. This would suggest a reduction in the number of births provided by the Queen’s maternity campus and an increase in births at the Whipps Cross and Newham campuses and gives a more even distribution of births across the three campuses.

Forecast Number of Births 2010-11 to 2016-17

	King George Hospital	Queen’s Hospital	Newham Hospital	Whipps Cross Hospital	Other sites NE London
Births 2010 Plan	2,289	7,113	5,214	5,320	9,415
Forecast Growth to 2016-17	810	2,559	1,387	1,428	1,248
Effect of closure of KGH Unit	-3,099	2,761	114	178	46
Total births for the Baseline Scenario	0	12,432	6,715	6,927	10,709
Effect of changing patient flows	0	-3,538	1,572	1,872	94
Total Births for the Variant Scenario	0	8,894	8,287	8,799	10,803

NB Flows to Homerton and The Royal London are not significantly affected and future projections are based on increased demographic demand only.

The variant scenario is the recommended preferred approach on the basis of the improved clinical, workforce, patient experience and access benefits and based on the significant feedback received during consultation regarding concerns about the number of births projected for the Queen's Hospital site.

However women should be supported to access the campus of their choice regardless of geographical proximity and on this basis the modelling assumptions set out here should be seen as indicative only. Given the rising birth rate and the expected high level of demand for maternity services in NEL the capacity required within each campus would need to be kept under careful review and flexibility built into plans accordingly.

4 Finance

4.1 Financial Implications for Providers

The proposals presented in this DMBC and considered throughout this planning process have been driven by clinical and not financial factors. However two financial tests need to be applied to the proposals before they can be adopted:

- The health economy as a whole should benefit financially as a result of the reconfiguration.
- No provider should be financially worse-off as a result of implementing the proposed changes.

The analysis in this chapter of the business case focuses on the financial impact of the proposed changes on north east London provider trusts. The reconfiguration changes have only a small impact on commissioners (relating to marginal price variations between providers). Sector Commissioning Strategy plans provide a detailed analysis of commissioner financial positions going forward. The commissioning changes that have been modelled into this business case are based on CSP assumptions¹⁹ and are reflected in trust 'do minimum' financial forecasts.

The forecast income and expenditure for each provider under the recommended reconfiguration proposals is shown below.

¹⁹ As at end September 2010.

Forecast Income and Expenditure 2016/17 (£m)

	BHRUT	BLT	Homerton	Newham	Whipps Cross	NEL total
Income						
2010/11 Planned NHS Acute Income	354.0	529.8	155.0	136.9	201.7	1,377.4
2010/11 Planned Other Income	37.9	124.5	24.2	26.8	28.3	241.7
2010/11 Planned Total Income	391.9	654.3	179.2	163.7	230.0	1,619.1
Changes to Other Income	5.8	-20.8	-2.0	-1.0	1.0	-17.0
Demand Growth	51.5	63.1	17.9	20.9	22.2	158.6
Demand Management	-37.1	-14.6	-17.4	-8.2	-24.6	-101.8
Site Reconfiguration	-22.1	0.8	0.1	8.3	11.2	-1.6
Forecast Income 2016-17	390.1	682.8	177.8	183.7	239.8	1,657.3
Expenditure						
2010/11 Planned Expenditure	411.8	648.3	177.4	161.3	230.0	1,628.8
Cost increases to 2016-17	115.7	169.9	48.4	51.1	83.0	468.1
Provider Efficiencies	-85.3	-131.9	-32.0	-31.9	-60.6	-341.6
Demand Management	-24.3	-9.7	-17.3	-5.2	-24.6	-81.1
Site Reconfiguration	-32.0	0.5	0.1	6.1	7.4	-17.9
Forecast Expenditure 2016-17	385.9	677.1	176.6	181.4	235.3	1,656.3
Forecast Surplus 2016-17	4.2	5.7	1.2	2.4	4.6	18.0

All the trusts are forecasting a surplus by 2016-17.

A comparison of the original reconfiguration proposals (“baseline”) and the recommended reconfiguration proposals (“variant”) to the “Do Minimum” scenario is shown below. (The Do Minimum scenario includes the effect of demand growth, provider efficiencies and demand management, but excludes the effect of reconfiguration).

Forecast Surplus 2016-17 (£m) - Scenarios Contrasted

	BHRUT	BLT	Homerton	Newham	Whipps Cross	NEL total
Do Minimum Surplus 2016-17	-5.7	5.3	1.2	0.1	0.8	1.6
Forecast Surplus 2016-17 - Baseline	7.1	5.5	1.2	1.1	2.0	16.9
Forecast Surplus 2016-17 - Recommended	4.2	5.7	1.2	2.4	4.6	18.0
Difference in net surplus between reconfiguration scenarios and Do Minimum						
Baseline	12.8	0.2	0.0	1.1	1.2	15.3
Recommended (Variant)	9.9	0.4	0.0	2.3	3.8	16.3

Taking all trusts together there would be a £16.3m financial benefit to providers under the recommended option. So **the proposals pass the first financial test**. The variant scenario also offers a slightly better financial benefit to the health economy than the baseline option (£1.0m) so

the variant scenario is better for the whole health economy and offers improved clinical and patient care and access benefits.

Under the variant scenario, all providers affected by the reconfiguration proposals (Whipps Cross, Newham and BHRUT) see a financial benefit from the proposed reconfiguration. Whilst BHRUT will see some reduction in clinical income the operational benefits of consolidating emergency and maternity services onto the Queen's site mean that the cost savings generated by the proposals exceed the level of income lost (i.e. net improvement)²⁰. For Newham and Whipps Cross Hospitals a financial benefit is seen as the cost of providing additional services is lower than the additional income received (because new activity is delivered at marginal cost, taking account of the revenue consequences of new capital investment). Therefore **the proposals pass the second financial test.**

4.2 Capital Expenditure Implications

Estimates have been prepared of the capital investment that would be required to deliver the proposals.

Investment would be required:

- At Queen's Hospital: to create a Midwifery-Led Unit (MLU) and to increase capacity for the activity displaced following the closure of the A&E department and the obstetric unit at King George Hospital.
- At Whipps Cross Hospital: to extend the MLU and in the variant scenario to further increase maternity capacity.
- At Newham Hospital: to create additional maternity capacity for the variant scenario.
- At King George Hospital: to convert obstetric operating theatres for elective surgery and to refurbish vacated clinical space for new functions.

The estimated capital cost of the variant scenario is £35.9m.

²⁰ Note that significant proportion of BHRUT savings relate to release of 30% of overhead costs associated with King George Hospital site. This is addressed in more detail in section 4.10 of the DMBC. Failure to deliver this overhead saving is a risk borne by the whole health economy and savings realisation plan needs to be worked up in more detail.

The funding for the investment needed at Queen's Hospital (£10.8m) would come from an extension to the trust's Private Finance Initiative (PFI) contract. The £25.1m funding for the other work will need to come from the local health economy (trusts and PCTs) and will include receipts from the disposal of assets.

These cost estimates only include investments that are directly related to the reconfiguration proposals. Trusts have indicated that other capital investment will be required over the coming years to maintain services to an appropriate standard and to respond to growth in demand that is not related to the reconfigurations proposed in this business case. The most significant of these is the Whipps Cross site where significant investment is required to meet infection control, single sex accommodation and backlog issues. (c. £46m investment required).

4.3 Sensitivity and Risk

Sections 4.10 and 4.11 of the DMBC set out the approach taken by the Health for north east London programme team to review the sensitivity of decision making (against capacity and finance tests) to changes in a range of assumptions. This work concludes that the only material sensitivity relates to assumptions regarding length of stay reductions and associated bed capacity. In other words, if trusts do not deliver length of stay targets then deliverability will be compromised due to lack of bed capacity on receiving sites.

There is also some sensitivity in relation to 'displacement' assumptions used within the model (i.e. assumptions that underlie the remapping of non-elective inpatient activity displaced from King George Hospital). Again this impacts on capacity required on receiving sites.

Section 4.12.1 summarises potential contingency plans to address this issue if it arises, as follows:

- The approach to implementation described in section 6.4.2, is for phased changes as capacity is released at Queen's, Whipps Cross and Newham with changes not taking place unless capacity requirements are met.
- Assumptions in the activity forecasts relating to the reduction of non-elective admissions through demand management are deliberately modest. GP commissioners believe that more can be done to prevent admissions – if such reductions can be delivered this reduces requirement for a length of stay reduction.

- Review services currently located at Queen's and the other sites to identify any services that could be re-provided in alternative settings – e.g. renal dialysis, rehabilitation beds, elective surgery.
- Review the 'second phase acute' pathway – i.e. post Acute Assessment Unit, appropriate patients (from a clinical/access perspective) could be transferred to King George Hospital. By implication there would need to be 24/7 consultant-covered acute beds for adults at King George Hospital until such time as capacity is released at Queen's to fully absorb all current non-elective capacity (but not A&E / direct admissions only by exception). Whilst this arrangement would not be the optimum clinically or financially, it would allow for a significant proportion of the anticipated benefits to be realised and may be required to support transition to the new model of care.

5 Workforce implications

This chapter sets out an initial view of the workforce implications of the proposals. It looks at overall benefits and challenges; specific issues for BHRUT; and specific issues for maternity and unscheduled care.

If the proposals were approved, more detailed workforce planning would need to be taken forward as part of the implementation stage.

5.1 Summary implications of these proposals on workforce

Benefits

The Health for north east London proposals for change have been developed in part to address the existing workforce challenges that threaten the sustainability of local services, in particular in specialist paediatric care, A&E and maternity services (see section 2.2.1.1).

Local clinicians believe that these proposals will support north east London in developing, recruiting and retaining the right local workforce in order to better meet the needs of local people. In particular, the consolidation of services onto fewer sites would be expected to ease some of the existing workforce challenges and would support a move towards 24/7 senior clinician cover. Further details on the clinical benefits this would bring are provided in chapter two.

Challenges

There are a number of workforce issues that would arise from these proposals that would need to be carefully managed during implementation. These include:

- **Unscheduled care** – recruitment challenges - a new skill mix requirement (combination of primary and secondary skills) for the urgent care service at King George Hospital would need to be introduced.
- **Paediatrics** – services are currently facing significant workforce challenges and new ways of working will be required to ensure that all children are able to access safe, high-quality care. In particular, all units are struggling to fill the middle grade medical paediatric posts. There are also serious concerns in regard to the future paediatric surgical and anaesthetic workforce, as a less than optimum number of trainees are pursuing long-term careers in these specialties. Providers in north east London will need to work together to manage this issue and work towards 24/7 paediatric cover. New workforce models and workforce development will also be required in community and primary care to support new ambulatory service models.
- **Maternity** – There are major recruitment challenges for both consultants and midwives, which our proposals aim to ease. Staff would be aligned to a campus and be expected to work across different units within the campus according to demand. There would be new roles (for example, midwife support workers) and some staff would need to develop their skills (e.g. more midwives competent and confident in delivering babies at home or in standalone midwifery-led units).
- **Scheduled care** – staff would still work on planned and unplanned surgery in order to maintain a skills base **but** rotas would provide for separate, ring-fenced clinical teams.
- **BHRUT specific** – some BHRUT staff would be relocated to a different site or required to work across two sites. BHRUT have stated that they do not expect to have to make significant redundancies as a result of these changes. *See section 5.2 below for further detail.*

Work is currently underway with local trusts to better understand the workforce requirements as part of planning for implementation. Although Newham and Whipps Cross will also be affected from a workforce perspective, the main impact will be upon BHRUT, so the focus here has been on understanding this impact.

More broadly, there is a whole system workforce challenge and a workforce strategy would need to be created to support development of the out of hospital care workforce; for example, extended acute nursing skills, case management skills to support care of people with long-term conditions and enhanced paediatric primary care skills.

5.2 BHRUT Workforce

Overall, the consolidation of services would bring particular workforce benefits to BHRUT, as staff previously based at King George Hospital could be used to fill vacancies and support a move towards 24/7 senior clinician cover at Queen's Hospital. This would reduce the current reliance on bank and agency staff.

BHRUT have undertaken initial workforce modelling as part of their preparation for the next phase of work. This suggests that Health for north east London proposals would mean:

- a reduction in medical staff – reductions would represent no more than 10% of total medical staff in any given year:
- a reduction in non-medical staff– reductions would represent no more than 8% of total non-medical staff in any given year:

BHRUT have an expected staff turnover rate greater than 10%. The trust is also carrying a large number of vacancies and currently using a high proportion of bank and agency staff as a result. Although reductions in A&E staff are likely to be greater than 10%, turnover in this area is currently running at 27% and there will be an increased demand for urgent care staff across the sector and for A&E staff in nearby hospitals. BHRUT have assumed a total of 100 redundancies over four years in their financial modelling; but hope that they will be able to minimise the level of redundancies through normal staff turnover and a reduction in the use of agency staff.

If the Health for north east London proposals were approved; this would require further work. BHRUT are committed to developing a more robust workforce plan in partnership with other organisations over the coming months.

5.3 Clinical workforce – maternity

The Health for north east London proposals are designed in part to ease the maternity workforce challenges facing north east London. Given the national shortage of obstetric consultants and midwives; the proposals enable the sector to make best use of these scarce resources:

- Consolidating obstetric services onto fewer sites would mean the same number of consultants can provide an increased period of cover, supporting a move towards the recommended levels of consultant presence (168 hours or 24/7 cover)²¹.
- The campus model would mean that staff (particularly midwives) would be aligned to a campus and be expected to work across different units within the campus according to demand. The campuses would also work together to deliver capacity and choice across north east London, so that, for example, a pregnant woman could access antenatal and postnatal care at King George Hospital but deliver at Whipps Cross.
- There would also be new roles (for example, midwife support workers) and some staff would need to develop their skills (e.g. more midwives competent and confident in delivering babies at home or in standalone midwifery-led units (MLUs)).

However, the proposals do not fully resolve these challenges. It is expected that there would still be some staff shortages and that work would still be required with staff to develop new roles and ways of working.

5.4 Clinical workforce – unscheduled care

For urgent and emergency care, the Health for north east London proposals would be expected to have a positive impact on workforce. Consolidation of A&E departments and supporting services would mean the same number of consultants can provide an increased period of cover, supporting a move towards 24/7 senior doctor cover²².

The proposals, particularly those for King George Hospital, also mean that a new model of care would be required for urgent care services.

²¹ See clinical chapter

²² See clinical chapter

5.5 Next steps for workforce planning

If the Health for north east London proposals were approved, more detailed workforce planning would need to be taken forward as part of the implementation stage. Specifically, the Health for north east London programme would work with trust workforce planners and workforce transformation leads in sector commissioning bodies to:

- Finalise a view of individual trust workforce requirements in the light of the JCPCTs' decision; and
- Develop workforce strategies setting out how the workforce would be developed.

6 Planning for Implementation

This chapter of the business case sets out initial thinking on arrangements for implementation should proposals for change be approved. It seeks to respond to some of the issues raised during consultation and post consultation engagement as to how proposed changes to services would be managed in a safe and sustainable way. It is not intended to prejudge the outcome of decision making and the proposed approach is indicative only.

6.1 Governance

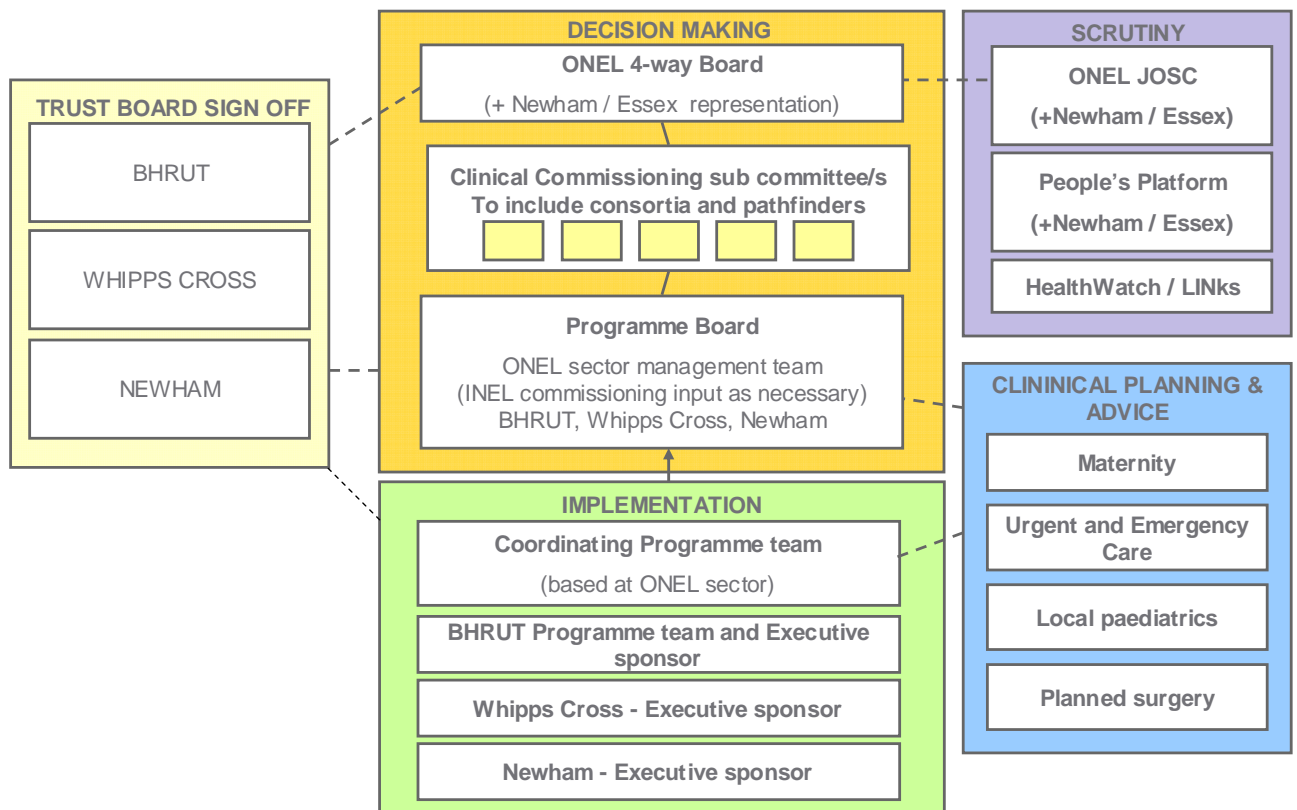
It is clear that current governance arrangements for the programme will need to be substantially revised to be fit for purpose for the implementation phase of the programme (if proposed changes are approved).

North east London PCTs are currently developing proposals for two sector-based integrated management teams. These proposals will be subject to formal staff consultation over the next two to three months. It is currently envisaged that whilst the current seven north east London PCTs will remain the statutorily accountable bodies they will fulfil their responsibilities through substantially changed governance arrangements, with current JCPCTs being replaced by joint board arrangements that will in future cover the full range of PCT responsibilities. The new governance structures also envisage a much stronger role for GPs in their clinical commissioning capacity, and it is expected that these arrangements will continue to evolve over the coming six to 24 months as the transition to the fully GP led commissioning model set out in the NHS White Paper proceeds.

Local GPs, particularly in ONEL, have expressed a strong desire to be fully involved in future decision making (e.g. signing off phases of change / detailed implementation plans). In response to this a robust clinical assurance process is embedded into the proposed governance arrangements set out below.

The outline structure below sets out preliminary thinking on future governance arrangements for the programme – further work would be required post decision making to ensure that the governance arrangements that are put in place to manage any changes to services are fit for purpose and appropriately reflect new organisational arrangements and increasing commissioning responsibilities for local GPs.

Governance Arrangements (draft)



Should the proposals for change be approved implementation will need to be fully embedded into the new sector based management and governance structures once they are finalised.

6.2 Change programmes and a phased approach to change

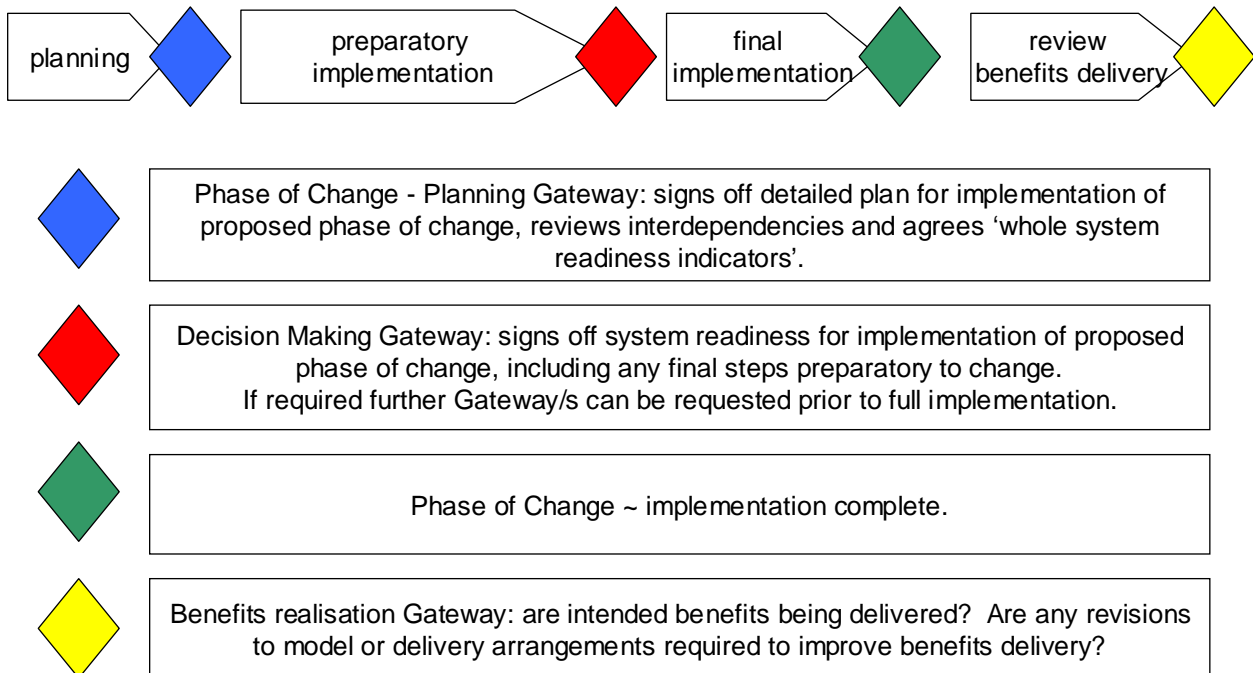
Three key change programmes are envisaged, within each programme there would be a series of phased changes over a three to four year timescale. Preliminary thinking of how phases of change might work is set out below. This should be seen as indicative only and would be subject to detailed review and scrutiny prior to any changes that are approved being implemented.

Proposal	Preliminary thinking re phases of change
<p>Maternity and Newborn Care</p> <p><i>Aims:</i></p> <ul style="list-style-type: none"> to deliver improved outcomes, patient choice and patient experience across the whole maternity pathway. to increase capacity across the sector to match forecast increases in demand in a way that evens-out activity at Whipps Cross, Newham and Queen's. <p><i>In addition to phased reconfiguration changes set out here a whole system improvement programme would be put in place to deliver the overall vision for services across the whole maternity pathway.</i></p>	<p>Phase one</p> <ul style="list-style-type: none"> King George Hospital closes to obstetric deliveries (Co-located MLU developed at Queen's Hospital, Barking MLU opened) <p>Phase two</p> <ul style="list-style-type: none"> additional capacity at Whipps Cross & Newham - review community midwifery arrangements and pathways. <p>Phase three</p> <ul style="list-style-type: none"> additional capacity at Whipps Cross and Newham - review community midwifery arrangements and pathways.
<p>Urgent and Emergency Care</p> <p>Aim: to deliver improved patient experience and outcomes, with reduced reliance on A&E and inpatient admissions.</p> <p><i>A whole system urgent and emergency care pathway improvement programme would run alongside proposed phases of change to deliver desired improvements across the whole pathway.</i></p> <p>NB: Changes to the urgent and emergency care pathway at King George Hospital are contingent on capacity release – length of stay improvement and / or reduced admissions as per the planning assumptions set out in activity and capacity chapter and commissioning strategy plans.</p>	<p>Phase one:</p> <ul style="list-style-type: none"> overnight closure of A&E, and / or close to paediatric blue light ambulances and overnight admissions, and / or all unplanned surgery transfers to Queen's. <p>Phase two:</p> <ul style="list-style-type: none"> close to blue light ambulances, and/or all acute admissions streamed via A&E hospitals / acute assessment units (consultant-led inpatient medical care continues at King George Hospital for post acute phase of care) <p>Phase three:</p> <ul style="list-style-type: none"> All non-elective medical and surgical care consolidated to A&E hospital sites.

<p>King George Hospital Vision</p> <p><i>Vision for King George Hospital to be further enhanced and embedded in local GP commissioning plans. Further work to extend links to community and mental health services provided by NELFT to be explored.</i></p>	<p>Phase one:</p> <ul style="list-style-type: none"> • GP practice relocated / developed at King George Hospital site (focus on urgent and unplanned primary care and primary care for unregistered patients) • Urgent care centre and ambulatory emergency care model developed • Transfer first tranche elective work • Renal dialysis <p>Phase two:</p> <ul style="list-style-type: none"> • Develop child health centre (relocate CDC and CAMHs) • Develop rehab model and direct referral pathways for GPs • Second tranche elective work transferred etc
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Key dependencies within the three programmes would need to be identified and carefully managed.

Each phase of change would be subject to following proposed clinically-led ‘Gateway’ process to ensure that clinicians and decision making bodies are confident that changes proposed can be made safely and sustainably.



The Planning for Implementation chapter of the business case provides indicative timelines for maternity and newborn care change programme and for urgent and emergency care pathway, along with early thinking in respect of system readiness indicators.

7 Conclusion and next steps

The DMBC sets out a compelling case for change and provides a credible response to the challenges faced in north east London – a response which has been clinically-led and developed, which could be safely and effectively implemented and has the potential to deliver real benefits to local people in terms of quality and consistency of local services.

The DMBC has been developed to support the JCPCT in decision making and should be considered alongside the range of other relevant material presented to the JCPCT, in particular the summary of consultation findings, the outputs of post consultation engagement and the summary of evidence in relation to the four reconfiguration tests.

1 Introduction

1.1 Background

Health for north east London is a clinically-led programme, led by all the PCTs in the area²³ in partnership with the local hospitals²⁴. In December 2008 the seven PCTs in north east London met to discuss the challenges facing healthcare across north east London and to agree a way forward. In February 2009 the north east London *Case for Change* was published which set out the urgent need to make changes to local health services to ensure both their immediate and longer-term clinical viability.

Between February and June 2009 the Clinical Reference Group (CRG) and Clinical Working Groups (CWGs) developed options for changes to hospital services focusing on those that would deliver the biggest improvements to clinical safety and patient care. The working group reports (including their membership) are available on the website www.healthfornel.nhs.uk or on request.

An options appraisal was undertaken against a set of clinical, workforce, capacity, access and deliverability criteria and the options were then assessed for their financial affordability. A set of proposals for change based on the outcome of this option appraisal process were set out in the pre consultation business case (PCBC), which was agreed by the INEL and ONEL Joint Committees of PCTs (JCPCTs) on 24 November 2009.

Public consultation on these proposals for change commenced on 30 November 2009 and closed on 22 March 2010 and the results of consultation were considered on 13 July 2010 at a joint meeting of INEL and ONEL JCPCTs. Full copies of all consultation outputs are available at: www.healthfornel.nhs.uk/consultation/results-of-the-consultation

Following the consultation, the CWGs and CRG undertook an extensive review of the original proposals against the consultation responses. A summary of the revised recommendations developed in light of the feedback received is set out in section 2.3.3 below. The revised CWG reports are available from www.healthfornel.nhs.uk/resources/evidence-sources/clinical/

²³ NHS Barking and Dagenham, NHS City and Hackney, NHS Havering, NHS Newham, NHS Redbridge, NHS Tower Hamlets, NHS Waltham Forest

²⁴ Barts and the London NHS Trust; Barking, Havering and Redbridge University Hospitals NHS Trust; Homerton University Hospital NHS Foundation Trust; Newham University NHS Trust; Whipps Cross University Hospital NHS Trust.

1.2 Structure of the Decision Making Business Case

The DMBC comprises seven chapters and an Executive Summary as follows:

Executive Summary

This executive summary provides a high level summary of each chapter of the Decision Making Business Case (DMBC) and the key conclusions.

Chapter One: Introduction

Background, scope and purpose of the document.

Chapter Two: Clinical proposals and case for change

This chapter sets out the vision for hospital care in north east London; the specific proposals for change (amended following consultation); the clinical evidence base supporting these changes and the expected benefits for patients.

Chapter Three: Activity and capacity implications of proposals for change

This chapter sets out the detailed activity and capacity analysis that has been undertaken to support decision making. It describes how it is expected that clinical activity flows would change under the proposals and what capacity would be required at each hospital to manage expected levels of clinical activity.

Chapter Four: Financial impact of the proposals for change

This chapter sets out the financial implications of the proposed changes to services.

Chapter Five: Workforce implications

This chapter sets out the workforce implications of the proposed changes to services.

Chapter Six: Planning for implementation, including proposed governance arrangements

This chapter describes our preliminary thinking about how any changes to services agreed by the JCPCTs would be implemented in a safe and sustainable way. It seeks to respond to some of the issues and concerns that have been raised by stakeholders through the consultation and post consultation engagement processes.

Chapter Seven: Conclusions and next steps

Note

A separate set of papers has been developed that describe in detail how Health for north east London has engaged with and taken account of the views of:

- Local residents as current and future users of health services
- A range of individuals and organisations who represent patients and the public (including local MPs, local councillors and scrutiny committees, People's Platforms and Local Involvement Networks (LINKs))
- NHS and partner organisations
- Clinical and non clinical staff and professional / representative bodies such as Local Medical Committees, Royal Colleges etc
- GPs – in both their clinical commissioning role and as local providers of primary care services.

This set of papers (see volume three) addresses the four new reconfiguration tests set out by the Secretary of State for Health in July 2010.

2 Clinical Proposals and Case for Change

2.1 Scope of Health for north east London

Following the consultation, the Health for north east London Clinical Working Groups (CWGs) were revised and refocused on four areas: *scheduled care; unscheduled care; maternity and newborn care and children and young people's care.*

North east London-wide proposals specific to children and young people's care are not co-dependent upon the other proposals. As a result, decision making on children and young people's care has been separated from decision making on the other proposals and is only covered in this paper where specifically relevant to proposals for unscheduled care, scheduled care and maternity care and the proposed model of care at King George Hospital. North east London-wide proposals specific to children and young people's care can be found in the paediatric navigator paper and the children and young people's care CWG report. These are also being put forward for decision making.

Although **specialist services** were originally considered by the Health for north east London CWGs these are not within the scope of the final proposals.

- Changes to **vascular surgery** proposed as part of the consultation were widely supported and are not co-dependent on other proposals. These proposals have been taken forward separately and were approved by the JCPCTs in October 2010. The proposals were to move complex artery surgery that is performed at Whipps Cross and King George Hospital (around 30-40 per year at each hospital) to The Royal London and Queen's, which perform around 350 between them.
- The Specialist Care CWG recommended that work to ensure greater access to, and improved outcomes for, **specialist cardiac and oncology services** be taken forward through the pan-London review of cardiac and oncology provision; and
- Similarly, improvements to **Stroke** services are being taken forward by the north east London cardiovascular network.

2.2 Our vision for hospital care

The Health for north east London programme was established to ensure both the immediate and longer-term clinical viability of health services in north east London. Whilst there have been considerable achievements in the last few years, most notably in reducing waiting lists and increasing survival rates for cancer and coronary heart disease, health indicators still show that north east London is worse off than other areas in London and England.

Our clinicians came together to review the provision of care in north east London and identified that current provision is not good enough. They identified six key drivers for change in north east London and considered how the configuration of services could be improved to address these challenges. They also identified a number of co-dependencies between services that would need to inform any proposals for change.

This section reflects the output of this work; setting out:

- The case for change in north east London
- The clinical co-dependencies and the implications of these; and
- The resulting vision for hospital care in north east London.

2.2.1 The case for change

2.2.1.1 The strategic drivers for change

The pre-consultation business case²⁵ (PCBC) set out six key reasons for making significant changes to the way healthcare is delivered in north east London. These reasons are summarised below:

Reason one: *the need to improve the health of people in north east London and ensure healthcare services are meeting public expectations.* Key health indicators are poor; the local population has a lower life expectancy, higher rates of infant death and higher mortality rates from cancer and cardiovascular disease than other London sectors. Overall, the NHS in north east London performs poorly on mortality rates, patient satisfaction and performance targets such as waiting times.

²⁵ <http://www.healthfornel.nhs.uk/resources/consultation-materials/>

Reason two: *the population of north east London is rising rapidly leading to greater demand on health services.* This means north east London needs to think differently about how it provides care. There is a higher than average birth rate in the area and whilst there is sufficient capacity in north east London to meet current requirements to deliver babies, demand will soon exceed capacity. There will also be increased burden on the NHS for the treatment of long-term conditions unless there is more effort made to improve the health of the population. This burden can be reduced by providing early treatment in the community.

Reason three: *hospital is not always the answer; more care can be delivered in community settings than ever before²⁶ and patients benefit from care closer to home.* North east London has very high rates of A&E attendances and A&E admissions, yet many of these patients would be better served by primary care practitioners (e.g. family doctors).

Reason four: *there are workforce challenges which currently prevent delivery of the best quality care and optimal patient outcomes.* These challenges include high staff turnover, prolonged vacancy rates, low staff utilisation and high sickness rates. Vacancy rates are, in part, due to national shortages of some clinical staff groups, such as paediatricians, midwives, radiologists and pathologists however, in addition, insufficient numbers of staff are choosing to work in north east London.

Reason five: *the need to adopt new models of care and best practice which can deliver better outcomes for patients.* Most notably, north east London needs better use of its skilled workforce to meet the aim of 24/7 senior clinical cover. Achievement of this aim would enable early decision making and lead to improved quality of care and patient safety.

Reason six: *the need to make best use of taxpayers' money.* The 'cost' to many hospitals in north east London to deliver their services is above the 'tariff' price paid by commissioners²⁷ and consequently, hospitals are making a loss every time they undertake these services. Savings can be made from reducing fixed costs and overheads; avoiding unused clinical space (where money is spent to heat, light, clean and maintain buildings even though they are not fully utilised)²⁸; by separating emergency and planned care²⁹; better surgery (avoiding readmissions) and

²⁶ as set out in *Healthcare for London: a Framework for Action* and the White Paper: *Our health, our care, our say*

²⁷ Healthcare for London forecast for north east London PCTs

²⁸ Detailed capacity modelling tells us that in the longer term, despite the rapidly growing population, the NHS in north east London will not require any additional hospital beds. In fact, if local hospitals can move towards national benchmarks for length of stay, then there will be spare/ excess capacity within the system. There are some exceptions, the key one being in maternity services, where hospital capacity does need to increase.

²⁹ Studies have show that teams concentrating only on planned operations could reduce costs by a third. American Journal of Surgery; Operating Room Manager Magazine survey (2002).

processes³⁰; and reducing lengths of stay. Patients in north east London stay longer than patients in hospitals around the country. Not only do patients prefer to be at home (and they often recover better there too), it is also less expensive if they spend less time in hospital.

2.2.1.2 The case for reconfiguration changes in north east London

Following identification of these drivers for change, the pre-consultation business case then examined the specific case for reconfiguration of services in north east London in order to respond to these drivers.

Emergency care pathway

Consolidation of services would enable north east London to move towards provision of a 24/7 consultant delivered service for unscheduled care and access to the full range of supporting clinical services on all A&E hospital sites.

The College of Emergency Medicine (CEM) recommends³¹ that 24/7 senior clinical cover should be provided in A&E departments as being a key mechanism to ensure the highest standards of emergency care 24 hours a day for patients of all ages with illness and injury. This level of cover requires a minimum of 16 whole time equivalent (WTE) consultants per site. This model of care presents sizeable challenges for north east London. To staff north east London's six A&E departments to this model would require 96 WTE senior doctors; an increase of 54.55 WTE above the current 41.45 WTE. At present, this level of senior staffing is out of reach due to national workforce constraints and local workforce shortages.

There are also challenges for those clinical services that support the A&E department:

- **Emergency medicine** - Local clinicians also believe that providing 24/7 senior clinical cover in Acute Admission Units would improve patient care and safety. This is supported by a 2009 study³² by the National Confidential Enquiry into Patient Outcome and Death into the care of patients who died in hospital within 4 days of admission, which found that: "*In*

³⁰ A five year study of MRSA in UK hospitals estimated that half of the reductions recorded in infection rates were because patients stayed in hospitals for shorter periods, rather than because of cleaner wards. Variations in the frequency of MRSA infections across acute NHS hospitals, 2001-2006, Fenn P, 2006.

³¹ The College of Emergency Medicine – "The Way Ahead 2008-2012" – December 2008

³² Deaths in Acute Hospitals: Caring to the End? (2009) National Confidential Enquiry into Patient Outcome and Death NCEPOD, 2009

25% of cases there was... a clinically important delay in the first review by a consultant”.

The report recommended that: *“the seniority of clinical staff assessing a patient and making a diagnosis should be determined by the clinical needs of the patient, and not the time of day. Services should be organised to ensure that patients have access to consultants whenever they are required”.*

- ***Local clinicians do not think that 24/7 senior clinical cover is deliverable in the current configuration, but believe that it should be achievable in north east London if services were consolidated onto a smaller number of sites.***
- **Emergency surgery** – emergency surgery quality indicators such as mortality rates suggest that improvements need to be made in the way north east London hospitals deliver these services. Whilst Newham’s mortality rates are among the best in England, other local trusts have below average quality of care for this indicator³³.
- Evidence shows that improved patient outcomes are achieved when patients are treated by doctors who perform a high volume of that specific treatment or intervention. The Royal College of Surgeons (RCS) has recommended³⁴ that an acute general hospital providing the full range of facilities, specialist staff and expertise for both elective and emergency medical and surgical care requires a population catchment area of 450,000 – 500,000 to achieve the volume and case mix necessary to maintain the clinical skills of surgical teams, given the effect of sub-specialisation.
- ***On this basis, with a population of 1.5 million in north east London, it is important to provide surgery on fewer than the current six sites. Whilst other parts of the country have medically admitting only hospitals / A&E this is not an option that north east London clinicians support.***
- **Paediatrics** - The Royal College of Paediatrics and Child Health (RCPCH) states that, wherever possible, children should be treated by paediatric specialists in separate dedicated or child-focused facilities³⁵. North east London has a significant shortage of paediatric specialists. The national shortage of paediatricians is reflected locally and compounded by a local shortage of paediatric nurses.

³³ Hospital Episode Statistics 2006/07, HES 2006/07

³⁴ Delivering High-quality Surgical Services for the Future; Royal College of Surgeons, March 2006

³⁵ Supporting Paediatric Reconfiguration - A Framework for Standards; Royal College of Paediatrics and Child Health July 2008

- There is a consensus amongst local paediatric clinicians that there is a shrinking pool of appropriate staff (due to reductions in training numbers, vacancy rates and other factors such as the impact of Modernising Medical Careers (MMC) and the European Working Time Directive (EWTD)). This means that sustaining a full range of high-quality paediatric services in the current configuration of six sites will not be possible. North east London is not alone in this³⁶. The RCPCH said in their submission to the Healthcare for London Review (2007) that “the current children’s healthcare workforce cannot safely sustain the number of existing inpatient and acute children’s services”³⁷.
- The majority of the six hospital sites with A&E departments do not have arrangements for extended specialist presence to support the assessment and treatment of children who attend A&E. More children are admitted into hospital than need to be³⁸ and, because of the lack of early specialist review, lengths of stay are longer than they need to be – this is disruptive for children and their families.

With six hospital sites providing emergency care services, scarce workforce resources are spread too thinly across north east London.

Local clinicians agree that fewer but larger A&Es departments with acute medical and surgical care would support a move towards 24/7 senior clinical cover in north east London; enabling earlier and more regular review of patients by senior clinicians. Local workforce challenges mean that north east London is unable to recruit and retain enough staff to maintain services on six sites. In addition to the CEM recommendations, there is extensive clinical evidence demonstrating the benefits of this level of cover. For example:

- A recent study by the King’s Fund showed that where patients in A&E are reviewed by a senior clinician, this can reduce admissions to the acute medical assessment unit by over 20 per cent and can reduce inpatient admissions by over 10 per cent³⁹.

³⁶ In a joint statement, the Association of Paediatric Anaesthetists, Association of Surgeons for Great Britain and Ireland, British Association of Paediatric Surgeons, Royal College of Paediatrics and Child Health, Senate of Surgery for Great Britain and Ireland argued that the provision of general children’s surgery was reaching crisis point due to the lack of general surgeons with skills and experience of treating children and the lack of critical mass of patients. General paediatric surgery provision in district general hospitals. London: BAPS, 2006.

³⁷ *A Framework for Action*, Healthcare for London 2007

³⁸ For instance an estimated 75% of asthma-related childhood hospital attendances are avoidable. Dr S. Shribman, National Clinical Director for Children, Young People and Maternity Services, The Health Challenge; Launch of ChiMat, University of York (2009)

³⁹ Avoiding hospital admissions – lessons from evidence and experience - The King’s Fund – April 2010

- A study by Imperial College London⁴⁰ estimated that, for patients admitted at weekends (when there is typically less senior clinical cover) there was a 7% higher risk of death in those patients admitted at the weekend compared with patients admitted during a weekday. This means that more patients die because of staffing shortages (for instance at weekends) in NHS hospitals than die in road accidents⁴¹.
- A study by the NPSA⁴²: focusing on 107 patients whose deaths in acute hospitals in one year were reported to the National Reporting and Learning System (NRLS) because of concerns about the safety of their care, found that *“by identifying patients who are deteriorating and by acting early, staff and their organisations can make a real difference”*.

Furthermore, evidence shows that for a number of specialties improved patient outcomes are achieved when patients are treated by clinicians and teams who perform a higher volume of that specific care type. Doctors in large acute hospitals in London see fewer patients, by almost a quarter, compared to their counterparts elsewhere in England⁴³. Similarly, nurses also see relatively fewer patients. Consolidation of services onto fewer sites is sometimes required to increase the volumes and case-mix that can be treated by practitioners. For example, the development of a service to treat patients suffering a heart attack onto The London Chest site is estimated to save around 50 lives a year⁴⁴. Treatment of major trauma (on The Royal London site) has had similar success and the new Hyper Acute Stroke Units (HASUs) are already improving morbidity and mortality rates.

Finally, consolidation of services will have a positive impact on the clinical workforce. By creating a critical mass of workforce, consolidation enables opportunities for extended and enhanced roles such as nurse practitioners and allows greater supervision of junior staff and increased training opportunities. In this way consolidation can help hospitals in north east London to become increasingly attractive employers of clinical staff.

⁴⁰ Weekend mortality for emergency admissions. A large, multicentre study. Quality and Safety in Care, Imperial College London, 2010.

⁴¹ Weekend mortality for emergency admissions. A large, multicentre study. Quality and Safety in Care, Imperial College London, 2010.

⁴² Safer care for the acutely ill patient: learning from serious incident; *National Patient Safety Agency, January 2007*

⁴³ Hospital Episode Statistics 2006/07

⁴⁴ http://www.bartsandthelondon.nhs.uk/HAC/our_performance.asp

Maternity pathway

Consolidation of services would support a move towards 24/7 (168 hour) consultant presence for obstetrics and increase patient choice by enabling the creation of more midwife-led care.

The need for improvement in the quality and choice of services, coupled with the rapidly rising birth rate in north east London means there is a strong case for change for this service area. Ensuring there is sufficient physical space and manpower within local maternity and neonatal services to meet the projected increase in demand is of the highest priority.

In addition, national workforce constraints are preventing north east London from adopting new models of care recommended by the Royal College of Obstetrics and Gynaecology (RCOG). Evidence summarised in *The future role of the consultant* and *Safer Childbirth* shows that if more care was to be delivered directly by fully trained consultant obstetricians, outcomes for women and their babies would improve, meaning less maternal morbidity, less foetal morbidity and reduced foetal death rates⁴⁵. Better management could make a difference in 35% of all stillbirths and deaths in infancy⁴⁶.

Four royal colleges recommend that maternity units of over 5,000 births per year should aim for round-the-clock (168 hours) senior doctor presence⁴⁷. Evidence shows that the absence of senior doctors (most notably at night and at weekends) is a factor in increased mortality⁴⁸. A recent British Medical Journal report⁴⁹ found that:

- At term, the risk of neonatal death ascribed to anoxia was increased among women delivering outside the hours of the normal working week

⁴⁵ Better supervision of junior staff, and the presence of a more experienced doctor at the time of a complication in pregnancy, could have prevented more than three-quarters of all serious problems in childbirth. *The Future Role of the Consultant*, Royal College of Obstetrics and Gynaecology, Dec 2005

⁴⁶ Summary of findings from the root cause analysis of 37 adverse events and near misses in obstetrics: A report for the NPSA, 2000

⁴⁷ *Safer Childbirth*, Minimum standards for the organisation and delivery of care in labour; Royal College of Obstetricians and Gynaecologists, Royal College of Midwives, Royal College of Anaesthetists and Royal College of Paediatrics and Child Health, Oct 2007

⁴⁸ Study of over a million births in Scotland (Pasupathy, D., Wood, A., Pell, J., Mehan, H., Fleming, M., Smith, G., Time of birth and risk of neonatal death at term: retrospective cohort study, July 2010) and a study in Holland (de Graaf, J., Ravelli, A., Visser, G., Hukkelhoven, C., Tong, W., Bonsel, G., Steegers, E., Increased adverse perinatal outcome of hospital delivery at night. *BJOG* 2010) show that babies born during the day have a greater survival rate than those born at weekends or nights.

⁴⁹ Time of birth and risk of neonatal death at term: retrospective cohort study; *BMJ*, April 2010

- About one in four deaths from intrapartum anoxia at term could be prevented if all women attempting vaginal birth had the same risk of this event as women delivering during the normal working week.

The report suggests that an improvement in the level of clinical care for women delivering out-of-normal working hours may reduce overall rates of perinatal death. In an RCOG statement in response to this report⁵⁰, Dr Tahir Mahmood, RCOG Vice President (Standards) said:

“It is...crucial to have experienced obstetricians (consultants) working in labour wards during the out-of-hours period. Previous research has shown that increased consultant presence in the labour ward has many benefits, including reduced c-section rates².

Senior doctor presence in north east London is significantly below the target level of 168 hours, with current averages of between 48 and 98 hours in local maternity units. Modelling suggests that, for six maternity units, a further 60 consultant obstetricians or very senior doctors trained in obstetrics would be needed across north east London to achieve this goal and given national workforce constraints this will not be possible to achieve. For five units this number decreases by around 40%.

Local clinicians agree that, in order to achieve 24/7 obstetrician consultant presence and to ensure that these consultants regularly see a high enough volume of patients to maintain and develop their skills, obstetrics services should be consolidated into fewer units with increased overall capacity for more births. Consolidation of obstetric services into fewer units would:

- ease the workforce challenge and enable north east London to put in place increased obstetrician consultant presence and move towards the target of 168 hour consultant presence;
- improve access to maternity and post-natal care specialists for mothers with higher risk levels / complex needs; and
- increase provision of specialist support to women, such as increased access to perinatal mental health services.

⁵⁰ <http://www.rcog.org.uk/what-we-do/campaigning-and-opinions/statement/rcog-statement-%E2%80%98time-birth-and-risk-neonatal-death-ter>

Case study – Northwick Park Hospital

A Healthcare Commission investigation⁵¹ into the deaths of 10 women at Northwick Park Hospital found that:

- The maternity service did not have the necessary systems or staff with the appropriate skills in place to manage high risk cases.
- There was a lack of input from consultants at crucial times, and an over reliance on junior staff to manage complex and difficult cases with little guidance or support.
- Consultant obstetricians did not routinely carry out ward rounds.
- There was an excessive reliance on the use of locum and agency staff, who did not always receive the necessary guidance or support.

The maternal death rate for Northwick Park maternity unit in the period April 2002 to March 2004 was 74.2 deaths per 100,000 maternities against a national average of 11.4 deaths per 100,000 maternities (as reported by the Confidential Enquiry into Maternal and Child Health (CEMACH)).

The Healthcare Commission also recommended that: *due to a shortage of suitably trained radiologists, it is not possible to provide full time cover for interventional radiology in all obstetric units... trusts with [maternity] delivery units should, where feasible, engage with their neighbouring trusts to discuss the formation of networks. The aim should be to provide an emergency interventional radiology service that is responsive to patients' needs wherever and whenever they arise.*

As is the case in other clinical services, consolidation and development of a critical mass can have significant benefits to the longer-term sustainability of the workforce. Greater concentrations of staff, with consequently larger throughputs of mothers and babies enable better levels of supervision and training of junior staff, further opportunities for sub-specialisation and enhanced roles for medical, midwifery and neonatal nursing staff.

Finally, the Royal College of Midwives has recently completed a systematic review, meta-analysis, meta-synthesis and economic analysis of midwife-led models of care⁵². This work firstly endorses the findings of the Cochrane Review of midwife-led models of care in terms of demonstrating improvement in outcomes for low risk women accessing such care. It also importantly endorses the findings of the Cochrane Review that infants of women randomised to midwife-led care had no statistically significant difference in important outcomes such as low birth weight, premature birth or 5-minute Apgar score, admission to special care/neonatal unit and neonatal convulsions.

⁵¹ Northwick Park Hospital Report into Deaths of 10 Women; Healthcare Commission, August 2006

⁵² The Socioeconomic Value of the Midwife; Royal College of Midwives, December 2010.

Local clinicians agree that an increase in the use of midwife-led care in north east London should result in improved outcomes for low risk women without adversely affecting higher-risk women.

Scheduled care pathways

Separation of emergency and planned care pathways would improve patient outcomes.

At present, north east London scheduled care services are not as good as patients should expect. Patient satisfaction levels are lower than average: the Care Quality Commission's most recent assessment rated three north east London trusts as 'weak', with others rated as 'average'. In short:

- too many procedures are being cancelled at short notice, which can be extremely disruptive for patients;
- waiting times for scheduled operations and procedures are often too long;
- many patients spend too long in hospital following their treatment, which makes them more at risk of acquiring an infection and delays their return to a normal, active life; and
- readmission rates (when patients are admitted back into hospital within 30 days of discharge) are, with a few exceptions, worse than the England average.

The Association of Surgeons of Great Britain and Ireland has stated the need for “a clear and identifiable separation of delivery of emergency and elective care”. This separation can lead to dedicated management and improvements in clinical care, training and education.⁵³

Separating elective care from emergency pressures through the use of dedicated beds, theatres and staff can (if well planned, resourced and managed) reduce cancellations of operations, achieve a more predictable workflow (and therefore save money), provide excellent training opportunities and increase senior supervision of complex/emergency cases. The quality of care delivered to patients would improve as a result⁵⁴.

Separating planned care patients from emergency patients reduces rates of infection for both sets of patients because patients are not sharing the same wards and planned care patients can be screened and treated in advance for any infections. Rates of healthcare acquired infections are

⁵³ Emergency General Surgery: The Future – A Consensus Statement, Association of Surgeons of Great Britain and Ireland, June 2007

⁵⁴ Separating emergency and elective surgical care: Recommendations for practice, Royal College of Surgeons of England, 2007

one of the highest priorities (and a key indicator of satisfaction) for patients when selecting where to have their treatment.

Local clinicians agree that, in order to improve patient outcomes, emergency and planned care pathways should be separated in North east London.

Finally, demand for kidney dialysis is growing year on year in north east London. A kidney dialysis service is already provided at The Royal London, Whipps Cross, Newham and Queen's. Consolidation of services would create capacity for the development of a local kidney dialysis service at King George Hospital, enabling a large number of patients to access this service much closer to home.

2.2.2 Clinical co-dependencies and their implications

Emergency pathway co-dependencies

Local clinicians agree that it is not possible to support six hospitals in north east London with fully staffed A&Es *and* the full set of back up services set out above. In light of the drivers for change, our clinicians looked at the full range of services that are needed to safely support the emergency pathway.

In line with CEM recommendations, local physicians and emergency medicine physicians recommend that a high-quality A&E service requires 24/7 on-site access to acute medicine, acute surgery, critical care, maternity and paediatric services. They do *not* support models where an A&E does not have 24/7 access to these services.

Finally, local workforce challenges mean that north east London is unable to recruit and retain enough staff to maintain services on six sites.

It is therefore the consensus of clinical opinion that in north east London, fewer A&Es with acute medical and surgical services would provide patients requiring emergency treatment in a hospital with:

- better access to specialist opinion and specialist interventions across the whole emergency pathway; and

- better clinical outcomes – as greater throughputs of patients mean clinical teams gain more experience and expertise.

Maternity pathway co-dependencies

Local clinicians are agreed that there needs to be a reduction in the number of consultant-led obstetric units in north east London in order to support delivery of 168 hour consultant presence for obstetrics.

There is a clinical consensus in north east London that obstetric-led maternity units should be co-located on acute hospital sites i.e. those fully supported with anaesthetics, surgery, blood transfusion and medical specialties. This is to ensure that pregnant women attending hospital and requiring specialist treatment can be transferred to an obstetric unit on site and so that women who are pregnant and then develop complications can gain access to acute medical/surgical care.

For this reason, local clinicians believe that location of A&E departments and maternity services must be considered together and there are strong views against the creation of standalone obstetrics-led units. In other words, local clinicians do not support the concept of ‘standalone’ obstetric delivery units on non A&E hospital sites and as such ‘ruled out’ the idea of continuing to provide obstetric delivery care at King George Hospital should proposed changes to urgent and emergency care services at King George Hospital go forward. See the PCBC option appraisal chapter, which sets out the rationale for this in more detail⁵⁵.

⁵⁵ <http://www.healthfornel.nhs.uk/resources/consultation-materials/>

2.2.3 Our vision for hospital care in north east London

Based upon consideration of the drivers for change and clinical co-dependencies, local clinicians agreed that services need to be reconfigured in order to deliver their vision of a well-supported, safe, efficient and comprehensive service which provides an excellent patient experience.

Our vision for north east London is a well-supported, safe, efficient and comprehensive service, with:

1. Changes to acute hospital configuration, to provide:

- *Two major acute sites: Queen's and The Royal London, each with an A&E department supported 24/7 by acute medicine, acute surgery, critical care, maternity and paediatric services in addition to more specialist acute services such as hyper acute stroke, complex vascular surgery and interventional radiology.*
- *Three local hospitals with A&E departments: Newham, Homerton and Whipps Cross, with the A&E departments supported 24/7 by acute medicine, acute surgery, critical care, maternity and paediatric services.*
- *A local hospital with 24/7 urgent care at King George and a wide range of ambulatory and planned care services.*

2. Extended senior clinical cover in place at all hospitals with A&E to enable early and regular senior clinical review. We want our hospitals to be sufficiently staffed in order to provide the best possible outcomes for our patients.

3. The best possible use of available infrastructure and resources – clinical workforce, physical capacity, equipment, theatres, etc. It is more cost effective and a better use of physical capacity and infrastructure to consolidate services on fewer sites.

2.3 The Health for north east London proposals

2.3.1 What we consulted on

In November 2009 Health for north east London published its pre-consultation business case setting out a detailed case for change; an options appraisal and a set of recommended changes for consultation. In summary, the consultation proposals⁵⁶ were:

- To reduce from six hospitals with A&E and acute medical, surgical, critical care, and paediatric services to five (moving these services from King George);
- To move from six to five hospitals in north east London providing maternity delivery services; moving maternity delivering services away from King George and increasing capacity on other sites;
- Developing King George with 24/7 urgent care and wide range of planned care services;
- That planned surgery in north east London should be separated from emergency surgery;
- To move all uncomplicated planned surgery from Queen's Hospital to King George; and
- To develop a local kidney dialysis service at King George Hospital.

The full consultation proposals can be found at:

<http://www.healthfornel.nhs.uk/resources/consultation-materials/>

2.3.2 Responding to consultation feedback

Feedback from the consultation generally supported the Health for north east London proposals for children's services, planned care and some elements of the proposals for the vision of King George Hospital but there was strong opposition from some stakeholders to the proposal to move A&E and maternity services from King George Hospital. The Clinical Working Groups (CWGs) (overseen by the Clinical Reference Group (CRG)) have proposed revisions to the proposals in response to the consultation findings and other stakeholder feedback. This feedback and CWG responses are summarised in the sections that follow and provided in detail in the CWG reports at: www.healthfornel.nhs.uk/resources/evidence-sources/clinical/. A final phase of engagement was undertaken based upon these revised proposals (see "Four tests" papers for further detail).

⁵⁶ Excludes proposals for vascular surgery and children and young people's care, as per section 1.3

2.3.2.1 Unscheduled care

Respondents were concerned about the accessibility (and therefore timeliness) of services if they had to travel further to get to them; about the capacity of those services to cope with additional volumes; and about confusion over where to go.

The CWG's clinical review following consultation⁵⁷ endorsed the recommendation to reduce the number of hospitals providing A&E services from six to five to ensure early senior clinical review of patients and best use of workforce. Local clinicians continue to recommend that the NHS invests in significantly developing urgent care services at all six hospital sites; training clinicians in the required new roles, describing new pathways of care that integrate emergency, urgent and primary care and developing new standards and protocols. This is designed to enable A&E services to really focus on those patients with the most serious conditions.

Clinicians have also recommended that a ***short stay assessment and treatment service for adults and children at King George Hospital*** is developed so that a really good local alternative to A&E and inpatient care can be provided. The short stay assessment and treatment unit would be staffed by a team of skilled clinicians with expertise in primary care assessment, diagnosis and treatment as well as expertise in emergency medicine. The service would take responsibility for ensuring that all patients presenting at King George are assessed and directed to the most appropriate service for their care, including ensuring the safe and effective transfer of patients needing emergency care to an A&E hospital. When necessary the team would be responsible for stabilising acutely unwell patients prior to transfer.

The new short stay assessment service would offer a tailor-made service for patients who would benefit from longer periods of observation, assessment and treatment including access to a range of diagnostic tests not currently available to primary care clinicians. The service would have good access to specialist advice from hospital clinicians (including paediatricians, geriatricians, mental health specialists) to support effective clinical decision making. This may be on site or provided by staff at Queen's Hospital via remote technology. The service would work closely with community health and social care services, including mental health services, so that as many patients as possible could be cared for in the community without recourse to a hospital admission.

⁵⁷ For full details, see the Unscheduled Care CWG report at: www.healthfornel.nhs.uk/resources/evidence-sources/clinical/

2.3.2.2 Maternity and newborn care

In looking at the consultation responses, the CWG⁵⁸:

- noted the vision of respondents wanting to see a more ‘normalised’ care pathway for the majority of women who have straightforward pregnancies and births and who would be suitable for midwife-led care. The CWG was clear that women with low risk pregnancies should be offered a real choice of birth setting, including home birth and midwifery-led birthing units – both ‘free-standing’ (i.e. not based on an A&E hospital site) and ‘alongside’ (i.e. located in a hospital with an obstetric labour ward);
- considered the concerns raised around the potentially large size of maternity units – at Queen’s Hospital in particular; and
- acknowledged the clear preference stated by women to deliver in midwifery-led units ‘alongside’ hospital doctor-led units.

In response, the CWG has proposed a ‘maternity campus model’ where all ‘campuses’ would offer access to the full range of birth settings (obstetric-led units, midwifery-led units and home births). Queen’s Hospital would develop a new ‘alongside’ midwife-led service with capacity to manage up to 3,000 births per year (7-10 babies per day). These proposals would not therefore require the current obstetric unit at Queen’s Hospital to manage more births. In fact it is anticipated that there would be a small reduction in the number of births being managed through the current Queen’s obstetric unit. Both Whipps Cross Hospital and Newham Hospital will also expand their maternity service capacity to ensure that across north east London there is sufficient capacity in place to manage the rising birth rate and to reduce pressure on services at Queen’s Hospital. The campuses would also work together to deliver greater flexibility across north east London, so that, for example, a pregnant woman could access antenatal and postnatal care at King George Hospital but deliver at Whipps Cross Hospital.

2.3.2.3 Scheduled care

The proposals were broadly supported within the consultation⁵⁹. The Scheduled Care CWG endorsed the proposals⁶⁰ and has undertaken further work to describe in more detail which

⁵⁸ For full details, see the Maternity and Newborn Care CWG report at: www.healthforneel.nhs.uk/resources/evidence-sources/clinical/

⁵⁹ Forty three percent of respondents to the consultation agreed or strongly agreed that if King George’s A&E, critical care and maternity delivery services were to transfer then all uncomplicated planned surgery should move from Queen’s (20% disagreed or strongly disagreed). Fifty five percent of respondents citing Queen’s as their local hospital were in

surgery is generally suitable (and which is not) for a 'planned surgery centre' such as the one proposed for King George Hospital. BHRUT clinicians have developed these recommendations into specific proposals relevant for King George Hospital and Queen's Hospital.

2.3.3 Final proposals

Building on the vision for north east London set out in section 2.2.3 and taking into account the consultation responses and subsequent work by our CWGs⁶¹, our final proposals are:

Final proposals for change

To reduce from **six** hospitals with A&E, acute medical, acute surgical, critical care, maternity and paediatric services to **five**, to ensure that:

- All A&Es are fully supported by appropriate specialty cover; and
- There is early senior clinical review for all patients and full range of available expertise for ongoing care.

King George Hospital, Ilford to provide 24/7 urgent care services but A&E, together with unscheduled inpatient medical and surgical services, including critical care and paediatrics, to be provided at other sites (Queen's, Whipps Cross and Newham).

Why King George Hospital?

King George was identified as the most suitable hospital to be reconfigured following a detailed options appraisal in the PCBC⁶². A number of factors were taken into consideration, including the impact of travel times and access and current quality and sustainability issues. A key clinical reason for this selection is because King George's current configuration is furthest away from the desired model for a hospital with A&E, as it does not provide trauma, acute stroke or orthopaedics services. King George would therefore require the greatest development to be in a position to deliver the comprehensive service model described by clinicians as the desired model for north east London. The clinical option appraisal also took into consideration the fact that both King George and Queen's Hospital currently face significant workforce and clinical quality challenges and that making changes to services at King George Hospital would support a better overall model of care and improved quality and outcomes across the two hospitals.

favour of the move and Havering residents (who would be the most affected by increased travel times) are the most likely group to favour the move, with 58% in agreement.

⁶⁰ For full details, see the Scheduled Care CWG report at: www.healthfornel.nhs.uk/resources/evidence-sources/clinical/

⁶¹ Full CWG reports available at: www.healthfornel.nhs.uk/resources/evidence-sources/clinical/.

⁶² <http://www.healthfornel.nhs.uk/resources/consultation-materials/>

2.3.3.1 Service specific proposals:

Our specific proposals for each specialty:

Unscheduled Care

- Five hospitals providing urgent and emergency care, including 24/7 A&E (with separate 24/7 paediatrics facilities led by paediatric specialists)
 - The Royal London and Queen’s Hospital: major acute hospitals with 24/7 A&E, unplanned medical and surgical inpatient care, including critical care and 24/7 paediatrics and extended range of specialist services including major trauma and heart attack centre (The Royal London) and hyper acute stroke care, complex vascular surgery and 24/7 interventional radiology (The Royal London and Queen’s)
 - Newham, Homerton and Whipps Cross as local hospitals with 24/7 A&E, unplanned medical and surgical inpatient care, including critical care and 24/7 paediatrics
- King George Hospital Ilford to provide 24/7 urgent care and extended range of ambulatory and planned care services, including 24/7 short stay assessment and treatment services for adults and children.
- Enhanced hospital based urgent care at all hospitals, with access to diagnostics and to specialist advice. Recommended co-location with GP out of hours services.

The Unscheduled care CWG report is summarised in Appendix A. The full report can be found at: www.healthforne1.nhs.uk/resources/evidence-sources/clinical/.

Local Clinicians have been clear that they wish to see The Royal London Hospital and Queen’s Hospital, as the ‘major acute’ providers for north east London, develop close and effective clinical networks with local hospitals. This would ensure that all patients across the sector benefit from the skills and expertise available, including local outreach and service delivery where appropriate (for example, this could cover vascular surgery, hyper-acute stroke, neurosurgery, or 24/7 interventional radiology).

Maternity and Newborn Care

- Five maternity campuses aligned to the five trusts in north east London providing comprehensive maternity and newborn care including obstetric and midwife-led delivery care and neonatal care (The Royal London, Homerton, Newham, Whipps Cross and Queen's) Every campus to offer choice of home birth or alongside midwifery led unit (co-located with obstetric unit) and access to free standing MLUs at Barkantine and Barking Hospital, with a target of a minimum of 40% of all births to be provided in midwife-led settings
- King George Hospital to continue to provide antenatal and postnatal care, including maternity day care – foetal heart rate monitoring, ultrasound and triage.
- In addition more antenatal care will be provided closer to home in children's centres and local health facilities.

The Maternity and Newborn Care CWG report is summarised in Appendix B. The full report can be found at: www.healthforneel.nhs.uk/resources/evidence-sources/clinical/.

The birth rate in north east London continues to rise rapidly. In addition to the above clinical recommendations this business case sets out a number of recommendations designed to ensure that local services develop capacity to ensure that growing demand can be met effectively whilst addressing the quality and patient experience challenges currently facing services. Queen's, Whipps Cross and Newham Hospitals all need to develop additional midwife-led delivery capacity to meet this continued rise in births and to deliver the 40% of midwife-led births described in the model of care developed by the CWG. The majority of this new capacity will be delivered in alongside midwifery-led units, ensuring that the number of births managed within obstetric delivery units is kept to a manageable number.

Our modelling shows that 30% of women who currently give birth at Queen's or King George Hospital live closer to Whipps Cross or Newham hospitals. Under the new model it is therefore anticipated that a significant proportion of these women will in future chose to have their babies at one of Whipps Cross or Newham hospitals. Local research undertaken on behalf of Health for north east London by Opinion Leader Research⁶³ demonstrates that local women currently feel they have little real choice within maternity services, including place and type of birth. A key factor was identified as lack of clear and consistent information at the appropriate time in the antenatal pathway, as well as lack of flexibility between services. Clinical leaders from all north east London

⁶³ See volume 3, paper 5 of December 15th JCPCT decision making papers.

maternity services (BHRUT, Whipps Cross, Newham, Homerton and BLT) have given a firm commitment to working together to address this issue and support improved patient choice across north east London.

Scheduled Care

- Planned surgery pathway in north east London should be separated from emergency surgery pathway.
- All planned surgery should move from Queen's Hospital to King George Hospital except where there are benefits in co-locating services or clinical need.
- Establish a planned care centre at King George Hospital.
- No patients admitted for emergency surgery at King George Hospital.
- Development of a local kidney dialysis service at King George Hospital.

The Scheduled Care CWG report is summarised in the Appendix C. The full report can be found at: www.healthfornel.nhs.uk/resources/evidence-sources/clinical/.

The Scheduled Care CWG report sets out in more detail the proposals for elective surgical care at King George Hospital and Queen's Hospital. In essence, where there are clinical co-dependencies, critical mass issues or where patients are likely to need level III ITU care, the expectation is that surgery will take place at Queen's. However a significant proportion of planned surgery (and planned medical procedures) currently undertaken at Queen's would be suitable for an elective centre at King George Hospital and the proposal is to move the majority of this work to King George Hospital as part of the proposed planned care centre.

Local clinicians tell us that these proposals will allow earlier and more regular senior clinical review, resulting in reduced mortality rates, reduced morbidity rates and a reduced reliance on long-term care. Patients are more likely to recover and more likely to do so more quickly.

2.3.3.2 Our vision for King George Hospital

King George Hospital would continue to play an extremely important role in meeting the health needs of local residents as well as providing some specialist services for a wider population.

Services would include:

- **24/7 urgent care and GP services** - Open 24/7 and staffed with a combination of primary and secondary care staff; with 12 hour a day walk-in GP practice, booked appointments, better access to tests, GP out-of-hours service and telephone advice.
- **Short stay assessment and treatment services for adults and children** - For the observation, assessment and treatment of those patients who do not require a hospital inpatient admission but need further assessment or intervention before returning home. Would have access to a wide range of specialist advice.
- **Diagnostics** - Expected to include ECG, pulse oximetry, spirometry, x-ray, ultrasound, vascular doppler, colonoscopy, and standard haematology, microbiology and pathology.
- **Antenatal and postnatal maternity day care** - Midwife-led antenatal and postnatal care including obstetric review, ultrasound and foetal heart-rate monitoring.
- **Child health centre** - Would focus on providing non-acute children's services, enabling co-location of several inter-linked service areas and specialist practitioners, to support child well-being, prevent A&E hospital attendances and inpatient admissions, and support families to provide care for their child at home. Services could include:
 - Specialist children's nursing support to the urgent care service;
 - Children's outpatient clinics including ongoing management of long-term conditions;
 - Child and Adolescent Mental Health Services (CAMHS), relocated from Loxford (for Redbridge residents);
 - Child protection and safeguarding services including child protection medical assessments (for Redbridge residents); and
 - Multidisciplinary services such as children's neuro-developmental assessments could also be relocated to King George Hospital from an existing base at the Kenwood Child Development centre (for Redbridge residents).

The centre would have close links to care outside hospital services such a paediatric homecare teams.

- **Outpatient facilities including long-term condition management** - Wide range of outpatient and diagnostic services including same day/next day appointments where rapid access to specialist advice is required to support primary and community-based care. One-stop-shop, multi-disciplinary approach, with focus on long-term condition management.

- **Cancer day care (Cedar Unit)** - The Cedar Unit will continue to provide chemotherapy, supportive treatments such as blood transfusions and patient advice to over 400 cancer patients each year.
- **Renal dialysis** - 16 to 24 renal haemodialysis stations to provide a local service and meet the growing need for this service in outer north east London.
- **Inpatient and day care rehabilitation services** - Multidisciplinary rehabilitation and intermediate care services, provided on an outpatient basis. Rehabilitation and intermediate care beds. Stroke rehabilitation service, with specialist unit including inpatient beds, including relocation of twelve stroke rehabilitation beds from Grays Court in Barking and Dagenham to King George Hospital. Further discussion is required locally regarding the future of current rehabilitation services at Heronwood and Galleon in Wanstead.
- **Planned care centre** - A significant proportion of planned surgery would be relocated from Queen's to King George. Services would include:
 - Day care and inpatient care, outpatient clinics and pre-op assessments;
 - A wide range of specialities and procedures including e.g. orthopaedics (hips and knees) eye surgery, treatment of hernias, breast surgery;
 - Surgical high dependency unit; and
 - Planned medical care including endoscopy.

Local GP commissioners have given a clear and strong commitment to King George Hospital as a provider of urgent care, planned care and other services including rehabilitation. They have indicated that they wish to take a lead role in developing and strengthening the range of services provided at King George Hospital, specifically the model of care and use of the bed capacity on that site. They have also stated that they would like to give further consideration to the possibility of developing GP-led admitting beds at the hospital – this will be considered further during detailed implementation planning, if the proposals set out within this business case are approved.

2.4 The Expected benefits of these proposals

This section builds on the case for change by providing further evidence that these final proposals for change will benefit the residents of north east London and sets out a high level summary of those benefits.

2.4.1 Unscheduled care

The evidence base relating to the unscheduled care proposals focuses on four areas; specifically that the proposals would deliver:

- 2.4.1.1 Safer, more effective emergency medical care;
- 2.4.1.2 Improved access, continuity and quality of care for minor injuries and illnesses;
- 2.4.1.3 Improved access to dedicated paediatric services; and
- 2.4.1.4 Improved outcomes for emergency surgery.

2.4.1.1 Safer, more effective emergency medical care

Consolidation of acute services will deliver safer, more effective emergency medical care.

The earlier and the more frequently a patient is seen by the most appropriate clinician within their pathway, the better the outcome. When patients are seen by senior clinicians they receive better, more appropriate treatment.

In urban areas where A&E departments are less than 10km (6.3 miles) apart, the College for Emergency Medicine (CEM) recognises that there may be advantages to consolidating services onto fewer sites⁶⁴. Reducing the number of sites with emergency care provision would centralise the workforce, increasing senior cover and improving quality of care for patients.

2.4.1.2 Improved access, continuity and quality of care for minor injuries and illnesses

A consistent, enhanced 24/7 urgent care model across north east London with creation of a short stay assessment service at King George Hospital will improve access, continuity and quality of care for minor injuries and illnesses.

⁶⁴ *The Way Ahead 2008-2012* - The College of Emergency Medicine, December 2008

North east London has relatively high levels of A&E activity, much of which could be treated elsewhere. An experienced family doctor (GP) may be better placed to treat many of the patients who currently use A&E. A shift in activity away from traditional A&E departments will be essential over the next ten years, not only to enable patients to receive the best possible care from appropriate clinicians but also to ensure that A&E services in north east London are focused upon the patients that need them most.

In May 2010 the A&E team at King George Hospital (King George Hospital) undertook a one-week audit of all cases arriving at A&E. The audit found that, with improved streaming protocols, approximately 50% of unscheduled care patients could be accommodated by the urgent care centre (UCC) as currently configured. With the introduction of a skill mix that could accommodate minor injuries as well as minor illnesses, this proportion would increase. Local clinicians agree that a target of 65% of those patients currently accessing urgent and emergency care services at King George Hospital being seen by the extended urgent care service could be achieved.

There is considerable variation across north east London in both ‘front end’ services to A&E, such as walk-in centres and urgent care services and the ‘back end’ by way of acute assessment units. This is confusing for both patients and staff. Variability in quality of, and access to, primary care also contributes to the high rate of A&E use. Patients’ understanding of service availability and which services to access out-of-hours, as well as perceptions of higher standards of care in A&E encourages many to access A&E as a first port of call.

Our proposals to strengthen urgent care services will significantly reduce demand on A&E services, ensuring that A&E services are available for those who really need them.

2.4.1.3 Improved access to dedicated paediatric services

Consolidation of acute services and creation of short stay assessment facilities will improve access to paediatric specialists.

A high proportion of A&E attendances are children attending with minor illness and injuries⁶⁵ and some children are not always seen by an experienced paediatric clinician. Clinicians tell us that a

⁶⁵ Armon K. et al., Audit: Determining the Common Medical Presenting Problems to an A&E Department, Arch. Dis. Child (2001)

focused individualised assessment and treatment of children and young people with early senior clinical assessment and review by specialist trained staff will improve clinical outcomes and children's safety as well as minimising the need for admission to hospital.

Local clinicians also believe that a round-the-clock service is right for the levels of demand and healthcare needs in north east London. This will ensure children are much more likely to be seen and treated by a specialist in the care of children rather than by a specialist in adult care.

2.4.1.4 Improved outcomes for emergency surgery

Consolidation of acute services will support improved outcomes for emergency surgery.

Surgical teams will perform higher volumes of specific treatments which will support them in maintaining their skill base and therefore improve patient outcomes. Consolidation also allows for better medical support to the whole emergency pathway, including emergency surgery, which was highlighted as a particular concern in a recent National Confidential Enquiry into Patient Outcome and Death NCEPOD report⁶⁶. In particular, this means better availability of consultants to improve the care of older people having emergency surgery.

2.4.2 Maternity and newborn care

Currently maternity services across north east London do not perform as well as they should. In 2007 four out of the five trusts received a rating of 'weak' from the Healthcare Commission (now Care Quality Commission) and there is highly variable quality with higher than average levels of caesareans, episiotomies and neonatal complications at some trusts⁶⁷. The Health for north east London proposals for maternity and newborn care would deliver improved outcomes; increased capacity and improved choice.

2.4.2.1 Improved outcomes

Consolidation of maternity services supports improvements in outcomes for mothers and their babies through increased senior doctor presence.

⁶⁶ *An Age Old Problem - A review of the care received by elderly patients undergoing surgery*, National Confidential Enquiry into Patient Outcome and Death, 2010

⁶⁷ Hospital Episode Statistics data 2006 and 2007

Consolidation of services will support north east London in moving towards 168 hour a week consultant cover, an RCOG target that is currently out of reach. This means mothers will be seen earlier and more regularly by senior doctors; which should result in improved outcomes (see section 2.2.1.2).

2.4.2.2 Increased capacity and improved choice

The campus approach will increase capacity in north east London by using staff flexibly according to demand. It will also improve the choice available over antenatal care, birth setting, delivery method and postnatal care.

The birth rate in north east London is well above the England average, and consequently there are increasing pressures on maternity and newborn care services. A key aspect of the CWG's vision for maternity services is supporting women's choice of where to give birth and increasing the emphasis on midwife led care. Currently there is relatively little local choice for most mothers in Redbridge, Havering and Barking and Dagenham of having their baby in a midwifery-led unit in a hospital; yet this is a choice most women have said they would like to have⁶⁸. Nor is there a facility for women to have their baby in a standalone birthing centre (although Barking Hospital will be offering this option in 2011) and a study by Opinion Leader showed that home birth is often not seen as a realistic choice by local women⁶⁹. The same study showed that whilst many women understand the concept of choice in maternity services, they don't feel that they are able to exercise that choice. The CWG is recommending that a range of settings of care for maternity services should be provided within north east London. In addition, clear information and support would be provided to mothers to enable them to choose the most appropriate antenatal, postnatal and delivery services. The campuses would also work together to deliver capacity across north east London, so that, for example, a pregnant woman could access antenatal and postnatal care at King George Hospital but deliver at Whipps Cross Hospital.

2.4.3 Scheduled care

The key benefit of the Health for north east London proposals is:

⁶⁸ Response to Q10 of the Health for north east London consultation (2010)

⁶⁹ Choices in maternity care, Opinion Leader report for Health for north east London, November 2010

Improved outcomes

Separation of emergency and planned surgery pathways will improve both clinical outcomes and patient satisfaction by ring-fencing resources for planned surgery.

Most planned services in north east London are currently co-located with emergency care and volumes and case mix are thinly spread across all six hospital sites. As a result, there is clinical consensus that separation of planned and emergency care pathways should take place at Whipps Cross, Newham, Homerton, Queen's and The Royal London; and that consideration should be given to the development of a planned care centre for specific treatment types at King George Hospital; with Queen's Hospital focusing on emergency surgery and planned surgery where there is benefit from co-location of service or where there is clinical need.

Separation of planned and emergency care services can be done on the same hospital site and the creation of dedicated elective care centres can also enable separation. Planned care centres support improved clinical outcomes through increasing sub-specialisation, as high volumes of very specific case mix can be matched to the necessary sub-specialist staff, facilities and equipment. Consolidation of high volumes of specific procedures also contributes to improved training of clinical specialists, better productivity and improved use of resources. There are examples of successful elective centres operating elsewhere in London and internationally.

Case study: Elective Orthopaedic Centre (EOC), south west London

The Elective Orthopaedic Centre (EOC) is one of the largest units in Europe and is dedicated to hip and knee replacement surgery, ligament reconstructions, spinal work and shoulder, foot and ankle procedures. The centre has reduced the time patients have to stay in hospital (32% of knee replacement and 26% of hip replacement patients are able to walk more than 10 metres on the same day as their surgery); achieves a high operating theatre slot utilisation (97%); has had no incidence of any MRSA cross infection since opening in 2004; has reduced requirements for blood transfusions to well below the national average and reduced same-day cancellations to below 1%.⁷⁰

⁷⁰ Trust data

2.5 Impact of these proposals on north east London providers

This section describes the implications of these proposals and places them in the context of wider healthcare developments across north east London. This has been used to inform initial planning for implementation; the details of which can be found in Chapter six of this document.

2.5.1 Provider landscape – what the changes would mean for providers

The previous sections of this document are focused upon our overall proposals and how these fit together clinically. Below is a summary of what these proposals would mean for each of the six hospitals affected⁷¹.

Queen’s Hospital, Havering

Queen’s Hospital would be further developed as one of two major acute hospitals for north east London, with an A&E department supported 24/7 by acute medicine, acute surgery, critical care, maternity and paediatric services as well as a range of more specialist acute services (e.g. hyper acute stroke unit, neuro-surgery, complex vascular services, 24/7 interventional radiology).

The key changes to current service provision would be:

- Further development of the “A&E front door” urgent care service, with increased capacity and open 24/7, to help absorb the expected increase in A&E attendances resulting from closure of King George’s A&E. At least 50% of those patients currently accessing urgent and emergency care services at Queen’s should be seen by the extended urgent care service.
- Strengthened model of care across the whole emergency pathway, increased caseload due to change in model of care at King George Hospital. Reduced length of stay supported by increased senior clinical decision making early in the pathway.
- Majority of non-complex planned surgery moved to King George Hospital, releasing some capacity to absorb increase in non-planned admissions. Separation of care pathways for emergency surgery and the remaining planned surgery.

⁷¹ Again, in line with section 1.3, we have excluded children and young people’s services unless specifically relating to A&E changes

- 24/7 consultant presence on obstetric labour ward. Development of a midwifery-led unit alongside the existing obstetrics-led unit. Increased opportunities for women to choose to have a home birth.

The Royal London Hospital, Tower Hamlets

The Royal London Hospital would continue to fulfil its current role as a major acute hospital for north east London and provide a range of specialist services (e.g. major trauma care, hyper acute stroke care) in addition to local A&E services supported 24/7 by acute medicine, acute surgery, critical care, maternity and paediatric services.

The key changes to current service provision would be:

- Further development of the “A&E front door” urgent care service; to include opening 24/7. At least 50% of those patients currently accessing urgent and emergency care services at The Royal London would be appropriate to be seen by the extended urgent care service. A&E attendances would be expected to decrease over time.
- Separation of care pathways for emergency surgery and planned surgery.
- As part of the new development, to make provision for a minimum of 30% of births to be midwife-led. Increased opportunities for women to choose to have a home birth. Increased consultant presence on obstetric delivery unit.
- A small increase in clinical flows related to the proposed model of care for children and young people, builds on current pathways and offers a more specialist level of care for children with very complex or high dependency needs.

Homerton Hospital, City & Hackney

Homerton Hospital would remain a local hospital with an A&E department supported 24/7 by acute medicine, acute surgery, critical care, maternity and paediatric services.

The key changes to current service provision would be:

- Further development of the “A&E front door” urgent care service; to include opening 24/7. At least 50% of those patients currently accessing urgent and emergency care services

at the Homerton would be appropriate to be seen by the extended urgent care service. A&E attendances expected to decrease over time.

- Separation of care pathways for emergency surgery and planned surgery.
- Continued development of the new alongside midwifery-led unit to enable a minimum of 30% of births to be midwife-led. Increased opportunities for women to choose to have a home birth. Increased consultant presence on obstetric delivery unit.

Whipps Cross Hospital, Waltham Forest

Whipps Cross Hospital would remain a local hospital with an A&E department supported 24/7 by acute medicine, acute surgery, critical care, maternity and paediatric services.

The key changes to current service provision would be:

- Further development of the “A&E front door” urgent care service; to include opening 24/7. At least 50% of those patients currently accessing urgent and emergency care services at Whipps Cross would be appropriate to be seen by the extended urgent care service. A&E attendances expected to decrease over time.
- Strengthened model of care across the whole emergency pathway, increased caseload due to change in model of care at King George Hospital. Reduced length of stay supported by increased senior clinical decision-making early in the pathway.
- Separation of care pathways for emergency surgery and planned surgery.
- Further development of existing alongside midwifery-led unit to enable a minimum of 30% of births to be midwife-led. Increased opportunities for women to choose to have a home birth.

Newham Hospital, Newham

Newham Hospital would remain a local hospital with an A&E department supported 24/7 by acute medicine, acute surgery, critical care, maternity and paediatric services.

The key changes to current service provision would be:

- Further development of the “A&E front door” urgent care service; to include opening 24/7. At least 50% of those patients currently accessing urgent and emergency care services at Newham would be appropriate to be seen by the extended urgent care service. A&E attendances would be expected to decrease over time.
- Strengthened model of care across the whole emergency pathway, increased caseload due to change in model of care at King George Hospital. Reduced length of stay supported by increased senior clinical decision making early in the pathway.
- Enhancement of new midwifery-led unit to enable 30% of births to be midwife-led. Increased opportunities for women to choose to have a home birth.

King George Hospital, Ilford

King George would be remodelled as a local hospital with 24/7 urgent care and a wide range of ambulatory and planned care services.

The key changes to current service provision would be:

- Strengthened urgent care services; to include opening 24/7; provision of short stay assessment service for adults and children and increased access to diagnostics and specialist advice (**but no A&E or non-elective inpatient medical or surgical care for adults or children**). At least 65% of those patients currently accessing urgent and emergency care services at King George Hospital would be appropriate to be seen by the extended urgent care service.
- Development of planned care centre delivering wide range of planned surgical and medical procedures (including planned day case surgery for children).
- Enhanced range of planned and unplanned ambulatory services including outpatient facilities and diagnostic services; long-term condition management, local kidney dialysis service and specialist children’s community health and child and adolescent mental health services (and Cedar Cancer day care service retained).
- Maternity day care including midwife-led and obstetric antenatal and postnatal care (**but no maternity delivery care service**).

(See section 2.3.3.2 for more detail of the specific vision for King George Hospital).

As set out in the Case for Change, it is expected that the quality of care would improve across all hospitals if the proposed changes were made. If the proposals are approved, detailed implementation plans would need to be developed to ensure changes were made in a timely and effective manner without compromising patient safety.

The changes described above would be challenging to deliver and would require close working across all parts of the health and social care system to deliver the vision. Changes should, therefore, be considered and planned for in the context of plans across the whole system.

2.5.2 Whole systems improvements in north east London

The Health for north east London programme has been developed as part of a wider drive by local commissioners to reduce demand on acute hospitals and deliver care closer to home in north east London. The programme is an integral part of this overall drive; but is also dependent upon delivery of this wider programme of change in order to realise the full benefits of the Health for north east London proposals.

Commissioners in outer north east London (ONEL) and inner north east London (INEL) are currently developing CSPs which will set out how they intend to reduce demand on acute hospitals and deliver care closer to home in north east London. Their priorities include:

- 1. A greater focus on supporting self care and preventing ill health** – It is known that prevention is better than cure, but people in north east London need more help to keep healthy and look after their health needs at home. This is particularly pertinent for people with long-term conditions; managing their condition with the support of their GP and skilled community staff will deliver benefits through continuity of care to avoid A&E attendances and admissions to hospital. Commissioners recognise that many of the determinants of good health are outside the boundaries of the NHS, such as housing, employment and education. Commissioners are committed to working with local partners such as local authorities, schools, and the police to ensure holistic solutions are being developed to improve the health of the local population.
- 2. Continued improvements in out of hospital care provision** – increased, better coordinated community provision can prevent admissions, reduce lengths of stay at hospitals and reduce readmissions. Commissioners are working together to consider how improvements in this area can support the effectiveness of the Health for north east London proposals. For example, the Harold Wood polyclinic has recently opened in addition to three existing centres at Oliver's

Road, Loxford and Barkantine. More new provision is in the pipeline, including developments at Barking hospital, the St George's polyclinic in Havering and a potential health centre in Dagenham East.

3. **Strengthened clinical pathways across primary and secondary care** – this would include better access to diagnostics and specialist advice to support primary care clinicians to manage acutely unwell patients in out of hospital settings; reducing the demand on A&E and providing care closer to home. For example, commissioners want to develop a range of same day / next day urgent outpatient clinics in the community as an alternative to A&E attendance or inpatient referral.

Whether the Health for north east London proposals are implemented or not, hospitals and commissioners are already addressing the high average lengths of stay and high demand, in particular around acute admissions, that are symptoms of current healthcare in north east London. These issues represent real challenges to good patient care and effective use of resources. Patients who stay in hospital longer than they clinically need to (perhaps because of a lack of senior clinical input or ineffective discharge systems or poor hospital processes) are vulnerable to infection. Older people, in particular, lose confidence and their ability to return to independent living is diminished. Many acute admissions can be avoided by better long-term condition management and improved care pathways for frail older people. The recommendations to provide more holistic care in hospital urgent care centres across north east London (and the proposed services at King George's in particular) aim to tackle this problem.

Together with Health for north east London proposals, this work is expected to drive real improvements in health care provision across north east London.

The inter-relationship between changes to hospital services described in this business case and whole system improvements is recognised in the proposed approach to implementation and governance of the programme set out in Chapter Six.

3 Activity and Bed Capacity Analysis of the Clinical Proposals

This chapter considers the activity flows that would result from the changes proposed to clinical services and their implications for capacity in each hospital if the changes are adopted. This analysis underpins the financial forecasts that follow in chapter 4.

3.1 Activity Modelling

Forecasts in this DMBC have been made using a locally developed activity and capacity model. The model starts with the current numbers of patients treated in each hospital and applies a full range of commissioning assumptions to them in order to predict future level of activity. The forecasts are then used to predict:

- The amount of bed capacity that each hospital will need to plan for
- Any capital investment that might be needed to create new capacity
- The likely income that future activity will attract
- The likely cost of the hospital in the future

The modelling is repeated for different scenarios, representing alternative proposals for the reconfiguration of services. By comparing the forecasts from each scenario the effect of the reconfiguration proposals on activity, income & expenditure and capacity can be compared and contrasted.

3.2 Modelling Methodology

The model is built up from historic activity data and target activity in 2010-11 to which a range of planning assumptions have been applied, as follows:

- Growth in demand linked to projected population growth and changes in medical technology and patterns of care
- Reductions in demand for hospital care linked to out of hospital care strategies and commissioning initiatives (as set out in PCT CSPs)
- Hospital productivity improvements
- How activity flows are expected to be affected by the reconfiguration of services
- Changes to prices.

These assumptions are set out in detail in Appendix D.

Three scenarios were modelled, as follows:

- A “*Do Minimum*” scenario: which models population and commissioning changes but assumes no reconfiguration changes – this is used as the comparator against which other scenarios can be measured
- *The baseline scenario*: which models the impact of the original consultation proposals for change
- *The variant scenario*: which models the impact of the revised clinical recommendations that have been developed following consultation.

The key changes between the baseline and variant scenario from a modelling perspective relate to:

- Enhanced urgent care services at King George Hospital including the proposed short-stay assessment unit.
- A revised pattern of maternity flows, with more deliveries for residents of Redbridge and Barking & Dagenham performed at Whipps Cross and Newham Hospitals rather than Queen’s Hospital. (This reflects more women choosing to access care at their nearest available maternity campus whereas the baseline scenario assumed current patterns of access would remain).

3.3 Alignment with Sector Commissioning Strategy Plans

The assumptions that have gone into this business case were finalised in September 2010. Since then PCTs have been preparing their 2010 Commissioning Strategy Plans (CSP). The CSPs, which are due for adoption in December 2010, also include forecasts of activity, income and expenditure. The timescale for the CSP has meant that it is not been possible to completely align the two plans and the content of the CSPs differ slightly from the forecasts contained in this business case.

- The start point for the CSP projections is the 2009-10 outturn rather than the 2010-11 plan that is used for the Health for north east London DMBC. In addition the CSPs take account of performance in the first six months of 2010-11 and have made revisions to forecasts where there is material and recurrent over or under-performance.

- Common assumptions have been taken in respect of demographic and non-demographic growth although the methodology for calculating the effect is different.
- Common assumptions have been taken in respect of financial changes (inflation, tariff changes etc)
- The demand management assumptions included in the DMBC have been reviewed and in some cases refined for the CSP. This is the main area where the assumptions differ as PCTs have now had time to review the effectiveness of the plans in practice and discuss the plans with GPs in their new commissioners' role. The most significant changes are:
 - In the ONEL CSP the demand management assumption are mostly unchanged
 - In INEL CSP the assumed level of activity for outpatients that can be taken away from trusts has been materially scaled back. The CSP reflects the 30 day discharge policy and assumes a financial saving from this. In Newham the CSP shows the introduction of a care-at-home scheme that should reduce the number of non-elective admissions.
- The CSPs currently contain a “menu of options” for possible savings rather than the actual amount of “savings” required to deliver financial balance, the final plans will be moderated.

These differences do not have any significant bearing on the recommendations in this business case. This is because:

- The DMBC is primarily concerned with the impact of the proposed reconfiguration described by comparing “Do Minimum” and “Reconfiguration” scenarios. The differences between scenarios would be unchanged if revised CSP assumptions and methodology are applied.
- The bulk of new initiatives included in the CSPs relate to changes to assumptions around outpatients and non-hospital services that do not have a major influence on the proposals.
- In ONEL the CSP shows the main changes are to the timing of the delivery of demand management gains rather than the scale of those changes. So forecasts of future income and activity to BHRUT and Whipps Cross are little changed apart from phasing.
- The sensitivity analysis (section 4.10) indicates that the proposals in the DMBC are not sensitive to changes to the demand management assumptions. The only change that might have had a bearing on the recommendations would be if the inpatient activity forecasts had increased materially at Queen's, Whipps Cross or Newham Hospitals where there is pressure on bed capacity. However the CSPs do not propose any variations that increase

inpatient numbers to these hospitals. In fact the introduction of the care-at-home initiative at Newham should reduce the pressure on beds there.

3.4 Forecast Activity Movements by Activity Type

The tables below show the activity forecasts for each of the main activity types at each the sites in north east London. The tables show the incremental effect of the demand growth, demand management and the shifts of activity between sites as a result of service reconfiguration.

The table below shows how clinical activity flows would be expected to change if the proposed changes to A&E and non-elective care at King George Hospital are taken forward to implementation. The majority of activity currently at King George Hospital would be displaced to Queen’s Hospital, but with some flows also going to Newham and Whipps Cross Hospitals.

Displacement of Activity following Closure of the KGH A&E Department

	King George Hospital	Queen’s Hospital	Newham Hospital	Whipps Cross Hospital	Other sites
Non-Elective Admissions	-25,436 (-100.0%)	17,298 (68.0%)	2,961 (11.6%)	4,419 (17.4%)	758 (3.0%)
Accident & Emergency Attenders	-40,987 (-100.0%)	33,604 (82.0%)	3,279 (8.0%)	4,099 (10.0%)	5 (0.0%)

This displacement pattern has been used to forecast the activity in the tables that follow. Unless indicated the tables represent the variant scenario that is being recommended.

3.4.1 Non-Elective Inpatient Spells

Variant - Forecast Activity 2016-17: Non-Elective Inpatient spells								
	King George Hospital	Queen's Hospital	Barts & the London Hospitals	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital	Other sites	Total
Planned Activity 2010-11	24,760	40,979	44,828	22,048	28,916	32,731	0	194,262
Demand Growth to 2016-17	3,313	4,909	6,861	2,952	4,244	3,302	0	25,581
Do Nothing Activity 2016-17	28,073	45,888	51,689	25,000	33,160	36,033	0	219,843
Demand Management	-781	-1,248	-1,225	-607	-868	-1,036	0	-5,764
Do Minimum Activity 2016-17	27,293	44,640	50,464	24,393	32,292	34,997	0	214,080
<u>Reconfiguration</u>								
Specialist Paediatric Surgery & Medicine	-23	23	84	-8	0	-75	0	0
Complex Vascular Surgery	-26	26	10	0	0	-10	0	0
Maternity (Obstetrics)	0	0	0	0	0	0	0	0
Accident & Emergency	-25,436	17,298	48	45	2,961	4,419	664	0
Elective Surgery	0	0	0	0	0	0	0	0
Forecast Activity 2016-17	1,808	61,987	50,607	24,430	35,254	39,331	664	214,080

Most non-elective inpatient admissions at King George Hospital would cease with the closure of the A&E department. 68% of this activity is forecast to be displaced to Queen's Hospital, 12% to Newham, 17% to Whipps Cross, and the balance to other hospitals. The short-stay admission unit at King George Hospital means that 25% of short stay (i.e. less than 24 hours) non-elective inpatients (1,807 spells) are shown as retained at King George Hospital.

3.4.2 A&E and UCC Attendances

Variant - Forecast Activity 2016-17: A&E attenders								
	King George Hospital	Queen's Hospital	Barts & the London Hospitals	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital	Other sites	Total
Planned Activity 2010-11	65,205	94,201	107,695	69,296	73,087	111,183	0	520,667
Demand Growth to 2016-17	3,882	5,606	10,074	3,445	5,315	4,106	0	32,427
Do Nothing Activity 2016-17	69,087	99,806	117,769	72,740	78,402	115,289	0	553,094
Demand Management	-28,101	-23,685	-35,315	-18,267	-13,728	-37,704	0	-156,799
Do Minimum Activity 2016-17	40,987	76,122	82,454	54,474	64,674	77,585	0	396,296
<u>Reconfiguration</u>								
Specialist Paediatric Surgery & Medicine	0	0	0	0	0	0	0	0
Complex Vascular Surgery	0	0	0	0	0	0	0	0
Maternity (Obstetrics)	0	0	0	0	0	0	0	0
Accident & Emergency	-40,987	33,604	0	0	3,279	4,099	5	0
Elective Surgery	0	0	0	0	0	0	0	0
Forecast Activity 2016-17	0	109,725	82,454	54,474	67,953	81,684	5	396,296

Variant - Forecast Activity 2016-17: Urgent Care attendances								
	King George Hospital	Queen's Hospital	Barts & the London Hospitals	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital	Other sites	Total
Planned Activity 2010-11	43,287	49,511	42,950	34,086	47,097	38,127	0	255,058
Demand Growth to 2016-17	3,896	2,621	4,147	1,842	2,984	1,140	0	16,631
Do Nothing Activity 2016-17	47,183	52,132	47,097	35,928	50,081	39,267	0	271,688
Demand Management	28,101	23,685	35,315	18,267	13,728	37,704	0	156,799
Do Minimum Activity 2016-17	75,284	75,816	82,413	54,195	63,808	76,971	0	428,487
<u>Reconfiguration</u>								
Specialist Paediatric Surgery & Medicine	0	0	0	0	0	0	0	0
Complex Vascular Surgery	0	0	0	0	0	0	0	0
Maternity (Obstetrics)	0	0	0	0	0	0	0	0
Accident & Emergency	0	0	0	0	0	0	0	0
Elective Surgery	0	0	0	0	0	0	0	0
Forecast Activity 2016-17	75,284	75,816	82,413	54,195	63,808	76,971	0	428,487

The forecasts in the tables above are based upon the variant scenario where 65% of total A&E and urgent care centre activity at King George is retained in the King George urgent care service and the remaining A&E activity is displaced, with 82% going to Queen's, 8% to Newham and 10% to Whipps Cross.

3.4.3 Births

The modelling of future births by site takes into account four factors:

- Most up to date available birth rate forecasts (continued significant growth projected)
- A change to the model of care for maternity that includes the development of a Midwifery-Led Units to be co-located with obstetric departments. This has minimal effect on the numbers of births to each trust, but does have a bearing on capital development and workforce
- The proposed closure of the King George Hospital unit
- Changing the pattern of flows to each trust.

The growth in births assumes that the trend of increasing birth rates experienced over the last eight years continues into the future. This adds 7,432 additional births by 2016-17. The largest increases are in Barking & Havering, Redbridge and Newham.

Maternity referrals are to trust providers rather than hospitals and this appears to be influenced principally by the pattern of community midwifery provision. If the service at King George Hospital is closed but current patterns of service use remain unchanged the modelling suggests that the majority of births currently taking place at King George Hospital would be displaced to Queen's, with relatively small increases in flows to either Whipps Cross or Newham Hospitals. This is reflected in the table below.

Baseline - Forecast Activity 2016-17: Births

	King George Hospital	Queen's Hospital	Barts & the London Hospitals	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital	Other sites	Total
Planned Activity 2010-11	2,289	7,113	4,585	4,830	5,214	5,320	0	29,351
Demand Growth to 2016-17	810	2,559	551	697	1,387	1,428	0	7,432
Do Nothing Activity 2016-17	3,099	9,671	5,136	5,527	6,601	6,749	0	36,784
Demand Management	0	0	0	0	0	0	0	0
Do Minimum Activity 2016-17	3,099	9,671	5,136	5,527	6,601	6,749	0	36,784
<u>Reconfiguration</u>								
Specialist Paediatric Surgery & Medicine	0	0	0	0	0	0	0	0
Complex Vascular Surgery	0	0	0	0	0	0	0	0
Maternity (Obstetrics)	-3,099	2,761	26	21	114	178	0	0
Accident & Emergency	0	0	0	0	0	0	0	0
Elective Surgery	0	0	0	0	0	0	0	0
Forecast Activity 2016-17	0	12,432	5,162	5,547	6,716	6,926	0	36,784

Variant - Forecast Activity 2016-17: Births

	King George Hospital	Queen's Hospital	Barts & the London Hospitals	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital	Other sites	Total
Planned Activity 2010-11	2,289	7,113	4,585	4,830	5,214	5,320	0	29,351
Demand Growth to 2016-17	810	2,559	551	697	1,387	1,428	0	7,432
Do Nothing Activity 2016-17	3,099	9,671	5,136	5,527	6,601	6,749	0	36,784
Demand Management	0	0	0	0	0	0	0	0
Do Minimum Activity 2016-17	3,099	9,671	5,136	5,527	6,601	6,749	0	36,784
<u>Reconfiguration</u>								
Specialist Paediatric Surgery & Medicine	0	0	0	0	0	0	0	0
Complex Vascular Surgery	0	0	0	0	0	0	0	0
Maternity (Obstetrics)	-3,099	-777	82	58	1,686	2,050	0	0
Accident & Emergency	0	0	0	0	0	0	0	0
Elective Surgery	0	0	0	0	0	0	0	0
Forecast Activity 2016-17	0	8,894	5,218	5,585	8,288	8,799	0	36,784

Currently 30% of women who give birth at either King George or Queen's live closer to either Whipps Cross or Newham hospitals. In the 'variant scenario' future flows have been modelled based on an assumption that under the new model of care most women would choose to access maternity services at their nearest available hospital. This would suggest a reduction in the number of births provided by the Queen's maternity campus and an increase in births at the Whipps Cross and Newham campuses and gives a more even distribution of births across the three campuses.

Forecast Number of Births 2010-11 to 2016-17

	King George Hospital	Queen's Hospital	Newham Hospital	Whipps Cross Hospital	Other sites NE London
Births 2010 Plan	2,289	7,113	5,214	5,320	9,415
Forecast Growth to 2016-17	810	2,559	1,387	1,428	1,248
Effect of closure of KGH Unit	-3,099	2,761	114	178	46
Total births for the Baseline Scenario	0	12,432	6,715	6,927	10,709
Effect of changing patient flows	0	-3,538	1,572	1,872	94
Total Births for the Variant Scenario	0	8,894	8,287	8,799	10,803

The baseline and variant represent two extremes of maternity activity that the hospitals may need to plan for. The recommended approach is to work towards a balanced level of activity between the three hospitals.

However women should be supported to access the campus of their choice regardless of geographical proximity and on this basis the modelling assumptions set out here should be seen as indicative only. Given the rising birth rate and the expected high level of demand for maternity services in north east London the capacity required within each campus would need to be kept under careful review and flexibility built into plans accordingly.

3.4.4 Elective Spells

Variant - Forecast Activity 2016-17: Elective spells								
	King George Hospital	Queen's Hospital	Barts & the London Hospitals	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital	Other sites	Total
Planned Activity 2010-11	18,586	28,449	39,006	14,707	14,745	38,247	0	153,740
Demand Growth to 2016-17	2,039	3,105	5,194	1,667	2,336	3,725	0	18,067
Do Nothing Activity 2016-17	20,625	31,555	44,201	16,374	17,081	41,972	0	171,807
Demand Management	-3,618	-5,089	-4,000	-3,143	-2,351	-6,676	0	-24,878
Do Minimum Activity 2016-17	17,007	26,465	40,201	13,231	14,730	35,296	0	146,930
<u>Reconfiguration</u>								
Specialist Paediatric Surgery & Medicine	57	-57	35	-3	0	-32	0	0
Complex Vascular Surgery	-30	30	22	0	0	-22	0	0
Maternity (Obstetrics)	0	0	0	0	0	0	0	0
Accident & Emergency	0	0	0	0	0	0	0	0
Elective Surgery	18,921	-18,921	0	0	0	0	0	0
Forecast Activity 2016-17	35,956	7,517	40,258	13,228	14,730	35,242	0	146,930

The table shows the shift of elective surgery from Queen's Hospital to King George. Elective spells includes both day cases and inpatients.

3.4.5 Outpatients Attendances

Forecast Activity 2016-17: Outpatient Attendances

	King George Hospital	Queen's Hospital	Barts & the London Hospitals	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital	Total
Planned Activity 2010-11	130,332	413,056	486,313	196,322	211,830	264,159	1,702,013
Demand Growth to 2016-17	17,408	48,614	69,853	24,657	38,769	26,936	226,237
Do Nothing Activity 2016-17	147,740	461,670	556,166	220,979	250,599	291,096	1,928,250
Demand Management	-58,935	-185,367	-216,127	-94,395	-129,583	-135,743	-820,150
Recommissioned activity from Trusts	18,504	58,097	11,515	2,967	2,492	38,221	131,796
Do Minimum Activity 2016-17	107,309	334,400	351,554	129,551	123,507	193,574	1,239,895
Forecast Activity 2016-17	107,309	334,400	351,554	129,551	123,507	193,574	1,239,895

The reconfiguration of services does not affect outpatient services. The intention is that outpatients would continue to be delivered from existing hospital sites.

3.5 Forecast Activity by Site

The tables below show the same activity information as above by site.

3.5.1 King George Hospital

Variant - Forecast Activity 2016-17: King George Hospital

	A&E Attendances	Urgent Care Attendances	Sub-total A&E and Urgent Care	Elective Spells	Non-Elective Inpatient Spells	Births	Outpatient Activity
Planned Activity 2010-11	65,205	43,287	108,492	18,586	24,760	2,289	130,332
Demand Growth to 2016-17	3,882	3,896	7,778	2,039	3,313	810	17,408
Do Nothing Activity 2016-17	69,087	47,183	116,270	20,625	28,073	3,099	147,740
Demand Management	-28,101	28,101	0	-3,618	-781	0	-40,431
Do Minimum Activity 2016-17	40,987	75,284	116,270	17,007	27,292	3,099	107,309
<u>Reconfiguration</u>							
Specialist Paediatric Surgery & Medicine	0	0	0	57	-23	0	0
Complex Vascular Surgery	0	0	0	-30	-26	0	0
Maternity (Obstetrics)	0	0	0	0	0	-3,099	0
Accident & Emergency	-40,987	0	-40,987	0	-25,436	0	0
Elective Surgery	0	0	0	18,921	0	0	0
Forecast Activity 2016-17	0	75,284	75,284	35,956	1,807	0	107,309

At King George there would be no A&E attendances or births by 2016-17. The urgent care centre would continue to see 65% of the total A&E and urgent care centre activity prior to the reconfiguration; around 1,800 patients would be admitted for short stays into the observation and assessment unit but all other non-elective admissions would be displaced to other hospitals. King George Hospital would retain outpatient clinics and a substantial volume of elective activity, including 18,900 spells transferred from Queen's Hospital.

In post-consultation engagement local GPs have stated the desire to explore a potential GP-led admissions unit with the potential for overnight stays. This would need to be modelled separately as a further variant once proposals have been worked up as part of the implementation planning.

3.5.2 Queen's Hospital

Variant - Forecast Activity 2016-17: Queen's Hospital

	A&E Attendances	Urgent Care Attendances	Sub-total A&E and Urgent Care	Elective Spells	Non-Elective Inpatient Spells	Births	Outpatient Activity
Planned Activity 2010-11	94,201	49,511	143,711	28,449	40,979	7,113	413,056
Demand Growth to 2016-17	5,606	2,621	8,227	3,105	4,909	2,559	48,614
Do Nothing Activity 2016-17	99,806	52,132	151,938	31,555	45,888	9,671	461,670
Demand Management	-23,685	23,685	0	-5,089	-1,248	0	-127,270
Do Minimum Activity 2016-17	76,122	75,816	151,938	26,465	44,640	9,671	334,400
<u>Reconfiguration</u>							
Specialist Paediatric Surgery & Medicine	0	0	0	-57	23	0	0
Complex Vascular Surgery	0	0	0	30	26	0	0
Maternity (Obstetrics)	0	0	0	0	0	-779	0
Accident & Emergency	33,604	0	33,604	0	17,298	0	0
Elective Surgery	0	0	0	-18,921	0	0	0
Forecast Activity 2016-17	109,725	75,816	185,542	7,517	61,986	8,893	334,400

Queen's Hospital would see significant demand increases in non-elective inpatients, births and A&E attendances, whilst routine elective procedures would shift to King George. The forecast reflects the variant scenario where maternity flows are redirected to where the capacity is planned (rather than the baseline assumption where deliveries are dispersed according to the existing catchment areas), giving approximately 8,900 births at Queen's, compared to 12,400 under the baseline option.

3.5.3 Barts and the London

Variant - Forecast Activity 2016-17: Barts & the London Hospitals

	A&E Attendances	Urgent Care Attendances	Sub-total A&E and Urgent Care	Elective Spells	Non-Elective Inpatient Spells	Births	Outpatient Activity
Planned Activity 2010-11	107,695	42,950	150,645	39,006	44,828	4,585	486,313
Demand Growth to 2016-17	10,074	4,147	14,221	5,194	6,861	551	69,853
Do Nothing Activity 2016-17	117,769	47,097	164,866	44,201	51,689	5,136	556,166
Demand Management	-35,315	35,315	0	-4,000	-1,225	0	-204,612
Do Minimum Activity 2016-17	82,454	82,412	164,866	40,200	50,464	5,136	351,554
<u>Reconfiguration</u>							
Specialist Paediatric Surgery & Medicine	0	0	0	35	84	0	0
Complex Vascular Surgery	0	0	0	22	10	0	0
Maternity (Obstetrics)	0	0	0	0	0	82	0
Accident & Emergency	0	0	0	0	48	0	0
Elective Surgery	0	0	0	0	0	0	0
Forecast Activity 2016-17	82,454	82,412	164,866	40,258	50,606	5,218	351,554

The reconfigurations have only small implications for Barts and the London. Principally this involves the shift of specialist children's surgery and complex vascular surgery from neighbouring hospitals.

3.5.4 Homerton Hospital

Variant - Forecast Activity 2016-17: Homerton Hospitals

	A&E Attendances	Urgent Care Attendances	Sub-total A&E and Urgent Care	Elective Spells	Non-Elective Inpatient Spells	Births	Outpatient Activity
Planned Activity 2010-11	69,296	34,086	103,382	14,707	22,048	4,830	196,322
Demand Growth to 2016-17	3,445	1,842	5,287	1,667	2,952	697	24,657
Do Nothing Activity 2016-17	72,740	35,928	108,669	16,374	25,000	5,527	220,979
Demand Management	-18,267	18,267	0	-3,143	-607	0	-91,428
Do Minimum Activity 2016-17	54,474	54,195	108,669	13,231	24,393	5,527	129,551
<u>Reconfiguration</u>							
Specialist Paediatric Surgery & Medicine	0	0	0	-3	-8	0	0
Complex Vascular Surgery	0	0	0	0	0	0	0
Maternity (Obstetrics)	0	0	0	0	0	58	0
Accident & Emergency	0	0	0	0	45	0	0
Elective Surgery	0	0	0	0	0	0	0
Forecast Activity 2016-17	54,474	54,195	108,669	13,228	24,430	5,585	129,551

The reconfigurations have only small implications for Homerton.

3.5.5 Newham Hospital

Variant - Forecast Activity 2016-17: Newham Hospital

	A&E Attendances	Urgent Care Attendances	Sub-total A&E and Urgent Care	Elective Spells	Non-Elective Inpatient Spells	Births	Outpatient Activity
Planned Activity 2010-11	73,087	47,097	120,184	14,745	28,916	5,214	211,830
Demand Growth to 2016-17	5,315	2,984	8,298	2,336	4,244	1,387	38,769
Do Nothing Activity 2016-17	78,402	50,081	128,482	17,081	33,160	6,601	250,599
Demand Management	-13,728	13,728	0	-2,351	-868	0	-127,092
Do Minimum Activity 2016-17	64,674	63,808	128,482	14,730	32,292	6,601	123,507
<u>Reconfiguration</u>							
Specialist Paediatric Surgery & Medicine	0	0	0	0	0	0	0
Complex Vascular Surgery	0	0	0	0	0	0	0
Maternity (Obstetrics)	0	0	0	0	0	1,687	0
Accident & Emergency	3,279	0	3,279	0	2,961	0	0
Elective Surgery	0	0	0	0	0	0	0
Forecast Activity 2016-17	67,953	63,808	131,761	14,730	35,254	8,288	123,507

Newham Hospital would experience some increase in demand generated by the closure of the A&E at King George; around 12% of non-elective activity currently at King George Hospital would shift to Newham Hospital. The forecast births reflect the variant scenario with Newham Hospital picking up some flows resulting from both the closure of the maternity unit at King George Hospital and changes to the catchment areas in Barking and Dagenham. At 8,300, the forecast births are at the top end of a range of range of possible birth numbers.

3.5.6 Whipps Cross Hospital

Variant - Forecast Activity 2016-17: Whipps Cross Hospital

	A&E Attendances	Urgent Care Attendances	Sub-total A&E and Urgent Care	Elective Spells	Non-Elective Inpatient Spells	Births	Outpatient Activity
Planned Activity 2010-11	111,183	38,127	149,310	38,247	32,731	5,320	264,159
Demand Growth to 2016-17	4,106	1,140	5,246	3,725	3,302	1,428	26,936
Do Nothing Activity 2016-17	115,289	39,267	154,556	41,972	36,033	6,749	291,096
Demand Management	-37,704	37,704	0	-6,676	-1,036	0	-97,522
Do Minimum Activity 2016-17	77,585	76,971	154,556	35,296	34,997	6,749	193,574
<u>Reconfiguration</u>							
Specialist Paediatric Surgery & Medicine	0	0	0	-32	-75	0	0
Complex Vascular Surgery	0	0	0	-22	-10	0	0
Maternity (Obstetrics)	0	0	0	0	0	2,052	0
Accident & Emergency	4,099	0	4,099	0	4,419	0	0
Elective Surgery	0	0	0	0	0	0	0
Forecast Activity 2016-17	81,684	76,971	158,655	35,242	39,330	8,800	193,574

Whipps Cross Hospital would experience some increase in demand generated by the closure of the A&E at King George; around 17% of non-elective activity currently at King George Hospital would shift to Whipps Cross Hospital. The forecast births in the table reflect the variant option with Whipps Cross picking up activity from both the closure of the King George Hospital maternity unit and a change to the first choice provider of maternity to women in Redbridge resulting in a shift of activity from Queen’s Hospital. At 8,800, the forecast births is at the high end of a range of possible birth numbers (i.e. assumes that the majority of women for whom Whipps Cross is the closest (in travel time) provider would chose to give birth there in the future).

3.6 Forecast Bed Capacity by Site

The forecasting model calculates the net movement in beds associated with the changes in activity by taking the current length of stay for each HRG, and an assumed bed occupancy of 90%. The table below shows the net movement in beds that each hospital can expect if the reconfiguration goes ahead, before length of stay savings are taken into account. With the exception of King George Hospital, all hospitals need to create capacity to manage additional inpatient activity.

Variant - Forecast Bed Movements: 2010/11 - 2016/17

	King George Hospital	Queen’s Hospital	BHRUT Total	Barts & the London	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital
Growth	57	107	163	113	41	43	65
Demand Management	-14	-23	-37	-25	-17	-8	-18
Reconfiguration +	27	281	308	3	1	47	74
Reconfiguration -	-406	-35	-441	0	0	0	-2
Net Movement	-336	329	-7	91	24	82	119

Assuming that all trusts are currently operating at (but not over) their existing bed capacity then the net movement above needs to be found. The expectation is that this additional demand for beds can largely be met by improving hospital productivity leading to shorter length of stay and therefore only minor changes to the number of beds is required on ‘receiving’ hospital sites. All hospitals are forecasting shorter stays in hospitals that can be achieved through:

- Changes to clinical practice

- Better hospital processes
- Smoother discharge processes.

Each hospital has developed a target bed saving linked to reducing length of stay which takes account of the hospital's current performance against national best practice benchmarks (i.e. the further away from best practice benchmarks trusts are currently, the bigger the opportunity for bed savings going forward.)

The bed savings targets by trust are as follows:

Forecast Bed Movements: 2010-11 - 2016-17							
	Queen's Hospital	King George Hospital	BHRUT Total	Barts & the London	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital
Net Movement	329	-336	-7	91	24	82	119
Forecast LOS Saving 2016-17	-331	0	-331	-204	-24	-72	-138
Bed Shortfall/(Surplus)	-2	-336	-338	-113	0	11	-19
LOS Saving (% of 2010/11 base)			29%	21%	6%	18%	23%

BHRUT, BLT, Homerton and Whipps Cross are predicting that the total increase in beds required could be met solely by a reduction in the length of stay; so effectively all additional bed capacity required would be delivered through improved use of the current bed base. The bed base at Whipps Cross is in fact expected to reduce marginally (by c 20 beds).

At Queen's the modelling demonstrates that additional work can be managed through the existing bed base if length of stay improvements are delivered. The forecast for Newham Hospital shows an 11 bed shortfall after taking account of their length of stay savings forecast. The trust anticipates that this can be managed without having to invest in new capacity

The length of stay (LOS) reduction programmes for both BHRUT and Whipps Cross are challenging but release of this capacity is a core element of the trusts' clinical and financial strategies regardless of reconfiguration proposals. It will take time to deliver the new models of care required to support this reduction in length of stay and the proposed implementation plan outlined in section 6.4 shows how changes at King George Hospital would be staggered to match the release of capacity if the proposals are approved by the JCPCT.

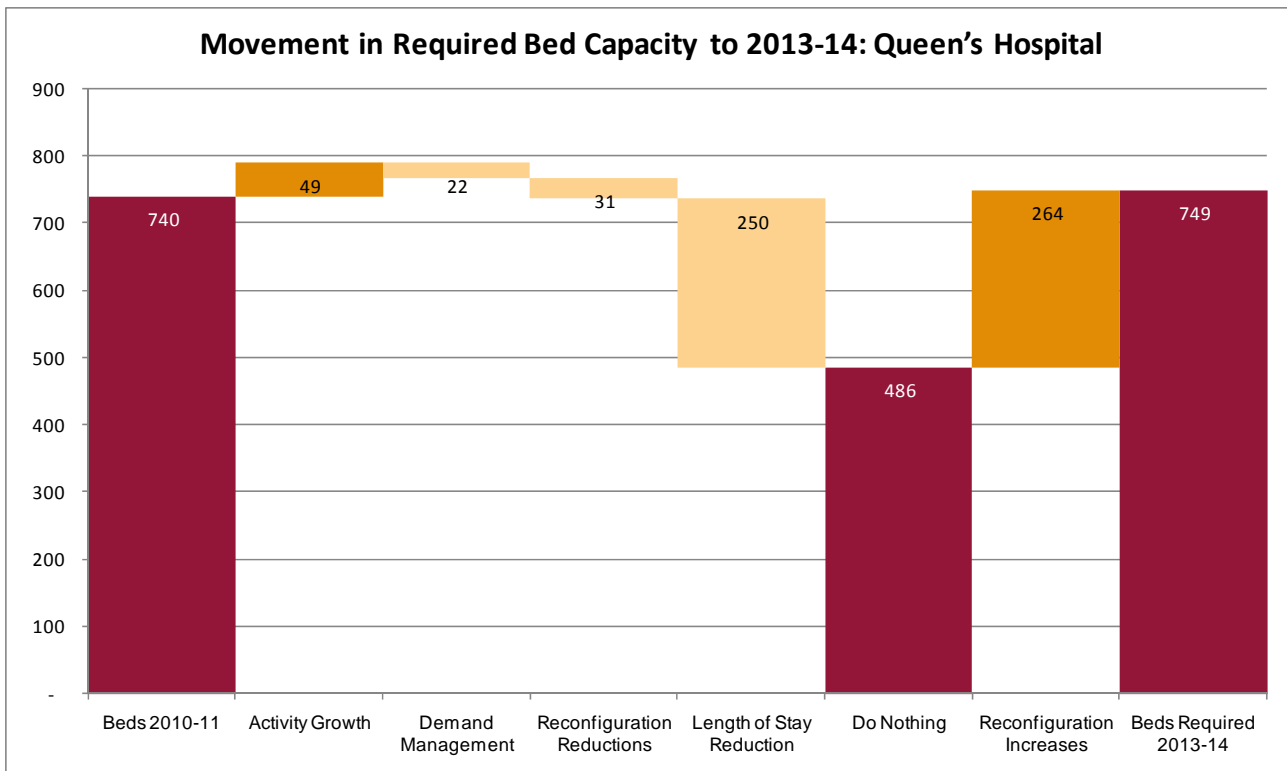
The productivity savings are spread over each year to 2016-17. As the reconfigurations would be expected to be implemented earlier the greatest pressure on bed capacity would come before 2016-17. The table and waterfall charts on the next few pages show the forecast bed requirements up to 2013-14, the year when potentially the greatest pressure on beds will occur.

Forecast Bed Movements: 2010-11 - 2013-14

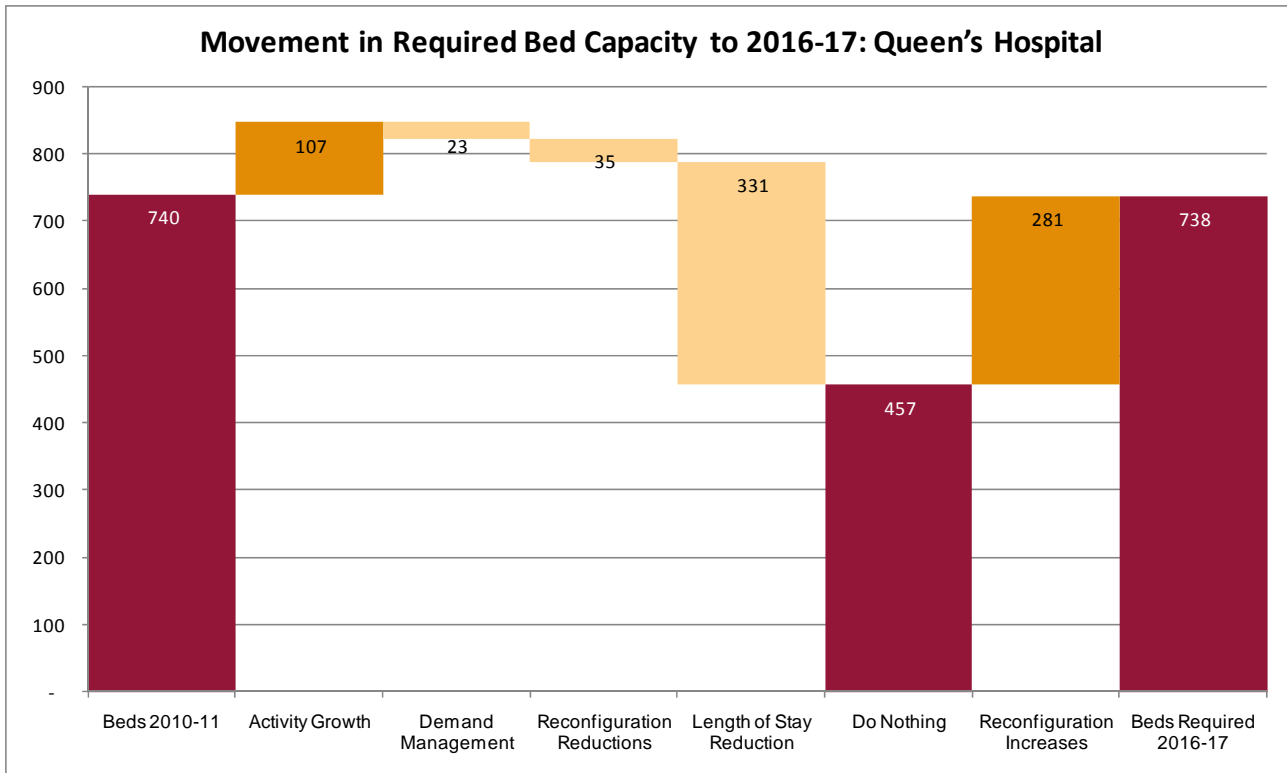
	Queen's Hospital	King George Hospital	BHRUT Total	Barts & the London	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital
Growth	49	25	74	51	20	19	28
Demand Management	-22	-13	-35	-23	-16	-7	-17
Reconfiguration +	264	26	289	3	1	41	69
Reconfiguration -	-31	-378	-410	0	0	0	-2
Net Movement	259	-340	-81	30	4	53	78
Forecast LOS Saving 2013-14	-250	0	-250	-133	-4	-40	-69
Bed Shortfall/(Surplus)	9	-340	-331	-103	0	13	9

3.6.1 Forecast Bed Capacity Queen's Hospital

Movement in Required Bed Capacity to 2013-14: Queen's Hospital



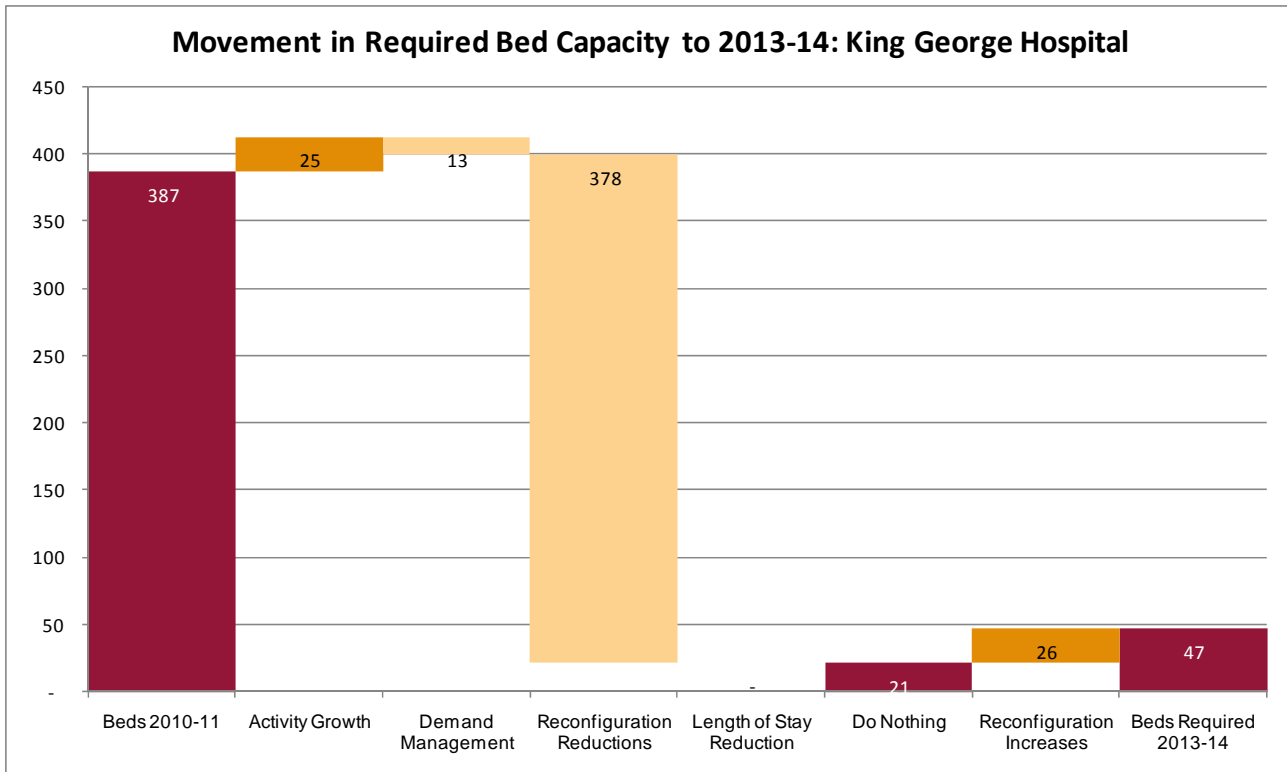
The trust is planning for a target saving of 250 beds by 2013-14. This would leave Queen’s Hospital short of capacity by nine beds in 2013-14. A number of options to create the required capacity in the intervening years would be considered in the context of the overall site strategy.



The graph above shows the position by 2016-17 with further gains from length of stay reductions offset by some demand growth. The bed requirement has reduced and the slight shortfall in 2013-14 has become a small surplus of two beds.

The trust and local stakeholders recognise the challenge that this change represents. The reduction of 250 beds by 2013-14 represents 22% of the current bed base. However a comparison of the trust’s current length of stay against national benchmarks indicates that a considerable reduction in length of stay should be achievable. Without this reduction the closure of the King George Hospital A&E cannot take place. The implementation chapter of the business case (chapter six) describes a staged approach to implementation where services transfer over a number of years as capacity becomes available from the reduction in length of stay.

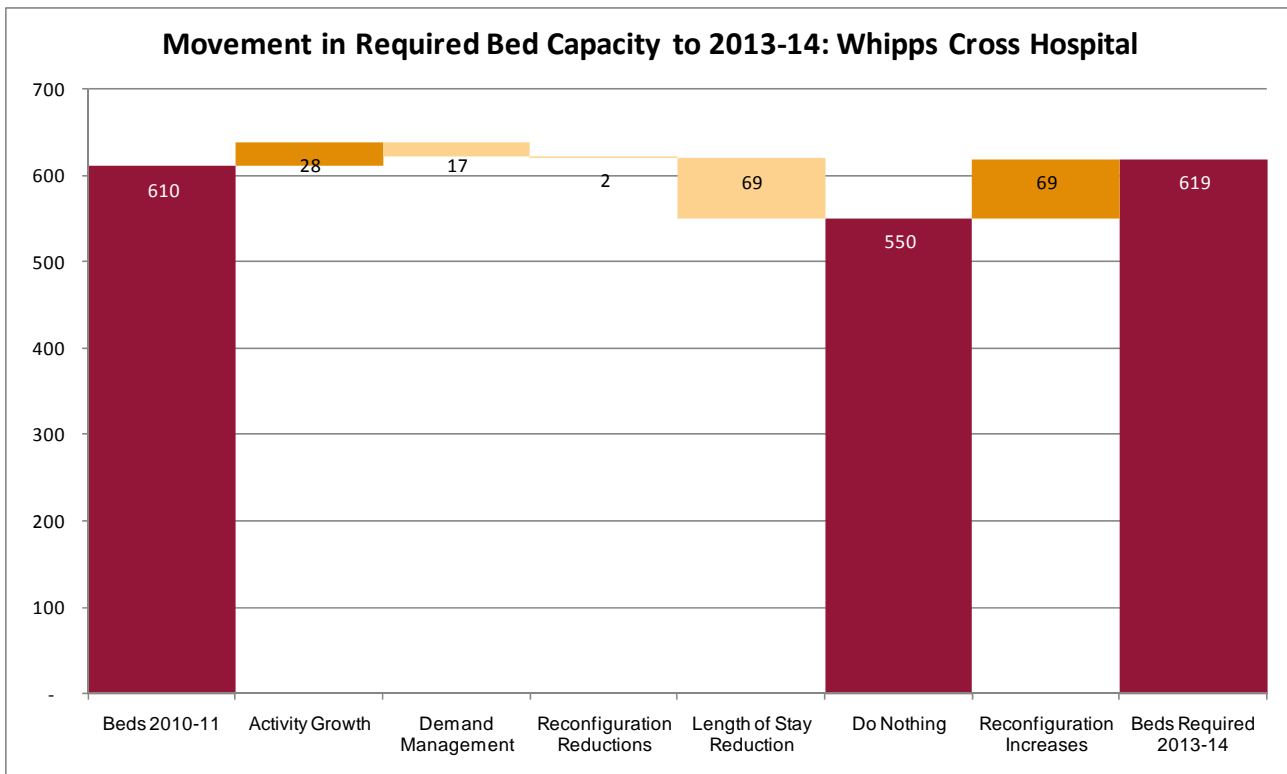
3.6.2 Forecast Bed Capacity King George Hospital



Although the volume of elective spells transferred to King George is large (19,000 spells) these are predominantly day cases or short stays so the volume of inpatient beds required (26) is modest. The remaining 21 beds include rehabilitation and elective surgery. BHRUT are considering the requirement for day-case and theatre capacity that will be required.

The 340 beds that are released at King George would become spare capacity that would be closed unless alternative opportunities for reuse emerge during the implementation period.

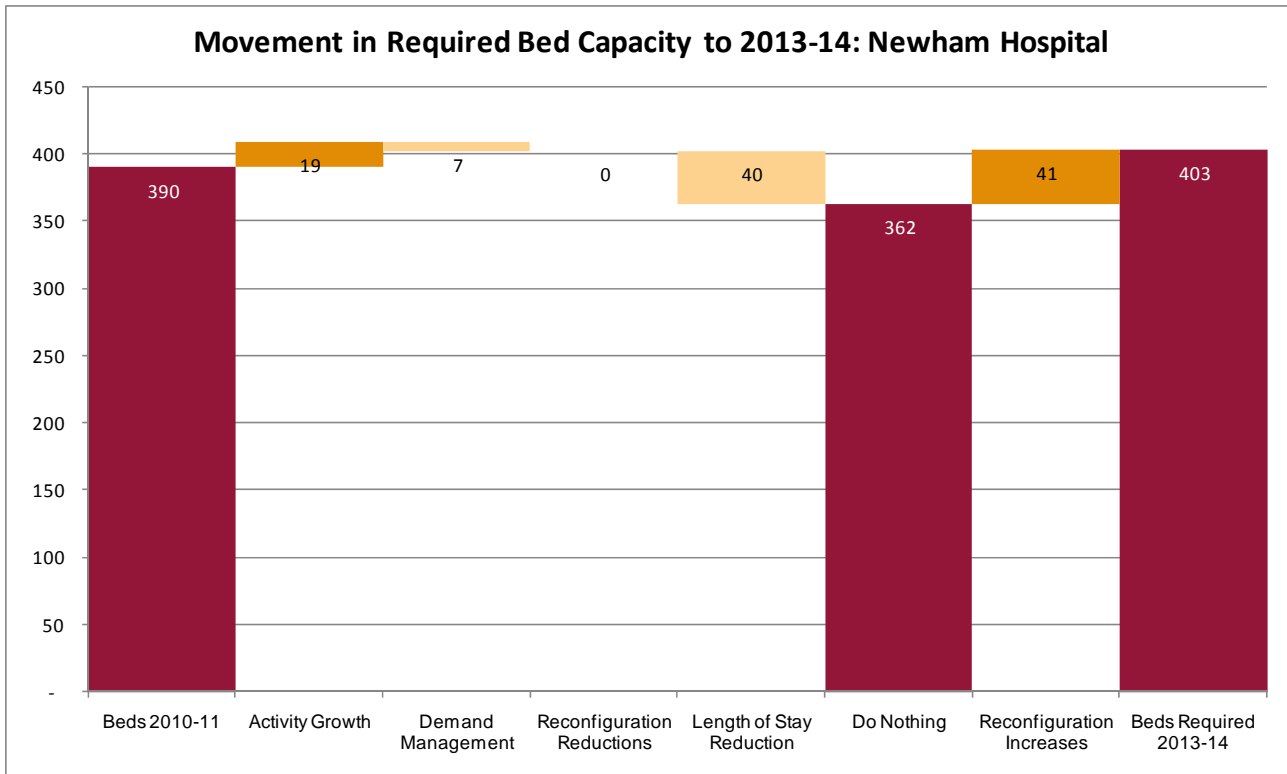
3.6.3 Forecast Bed capacity Whipps Cross Hospital



The table shows Whipps Cross needing 69 additional beds by 2013-14 relating to the additional non-elective admissions. This gives the trusts a net shortfall of 9 beds (becomes a surplus of 19 beds by 2016-17).

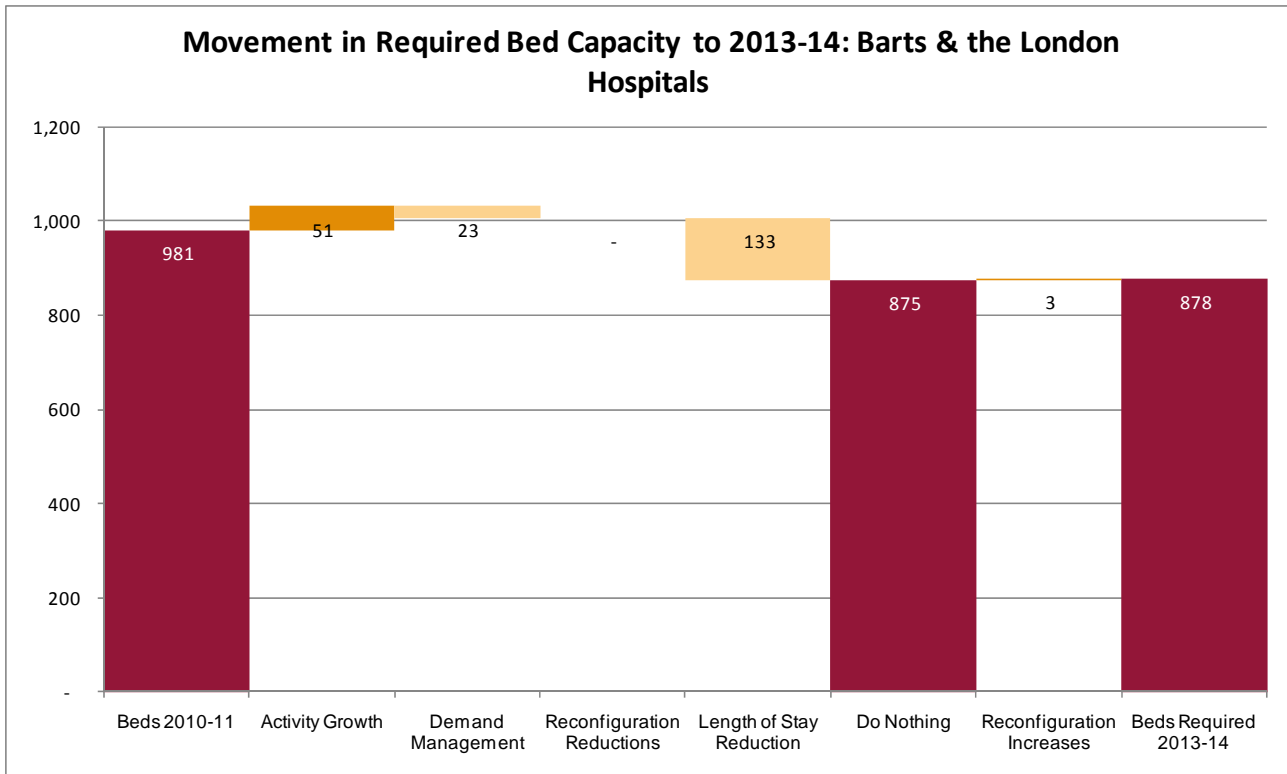
The challenge for Whipps Cross will be to sustain the required number of beds in accommodation that is fit for purpose. Whilst the table above shows that the current bed base of 610 should be sufficient, in practice the trust will not be able to maintain the buildings that these beds occupy without significant capital investment. Meeting best-practice standards in respect of single-sex accommodation and infection control will require a refurbishment of many of the existing wards and departments. The trust is developing a service and estate strategy that will address these issues and maintain a sufficient number of beds (see section 4.9.3).

3.6.4 Forecast Bed Capacity Newham Hospital



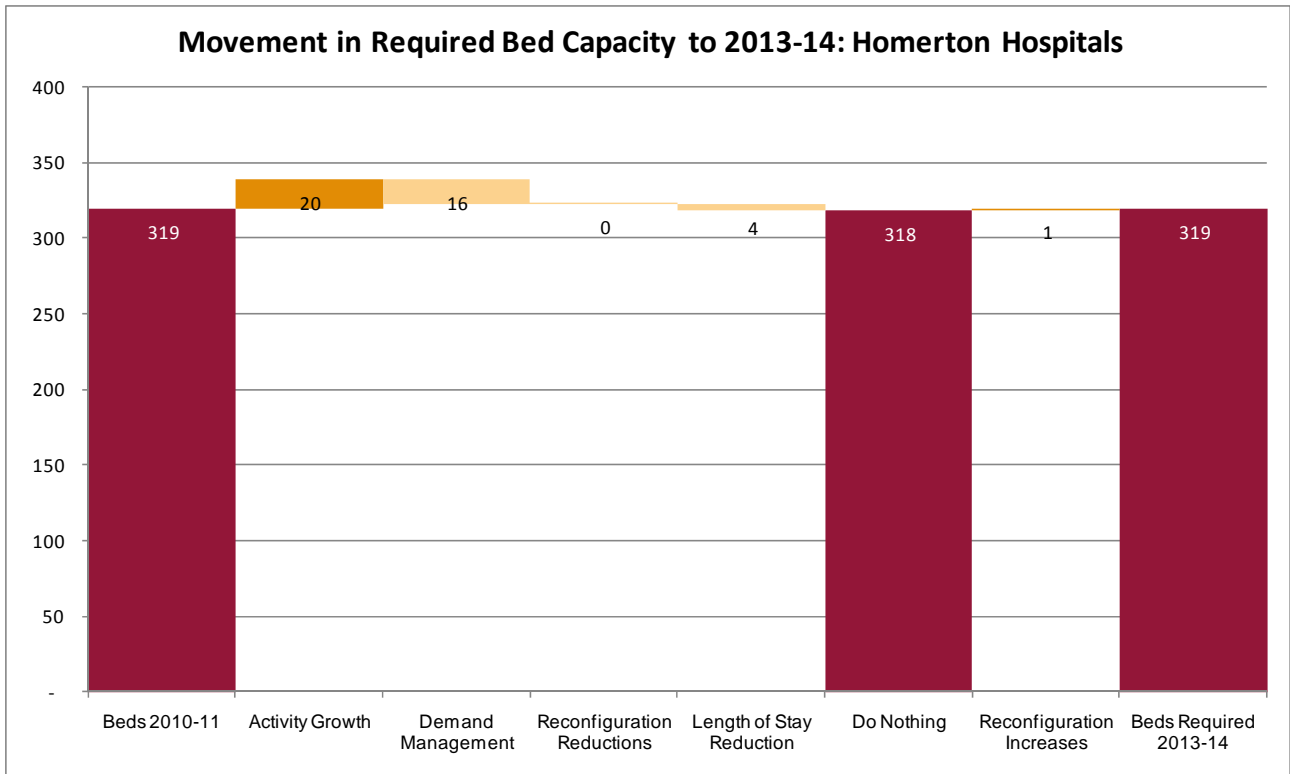
At Newham Hospital there is a small requirement for additional inpatient bed capacity. The graphs show that increases in demand for beds will not be fully met by reduced length of stay; in 2013-14 the modelling suggests that the hospital will have a shortfall of 13 beds (reducing to 11 beds by 2016-17). The trust believes that they will be able to manage this shortfall and have some flexibility within the existing hospital to expand clinical capacity with minimal investment.

3.6.5 Forecast Bed Capacity Barts and the London Hospital



At Barts and the London the forecast saving from reduced length of stay exceeds the amount needed for new demand giving a net surplus of beds of 103 by 2013-14 (increasing to 113 by 2016-17). However this is based on the current bed base; in 2011 the new buildings at The Royal London and Barts open and this increases capacity thereby increasing the potential surplus. The impact of the reconfiguration changes, including the effect of changes to children’s services and complex vascular surgery, on Barts and the London is minimal.

3.6.6 Forecast Bed Capacity Homerton Hospital



There is no significant change in activity or the required bed base at Homerton. The foundation trust chose not to make any assumption in respect of changes to length of stay or to commit to a target saving for bed reduction at this time. The table above shows the bed base unchanged.

4 Impact on Provider Income and Expenditure

This section describes the approach taken to modelling the costs at each acute provider, and shows the impact of the Health for north east London activity forecasts on the trust Income and Expenditure (I&E) statements.

4.1 Impact on Commissioner Income and Expenditure

The analysis in this chapter of the business case focuses on the financial impact of the proposed changes on north east London provider trusts. The general assumption made is that there is minimal financial effect on commissioners in the long-term from the reconfiguration proposals in this DMBC; the volume of activity commissioned from acute hospitals and from community providers will ultimately be the same regardless of the configuration of providers. However the reconfiguration of King George and the creation of new community facilities on the site would provide a major impetus towards delivering the ambitious savings for the ONEL sector outlined in the CSP. Sector CSPs provide detailed analysis of commissioner financial positions going forward. The commissioning changes that have been modelled into this business case are based on the CSP assumptions⁷² and are reflected in trust 'do minimum' financial forecasts.

4.2 Modelling Approach

Each provider has modelled their own expenditure forecasts, based on the activity and income forecasts from the Health for north east London activity and finance model. The I&E forecasts from each provider have then been consolidated by Health for north east London and are presented in the sections below.

This is a different approach from that taken for the PCBC, where the costs were all modelled centrally by Health for north east London. The rationale behind the new approach is that each provider has a greater understanding of the characteristics of their own costs, therefore the expenditure forecasts will be more robust, and importantly will be fully owned by the providers.

⁷² As at end September 2010.

4.3 Modelling Methodology and Key Assumptions

4.3.1 Granularity

Most providers have modelled their expenditure by considering the forecast activity volumes for each combination of specialty and Point of Delivery (POD), with the calculated cost per activity unit being derived from 2009/10 trust reference costs.

4.3.2 Marginal costing

Assumptions for marginal cost rate vary slightly by provider – e.g. BHRUT has assumed 72%; Whipps has assumed 75% for increasing activity and between 41% and 72% for decreasing activity (depending on activity type); Newham has assumed 65% for increasing activity and 50% for decreasing activity.

4.3.3 Inflation and Market Forces Factor

All I&E forecasts in this business case are presented in nominal terms – i.e. include the effects of cost inflation.

Tariffs have had 1% year-on-year deflation. The changes in market forces factors to the Department of Health target are included from 2011/12 onwards.

Each trust has assumed 3% net cost inflation to be consistent with NHS London and Monitor assumptions. To keep the audit trail in the modelling, the pay and non pay inflation lines were applied as per the detailed uplifts, with pay and non-pay inflation reserve included separately, to ensure that the weighted inflation cost pressure comes to 3%.

4.3.4 Income Growth

The assumption in the CSPs is that there would be 2% per annum non-demographic growth but with 1% of this not relating to activity growth; e.g. changes to tariff, better counting of activity, changes to coding. To represent this in the Health for north east London modelling this 1% non-demographic growth has been shown as income growth.

4.3.5 Provider efficiencies

Each trust has also included a cost improvement savings target, which is broken out in the detailed expenditure forecasts. This includes the cost savings associated with the length of stay reductions described in section 3.6. BHRUT have proposed significant length of stay savings and have assumed that excess bed day income reduces with length of stay reductions.

4.3.6 Non-NHS Acute Income

The Health for north east London activity and finance model calculates the NHS acute activity income only (i.e. forecast acute activity multiplied by national and local tariffs). In the I&E reports, each trust has also included their other sources of income so that the income reconciles to trust totals.

4.3.7 Transition costs

BHRUT and Whipps Cross have included revenue transition costs in their expenditure forecasts.

4.3.8 Revenue consequences of capital expenditure

The capital charges (cost of capital and depreciation) associated with new developments that relate to the reconfiguration proposals have been included in the trust expenditure forecasts over and above expenditure calculated as a marginal rate.

Refer to Appendix E for the detailed costing assumptions by trust.

4.4 Impact of Proposals on Provider Income

The income forecasts below are those for the recommended reconfiguration proposals.

Note that these tables show NHS acute activity income only, which was modelled by Health for north east London using the forecast activity and tariffs. The I&E statements in appendix F show the two kinds of income separately in order to show a reconciliation between the two.

The line 'polysystem activity re-commissioned from trust' refers to 50% of the outpatient activity that was shifted to polysystems, being re-commissioned from the trust at 75% of the tariff. This only applies to activity coming from ONEL PCTs reflecting different commissioning positions being taken in the two sectors.

Income to all trusts show a drop in 2011-12 and 2012-13 resulting from the introduction of demand management initiatives and tariff deflation.

NHS Acute Income: BHRUT

Nominal; £m	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2010/11 Planned	354.0	358.8	358.8	358.8	358.8	358.8	358.8
Demographic & Non-Demographic growth		6.0	13.8	21.8	29.9	38.4	46.8
Do Nothing NHS Acute Activity Revenue	354.0	364.8	372.6	380.5	388.7	397.1	405.5
<i>Commissioner Pathway Changes</i>							
Decommissioning		-7.3	-12.2	-12.4	-12.7	-12.9	-13.2
Shifts in Settings of Care to Polysystems		-13.6	-25.4	-25.9	-26.4	-27.0	-27.5
Shifts in A&E to UCS	0.0	-1.5	-3.2	-3.5	-3.6	-3.6	-3.6
Polysystem activity re-commissioned from Trust		3.5	6.4	6.5	6.7	6.8	6.9
Do Minimum NHS Acute Activity Revenue	354.0	345.9	338.2	345.1	352.6	360.4	368.2
<i>Reconfiguration</i>							
Specialist Paediatric Surgery & Medicine	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Complex Vascular Surgery	0.0	0.0	0.0	0.0	0.0	0.0	
Maternity (Obstetrics)	0.0	-3.2	-6.4	-6.9	-7.4	-8.0	-8.6
Accident & Emergency	0.0	0.0	0.0	-12.3	-12.6	-12.9	-13.2
Elective Surgery	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reconfiguration NHS Acute Activity Income forecast	354.0	342.7	331.8	326.0	332.6	339.5	346.4

The table shows BHRUT losing income from 2011-12 from maternity services and from 2013-14 for changes to A&E services. This loss relates to the activity that moves from King George Hospital to Newham, Whipps Cross and other hospitals.

NHS Acute Income: Barts & the London

Nominal; £m	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2010/11 Planned	529.8	523.2	523.2	523.2	523.2	523.2	523.2
Demographic & Non-Demographic growth		10.2	21.2	32.2	43.4	57.2	69.6
Do Nothing NHS Acute Activity Revenue	529.8	533.5	544.4	555.5	566.7	580.4	592.9
<i>Commissioner Pathway Changes</i>							
Decommissioning		-7.9	-12.8	-13.1	-13.3	-13.7	-14.0
Shifts in Settings of Care to Polysystems		-12.3	-22.6	-23.1	-23.6	-24.2	-24.8
Shifts in A&E to UCS	0.0	-1.1	-2.4	-2.4	-2.5	-2.5	-2.6
Polysystem activity recommissioned from Trust		0.6	1.2	1.2	1.2	1.2	1.3
Do Minimum NHS Acute Activity Revenue	529.8	512.8	507.7	518.1	528.5	541.2	552.8
<i>Reconfiguration</i>							
Specialist Paediatric Surgery & Medicine	0.0	0.1	0.3	0.3	0.3	0.3	0.3
Complex Vascular Surgery	0.0	0.3	0.3	0.3	0.3	0.3	0.3
Maternity (Obstetrics)	0.0	0.1	0.2	0.2	0.2	0.2	0.2
Accident & Emergency	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Elective Surgery	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reconfiguration NHS Acute Activity Income forecast	529.8	513.2	508.5	518.9	529.3	542.1	553.6

The table shows that the reconfigurations have only a minor effect on income to Barts and the London trust.

NHS Acute Income: Homerton

Nominal; £m	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2010/11 Planned	155.0	154.2	154.2	154.2	154.2	154.2	154.2
Demographic & Non-Demographic growth		3.1	6.1	9.2	12.3	15.5	18.7
Do Nothing NHS Acute Activity Revenue	155.0	157.3	160.3	163.3	166.5	169.7	172.9
<i>Commissioner Pathway Changes</i>							
Decommissioning		-3.0	-4.8	-4.9	-5.0	-5.1	-5.2
Shifts in Settings of Care to Polysystems		-5.7	-10.4	-10.6	-10.8	-11.0	-11.2
Shifts in A&E to UCS	0.0	-0.6	-1.2	-1.3	-1.3	-1.3	-1.3
Polysystem activity recommissioned from Trust		0.2	0.3	0.3	0.3	0.3	0.3
Do Minimum NHS Acute Activity Revenue	155.0	148.2	144.1	146.8	149.7	152.6	155.5
<i>Reconfiguration</i>							
Specialist Paediatric Surgery & Medicine		0.0	0.0	0.0	0.0	0.0	0.0
Complex Vascular Surgery							
Maternity (Obstetrics)	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Accident & Emergency	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Elective Surgery	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reconfiguration NHS Acute Activity Income forecast	155.0	148.3	144.2	147.0	149.8	152.7	155.6

The table shows that the reconfigurations have only a minor effect on income to Homerton Hospital.

NHS Acute Income: Newham

Nominal; £m	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2010/11 Planned	136.9	136.9	136.9	136.9	136.9	136.9	136.9
Demographic & Non-Demographic growth		2.4	6.0	9.6	13.3	17.1	20.9
Do Nothing NHS Acute Activity Revenue	136.9	139.3	142.9	146.5	150.2	154.0	157.8
<i>Commissioner Pathway Changes</i>							
Decommissioning		-2.3	-3.7	-3.8	-3.8	-3.9	-4.0
Shifts in Settings of Care to Polysystems		-7.0	-12.8	-13.2	-13.6	-14.0	-14.4
Shifts in A&E to UCS	0.0	-0.5	-1.1	-0.9	-1.0	-1.0	-1.0
Polysystem activity recommissioned from Trust		0.1	0.2	0.2	0.2	0.2	0.2
Do Minimum NHS Acute Activity Revenue	136.9	129.7	125.6	128.8	132.0	135.3	138.6
<i>Reconfiguration</i>							
Specialist Paediatric Surgery & Medicine	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Complex Vascular Surgery							
Maternity (Obstetrics)	0.0	1.1	2.3	2.6	2.9	3.3	3.7
Accident & Emergency	0.0	0.0	0.0	4.2	4.3	4.4	4.6
Elective Surgery	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reconfiguration NHS Acute Activity Income forecast	136.9	130.8	127.9	135.6	139.3	143.0	146.8

Newham Hospital attracts new income from the reconfiguration of A&E services at King George Hospital from 2013/14 and maternity services from 2011/12. In total the trust would gain £8.3m of activity from the reconfiguration.

NHS Acute Income: Whipps Cross

Nominal; £m	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2010/11 Planned	201.7	202.2	202.2	202.2	202.2	202.2	202.2
Demographic & Non-Demographic growth		3.1	6.6	10.2	13.9	17.8	21.8
Do Nothing NHS Acute Activity Revenue	201.7	205.2	208.8	212.3	216.0	220.0	224.0
<i>Commissioner Pathway Changes</i>							
Decommissioning		-5.0	-8.2	-8.4	-8.5	-8.6	-8.8
Shifts in Settings of Care to Polysystems		-8.5	-15.9	-16.2	-16.4	-16.7	-17.0
Shifts in A&E to UCS	0.0	-1.2	-2.6	-2.6	-2.7	-2.7	-2.7
Polysystem activity recommissioned from Trust		2.0	3.6	3.6	3.7	3.8	3.8
Do Minimum NHS Acute Activity Revenue	201.7	192.6	185.6	188.8	192.2	195.7	199.4
<i>Reconfiguration</i>							
Specialist Paediatric Surgery & Medicine	0.0	-0.1	-0.3	-0.3	-0.3	-0.3	-0.3
Complex Vascular Surgery	0.0	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
Maternity (Obstetrics)	0.0	1.9	3.7	3.9	4.1	4.3	4.5
Accident & Emergency	0.0	0.0	0.0	6.9	7.0	7.2	7.3
Elective Surgery	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reconfiguration NHS Acute Activity Income forecast	201.7	194.1	188.8	199.0	202.7	206.6	210.5

Whipps Cross Hospital attracts new income from the reconfiguration of A&E services at King George Hospital from 2013/14 and maternity services from 2011/12. In total the trust would gain £11.8m from the reconfiguration of King George Hospital.

4.5 Impact of Proposals on Provider Surplus and Financial Tests

The proposals presented in this DMBC and considered throughout this planning process have been driven by clinical and not financial factors. However two financial tests need to be applied to the proposals before they can be adopted:

- The economy as a whole should benefit financially as a result of the reconfiguration.
- No provider should be financially worse-off as a result of implementing the changes included in the reconfiguration.

The forecast I&E for each provider under the recommended reconfiguration proposals (variant scenario) is shown below.

Forecast Income and Expenditure 2016/17 (£m)

	BHRUT	BLT	Homerton	Newham	Whipps Cross	NEL total
Income						
2010/11 Planned NHS Acute Income	354.0	529.8	155.0	136.9	201.7	1,377.4
2010/11 Planned Other Income	37.9	124.5	24.2	26.8	28.3	241.7
2010/11 Planned Total Income	391.9	654.3	179.2	163.7	230.0	1,619.1
Changes to Other Income	5.8	-20.8	-2.0	-1.0	1.0	-17.0
Demand Growth	51.5	63.1	17.9	20.9	22.2	158.6
Demand Management	-37.1	-14.6	-17.4	-8.2	-24.6	-101.8
Site Reconfiguration	-22.1	0.8	0.1	8.3	11.2	-1.6
Forecast Income 2016-17	390.1	682.8	177.8	183.7	239.8	1,657.3
Expenditure						
2010/11 Planned Expenditure	411.8	648.3	177.4	161.3	230.0	1,628.8
Cost increases to 2016-17	115.7	169.9	48.4	51.1	83.0	468.1
Provider Efficiencies	-85.3	-131.9	-32.0	-31.9	-60.6	-341.6
Demand Management	-24.3	-9.7	-17.3	-5.2	-24.6	-81.1
Site Reconfiguration	-32.0	0.5	0.1	6.1	7.4	-17.9
Forecast Expenditure 2016-17	385.9	677.1	176.6	181.4	235.3	1,656.3
Forecast Surplus 2016-17	4.2	5.7	1.2	2.4	4.6	18.0

All the trusts are forecasting a surplus by 2016-17.

A comparison of the original reconfiguration proposals (“baseline”) and the recommended reconfiguration proposals (“variant”) to the “Do Minimum” scenario is shown below. (The Do

Minimum scenario is the comparator against which the reconfiguration proposals can be tested, it includes the effect of demand growth, provider efficiencies and demand management, but excludes the effect of reconfiguration).

Forecast Surplus 2016-17 (£m) - Scenarios Contrasted

	BHRUT	BLT	Homerton	Newham	Whipps Cross	NEL total
Do Minimum Surplus 2016-17	-5.7	5.3	1.2	0.1	0.8	1.6
Forecast Surplus 2016-17 - Baseline	7.1	5.5	1.2	1.1	2.0	16.9
Forecast Surplus 2016-17 - Recommended	4.2	5.7	1.2	2.4	4.6	18.0

Difference in net surplus between reconfiguration scenarios and Do Minimum	BHRUT	BLT	Homerton	Newham	Whipps Cross	NEL total
Baseline	12.8	0.2	0.0	1.1	1.2	15.3
Recommended (Variant)	9.9	0.4	0.0	2.3	3.8	16.3

Taking all trusts together there would be a £16.3m financial benefit to providers under the recommended option. **So the proposals pass the first financial test.** The recommended variant also offers a slightly better financial benefit to the health economy than the baseline option (£1.0m), so the recommended option is better for the whole health economy as well as offering improved clinical and patient care and access benefits.

Under the recommended option, all providers affected by the reconfiguration proposals (Whipps Cross, Newham and BHRUT) see a financial benefit from the proposed reconfiguration. Whilst BHRUT will see some reduction in clinical income the operational benefits of consolidating emergency and maternity services onto the Queen’s site mean that the cost savings generated by the proposals exceed the level of income lost (i.e. net improvement)⁷³. For Newham and Whipps Cross hospitals a financial benefit is seen as the cost of providing additional services is lower than the additional income received (because new activity is delivered at marginal cost plus the revenue consequences of new capital investment). Therefore **the proposals pass the second financial test.**

⁷³ Note that significant proportion of BHRUT savings relate to release of 30% of overhead costs associated with King George Hospital site. This is addressed in more detail in section 4.10 of the DMBC. Failure to deliver this overhead saving is a risk borne by the whole health economy and savings realisation plan needs to be worked up in more detail.

4.6 Comparison to Pre-Consultation Business Case

Preconsultation Business Case and Decision Making Business Case Contrasted Annual Revenue Gain from Reconfiguration of Services

All DMBC figures are in nominal terms
(i.e. figures for 16/17 are in 16/17 prices)

Trust/Site	PCBC - stated in real terms: 07/08 prices	PCBC - adjusted: nominal terms (16/17 prices)	DMBC Baseline	DMBC Proposed Variant
BHRUT	£9.3m	£11.4m	£12.8m	£9.9m
Whipps Cross	£2.3m	£2.8m	£1.2m	£3.8m
Homerton	£0.1m	£0.1m	£0.0m	£0.0m
Newham Hospital	£1.9m	£2.3m	£1.1m	£2.3m
Barts & the London	£0.3m	£0.4m	£0.2m	£0.4m
Trust/Site	£13.9m	£17.1m	£15.3m	£16.4m

The table above contrasts the savings that were estimated in the PCBC with the latest estimates included in this business case. The DMBC baseline scenario forecasts a financial gain of £15.3m pa by 2016-17, £1.8m less than the estimate that was done in the PCBC. There are however a number of changes to methodology that have contributed to these results, the most significant of which are:

- There is more activity (and income) flowing to Queen's Hospital and less to Whipps Cross than in the PCBC; Newham stays approximately the same
- BHRUT have taken an approach to cost savings resulting from the reconfiguration that attributes more saving to the centralisation of services than in the PCBC that was based on marginal costs associated with activity changes
- All trusts have taken a slightly more conservative approach to the marginal costs of new activity and Whipps Cross and Newham have attributed the cost of capital investment specifically relating to the reconfiguration.

4.7 Year by year I&E Forecast by Provider

Appendix F shows year-by-year forecasts of income and expenditure for each of the trusts.

The analysis shows that all trusts are facing a number of challenges particularly in 2011-12 and 2012-13 when the demand management activity reductions are focused and reductions in tariff also adversely impact on trust income levels. As reconfiguration savings are delivered this will support overall improved viability for affected trusts – i.e. BHRUT, Whipps Cross and Newham.

Trusts are currently preparing Integrated Business Plans that will set out how financial balance can be achieved and maintained in more detail, building on the assumptions contained within the modelling in this business case.

Integrated Business Plans will include the effect of the proposals included in this DMBC if they are approved.

Health for north east London intend to re-run the activity and income and expenditure forecasts in early 2011, including the latest commissioner and trust plans such that there is a single set of fully integrated activity and finance plans for all commissioners and providers. This modelling update will not have any impact on the conclusion in this DMBC in respect of decision making on reconfiguration – effectively assumptions built into the ‘do minimum’ scenario feed through into baseline and variant options and as such the net financial impact of the reconfiguration remains unchanged.

4.8 Transitional Costs

Transitional and double running costs have been included for the estimates from BHRUT, where the greatest change is taking place. The trust has included the following:

- £6.4m in 2013/14 and £5m in 2014/15 have been included for transitional costs. These relate to two costs:
 - It has been assumed that there would be a time-lag in the release of savings from the King George Hospital site.

- The cost of project managing the reconfiguration including costs associated with developing any PFI.
- The trust considers it unlikely that the reconfiguration would generate any major reduction in the workforce that cannot be managed through natural wastage; however an allowance has been made of £4m over two years for the cost of redundancies (around 100 posts).

4.9 Capital Expenditure Implications

4.9.1 Direct Capital Costs

Estimates of the capital implications of the proposals are shown below. This table is limited to the capital projects that are a direct consequence of the proposals. Later in this section there is detail of the wider capital investment issue that relates primarily to the sustainability of Whipps Cross Hospital.

Investment will be needed at Queen's, Newham and Whipps Cross hospitals to increase capacity in order to absorb activity that would be displaced from King George Hospital. Investment would be needed at King George Hospital to convert existing ward and operating theatre space to the new facilities. The table separately shows the cost of the capital implications of the baseline and variant scenarios.

Direct Capital Consequences of the Reconfiguration of Acute Services

Trust/Site	Description	Cost Baseline Scenario	Cost Variant Scenario	Year
Queen's Hospital	New Cardiac Catheter Laboratory	£1.8m	£1.8m	2014
	Maternity: Increase capacity through new delivery rooms, obstetric theatre and centralising neonatal cots.	£1.5m	£1.5m	2011/12
	Accident & Emergency/Urgent Care: investment in the A&E department to increase capacity and to introduce discrete Urgent Care Centre.	£7.5m	£7.5m	2011/12 - 2013/14
Sub-Total Queen's		£10.8m	£10.8m	
Whipps Cross	Increasing capacity for maternity and unscheduled care up to the level of the <i>baseline</i> level of activity	£3.3m	£3.3m	2011/12 - 2012/13
	Increasing maternity capacity to accommodate a further 1,900 births as described in the <i>variant scenario</i>		£4.8m	2013/14
Sub-Total Whipps Cross		£3.3m	£8.1m	
King Georges Hospital	Site redevelopment and rationalisation	£4.0m	£4.0m	From 2011/12
	Conversion of maternity theatres for elective surgical procedures	£3.0m	£3.0m	2011/12
Sub-Total King George		£7.0m	£7.0m	
Newham Hospital	Increasing maternity capacity to accommodate a further 1,600 births as described in the variant scenario		£10.0m	2012/13 - 2013/14
Total Capital Cost		£21.1m	£35.9m	

The estimated capital investment required to deliver the recommended reconfiguration proposals would be 35.9m. Of this, £14.8m relates to the additional cost of increasing maternity capacity at Newham and Whipps Cross Hospitals required if the variant scenario were to be implemented.

Should the proposals be taken forward, detailed costings of these schemes will be undertaken. Each project which makes up this programme will be subject to a business case.

A large proportion of the capital investment above relates to maternity services where the increasing birth rate means that new capacity will be needed whatever decision is taken regarding the future of the King George maternity unit. The variant scenario, where more maternity activity flows go to Whipps Cross and Newham hospitals has a higher capital cost.

It is recognised that it is unlikely that any of these capital costs could be met from central government. The following sourcing of capital is proposed:

Potential Sources of Capital Funding

Trust/Site	Forecast Cost	Proposed Source
Queen's Hospital	£10.8m	Extension to the existing PFI contract
Whipps Cross	£8.1m	Whipps Cross capital programme including receipts
King Georges Hospital	£7.0m	ONEL estate programme/site rationalisation and contribution from BHRUT
Newham Hospital	£10.0m	Newham capital programme plus contribution from INEL estate rationalisation

Additional work will be needed to identify firm sources of capital funding early in the implementation stage.

Timeline for required capital

The table below shows when capital funding could be required to match the indicative implementation plan outlined in section 6.4

Site	Scheme	11/12	12/13	13/14	14/15	total
Queen's	Cardiac Cath Lab			£1.8m		£1.8m
	Maternity	£1.5m				£1.5m
	A&E	£3.5m	£4.0m			£7.5m
Whipps Cross	Maternity		£3.3m	£4.8m		£8.1m
King George Hospital			£2.0m	£3.0m	£2.0m	£7.0m
Newham	Maternity			£10.0m		£10.0m
Total		£5.0m	£9.3m	£19.6m	£2.0m	£35.9m

Additional maternity capacity will be required at Whipps Cross and Newham in 2013/14 or 2014/15 depending on when changes are made to maternity flows away from Queen's towards other sites.

4.9.2 Return on Investment

The capital investment required offers a good return on investment:

Capital Expenditure	£35.9m
Non-Recurrent Revenue Costs	£15.4m
Total One-Off Costs	£51.3m
Annual Forecast Savings	£16.5m
Payback in 3.1 years	

4.9.3 Indirect Capital Costs: Whipps Cross

Prior to consultation, a review of the quality of the Whipps Cross site concluded that the hospital was broadly in a sound state of repair and that major investment would not be required in the medium term to maintain services at the hospital. However circumstances have led to a re-appraisal of this conclusion and the trust are now working on a new estate plan that will refurbish the older parts of the site and address the specific issues of:

- Single sex accommodation
- Infection control
- Backlog maintenance
- Other trust priorities and “future proofing” to improve operational efficiencies

The net cost of this work after the contribution from the trust’s capital funding is estimated at £46m. As it is a capital cost that will need to be met regardless of the decision in respect of the Health for north east London reconfiguration it is not included in the direct capital costs above. The trust also anticipates there being a significant capital receipt resulting from the estate rationalisation at Whipps Cross.

Whipps Cross has already planned for a redevelopment of the A&E department including an extension to the Emergency Medical Centre to address health and safety issues and increase capacity on the site. Capital expenditure has already been allocated for this.

4.9.4 Indirect Capital Costs Newham Hospital

Newham Trust is developing plans with Newham PCT to redevelop the A&E/urgent care centre department and to expand paediatrics. This project is not dependent upon the proposals.

4.10 Space Utilisation on the King George site

The table below shows the projections of the space that would be required on the King George site if the proposals are approved. This has been done as a desk-top exercise and will need to be developed during the implementation phase. *Appendix H* shows the full workings.

Space Utilisation King George Site Current and Proposed Service Configuration

	Current m2	Proposed Configuration m2	Change m2
Clinical Areas			
A&E, WIC, UCC	1,245	1,245	0
Clinical - Ward	12,814	6,293	-6,521
Clinical - Clinics, Outpatients	2,578	3,328	750
Clinical - Diagnostics	1,064	1,064	0
Clinical - Theatres	1,245	1,245	0
Clinical - Treatment & Therapy	3,582	2,528	-1,054
Pathology	976	0	-976
Pharmacy	607	407	-200
Sub-total	24,111	16,110	-8,001
Non-Clinical Areas			
Facilities	5,338	3,696	-1,642
Administration	2,056	1,456	-600
Common Area	2,509	1,759	-750
Sub-Total	9,903	6,911	-2,992
Total	34,014	23,021	-10,993
Site retained		67.7%	

This is based on the following assumptions:

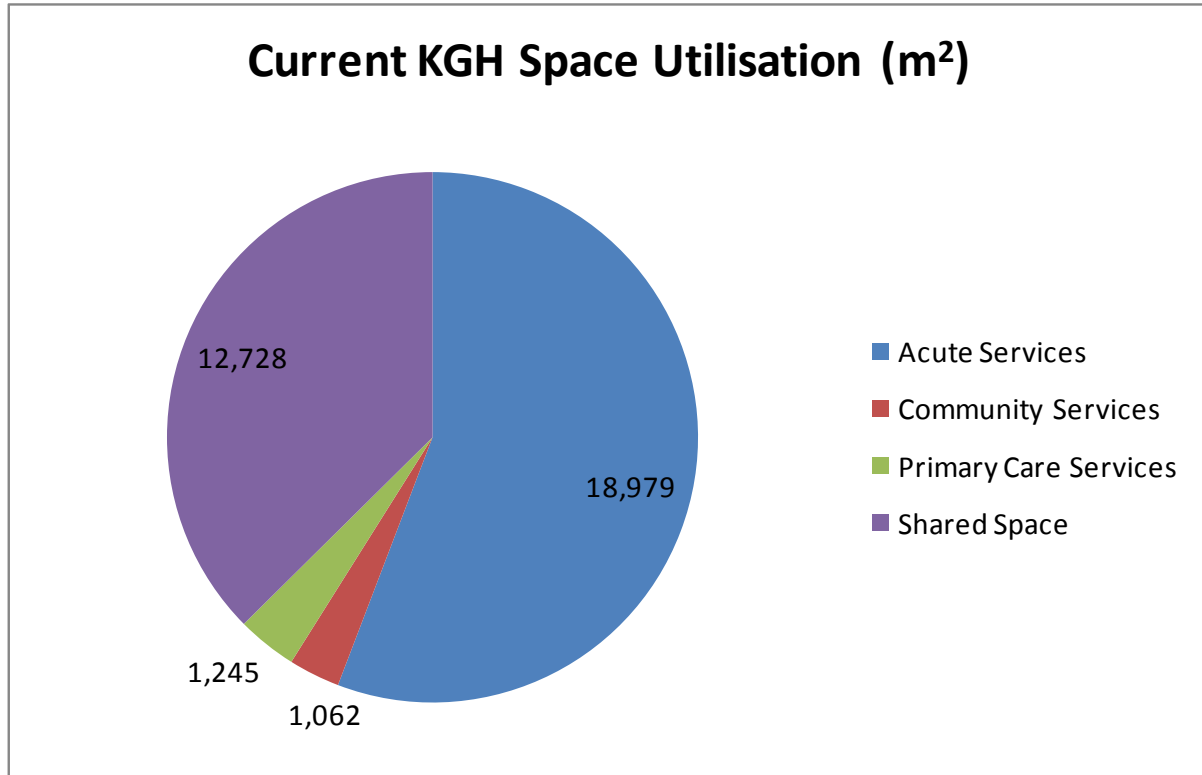
- Ward space reduced significantly to three wards for elective surgery
- Outpatients and antenatal clinic space has been reduced by 150 m²
- No change to operating theatres (assumption is that all theatres will be required for elective surgery)
- One ward becomes a renal dialysis unit (operated by Barts and the London Trust)
- No change to A&E and the Walk-in Centre although this becomes polyclinic space for the urgent care service
- Pathology space reduced
- Pharmacy space reduced

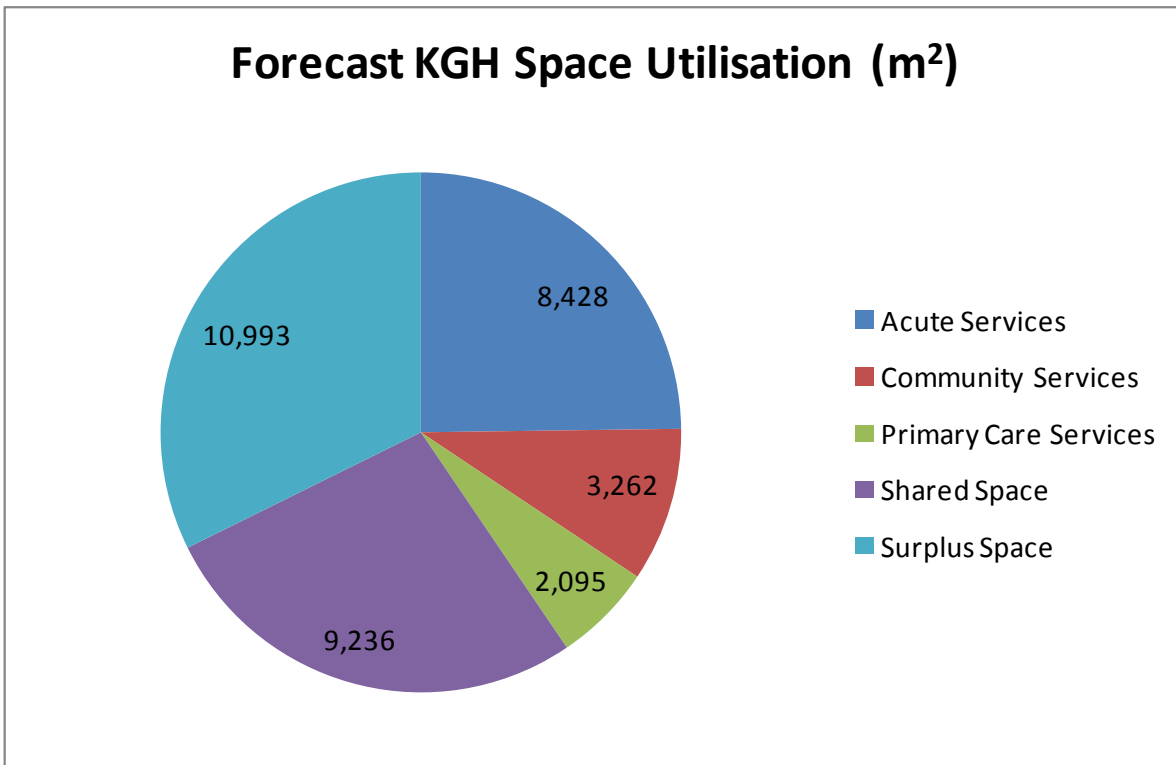
- Therapy space reduced
- 1,200 m² has been added for rehabilitation and intermediate care: equivalent to two wards
- 30% reduction to space for administrative, facilities and common areas

In total the reduction of space is 11,000 m² which equates to 32% of the total space on the site. The table and pie charts below show the space utilisation on the site by the types of provider.

Forecast KGH Space Utilisation

	Current m2		Proposed m2	
Acute Services	18,979	55.8%	8,428	24.8%
Community Services	1,062	3.1%	3,262	9.6%
Primary Care Services	1,245	3.7%	2,095	6.2%
Shared Space	12,728	37.4%	9,236	27.2%
Surplus Space			10,993	32.3%
Grand Total	34,014	100.0%	34,014	100.0%
Acute Share (Including Shared)	30,328	89.2%	14,075	61.1%





This shows that acute services currently occupy 89% of the King George Hospital site (including a proportionate share of the shared space). If proposals are taken forward, this would reduce to 61% of the occupied space (40% of total space). The development of rehabilitation, children’s services and polyclinic space increases the space occupied by community and primary care providers. The cost analysis described in section 4.1 is concerned with the cost of the acute providers: in this case BHRUT. The forecast is for £9.4m of overhead costs to be saved to BHRUT on the King George site through reconfigurations. This is based on a 58% reduction in the space occupied by the trust on the King George Hospital site

The delivery of the savings forecast will require a rationalisation of the King George Hospital site to make sure that the space vacated by the acute unit is either used productively for an alternative use, or decommissioned such that the running costs are saved. An estate rationalisation plan would need to be developed bringing together:

- The parts of the King George Hospital site and buildings that can be decommissioned and mothballed.
- The parts of the King George Hospital site and buildings that can be decommissioned cleared and sold.
- Rationalisation between King George Hospital and mental health facilities on the Goodmayes site.

- Rationalisation between King George Hospital and other PCT properties.

Further work to identify the future of the vacant space and the release of fixed cost savings would be an early priority for the implementation phase of the programme.

4.11 Sensitivity Testing

The aim of this section is to give readers of the DMBC an understanding of how robust the recommendations are to changes in the key assumptions. The approach taken is to consider the two financial tests that are being applied in this DMBC, plus a test of capacity:

1. **Capacity test** – forecast available bed capacity should be sufficient to absorb forecast bed demand, at each site.
2. **Financial viability test** - No trust is financially worse off as a result of the reconfiguration.
3. **Financial benefit test** - The health economy as a whole is better off as a result of the reconfiguration.

...and analyse the sensitivity of these tests to changes to the key assumptions that have gone into the activity and financial analysis. This resulted in the matrix below:

SIGNIFICANT SENSITIVITY
MODERATE SENSITIVITY
LOW SENSITIVITY
NOT MATERIAL
neutral to this test

Sensitivity of the capacity and financial tests to the modelling assumptions		Capacity test	Financial viability test	Financial benefit test
10/11 base data	The starting point of the forecast is too low (activity and/or cost)	Forecast available bed capacity must be greater than or equal to forecast bed demand, at each site.	No trust is financially worse off as a result of the reconfiguration.	The health economy as a whole is better off as a result of the reconfiguration.
Activity Growth	The demographic or non-demographic growth is more or less than our planning assumptions			
Demand Management	The reductions in activity as a result of demand management are delayed or fail			
Reconfiguration Displacement	The pattern of displaced activity from King George is different than that assumed			
Length of Stay Reduction	The beds released from Length of Stay reductions are less than those assumed.			
Provider income	Tariff inflation is greater or less than planned			
Provider costs	Costs exceed plan generally (e.g. failure in CIP, cost inflation greater than planned, etc)			
	Provider marginal cost assumptions are incorrect			
	Failure to release fixed costs at King George			
Capital Expenditure	Capital expenditure is more than planned			
	Cost of capital (i.e. interest rates) are higher than planned			

The table shows one area where the test criteria is significantly sensitive to changes in the core assumptions and four areas where the test criteria are moderately sensitive to changes to assumptions.

- **Length of Stay Reductions:** The capacity test is significantly sensitive to changes in the assumed level of length of stay reduction. Small changes to the assumed amount of beds saved at BHRUT and Whipps Cross would result in the projections showing a shortfall in bed capacity.
- **Reconfiguration Assumptions:** The capacity test is moderately sensitive to changes in the assumption surrounding the displacement pattern of activity from King George Hospital. Each additional 1% of King George Hospital activity displaced to Queen's or Whipps means that an additional four or five beds would be required there. Therefore, a further 6% of King George Hospital activity displaced to Queen's, or a further 4% displaced to Whipps, or a further 3% displaced to Newham, results in these trusts failing the test. These percentages seem small, but due to the geographical pattern of King George Hospital patients this is not thought to be likely to happen. Therefore the sensitivity rating is "moderate sensitivity" rather than "significant sensitivity".
- **Provider marginal cost assumptions:** This financial viability test is moderately sensitive to the marginal costing assumptions that is applied to the activity that is displaced (A&E, maternity and non-elective admissions). Newham and Whipps Cross have average contribution margins of 40% and 48% respectively, so there is a reasonable "buffer" – (i.e. these margins would have to drop to 12% for these trusts to fail the test). But this could potentially happen if there were significant steps in semi-variable costs at the new level of activity. Since BHRT is losing activity, the relevant risk is that the activity actually has a higher contribution margin than currently assumed. It is currently calculated to be 11% on average; however this would need to be at an unrealistically high level (62%) for the test to fail.
- **Failure to release fixed costs at King George:** the financial viability is scored as moderately sensitive to the assumption that £9.5m of fixed overheads at King George Hospital could be released following the closure of the A&E and maternity units. However, BHRUT would only fail this test if they failed to release 100% of the premises savings, plus 54% of the staff savings (or conversely, 100% of the staff savings and 86% of the premises savings).

In conclusion the financial tests are shown to be robust and hold up to quite marked changes in the underpinning assumptions. The demonstration that capacity will be sufficient to meet future demand is sensitive to the assumption that trusts can achieve their forecast length of stay savings.

Appendix H includes full details of the sensitivity testing adopted for this exercise.

4.12 Risks Associated with Activity, Capacity and Finance

The previous two chapters highlight a number of risks associated with the proposals in the business case.

4.12.1 Creation of New Bed Capacity

Section 3.6 describes how the reconfiguration would require the release of bed capacity through challenging length of stay targets at Queen's, Whipps Cross and Newham hospitals. There is a risk that the trusts could fall behind on the delivery of these targets. The following contingencies are proposed to mitigate in the event that sufficient beds have not been released in time for the steps set out in the implementation plan.

- Assumptions in the activity forecasts relating to the reduction of non-elective admissions through demand management are deliberately modest. GP commissioners believe that more can be done to prevent admissions – if such reductions can be delivered this reduces requirement for a length of stay reduction.
- The approach to implementation described in section 6.4.2, is for phased changes as capacity is released at Queen's, Whipps Cross and Newham with changes not taking place unless capacity requirements are met.
- Review services currently located at Queen's and the other sites to identify any services that could be re-provided in alternative settings – e.g. renal dialysis, rehabilitation beds, elective surgery.
- Review the 'second phase acute' pathway – i.e. post Acute Assessment Unit, appropriate patients (from a clinical/access perspective) could be transferred to King George Hospital. By implication there would need to be 24/7 consultant-covered acute beds for adults at King George Hospital until such time as capacity is released at Queen's to fully absorb all current non-elective capacity (but not A&E / direct admissions only by exception). Whilst this arrangement would not be the optimum clinically or financially, it would allow for a significant proportion of the anticipated benefits to be realised.

4.12.2 Source of Funding for Capital

Section 4.9.1 describe the range of funding sources for the £35m of capital that will be required to deliver the capital projects needed to deliver parts of the reconfiguration. Much of this is low risk – the development of a MLU at Queen’s for example, is going ahead financed from within the BHRUT budget. However some schemes are higher risk such as where funds would need to be released from capital receipts.

The sectors and trusts will continue to explore ways to source this funding and to phase the costs in ways that are affordable and it is recognised that this is priority in the early stages of the implementation phase.

4.12.3 Release of Fixed Costs at King George

Section 4.10 describes how £9.5m of savings from fixed costs are conditional on the release of 11,000 m² of space at King George. This could be either through the disposal of a part of the hospital or, more likely, through finding new tenants to occupy the space. Failure to do this does not challenge the deliverability of the proposals but does leave a stranded cost with the health economy. The Sector and PCTs will be working to secure these savings as a priority early in the implementation phase.

5 Workforce

This chapter of the business case sets out an initial view of the workforce implications of the Health for north east London proposals. It looks at:

- overall benefits and challenges;
- specific issues for BHRUT; and
- specific issues for maternity and unscheduled care.

If the proposals were approved, more detailed workforce planning would need to be taken forward as part of the implementation stage.

5.1 Summary implications of these proposals on workforce

Benefits

The Health for north east London proposals for change have been developed in part to address the existing workforce challenges that threaten the sustainability of local services, in particular in specialist paediatric care, A&E and maternity services (see section 2.2.1.1).

Local clinicians believe that these proposals will support north east London in developing, recruiting and retaining the right local workforce in order to better meet the needs of local people. In particular, the consolidation of services onto fewer sites would be expected to ease some of the existing workforce challenges and would support a move towards 24/7 senior clinician cover. Further details on the clinical benefits this would bring are provided in chapter two.

Challenges

There are a number of workforce issues that would arise from these proposals that would need to be carefully managed during implementation. These include:

- **Unscheduled care** – recruitment challenges in urgent care, in particular as the urgent care service at King George Hospital that would be introduced will require a new skill mix (combination of primary and secondary skills).
- **Paediatrics** – services are currently facing significant workforce challenges and new ways of working will be required to ensure that all children are able to access safe high-quality care. In particular, all units are struggling to fill the middle grade medical paediatric posts, in common with the rest of UK. It is clear that sustaining 24/7 paediatric middle grade cover safely across six sites in the sector is unrealistic at present. There are also serious concerns in regard to future paediatric surgical and anaesthetic workforce, as a less than optimum number of trainees are pursuing long-term careers in these specialties. Providers in north east London will

need to work together to manage this issue and work towards 24/7 paediatric cover, for example paediatric surgeons and anaesthetists may need to work across more than one hospital and alternative service models may be required. New workforce models and workforce development will also be required in community and primary care to support new ambulatory service models.

- **Maternity** – There are currently major recruitment challenges for both consultants and midwives, which our proposals aim to ease. However, work would still be required with staff to develop new roles and ways of working. The campus model would mean that staff (particularly midwives) would be aligned to a campus and be expected to work across different units within the campus according to demand. The campuses would also work together to deliver capacity across north east London, so that, for example, a pregnant woman could access antenatal and postnatal care at King George Hospital but deliver at Whipps Cross. There would also be new roles (for example, midwife support workers) and some staff would need to develop their skills (e.g. more midwives competent and confident in delivering babies at home or in standalone midwifery-led units (MLUs)). *See section 5.3 below for further detail.*
- **Scheduled care** – In most trusts, the main change would be to working practices. Staff would still work on planned and unplanned surgery in order to maintain a skills base **but** rotas would provide for separate, ring-fenced clinical teams. BHRUT staff would be required to work across both King George Hospital and Queen's.
- **BHRUT specific** – some BHRUT staff would be relocated to a different site or required to work across two sites. BHRUT have stated that they do not expect to have to make significant redundancies as a result of these changes. *See section 5.2 below for further detail.*

Work is currently underway with local trusts to better understand the workforce requirements as part of planning for implementation. Although Newham and Whipps Cross would also be affected from a workforce perspective, the main impact will be upon BHRUT, so the focus here has been on understanding this impact.

More broadly, there is a whole system workforce challenge and a workforce strategy would need to be created to support development of the out of hospital care workforce; for example, extended acute nursing skills, case management skills to support care of people with long-term conditions and enhanced paediatric primary care skills.

5.2 BHRUT workforce

This section sets out the impact the proposals are expected to have on workforce levels at BHRUT.

Overall, the consolidation of services would bring particular workforce benefits to BHRUT, as staff previously based at King George Hospital could be used to fill vacancies and support a move towards 24/7 senior clinician cover at Queen’s Hospital. This would reduce the current reliance on bank and agency staff.

BHRUT have undertaken initial workforce modelling as part of their preparation for the next phase of work and this is summarised below.

5.2.1 Planning assumptions

BHRUT have used the following planning assumptions:

Supply side	Demand side
Staff turnover rate: 10%	Health for north east London activity flow assumptions will apply
Sickness absence rate: 3.5% – 4%	Proposed service reconfigurations will be delivered
<p>2011/12 Pan-London commissioning intentions mean BHRUT must assume:</p> <ul style="list-style-type: none"> • Reduction of around 25% in adult pre-registration nursing commissions from 11/12 • Initial reduction of around 27% in paediatric pre-registration nursing commissions in 11/12 but overall 25% increase over 3 years • Maintenance in midwifery pre-registration commissions – due to placement issues • Reduction of around 19% in Allied Health Professionals (AHP) commissions <p>All will impact upon the overall number of newly qualified staff being available to BHRUT in three years.</p>	<p>Delivery of 4% Cost Improvement Programme (CIP) over the year will continue – year on year. <i>Involves a disinvestment in Establishment through reducing the use of temporary staffing, whilst using reconfigurations and redeployment of current staff.</i></p> <p>BHRUT’s financial modelling makes allowance for 100 redundancies across the period, linked to both reconfiguration and efficiency programmes.</p> <p>BHRUT anticipates that staff turnover, reduction in agency staff etc will minimise the level of redundancies.</p>

Supply side	Demand side
Difficulties in recruiting to areas/staff groups where there are national and local shortages will continue – requiring new ways of working, role re-design and alternative solutions.	Funded establishment staff – in clinical areas, some of these are held for temporary staff usage to cover absence – work underway to identify these.

The following clinical issues and assumptions have also been taken into account:

Surgery	Due to recruitment issues, plans relating to medical staffing include freezing headcount to 20 at trust grade level in order to allow increase in capacity at consultant/ staff grade and associate specialist doctor (SAS) level and intake of trainees. A retention strategy at SAS level is planned with a view to developing a profitable service. These plans are still at an early stage of development.
Children and Young People	<p>A workforce model to support the development of a consultant delivered service supported by Paediatric Advanced Nurse Practitioners has been agreed. This will allow provision of more expert education and supervision for doctors in training.</p> <p>To support this development the required increases in funded establishments have been made.</p>
Maternity	Redesign of maternity services in order to improve care pathways and efficiency planned. Includes the introduction of a general nurse team and surgical practitioners to lead obstetric theatres and HDU - supported by nursery nurses in both areas thus freeing up midwives time to support achievement of the 1:28 ratio. Due to the local issues and difficulties in attracting and recruiting midwives, current discussions indicate that these posts will be funded though the process of transferring from midwifery establishments.
Unscheduled care	BHRUT are looking to increase medical staff cover at Queen’s in all medical sub-specialties to move to a seven day model of specialist care which will increase requirement for consultants in all medical sub-specialties. This is currently being worked through.

BHRUT are still expecting to deliver a significant amount of medical cover to King George Hospital to ensure patients on acute rehabilitation pathways have appropriate input. This could transfer to the community sector but at present this is a high risk strategy unless community partners take a significantly greater role in delivery of care to patients.

The overall number of A&E staff is currently projected to fall; however, this will need to be kept under review – if Urgent Care Centre did not achieve the planned proportion of activity and/or if demand at Queen’s exceeded that currently forecast, more A&E staff would be required.

5.2.2 Workforce requirements at BHRUT

Applying these assumptions, BHRUT has undertaken initial modelling of the workforce that might be required to deliver the final proposals for change, based upon the activity and capacity data for the variant model set out in chapter three. If the Health for north east London proposals were approved this would require further work; in particular as it is dependent on an understanding of clear care pathways, which would need to be further developed as part of the implementation process. BHRUT are committed to developing a more robust workforce plan in partnership with other organisations over the coming months.

A specific breakdown of the workforce model for different staff groups is provided below:

For medical staff:

Health for north east London proposals will mean a reduction in medical staff at BHRUT but this represents no more than a 10% reduction in total medical staff in any given year:

	2011/12 (Y+1)	2012/13 (Y+2)	2013/14 (Y+3)	2014/15 (Y+4)
Overall change:	-8%	-7%	-10%	-2%

The table below sets out the specific changes.

Occupation Group / Band <small>(double-click a category to drill on detail)</small>	Total Establishment at 1 April (Funded WTE)					Establishment CHANGES (+/- WTE)			
	2010/11	Y+1	Y+2	Y+3	Y+4	Y+1	Y+2	Y+3	Y+4
ALL MEDICAL AND DENTAL STAFF	912.8	848.1	790.0	719.0	704.1	-64.7	-58.2	-70.9	-15.0
Accident & emergency	81.7	68.9	55.3	49.4	47.9	-12.8	-13.6	-5.9	-1.5
Anaesthetics	118.4	110.9	104.3	95.4	93.6	-7.6	-6.6	-8.9	-1.8
Clinical oncology	19.3	18.0	17.0	15.5	15.2	-1.2	-1.1	-1.4	-0.3
Dental	10.1	9.5	8.9	8.1	8.0	-0.6	-9.5	-0.8	-0.2
General medicine	288.1	269.7	253.7	232.1	227.8	-18.4	-16.0	-21.6	-4.3
Obstetrics & gynaecology	68.0	65.3	63.0	61.5	59.6	-2.7	-2.3	-1.5	-1.9
Paediatric	66.7	65.6	64.4	51.4	50.2	-1.1	-1.2	-13.0	-1.2
Pathology	28.3	23.0	19.0	18.5	18.1	-5.3	-4.0	-0.4	-0.4
PHM & CHS	0.1	0.1	0.1	0.1	0.1	-	-	-	-
Psychiatry	-	-	-	-	-	-	-	-	-
Radiology	26.1	24.4	23.0	21.0	20.6	-1.7	-1.4	-2.0	-0.4
Surgical	206.0	192.8	181.4	166.0	162.9	-13.2	-11.4	-15.4	-3.1

For non-medical staff:

Health for north east London proposals will mean a reduction in non-medical staff at BHRUT but this represents no more than an 8% reduction in total non-medical staff in any given year:

	2011/12 (Y+1)	2012/13 (Y+2)	2013/14 (Y+3)	2014/15 (Y+4)
Overall change:	-7%	-6%	-8%	-2%

The table below sets out the specific changes projected by staff group.

Occupation Group / Band (double-click a category to drill on detail)	Total Establishment (Funded WTE)					Establishment CHANGES (+/- WTE)			
	2010/11	Y+1	Y+2	Y+3	Y+4	Y+1	Y+2	Y+3	Y+4
ALL NON-MEDICAL STAFF	5078.7	4747.3	4486.7	4146.2	4068.3	-331.4	-260.5	-340.6	-77.8
All Qualified Nursing, Midwifery and Health Visiting Staff (excl Registered Midwives)	1788.7	1674.2	1575.1	1441.0	1414.4	-114.5	-99.1	-134.1	-26.7
Of which Paediatric Qualified Nursing, Midwifery and Health Visiting Staff (excl Registered Midwives)	150.5	148.0	145.2	116.0	113.3	-2.5	-2.8	-29.2	-2.7
Of which Surgical Qualified Nursing, Midwifery and Health Visiting Staff (excl Registered Midwives)	575.5	538.7	506.8	463.6	455.1	-36.8	-31.9	-43.1	-8.6
Of which Medical Qualified Nursing, Midwifery and Health Visiting Staff (excl Registered Midwives)	543.2	508.5	478.4	437.6	429.5	-34.8	-30.1	-40.7	-8.1
Of which A&E Qualified Nursing, Midwifery and Health Visiting Staff (excl Registered Midwives)	170.8	144.0	115.6	103.2	100.0	-26.8	-28.4	-12.4	-3.1
Registered midwives	323.6	310.6	299.7	292.5	283.5	-12.9	-10.9	-7.2	-9.1
Healthcare Scientists	221.4	207.2	195.0	178.4	175.1	-32.1	-10.3	-16.6	-3.3
Allied Health Professionals	297.7	278.6	262.2	239.8	235.4	-19.1	-16.5	-22.3	-4.4
Other Scientific, Therapeutic and Technical Staff	181.7	170.1	160.0	146.4	143.7	-11.6	-10.1	-13.6	-2.7
Ambulance staff	-	-	-	-	-	-	-	-	-
HCA's and Support Workers	732.0	685.2	644.6	589.7	578.8	-46.8	-40.6	-54.9	-10.9
Of which Paediatrics HCA's and Support Workers	14.3	14.1	13.8	11.0	10.8	-0.2	-0.3	-2.8	-0.3
Of which Surgical HCA's and Support Workers	233.5	218.5	205.6	188.1	184.6	-14.9	-12.9	-17.5	-3.5
Of which Medical HCA's and Support Workers	250.3	234.3	220.4	201.6	197.9	-16.0	-13.9	-18.8	-3.7
Of which A&E HCA's and Support Workers	22.0	18.6	14.9	13.3	12.9	-3.5	-3.7	-1.6	-0.4
Other Nursing Support	26.4	24.7	23.2	21.3	20.9	-1.7	-1.5	-2.0	-0.4
Of which Paediatrics Other Nursing Support	4.0	3.9	3.9	3.1	3.8	-0.1	-0.1	-0.8	0.7
Nursing, Midwifery and Health Visiting Learners	65.9	65.9	65.9	65.9	65.9	-	-	-	-
Scientific, Therapeutic and Technical Assistants / Trainees	149.3	129.1	127.5	126.3	125.1	-20.1	-1.7	-1.2	-1.2
Healthcare Scientist Assistants / Trainees	121.5	105.2	101.4	99.5	97.6	-16.3	-3.8	-1.9	-1.9
Managers and senior managers	104.3	97.62	91.8	84.0	82.5	-6.7	-5.8	-7.8	-1.6
Administration and estates	1054.4	986.9	928.5	849.5	833.7	-67.5	-58.4	-79.0	-15.7
Others	11.8	11.8	11.8	11.8	11.8	-	-	-	-

5.2.3 Managing the projected reduction in staff numbers

The change in staff numbers is no more than 10% in any given year and BHRUT have an expected staff turnover rate greater than 10%. The trust is also carrying a large number of vacancies and currently using a high proportion of bank and agency staff as a result. Although reductions in A&E staff are likely to be greater than 10%, turnover in this area is currently running at 27% and there will be an increased demand for urgent care staff across the sector and for A&E staff in nearby hospitals.

BHRUT has assumed a total of 100 redundancies over 4 years in their financial modelling, since turnover and vacancies may not necessarily occur in the areas where staff reductions are required. Nonetheless, BHRUT anticipate that they will be able to minimise the level of redundancies through normal staff turnover and a reduction in the use of agency staff.

5.2.4 Other considerations

Some BHRUT staff would have a change in working patterns, with some relocated to a different site and others required to work across two sites. Senior doctors may be required to work out-of-hours more frequently than they currently do as a result of the drive towards 24/7 senior doctor cover.

5.3 Clinical workforce – maternity

5.3.1 Overview

The Health for north east London proposals are designed in part to ease the maternity workforce challenges facing north east London. Given the national shortage of obstetric consultants and midwives; the proposals enable the sector to make best use of these scarce resources:

- Consolidating obstetric services onto fewer sites would mean the same number of consultants can provide an increased period of cover, supporting a move towards the recommended levels of consultant presence (168 hours or 24/7 cover)⁷⁴.
- The campus model would mean that staff (particularly midwives) would be aligned to a campus and be expected to work across different units within the campus according to demand. The campuses would also work together to deliver capacity and choice across

⁷⁴ See clinical chapter

north east London, so that, for example, a pregnant woman could access antenatal and postnatal care at King George Hospital but deliver at Whipps Cross.

- There would also be new roles (for example, midwife support workers) and some staff would need to develop their skills (e.g. more midwives competent and confident in delivering babies at home or in standalone midwifery-led units (MLUs)).

However, the proposals do not fully resolve these challenges. It is expected that there would still be some staff shortages and that work would still be required with staff to develop new roles and ways of working.

5.3.2 Workforce modelling

Commissioning Support for London (CSL) has developed a workforce modelling tool for maternity to support providers in calculating their maternity workforce requirements for a chosen range of number of deliveries. It indicates **only** the number of staff required to support work which is funded by the maternity tariff so; for example, the number of paediatricians shown does **not** include neonatal work (i.e. intensive care / cots / situations where the baby leaves the mother.)

This tool has been applied to the Health for north east London proposals; using expected ranges of birth numbers at each campus. The model is based upon an assumed staffing level for a range of numbers of deliveries and doesn't take account of local circumstances. The figures for each trust should, therefore, be treated as indicative only.

Figures 1 and 2 below show the expected workforce requirements using this model.

Figure 1: predicted workforce requirements 2010/11

	King George Hospital	Queen's Hospital	Barts & the London Hospitals	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital
Planned Activity 2010-11	2,300	7,100	4,600	4,800	5,200	5,300
Activity						
Deliveries - Obstetric	1,380	4,260	2,760	2,880	3,120	3,180
Deliveries - Midwife Led	920	2,840	1,840	1,920	2,080	2,120
Average Caseload (7/12 annual)	1,342	4,142	2,683	2,800	3,033	3,092
WTE						
Obstetricians	12	76	44	44	76	76
Anaesthetists	7	23	19	19	23	23
Paediatricians	7	13	10	10	13	13
Midwives (Caseloading)	54	162	108	108	117	117
Midwives (Labour Ward)	16	32	32	32	32	32
Midwives (MLU)	19	30	28	28	30	30
Midwives (Maternity Ward)	30	74	63	63	63	63
Sonography	17	33	25	25	25	25
	161	442	329	329	378	378

Figure 2: predicted workforce requirements 2016/17⁷⁶

	King George Hospital	Queen's Hospital	Barts & the London Hospitals	Homerton Hospitals	Newham Hospital	Whipps Cross Hospital
Forecast Activity 2016-17 after Variant reconfiguration	0	8,900	5,200	5,600	8,300	8,800
Activity						
Deliveries - Obstetric		5,339	3,120	3,360	4,980	5,280
Deliveries - Midwife Led		3,561	2,080	2,240	3,320	3,520
Average Caseload (7/12 annual)		5,192	3,033	3,267	4,842	5,133
WTE						
Obstetricians		90	76	76	90	90
Anaesthetists		24	23	23	24	24
Paediatricians		13	13	13	13	13
Midwives (Caseloading)		198	117	126	189	198
Midwives (Labour Ward)		48	32	32	48	48
Midwives (MLU)		30	30	30	30	30
Midwives (Maternity Ward)		101	63	63	101	101
Sonography		42	25	25	42	42
		545	378	387	536	545

It is important to note that this modelling is indicative only as it assumes that the ideal staffing levels at each number of births is in place and that staffing requirements do not vary according to local circumstances. The model has **not** been informed by existing staffing levels or the workforce

⁷⁵ Based on single point estimates of forecast activity. For planning purposes we will work on the basis of a possible range of activity and monitor and respond to actual trends in demand.

⁷⁶ Again based on single point estimates of forecast activity. 2016/17 projections are for the *variant* model.

plans of individual providers in the area and further work would be required with each trust to develop detailed workforce models that met their specific needs.

It is worth noting that, although this modelling suggests a potential increase of 19% in maternity workforce requirements from 10/11 to 16/17 this is not driven by the reconfiguration, but by the predicted increase in activity in this period of 26%. The Maternity and Newborn Care CWG has already begun work on local maternity workforce requirements and would begin to consider neonatal workforce requirements in early 2011 if the proposals were agreed.

5.3.3 Recruiting and developing the maternity workforce

The CWG recognises the fundamental importance of workforce which is a challenge regardless of the reconfiguration proposals. It is of the utmost priority to develop confidence and capability of the midwifery workforce in north east London in order to deliver the midwife-led model of care, including for out of hospital birth settings.

The CWG also recognises the need to support obstetric trainees and new consultants so that the senior medical staff are available 24/7 to support high-risk births and women who develop complications during labour. Work has already started to develop a comprehensive north east London-wide maternity workforce strategy.

5.4 Clinical workforce – Urgent and emergency care

5.4.1 Overview

For urgent and emergency care, the Health for north east London proposals would be expected to have a positive impact on workforce. Consolidation of A&E departments and supporting services would mean the same number of consultants can provide an increased period of cover, supporting a move towards 24/7 senior doctor cover⁷⁷.

The proposals, particularly those for King George Hospital, also mean that a new model of care would be required for urgent care services.

⁷⁷ See clinical chapter

5.4.2 Workforce requirements for urgent care services

Urgent care services will require a “hybrid” workforce that has a blend of primary and secondary care skills; able to both manage primary care cases and recognise those patients which need to be transferred to acute services.

The Unscheduled Care CWG has recommended that in urgent care services in north east London:

- there should be senior clinical leadership with overall responsibility for clinical effectiveness;
- there should be 168 hour (i.e. 24/7) senior clinical cover from an experienced nurse practitioner or lead doctor (someone who is able to demonstrate they meet a defined set of core competencies⁷⁸);
- a core team of senior clinical staff should be employed who have dedicated responsibility to support the service as a formal part of their job. This might, for example, consist of around 10-15 clinicians providing a minimum of around 12-16 hours per week on average;
- there should be a joint training programme for primary and secondary care;
- urgent care services should include stabilisation and retrieval services, with a method for safe retrieval of patients to support the appropriate management of specified conditions / presentations at King George Hospital;
- there should be a shared multi-disciplinary ‘treat and triage’ service staffed by both emergency care and urgent care clinicians;
- there should be joint posts and / or rotational posts to ensure staff working in ‘treat and triage’ services / urgent care settings are appropriately skilled; and
- development of a competency framework setting out core clinical competencies required to deliver safe and effective ‘treat and triage’ care.

Further work is required as part of planning for implementation to understand the exact workforce implications for each site. It is currently expected that the new requirement for 24/7 senior cover may require an increase in senior staff.

Particular work is required to understand the implications of the changed service model for staff at King George Hospital and Queen’s Hospital, including the implications of bed productivity and new ways of working between the two sites.

⁷⁸ Core competencies list to be developed

5.4.3 The new skill mix for urgent care services

The enhanced model of care proposed for urgent care centres will require a significant workforce transformation. Competencies that will need to be provided overall (i.e. across all staff in urgent care services) will include:

- advanced life support skills (e.g. airway management) at the front door of A&E for seriously ill patients;
- knowledge and understanding of complex investigations, including radiology, haematology, chemical pathology and microbiology, as well as interpretation of the results; and
- simple procedural skills, e.g. treatment of fractures that do not require surgery.

More broadly, urgent care services will need a staff team that:

- can recognise those patients who are appropriate for management by a primary care-led team as well as recognise those patients which need to be transferred to a more specialist service;
- can effectively manage pathways for more complex patients who do not require a hospital admission;
- have knowledge about safeguarding for children and adults;
- have some knowledge of mental health issues;
- includes a core team of the more senior staff doing “treat and triage “and managing more complex patients, with other staff handling the more straightforward primary care activity’ and
- includes the skill mix to support the above requirements.

Further work to develop the appropriate workforce would need to be undertaken in the implementation stage by urgent care providers in collaboration with the London Deanery and local commissioners.

5.4.4 Next steps

If the Health for north east London proposals were approved, more detailed workforce planning would need to be taken forward as part of the implementation stage.

Specifically, the Health for north east London programme would work with trust workforce planners and workforce transformation leads in sector commissioning bodies to:

- Finalise a view of individual trust workforce requirements in the light of the decision of the JCPCTs;
- Develop workforce strategies setting out how the workforce would be developed, including:
 - identifying the costs of developing this workforce and how these will be met;
 - recruitment and retention of staff; particularly in specialities where there is a national shortage of staff;
 - training and education – particularly around urgent care services and to prepare midwives to deliver in non-acute settings; and
 - supporting staff through the changes.

6 Planning for implementation and governance

6.1 Introduction

6.1.1 Purpose of this chapter

This chapter of the business case sets out initial thinking on arrangements for implementation should proposals for change be approved. It seeks to respond to some of the issues raised during consultation and post consultation engagement as to how proposed changes to services would be managed in a safe and sustainable way. It is not intended to prejudge the outcome of decision making and the proposed approach is indicative only. This framework for implementation and governance is based on:

- Experience of providing governance and assurance to the Health for north east London programme to date and an assessment of the current environment, which is one of transition for commissioning arrangements in the NHS. As such, the framework would need to be reviewed and adjusted to ensure it is fit for purpose and adapted to reflect the actual decisions that are made and new structures that may be put in place;
- Steps identified by the north east London trusts that would be necessary to implement the proposals for change; and
- Feedback received in post-consultation engagement with stakeholders, especially GPs, about how implementation would be managed safely and sustainably if proposals are approved.

The remainder of this chapter is structured as follows:

- **Section 6.2** sets out the proposed scope of the programme following decision making.
- **Section 6.3** presents proposals for the future governance and assurance arrangements for the programme.
- **Section 6.4** gives an outline of a suggested phased approach to implementation.

6.2 Proposed scope of any future programme

It is proposed that the following changes would be taken forward separately from other programme proposals, as there would be minimal dependencies with the main elements of the programme:

- Changes relating to complex vascular surgery (previously approved by the JCPCTs) would be driven and governed by the north east London cardio-vascular network; and
- Changes relating to paediatrics surgery and paediatric medical care (if approved) would be driven and governed by the proposed paediatrics network.

This chapter of the decision making business case focuses on the implementation of the following proposals:

- Reconfiguration of urgent and emergency care, impacting on King George, Queen's, Newham and Whipps Cross hospitals;
- Reconfiguration of maternity services, impacting on King George, Queen's, Newham and Whipps Cross hospitals;
- Development of children's services at King George Hospital; and
- Changes to planned care, impacting on King George and Queen's hospitals.

To maximise efficiency and ensure that changes are locally driven, it is proposed that only the boroughs, sectors and hospitals most affected by these changes are included in the revised governance arrangements going forward. These are:

- **Boroughs:** Newham, Waltham Forest, Redbridge, Havering, Barking and Dagenham;
- **Sectors:** Outer north east London and Newham (from Inner north east London). Some patient flows from West Essex are affected, however, the PCTs from Essex have always delegated their decision making powers to north east London. This ongoing arrangement would need to be formally tested following decision making;
- **Hospital trusts:** BHRUT (Queen's and King George), Whipps Cross, and Newham.

The following section sets out the proposed governance arrangements. Interaction with those boroughs, sectors and hospitals not included above would need to be clarified during the set up of these new structures.

6.3 Governance and assurance

6.3.1 The principles of governance and assurance

The current governance and assurance mechanisms were set up to support the development of appropriate proposals to be put forward for decision making. If the Health for north east London proposed changes are approved, these mechanisms would need to be substantially revised to be fit for purpose for the implementation phase of the programme. The following sections outline our initial thinking on how current arrangements would need to be adapted to meet the needs of this new phase of activity.

North east London PCTs are currently developing proposals for two sector-based integrated management teams. These proposals will be subject to formal consultation over the next two to three months. It is envisaged that whilst the current seven PCTs will remain the statutorily accountable bodies they will fulfil their responsibilities through substantially changed governance arrangements, with current JCPCTs being replaced by joint board arrangements that will in future cover the full range of PCT responsibilities. The new governance structures also envisage a much stronger role for GPs in their clinical commissioning capacity, and it is expected that these arrangements will continue to evolve over the coming 6 to 24 months as the transition to the fully GP-led commissioning model set out in the NHS White Paper proceeds.

Local GPs, particularly in ONEL, have expressed a strong desire to be fully involved in future decision making (e.g. signing off phases of change / detailed implementation plans). In response to this a robust clinical assurance process is embedded into the proposed governance arrangements set out below.

The governance of any future change programme would need to provide assurance that the changes being made would be:

- carried out safely, with the safety of patients being at the forefront of decision makers' minds;
- carried out in a timely fashion, without undue delay;
- accompanied by a clear plan to realise the expected benefits of the proposals. An indicative benefits realisation strategy is currently being developed as part of these proposals; and
- communicated effectively to patients and the public.

The governance structure would also need to provide mechanisms to:

- Ensure that the programme remains open to scrutiny by local authorities, the patients and the public, and to further develop meaningful partnerships with patients and local residents in the development and delivery of their local health services;
- Enable GP commissioners, in partnership with secondary care clinicians, to drive delivery of the changes required;
- Ensure the work of the programme is effectively linked to the work of local strategic partnerships and local social care services.

The proposed new governance structure takes these principles into account.

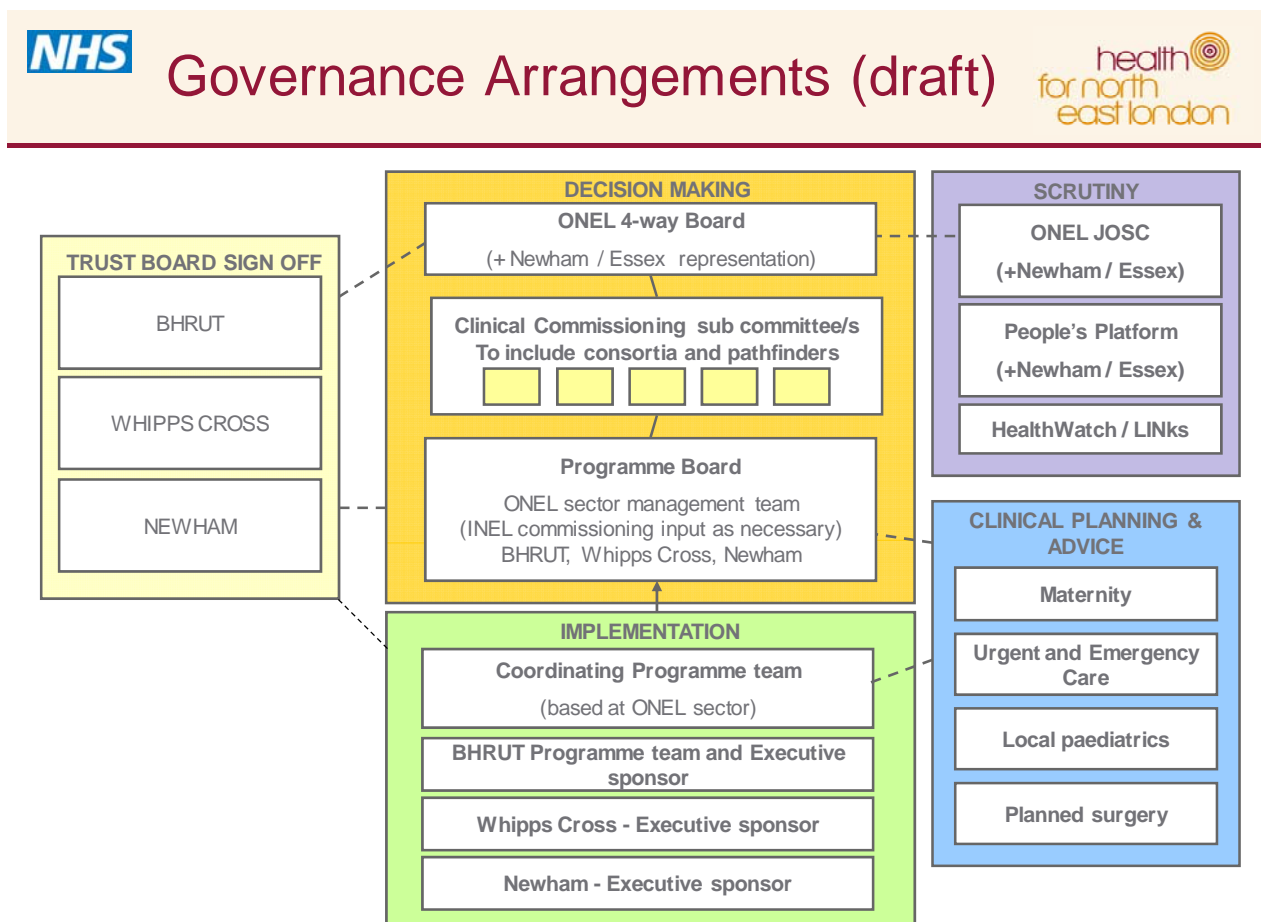
6.3.2 The proposed governance structure

The proposed structure would have five key components.

- **Decision-making:** With advice from the ONEL Clinical Commissioning Advisory Board, and the Programme Board, the ONEL Four-way Board would take decisions on how to implement the delivery of the proposed changes. It is proposed that there would be input from Newham as necessary;
- **Scrutiny:** Scrutiny would be led by the ONEL JOSOC (with suggested co-opted members from Newham). There would also be scrutiny from the ONEL People's Platforms and LINKs (or in future HealthWatch) from ONEL boroughs, supplemented by scrutiny from Newham;
- **Clinical planning and advice:** Four Clinical Advisory Boards (CABs) are proposed. Boards would be actively involved in the planning stages of implementation, and in the assurance stages. These would have foci of maternity, urgent and emergency care, children's service development at King George Hospital, and planned care;
- **Implementation:** It is proposed that there would be a "light touch" central implementation team to coordinate plans across the hospital trusts, which would be based in the ONEL sector (as the focus of implementation is there). It is also proposed that there would be an implementation team at BHRUT, headed by an executive sponsor. Executive sponsors are proposed for Whipps Cross and Newham;
- **Trust Board sign-off:** In addition to the above governance arrangements, individual trust boards (at BHRUT, Whipps Cross and Newham hospital trusts) would also need to assure themselves as to the robustness of plans relating to their services, workforce, estate and facilities and their readiness for implementation.

It is suggested that the programme would be underpinned by a **clinical assurance process** that would be developed and approved by Clinical Advisory Boards and GP commissioners. These would focus on ensuring that systems are ready and quality indicators are being delivered to enable the safe transfer of services. Section 6.4.2 below provides a high level summary of this proposed approach.

The proposed initial governance structure is illustrated below.



Should the proposals for change be approved by the JCPCTs, implementation would need to be fully embedded into the new sector based management and governance structures.

6.4 Planning for Implementation

This section and those that follow set out a proposed approach to implementation of the proposed changes to:

- **Maternity and newborn services (section 6.5);** and

- ***Urgent and emergency care, and planned care (section 6.6).*** It should be noted that these two sets of services have been linked in this scenario as there are clear dependencies between the transition of emergency care from King George Hospital to Queen's and the transition of planned care from Queen's to King George Hospital.

Further work is required to scope the vision for King George Hospital, the proposed change programme and associated interdependencies to the above proposals.

BHRUT is the provider most affected by the proposed changes. In addition to Health for north east London proposals, BHRUT has existing change programmes already underway which aim to improve quality and drive performance improvement and, where directly relevant, these are reflected in the proposals below.

The section includes:

- A high level summary of proposed future service changes by hospital site;
- A proposed phased approach to delivery;
- How changes to maternity and newborn services would be delivered;
- How changes to urgent and emergency care, and planned care would be delivered;
- Some specific considerations for NHS trusts; and
- Suggested next steps following decision making.

6.4.1 Changes for each hospital site

The table overleaf provides a high level summary of proposed future service changes in north east London, split by hospital site and also taking account of whole systems / out of hospital change.

Summary of proposed future provision by hospital site and proposed service change

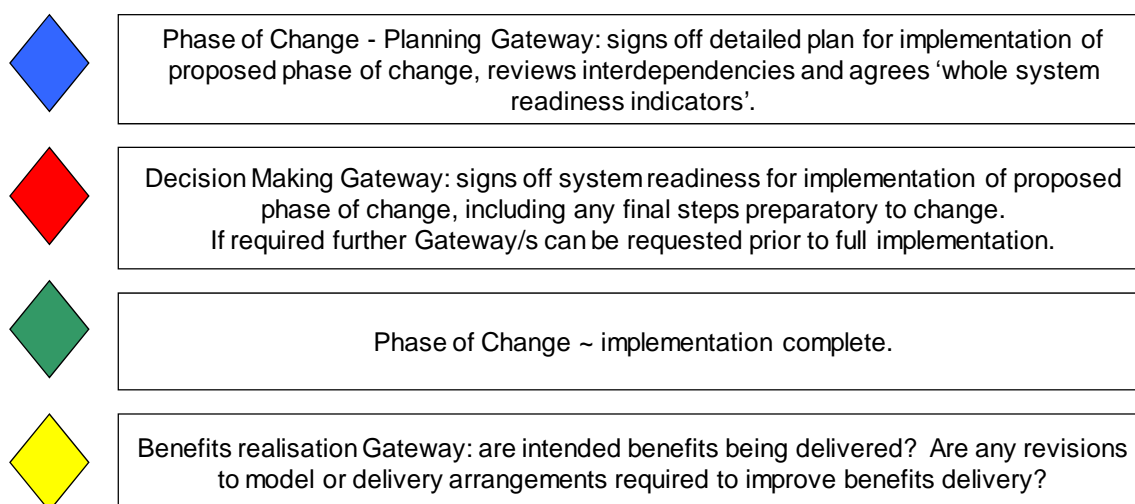
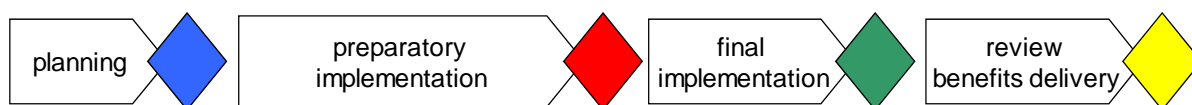
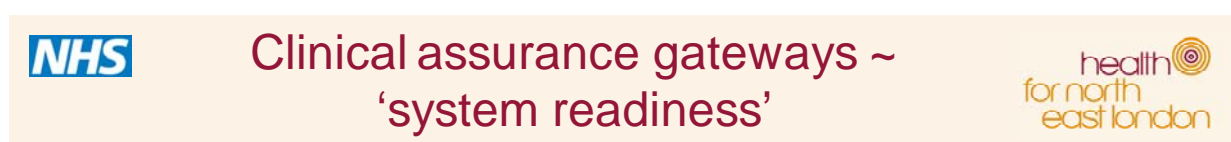
Heath 4NEL implementation requirements by hospital site and proposed service change

	Queen's	King George	Whipps Cross	Newham	Out of hospital / other
Maternity	<p>Current*: circa 7,100 births <i>*All current figures = 2010/11 plan</i></p> <p>Future: Base case and variant options – circa 8,800 to 10,500 births. Therefore additional capacity required via new alongside MLU, requiring:</p> <ul style="list-style-type: none"> •Capital and space planning (ward, theatres, SCBU) •Workforce plan. 	<p>Current*: circa 2,300 births</p> <p>Future: Services remaining / to be developed at King George Hospital include:</p> <ul style="list-style-type: none"> •Retention / development of antenatal and postnatal care / O/P etc • Workforce plan 	<p>Current*: circa 5,300 births</p> <p>Future: Base case / variant option – circa 7,000 - 9,000 births. Therefore additional capacity in obstetrics/ alongside MLU, requiring:</p> <ul style="list-style-type: none"> •Capital and space planning (ward, theatres, SCBU) •Workforce plan. 	<p>Current*: circa 5,200 births</p> <p>Future: Base case / variant option – circa 7,000 - 9,000 births. Therefore additional capacity in obstetrics/ alongside MLU, requiring:</p> <ul style="list-style-type: none"> •Capital and space planning (ward, theatres, SCBU) •Workforce plan. 	<p>Future: New approach to provision of maternity care within a 'Maternity campus' approach, therefore:</p> <ul style="list-style-type: none"> •Sector-wide workforce strategy •Commissioning strategy including. For example, re-commissioning of community midwifery.
Unscheduled Care	<p>Current*: 94k A&E; 50k UCC attendances; 130 non-elect. adms / day</p> <p>Future: 110k A&E; 79k UCC; 170 non-elective admissions / day (including maternity day attendances), therefore new model of care required, including:</p> <ul style="list-style-type: none"> •State of the art UCC 24/7; SSAU etc •A&E space / workforce planning •Significant LOS improvement to enable transfer of non-elective I/P from King George Hospital. •Cardiac catheterisation lab (from King George Hospital) 	<p>Current*: 65k A&E; 43k UCC attendances</p> <p>Future: 78k UCC attendances, therefore:</p> <ul style="list-style-type: none"> •State of the art 24/7 UCC and SSAU etc. •Children's services development •Onsite enhanced polyclinic services •Workforce plan. 	<p>Current*: 111k A&E; 38k UCC attendances</p> <p>Future: circa 82k A&E; 79k UCC (incl. transfer from King George Hospital), therefore a new model of unscheduled care is required, including:</p> <ul style="list-style-type: none"> •State of the art UCC 24/7; SSAU •Additional non-elective I/Ps •UCC space planning •Workforce plan. 	<p>Current*: 73k A&E; 47k UCC attendances</p> <p>Future: circa 68k A&E; 67k UCC (transferred from King George Hospital), therefore:</p> <ul style="list-style-type: none"> •New model of unscheduled care, including: •State of the art UCC 24/7; SSAU •Additional non-elective I/Ps •UCC space planning •Workforce plan. 	<p>Future: New model of unscheduled care and polysystems development</p> <ul style="list-style-type: none"> •Whole systems approach to LOS improvement •Demand management / admission prevention strategy.
Scheduled Care	<p>Current*: 28k elective spells</p> <p>Future: Reduction to circa 8k elective spells through transfer of routine planned surgery to King George Hospital requiring:</p> <ul style="list-style-type: none"> •Detailed theatres modelling •Workforce planning •Balanced by acute medical and surgical services from King George Hospital. 	<p>Current*: 18k elective spells</p> <p>Future: 36k spells in planned surgery/elective centre requiring</p> <ul style="list-style-type: none"> •Theatres capacity modelling •Capital and workforce plan •Transfer out of major surgery •Additional day care provision •Renal dialysis from BLT. 	<p>Current*: 38k elective spells</p> <p>Future: No material impact - Consider benefits to Trust separation of elective and non-elective care.</p>	<p>Current*: 15k elective spells</p> <p>Future: No change required.</p>	<p>Future: Sector priority to separate elective and non-elective care.</p>

6.4.2 Overall phased approach to delivery

To ensure that change is planned and implemented effectively without adversely affecting patient safety, a phased approach to delivery is proposed. This builds strong clinical oversight into the process, offers the ability to test the achievement of intended benefits and aims to mitigate any risk to patients arising from transition to new models of care.

Each phase of change would be subject to the following proposed clinically-led ‘Gateway’ process to ensure that clinicians and decision making bodies are confident that changes proposed can be made safely and sustainably:



- **A phase of detailed planning** to ensure all activities are fully understood and dependencies are planned for. This would be led by the CABs in conjunction with the coordinating team, and input from the trusts as necessary;

- **An initial “Planning Gateway”** This planning gateway would be an assurance process reporting through the clinical sub-committees to the Four-way Board and would agree the detailed plan;
- **A phase of development and preparation for implementation** led by the trusts and coordinated by the coordinating implementation team (ensuring dependencies are tightly managed), reporting to the Programme Board, to GP Commissioners and to the Four-way Board;
- **A Decision Making Gateway**, which would ensure that the appropriate **“system readiness indicators and assurance points”** have been met by the relevant trusts. This Gateway would ensure that all the steps are in place to make a safe transition of services, to be reported through the Clinical sub-Committees to the Four-way Board;
- **Implementation**, which would be managed by the implementation teams and executive sponsors, reporting regularly to the Programme Board, GP commissioners and the Four-way Board; and
- **A series of Benefits Realisation Gateways**, which would assess whether the described / intended benefits for each element of the change programme are being delivered. Further details are provided below on the benefits realisation approach.

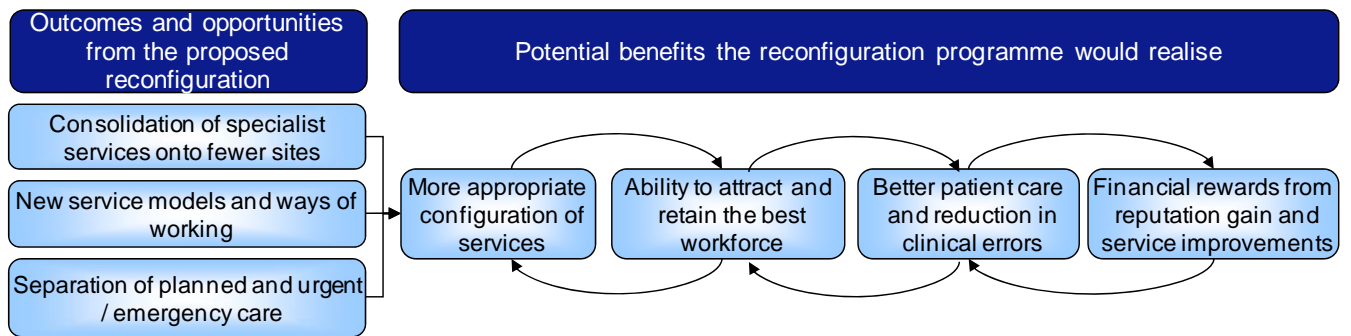
6.4.3 Benefits realisation

The delivery of improved outcomes for residents in north east London is the key reason for the changes proposed. There must be rigor, therefore, in setting out how the intended benefits arising from these proposed changes should be defined and measured. The purpose of the proposed benefits realisation framework is to:

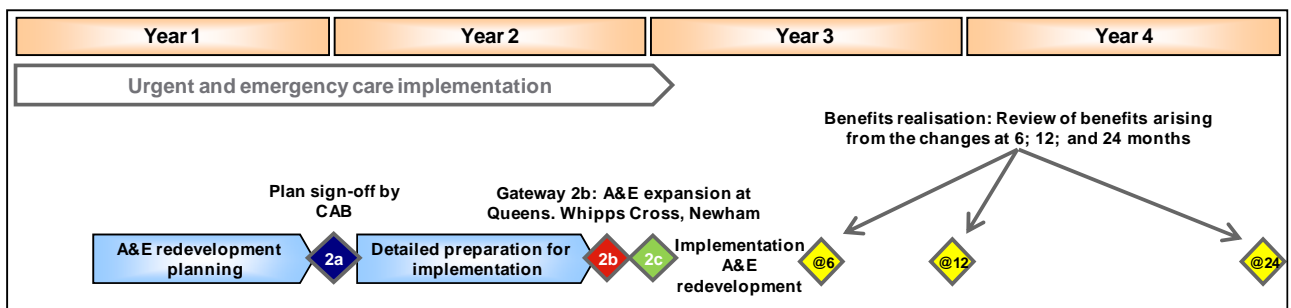
- ensure that the expected benefits of the programme are realised within the expected timeframe and sustained into the future;
- demonstrate to the sector’s GP commissioners the impact of the changes proposed to services in north east London;
- demonstrate to the public and other stakeholders (e.g. Local Authorities, Department of Health, NHS London) the impact of changes; and
- reinforce commissioners’ expectations of local providers and to provide a mechanism to hold them to account for delivery of expected benefits.

The following diagram outlines a high-level view of the expected virtuous circle of benefits released through implementation of the proposed changes, where:

- more appropriate service configuration and concentration of specialist expertise leads to
- the ability to attract and retain the best workforce, improving levels of senior clinical cover, which leads to
- safer, more effective patient care and reduced clinical errors, which leads to
- financial rewards through reduced cost, improved efficiency and reputation gain.



The proposed approach is to measure intended benefits over an extended period through a series of benefits realisation 'Gateways'. These Gateways would take place at 6; 12; and 24 months following implementation of each substantive change and offer the opportunity to revise the model of care or delivery arrangements if intended benefits are not demonstrated, for example:



Initial work on the intended benefits of the programme was undertaken as part of the Health for north east London PCBC. If the JCPCTs take the decision to proceed with the proposed changes, this work would be taken forward. This could include:

- **December 2010 / Jan 2011** – consider what milestones need to be monitored for 2011/12;
- **February – March 2011** – prepare milestones monitoring for inclusion in 2011/12 contracts and define Key Performance Indicators (KPIs) for pilot monitoring in 2011/12;
- **Quarter 1 / 2 2011/12** – confirm milestone reporting arrangements with providers for 2011/12 and identify baseline KPIs for future reporting in 2012/13.

Therefore, in the short term, it is proposed to set up a Benefits Management Group⁷⁹ to:

- Define milestone measures, KPIs and the reporting framework;
- Set up reporting mechanisms; and
- Begin to create reports, for example performance dashboards.

In the longer term it is not yet clear how this work should develop with reference to GP commissioners and this will need to be kept under review.

6.5 Making changes to maternity services

There are three key sets of activities needed to move to the proposed future configuration of services:

- re-provision of obstetric-led maternity delivery service at King George Hospital (see 6.5.1);
- development of maternity capacity at Whipps Cross and Newham hospitals (see 6.5.2);
- whole system improvement programme for maternity and newborn services (see 6.5.3).

There are likely to be interdependencies between these groups of activity; for example, the assessment of progress against whole system improvement requirements is likely to have an impact on the timeline for phased transfer of activity to Whipps Cross and Newham hospitals. Section 6.5.4 brings these activities together to summarise an overall approach for changes to maternity and newborn care.

6.5.1 Re-provision of the obstetric-led maternity delivery service from King George Hospital

Objective: The safe transition of obstetric-led maternity delivery service from King George Hospital to Queen’s Hospital. This would include the transfer of staff in midwifery, nursing, obstetrics and the transfer of associated services such as elective obstetric theatres, clinical services and neonatal services.

⁷⁹ PCT Directors of Performance or representatives; GP commissioner representatives; Trust Performance Managers.

Interdependencies

- **Birth Capacity** – The proposed new MLU at Queen’s would need to be in place prior to the transfer of obstetrics activity from King George Hospital in order to develop sufficient capacity at Queen’s to absorb the additional work;
- **Bed capacity** - The existing BHRUT quality improvement programme would need to release sufficient bed capacity (through length of stay improvement) to enable the development of the MLU at Queen’s⁸⁰;
- **Other capacity** - for example: theatres, neonatal services and a detailed understanding and delivery of other capacity required;
- **Workforce** - Sufficient skilled staff would need to be in place at Queen’s before the proposed transfer of King George obstetric services, to ensure this takes place in a safe and effective manner. Enhanced consultant and midwife presence at Queen’s Hospital will be facilitated by the proposed transfer of obstetric services, and associated staff, from King George Hospital.

Assurance points

Drawing on these interdependencies, it is proposed that the following would need to be in place before the transition of obstetric-led services from King George Hospital to Queen’s could take place:

1. BHRUT quality improvement programme (QIP): release of 30 beds at Queen’s for MLU development;
2. Refurbishment of clinical space at Queen’s has taken place to the required standards;
3. Development of workforce has taken place;
4. Local protocols are in place for safe and effective midwife-led care;
5. Queen’s MLU is operational;
6. Queen’s theatre capacity identified and sufficient;
7. Queen’s neonatal efficiency and capacity improvement plan implemented;

Potential timescales for change:

The timetable for delivery of these changes would be dependent upon a wide range of factors; however, an indicative timeline is as follows:

⁸⁰ A potential ward has been identified at Queen’s – this is sufficiently distinct from the main obstetrics department to prevent the unit from becoming an overspill facility from obstetrics. The Trust would need to undertake early preparatory work (e.g. discussion with PFI provider, setting up a tender process) to ensure the necessary refurbishment and infrastructure changes could be made in a timely manner.

- **Quarter 4 - 2010/11:** devise a plan for agreement at the Clinical Advisory Board (CAB);
- **Early 2011/12:** detailed planning for implementation;
- **Quarter 3 2011/12:** estimated date for opening the MLU at Queen's;
- **Quarter 3/4 - 2011/12:** transfer of obstetric-led services from King George Hospital to Queen's.

6.5.2 Planned capacity development at Whipps Cross and Newham Hospitals

Objective: To expand maternity capacity at Whipps Cross and Newham hospitals in order to create sufficient capacity within the sector to cope not only with the planned re-provision of obstetric care from King George Hospital but also for the significant projected increase in annual births across the sector.

Interdependencies

- **Capital** - Whipps Cross and Newham Hospitals have outline plans for the required capital development to meet the needs of the proposed changes. Capital would need to be secured and the programme of work delivered in line with the maternity campus model;
- **Capacity** - Whipps Cross and Newham would need to expand existing midwife-led facilities and associated neonatal services, clinical services and obstetrics theatres to enable accommodation of the increased maternity activity;
- **Workforce** - Workforce capacity and capability would need to be built up alongside physical infrastructure capacity.

Assurance points

Drawing on these interdependencies, it is proposed that the following would need to be in place:

1. Additional capacity has been developed at Whipps Cross and Newham hospitals;
2. Local protocols are in place for safe and effective midwife-led care;
3. Development of workforce has taken place;
4. Neonatal capacity identified and confirmed at each site;
5. Additional theatre capacity identified and confirmed at each site;
6. Commissioning strategy, including community midwifery arrangements agreed.

Potential timescales for change:

It is currently envisaged that developments could take place over two phases:

- Firstly to accommodate the relatively small flow of activity arising from the re-provision of obstetric-led delivery services at King George Hospital;
- Secondly to prepare for the more extensive change in activity flows arising from potential changes to community midwifery 'catchments' and the projected growth in the sector.

Each phase of development could require around 12-18 months to effectively plan and get agreement to proceed, to undertake the readiness projects to enable implementation and to obtain the approval to implement. The actual timeframes would depend upon the extent and timing of the additional capacity requirements (i.e. sourcing capital; developing and implementing capital redevelopments and workforce development).

Further considerations

- An identified aim of this phased approach to capacity development is to increase capacity across the sector to match forecast increases in demand in a way that evens-out activity at Whipps Cross, Newham and Queen's. As noted above, this would be managed through the proposed future changes to community midwifery catchment areas. These proposed 'catchments' are fluid rather than fixed, with a clear commitment to choice of provider for local women. However, subject to agreement of this approach, it is expected that a move towards natural, geographic (travel time) catchment areas would take place over time;
- The new maternity campus proposals offer the opportunity to consider innovative ways of working, to develop skills, competencies and confidence among the midwifery workforce in particular, given their central role in future proposed provision. Local trusts could consider developing new roles to support midwifery and obstetrics and help ease the burden of activity among these staff groups.

6.5.3 Maternity services improvement programme

Objective: To develop a whole system improvement programme to deliver the overall vision for services across the whole maternity pathway.

Interdependencies

Integral to the success of the maternity campus proposed model is a whole systems approach to service improvement. Some of the changes proposed are beyond the control of any single provider and need to take place across the whole pathway and in partnership with primary and

community care. There are some proposed initiatives that should be logically taken forward at sector level and others for which co-operation between hospital and community providers are essential. Some sector-wide initiatives that would help drive forward the development of maternity and newborn services could include:

1. A north east London sector workforce strategy; including the provision of training programmes to implement the maternity campus model and a consistent approach to new roles development;
2. Development of local quality standards so that providers understand the benchmark set and their progress monitored on a consistent basis;
3. Agreed quality assurance / service improvement plans for all maternity campuses.

Assurance points

This workstream represents a continual improvement programme. Rather than specific assurance points, north east London would need to define appropriate measures of standards and quality that could be reviewed at regular intervals in order to encourage a culture of continuous improvement.

Consideration could be given to the development of a more formalised north east London maternity network to oversee the future improvement programme.

Potential timescales for change:

The timetable for delivery of these changes would be dependent upon a wide range of factors; however, current indications are that full implementation of the maternity campus model could be achieved some time in 2014/15.

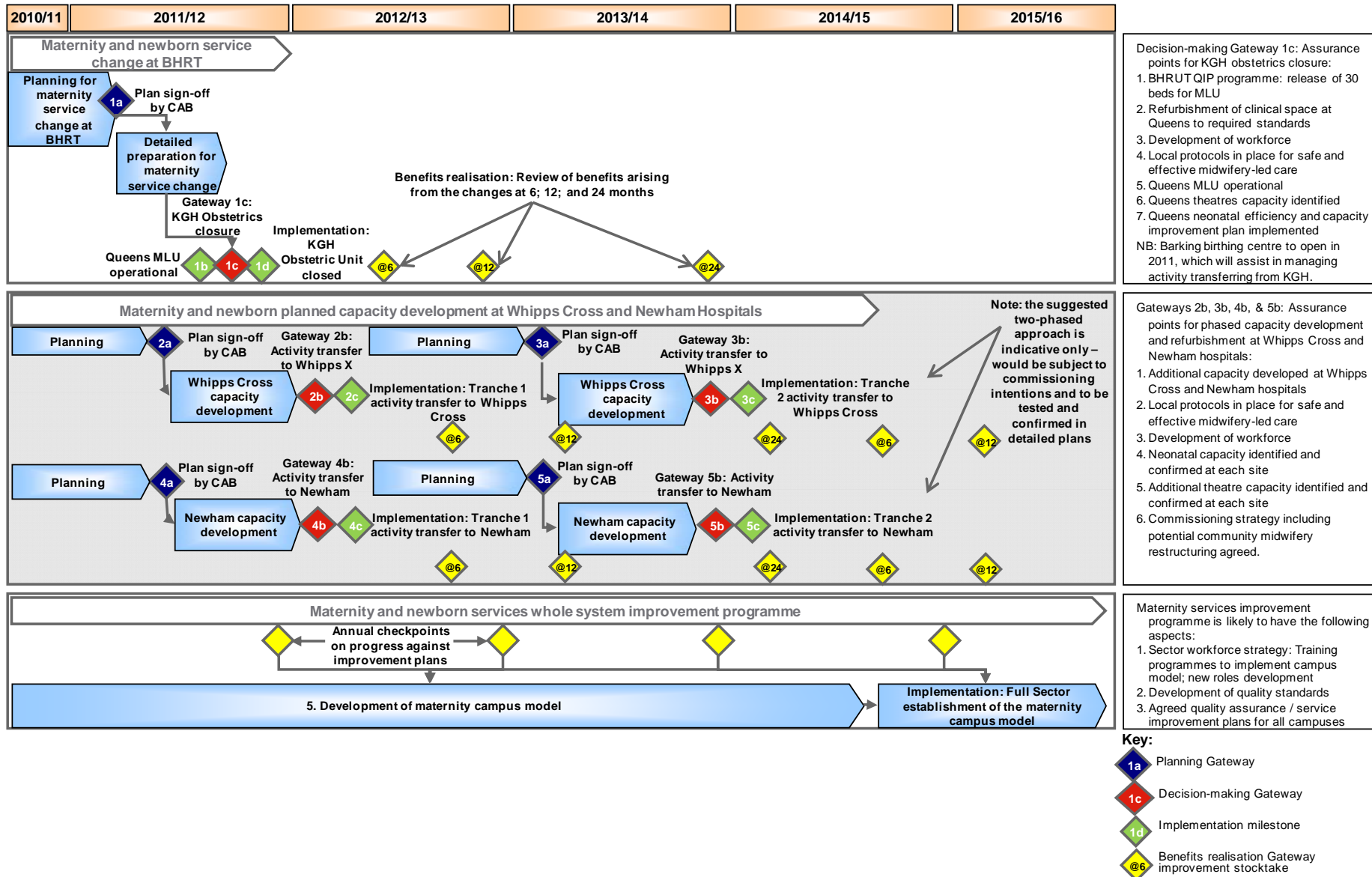
Improvements to service provision should be a continuous, ongoing requirement.

6.5.4 Overall approach for proposed changes to maternity and newborn care

A summary of the proposed approach, bringing together these three areas of work, is shown in the indicative timeline below.

Maternity and newborn indicative timeline

N.B. Indicative only – subject firstly to decision making process. If the decision to proceed is confirmed at JCPCT, precise timings are to be agreed via the assurance process.



6.6 Making changes to urgent and emergency and planned care

There are three key sets of activities needed to move to the proposed future configuration of services:

- Urgent and emergency care implementation (see 6.6.1);
- Bed capacity: implementation of capacity improvements (reducing length of stay) to meet future acute and elective bed requirements (see 6.6.2);
- Whole system improvement programme for urgent and emergency care services (see 6.6.3);

There are a range of interdependencies between these streams of activity; for example, there are significant interdependencies between the whole system improvement requirements for urgent and emergency care and the improvement programmes to release bed capacity at Queen's, Whipps Cross and Newham hospitals. Section 6.6.4 brings these activities together to summarise an overall approach for changes to urgent and emergency care.

6.6.1 Urgent and emergency care implementation

Objective: the safe and effective development of urgent care services and redevelopment of A&E services at Queen's, Whipps Cross and Newham to enable transfer of services from King George Hospital. This would include the transfer of staff in emergency care and associated services such as acute medical and surgical inpatients, inpatient paediatrics, emergency theatres, critical care and clinical services.

Interdependencies

- **Development of urgent care services**– it will be a priority to:
 - Develop a short stay assessment unit (SSAU) at King George Hospital⁸¹;
 - Develop enhanced models of urgent care and associated infrastructure at King George, Queen's, Newham and Whipps Cross Hospitals;
- **Release of bed capacity** - Significant additional ward space will need to be created, particularly at Queen's Hospital, to accommodate the inpatient activity associated with the transfer of A&E attenders from King George Hospital. This will have to be delivered in phases and, therefore, the changes to emergency care may also have to be made in phases;

⁸¹ SSAUs may also be developed across other hospital sites as part of the enhancement of urgent care services, but this is not a direct dependency

- **Emergency care workforce** - Sufficient staff would need to be in place at Queen's before the transfer of King George A&E services to ensure this proposed changes takes place in a safe and effective manner;
- **Urgent care workforce** - Proposed developments would require a 'hybrid' workforce with a blend of primary and secondary care skills; able to both manage primary care cases and recognise those patients which need to be transferred to acute services. This workforce would need to be developed, in particular at King George Hospital, before the transfer of A&E services could take place.

Assurance points

It is likely that changes to emergency care would need to be made in phased stages.

Drawing on these interdependencies, it is proposed that the following would need to be in place at the gateway for the first stage of changes to emergency care provision:

1. Enhanced UCC provision is confirmed and in place;
2. The SSAU model proposed for King George Hospital has been agreed and implemented;
3. Paediatrics staffing confirmed at Queen's;
4. Ensure sufficient capacity has been released at Queen's;
5. Suitable accommodation for paediatric services in place;
6. Workforce plans developed;

This list is only illustrative and would need further development. Assurance points for further stages would also need to be developed.

Suggested timescale:

Subject to confirmation of the proposals, a detailed approach to the development of urgent care and A&E services in the sector would need to be developed.

Whilst detailed planning has not yet been developed for the proposed changes to urgent and emergency services, a logical phasing of this service transfer may have the following elements:

- King George A&E closure to paediatrics / blue light ambulance services / GP referrals
- King George A&E closure overnight (e.g. from midnight to 8 am);
- Closure to acute surgical patients;
- Diversion of all ambulance services from King George to other hospitals in the sector;
- Phased closure to patients requiring acute admission to medical wards and full closure of A&E services.

Further considerations

- BHRUT would need to mitigate the potential for delays in materially changing the site infrastructure through early preparatory discussions with the Private Finance Initiative (PFI) provider. Planning for sufficient time / contingency to change the infrastructure would also be advisable;
- Development of a workforce strategy for urgent and emergency care.

6.6.2 Bed capacity: implementation of capacity improvements to meet future acute and elective bed requirements

Objective:

The objective for this proposed activity is twofold:

- The phased release / development of bed capacity at Queen's, Whipps Cross and Newham hospitals to accommodate the transfer of acute admissions from King George Hospital. This would include the plan to transfer staff in acute medical and surgical inpatients, emergency theatres, critical care and clinical services;
- Capacity planning for the transfer of non-complex elective activity from Queen's. This would include increased provision of short stay / day attenders, detailed theatre capacity planning and associated clinical services requirements on the King George site.

Interdependencies

As noted above, there are significant interdependencies between the development of urgent and emergency care, the whole system improvement requirements across the sector and the improvement programmes to release bed capacity at Queen's, Whipps Cross and Newham hospitals. Improvement initiatives within primary, community and acute care would need to be coordinated to improve flows within and across organisational boundaries and to ensure that patients are promptly and effectively treated within settings and services appropriate to their needs.

Assurance points

Drawing on these interdependencies, it is proposed that the following would need to be in place:

1. Confirmed release of the required beds at Queen's, Whipps Cross and Newham (bed numbers for each phase to be confirmed through individual trust implementation plans);
2. UCC activity at Queen's, Newham and Whipps Cross to be increased as a proportion of total urgent care / A&E attendances, towards the 50% target level;

3. UCC activity at King George Hospital to make sufficient annual progress towards the 65% target level;
4. Workforce development within the urgent and emergency pathway.

Suggested timescale:

A phased approach to the development of the required acute medical and surgical inpatient capacity at Queen's, Whipps Cross and Newham hospitals is recommended to enable periodic stock take of progress against the necessary productivity gains. In addition, BHRUT would need to plan for the required beds, day provision, theatres and associated infrastructure needs at King George Hospital.

Three indicative tranches of capacity release are proposed and each tranche of development could require around 12-18 months to effectively plan, undertake the readiness projects to enable implementation and obtain the approval to proceed to implementation. There are some suggested overlaps in the indicative timeline so that planning for subsequent capacity release can take place in parallel to implementation of the former. The most significant capacity requirements have been identified for Queen's Hospital and the trust has confirmed their plan to release approximately two wards on the Queen's site (60 beds) per year over the next four years. Subject to confirmation of these efficiency gains, plus more modest requirements at Newham and Whipps Cross, the indicative plan proposes that sufficient capacity may be released to enable closure of King George A&E services and transfer of all associated acute inpatient activity by 2014/15.

Further considerations

For urgent and emergency care, a degree of uncertainty also exists around the projected future demand in the sector. In light of this fact, flexibility in planning additional capacity development and systematic review of future capacity requirements would be prudent.

6.6.3 Urgent and emergency care services improvement programme

Objective: To develop the whole system of urgent and emergency care to deliver improved patient experience and outcomes, with reduced reliance on A&E and inpatient admissions.

Interdependencies

Integral to the success of the proposed changes to urgent, emergency and planned care within the sector is a whole systems approach to service improvement. Many of the changes proposed for

urgent and emergency care require improvements that are beyond the control of any single organisation. There are a range of initiatives that should be taken forward at sector level and, particularly for urgent and emergency care, others for which cooperation between hospital and community providers are absolutely essential. In particular, deriving sufficient capacity through unlocking the acute providers' length of stay reductions requires an approach that brings together acute community providers, service commissioners and primary care. Some sector-wide initiatives that would help drive forward the development of urgent and emergency care services include the following:

1. Agreement of improvement plans and targets for urgent care centre increased activity and reducing the proportion of A&E attendances;
2. Admission prevention strategies that require collaborative working between acute, community and primary care;
3. A length of stay facilitated discharge improvement programme; and
4. Improved diagnostics provision, faster turnaround times for information flows to primary care and enhanced communications between primary and secondary care.

Assurance points

This objective represents a continual improvement programme. Rather than specific assurance points, north east London would need to define appropriate measures of standards and quality, to be embedded within sector Quality, Innovation, Productivity & Prevention (QIPP) plans and reviewed at regular intervals to encourage a culture of continuous improvement.

Potential timescales for change:

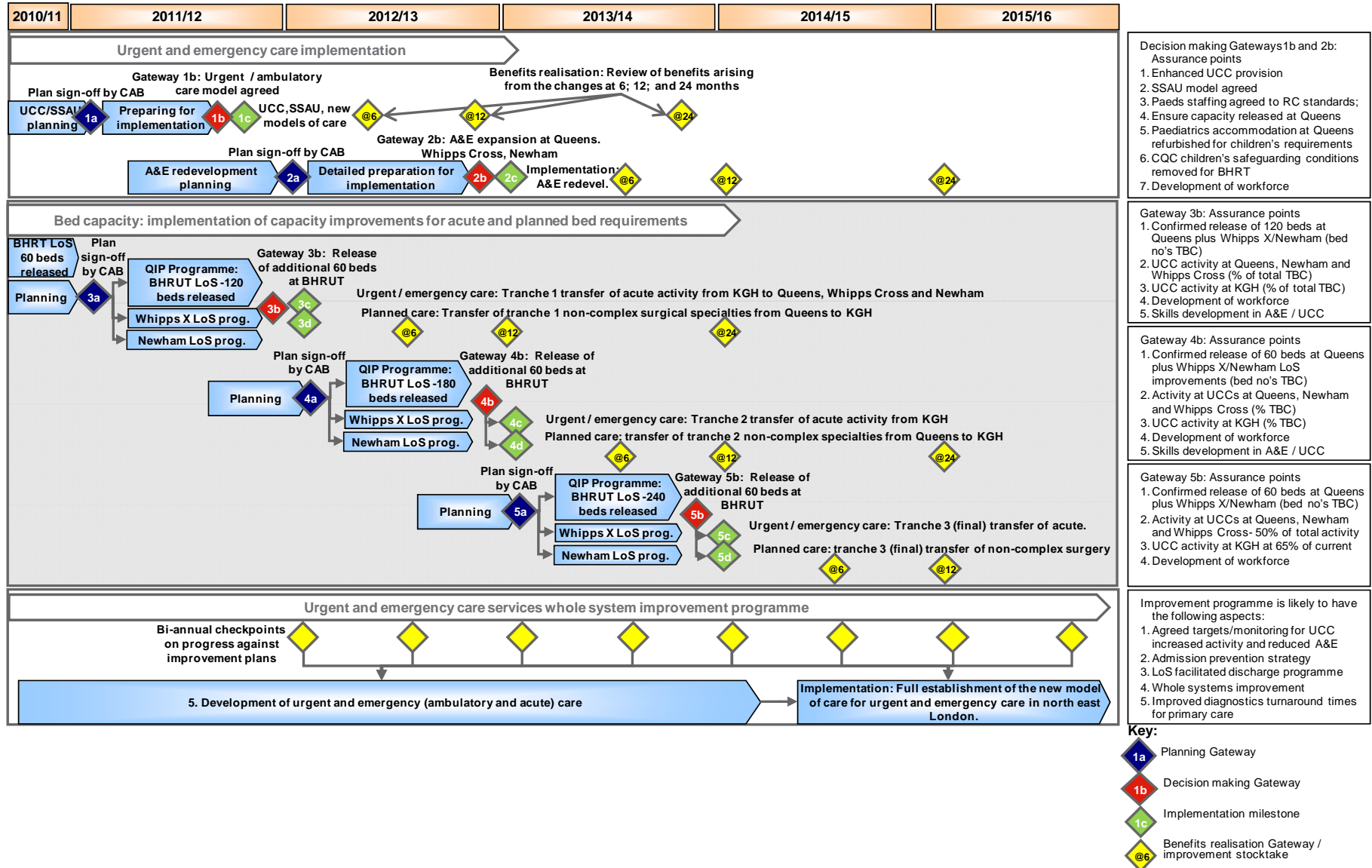
The timetable for delivery of these changes would be dependent upon a wide range of factors; however, by 2014/15 the sector should have made significant progress towards the achievement of the ambitions of the Health for north east London programme for urgent and emergency care.

6.6.4 Overall approach for urgent and emergency and planned care services

The summary proposed approach, bringing together these areas of work, is shown in the indicative timeline below.

Urgent and emergency and planned care indicative timeline

N.B. Indicative only – subject firstly to decision making process. If the decision to proceed is confirmed at JCPCT, precise timings are to be agreed via the assurance process.



6.7 Some Specific Considerations for North East London NHS Trusts

Each trust would need to undertake detailed preparation work for these changes, including a focus on:

- **Regular communications and engagement with staff and their representatives** – Detailed internal communications and engagement strategies for the full period of transition would need to be developed following the JCPCTs decision;
- **Workforce development** – Trusts will progress workforce development plans to support delivery of these changes. The new proposals offer the opportunity to consider innovative ways of working to develop skills and competencies of the current workforce. Development of new roles should also be considered to support current clinical staff and help to alleviate pressures on staffing areas that have been historically difficult to recruit and retain.

BHRUT is the provider most affected by the proposed changes and as such would need to undertake its own programme of change to support this work. In particular, BHRUT has a significant challenge to drive length of stay improvements to free sufficient capacity on the Queen's site. A programme of work is already in place to deliver improvements in this area. BHRUT would undertake more detailed planning specific to the Health for north east London proposals if approved by the JCPCTs.

6.8 Next Steps / Conclusion

Governance, assurance and implementation arrangements outlined throughout this section are indicative only. These arrangements would need to be worked up in more detail as appropriate following formal decision making.

7 Conclusions and next steps

The DMBC sets out a compelling case for change and provides a credible response to the challenges faced in north east London – a response which has been clinically-led and developed, which could be safely and effectively implemented and has the potential to deliver real benefits to local people in terms of quality and consistency of local services.

The DMBC has been developed to support the JCPCTs in decision making and should be considered alongside the range of other relevant material presented to the JCPCTs to support decision making, in particular the summary of consultation findings, the outputs of post consultation engagement and the summary of evidence in relation to the four reconfiguration tests.

Recommendations to the JCPCTs

The Senior Responsible Owners Heather O'Meara (Chief Executive ONEL) and Alwen Williams (Chief Executive INEL) request their respective JCPCTs to make the following decisions on the basis of the evidence presented and taking due regard to their responsibilities as JCPCTs:

- Endorse the case for change
- Endorse the overarching principle that significant clinical benefits and better patient care can be delivered by concentrating care on fewer sites
- Endorse the proposals for change set out in section 2.3.3 of this document.

A **navigator paper** has been developed which sets out for the JCPCT how these recommendations have been reached and what they should consider in reaching this decision.