

Health for North East London

Pre-consultation business case:
appendices

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APPENDIX A: GLOSSARY OF TERMS

Acute	Used to describe a disorder or symptom that comes on suddenly and needs urgent treatment. Acute is also used to describe hospitals where treatment for such conditions is available. In this document the term 'acute' is used interchangeably with the term 'emergency'.
Acute hospital	Hospitals that provide acute (unplanned/ emergency) care and elective (planned) medical treatment and surgical procedures.
Acute medicine	Acute medicine is concerned with treating adult patients with a wide range of medical conditions who go into hospital as emergency cases.
Acute services	Medical and surgical interventions provided in hospitals.
ALOS	Average length of stay – a measure of how long a patient stays in hospital following admission, usually expressed in days.
Blue light/ blue calls	A patient who will be transported to hospital by paramedics in an ambulance on blue lights, if the ambulance crew feel their condition requires urgent and immediate treatment at the A&E department.
Caesareans	A surgical procedure in which incisions are made through a mother's abdomen and uterus to deliver the baby.
Cardiac	The branch of medicine that relates to all clinical matters concerning the heart.
Cardiothoracic	The field of medicine involved in surgical treatment of diseases affecting organs inside the chest. Generally treatment of conditions of the heart and lungs.
Cardiovascular disease	The class of diseases that involve the heart or blood vessels (arteries and veins). Cardiovascular disease, specifically coronary heart disease (CHD) is the biggest killer of people in the UK.
Care outside hospital	Primary care and community-based services such as polysystems and polyclinics.
Care pathway	A pre-determined plan of care for patients with a specific condition.
Care Quality Commission (CQC)	The independent regulator of health and social care. From April 2009, the CQC brought together the work of the Commission for Social Care Inspection (CSCI), the Healthcare Commission and the Mental Health Act Commission.
Cardiac catheter laboratory	The facility in which cardiac catheterisation is undertaken; insertion of a catheter into a chamber the heart for both investigational and interventional purposes
Chronic	The term used to describe a disease, condition or health problem which persists over a long period of time. The illness may recur frequently and in some cases may lead to partial or permanent disabilities. Examples include arthritis, diabetes and hypertension.

Clinical governance	The system through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care.
Clinical guidelines	Recommendations for the care of individuals by healthcare professional, based on the best available evidence.
Clinical networks	Linked groups of health professional and organisation from primary, secondary and tertiary care working in a coordinated manner, to ensure equitable provision of high quality services.
Clinician	Any health professional who is directly involved in the care and treatment of patients, for example, nurses, doctors, therapists and midwives.
Clinical outcomes	A change in the health status of an individual, group or population, for example, improved survival and recovery rates, reducing inequalities and increasing longevity.
College of Emergency Medicine (CEM)	The UK-wide organisation of doctors specialising in emergency medicine which sets standards of training and administers examinations for emergency physicians.
Commissioning/ commissioners	The range of activities that local authorities and PCTs undertake to make sure that services they fund, on behalf of the public, are used to meet the needs of the individuals fairly, efficiently and effectively.
Chronic obstructive pulmonary disease (COPD)	A term that covers a number of lung conditions including chronic bronchitis (inflammation of the airways) and emphysema (damaged air sacs).
Coronary care unit	A hospital ward specialised in the care of patients with heart attacks, unstable angina and various other cardiac conditions that require continuous monitoring and treatment.
Critical care	An integrated hospital service for critically ill patients
Consultant	A senior doctor who is a specialist in a particular area of medicine
Day case/ day surgery	Patients who have a planned investigation, treatment or operation and are admitted and discharged on the same day.
Diagnostics	Procedures and tests to help identify a condition or illness, for example, blood tests and x-rays.
Elective	Non-urgent or planned care that is undertaken in a hospital-setting.
Elective admission	A patient who is admitted to hospital for planned treatment from a waiting list.
Elective centres	Healthcare units that focus exclusively on low-risk, high-volume planned surgery and medical procedures, such as cataracts and knee replacements.

Emergency admission	A patient who is admitted on the same day that admission is requested.
Episiotomies	A surgical incision made during established labour to assist childbirth.
European Working Time Directive (EWTD)	As part of the Working Time Regulations, the Directive states that from August 2009, doctors in training will, by law, not be expected to work in excess of 48 hours per week.
Foundation Trust	NHS organisations that are run as independent, public benefit corporations, which are run by a Board of governors, representative of the local population.
Gastroenterology	The branch of medicine that focuses on the digestive system and its disorders.
General Practitioner (GP)	A family doctor who provides medical advice and treatments to patients with minor illnesses and injuries and acts as a 'gatekeeper' to the rest of the NHS for patients with more serious or urgent needs.
Geriatric medicine	The branch of medicine that focuses on health care of older people.
Gynaecology	The medical practice dealing with the health of the female reproductive system.
Healthcare Commission (HCC)	Previously, the independent regulator in England and Wales that promotes improvement in the quality of the NHS and independent healthcare organisations (replaced by the Care Quality Commission in 2009).
Healthcare for London (HfL)	A review of the provision of healthcare in London.
Health inequalities	The health gap between different groups and communities within the local population, or between the local population and other parts of the country.
High dependency unit (HDU)	A hospital service for patients who require more intensive observation, treatment and nursing care than is usually provided on a general ward, but less intensive than in intensive care (ITU).
Hospital trust	The organisation which runs one or more hospitals.
Hyper acute stroke unit (HASU)	A specialist service that brings together stroke experts and equipment to provide a world class stroke service round the clock.
Hypertension	A chronic medical condition in which the blood pressure is elevated.
Inpatient	A patient who has gone through the full admission procedure and is occupying a hospital bed.

Integrated Impact Assessment (IIA)	A statutory requirement to support NHS bodies in the consideration of environment, equality and diversity issues in the design, development and delivery of policies and services.
Intensive therapy unit (ITU)	A service for patients who require the most specialised observation and treatment, and need very close care from specially trained staff.
Intermediate care	Services designed to assist the transition for a patient from medical and social dependence to day-to-day independence.
Invasive procedure	An invasive procedure is one in which the patient's skin is broken or penetrated, or a body cavity is entered.
Joint Committee of PCTs (JCPCT)	A committee comprising more than one Primary Care Trust (PCT).
Joint Health Overview and Scrutiny Committee (JHOSC)	Where consultations affect more than one local authority area there is a requirement, under direction from the Secretary of State, to set up a JHOSC to consider and respond to proposals for developments or variations in health services.
LAS	London Ambulance Service
Local Involvement Networks (LINKs)	LINKs are made up of individuals and community groups who work together to improve local services.
Local authority	Elected bodies with responsibility for discharging a range of function as set out in local government legislation.
Long term conditions (LTCs)	Conditions, such as diabetes, asthma and arthritis, that cannot be cured but for which progress can be managed and influenced by medication and other therapies.
Mental health services	A range of specialist clinical and therapeutic interventions across mental health and social care provision, integrated across organisational boundaries.
Minor procedures	Medical procedures and minor surgery which require local anaesthetic (rather than a general anaesthetic) and do not require a significant amount of specialised equipment.
MRSA	Methicillin-resistant Staphylococcus aureus (MRSA) is a common skin bacterium that can cause infection in wounds, ulcers, abscesses or the bloodstream and is resistant to a range of antibiotics.
Morbidity	Morbidity refers to a diseased state, disability, or poor health due to any cause. The term may be used to refer to the existence of any form of disease, or to the degree that the health condition affects the patient.
Multidisciplinary team	A clinical team involving many different professions such as nurses, doctors, therapists.

National Clinical Advisory Team (NCAT)	A pool of clinical experts who support, advise and guide the local NHS on service reconfiguration proposals to ensure safe, effective and accessible services for patients.
National Institute of Clinical Excellence (NICE)	Independent organisation that provides national guidance on the promotion of good health and the prevention and treatment of ill health.
NHS London	The strategic health authority (SHA) for London. SHAs are the local headquarters of the NHS and are responsible for ensuring that national priorities are integrated into local plans and that PCTs and trusts are performing well.
Neonatal	The term used to refer to the newborn babies.
Neonatal intensive care unit (NICU)	Specialising in the care of ill or premature newborn babies
Neurosurgery	The surgical discipline focused on treating the nervous system, and spinal column.
Obstetrics	Medical care of women during pregnancy, childbirth and the period of recovery afterwards.
The Office of Government Commerce (OGC)	An independent office of HM Treasury, established to help Government deliver best value from its spending.
Oncology	The branch of medicine dealing with cancerous tumours.
Ophthalmology	The branch of medicine dealing with the diseases and surgery of the eye and visual pathways.
Orthopaedics	The branch of surgery focusing on conditions involving the musculoskeletal system.
Out of hours services	Services provided in the evening and nights, weekends and bank holidays for patients needing medical care urgently.
Outpatient	A patient who is treated in a hospital or clinic without an admission or overnight stay, and usually without occupying a hospital bed.
Paediatrics	The branch of medicine dealing with illness in children and young people.
Paediatric assessment and treatment services (PATS)	A round the clock child-focused service with extended specialist presence to support A&E services and facilitate rapid senior assessment of children.
Paediatric intensive care unit (PICU)	Intensive care services for children and young people aged 15 or under who are critically ill.

Pandemic flu	Flu pandemics are global epidemics of a newly emerged strain of flu to which most people have little or no immunity.
Pathology	The branch of medicine focusing on the diagnosis of disease through examination of organs, tissues and bodily fluids.
Payment by results (PbR)	The funding system for NHS care in England, whereby trusts are paid for the work they do. They are paid a 'tariff' price for each type of pathway or procedure, based on the national average cost of treating such patients.
PCBC	Pre-consultation business case.
Polyclinic	The hub of a polysystem, polyclinics provide primary care services and routine hospital care along with a range of useful wellbeing and support services such as benefits support and housing advice.
Polysystem	The network of GP and primary care services that are linked to the central polyclinic hub.
Private finance initiative (PFI)	An initiative that provides a way of funding major capital investments, without immediate recourse to public funds.
Practice based commissioning (PBC)	A budget held by GP practices so that they can select and contract the most appropriate services for their patients.
Primary care	Collective term for all services that are people's first point of contact with the NHS. GPs, opticians, dentists and pharmacists provide primary care.
Primary Care Trust (PCT)	Statutory NHS bodies with responsibility for delivering healthcare and health improvements to their local areas through commissioning of the most appropriate services.
Radiology	the branch or specialty of medicine that deals with the study and application of imaging technology like x-ray and radiation to diagnosing and treating disease.
Royal College of Obstetricians and Gynaecologists (RCOG)	The national independent professional body promoting and advancing the highest standards of care in the field of obstetrics and gynaecology.
Royal College of Paediatrics and Child Health (RCPCH)	The national independent professional body promoting and advancing the highest standards of care in the field of paediatrics and child health.
Royal College of Surgeons (RCS)	The national independent professional body promoting and advancing the highest standards of surgical care for patients and regulating surgery.
Rehabilitation	The restoration and maintenance of physical and psychological

health necessary for independent living.

Secondary care	A collective term for services to which a person is referred after the first point of contact with the NHS. Usually this refers to hospitals in the NHS offering specialised medical services and care (both outpatient and inpatient services).
Senior Responsible Owner (SRO)	A senior individual who takes personal responsibility for delivery of a programme.
Strategic Health Authority (SHA)	Regional health bodies that manage the NHS locally and are responsible for ensuring high quality services are available to patients within their geographical area.
Stakeholders	Individuals and groups that share an interest in the remit of the programme including patients, the public, local and regional NHS organisations, local authorities and social care providers, charities and the voluntary and community sector.
Sub-specialisation	The increasing specialisation services, particularly where services comprise many procedures that are highly technical yet small in volume
Surgery	Treatment that involves an operation.
Tariff	A set price for each type of procedure or clinical pathway undertaken in the NHS.
Tertiary care	Collective term for services to which a patient is referred from secondary care services, usually from one consultant to another, often this refers to hospitals in the NHS offering very specialised medical services and care.
Trauma	Very serious injury, for example following a road traffic accident.
Urgent care services	Services that can treat the majority of unplanned care needs, such as minor illnesses and injuries. The service is usually led by primary care practitioners and often serves as the initial access point to the A&E department.
Urology	The surgical specialty that focuses on the urinary system and the male reproductive system.
Vascular surgery	The branch of surgery that focuses on diseases of the vascular system - arteries and veins.

APPENDIX B: LIST OF PLANNED AND OPERATIONAL POLYCLINICS FOR NORTH EAST LONDON

PCT	Proposed site	Proposed date
NHS City and Hackney	Woodberry Down	TBC
	St Leonards Hospital	TBC
	Former Hackney Hospital site	TBC
	North East polysystem network – site to be agreed	TBC
NHS Newham	Vicarage Lane	TBC
	Centre Manor Park and East Ham Care Centre	TBC
	Canning Town	TBC
	East Ham	TBC
NHS Tower Hamlets	The Barkantine	TBC
	Former St Andrew's Hospital site	TBC
	Mile End Hospital	TBC
	Royal London hospital	TBC
Barking and Dagenham	Barking	2010
	East Dagenham	2012
	Barking Riverside	2015/16
Havering	Harold Wood polyclinic and Mardyke spoke (<i>specialist expertise in LTC, older people and people with learning difficulties</i>)	2010
	St George's (<i>specialist expertise in rehab and screening</i>)	2011
	Rainham (<i>specialist expertise in children and young people</i>)	2012
	Queens hospital (<i>specialist experience in acute care</i>)	2012/13
Redbridge	Loxford	Open
	King George	2010
	Wanstead	TBC
	Fairlop	TBC

	Cranbrook	TBC
Waltham Forest	Oliver Road	Open
	St James'	2010
	Tesco	2012

APPENDIX C: THE BENEFITS FRAMEWORK

The table overleaf sets out the draft benefits model for the Health for North East London programme.

The benefits have been derived from the criteria that were developed in consultation with the public, engaged public, clinicians and managers. The clinical critical success factors have been derived from the Clinical Working Groups' recommendations.

Not all the benefits will be delivered through reconfiguration. The final column explains what is needed to deliver the critical success factor, whether that be reconfiguration, productivity or a combination.

The benefits of delivering the change specified are explained, together with how delivery will be measured.

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
1. Clinical quality (including patient experience) and safety	1.1 Will the option comply with or exceed the guidelines on clinical quality, safety, efficiency and effectiveness of patient care set by the Government, Royal Colleges and NICE (National Institute for Health and Clinical Excellence)?	<i>Urgent Medicine</i>	1.1.1 This option creates a more coherent emergency service without introduction of increased risk to patients - in accordance with Royal College of Emergency Medicine Way ahead guidance	Enhanced patient safety and clinical outcomes because the level of activity will enable sustainable staffing at appropriate levels of skill and experience	Audit A&E catchment areas [only needs to be done once] Monitor sub-specialisation in hospitals	Reconfiguration
			1.1.2 This option facilitates optimal deployment of the workforce and helps manage demand and supply gaps - taking account of guidance from Royal Colleges of optimal staffing of services	Enhanced patient safety and clinical outcomes through ensuring the sickest patients are seen by the most experienced clinicians	Audit of rotas Audit of rotas against EWTD	<i>Reconfiguration</i>
			1.1.3 This option will allow the development of standardised, consistent sector wide pathways across NEL for urgent care to ensure consistently high quality care and efficiency	Consistent care leading to improved clinical outcomes for patients	Periodic review of pathways	<i>Productivity</i>
			1.1.4 This option will allow the introduction of urgent care provided by primary care clinicians supported by multi-disciplinary teams in polyclinics and at the front end of every A&E	Reduced admission through A&E -releasing capacity for the sickest patients	Monitor admissions through A&E	<i>Productivity</i>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
			<p>1.1.5 This option will allow Acute Assessment Units (AAUs) to be attached to every A&E, providing concentrated access to diagnostic facilities and a range of specialist staff to enable speedy assessment of patients and appropriate discharge home, with primary care support if needed, or transfer to a ward.</p>	Enhanced clinical outcomes and patient experience as patients are consistently assessed with a full range of diagnostics and specialist staff before transfer to a ward or discharge.	ALOS Monitor outcomes	<i>Productivity through Reconfiguration</i>
			<p>1.1.6 The separation of the hyper-acute stroke service into the Royal London and Queen's provides the opportunity to ensure that the remaining stroke services are optimally configured to ensure that we can achieve and sustain enhanced quality of services.</p>	Enhanced clinical outcomes for patients	Monitor outcomes	<i>Reconfiguration</i>
			<p>1.1.7. This option enables access round-the-clock to diagnostic and other support facilities needed by A&E patients</p>	Enhanced clinical outcomes for patients due to prompt diagnosis	Monitor outcomes Monitor opening hours of diagnostic services	<i>Productivity through Reconfiguration</i>
		<i>Emergency surgery</i>	<p>1.1.8 Increase in the catchment area of each hospital to achieve the caseload and caseload mix for each team to deliver best quality interventions</p>	Enhanced patient safety and clinical outcomes because the volume of patients being treated enables teams to be sustained that have the right skills.	Mortality	<i>Reconfiguration</i>
			<p>1.1.9 This option supports avoiding surgery at night to the greatest extent possible with the exception of trauma</p>	Enhanced patient safety and clinical outcomes through avoiding surgery at night	No of operations carried out at night	<i>Productivity</i>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
			<p>1.1.10 For the minority of patients where surgery is needed at night a consultant will make the decision to reopen the theatre of transfer to a specialist surgical unit</p>	Enhanced patient safety and clinical outcomes through ensuring a decision to operate at night is taken by an appropriately experienced clinician	Monitor decisions to operate at night to ensure these are taken by a consultant	<i>Productivity</i>
			<p>1.1.11 This option has the capacity and resilience to meet variation in demand for urgent theatre slots without disrupting other services</p>	Enhanced patient safety and clinical outcomes and patient experience	Monitor disruption to other services	<i>Productivity through Reconfiguration</i>
			<p>1.1.12 This option ensures that there is the cover to provide urgent surgery on all sites with an A&E (as per the CRG recommendation) in accordance with guidance from the Royal College of Surgeons.</p>	Enhanced patient safety and clinical outcomes	Mortality and re-infection rates	<i>Reconfiguration</i>
		<i>Intensive Care</i>	<p>1.1.13 This option ensures that the distribution of ICU beds - L2 HDU - meets the service required at each location - right number of beds in each location in compliance with NICE and Royal College Guidance</p>	Enhanced patient safety and clinical outcomes through ensuring appropriate ICU facilities are always available when needed	Audit proposed capacity of ICUs is in accordance with guidance	<i>Productivity</i>
			<p>1.1.14 This option ensures that the ICU is staffed round-the-clock by appropriately skilled and experience staff and led by a consultant with an interest in critical care</p>	Enhanced patient safety and clinical outcomes through ensuring the sickest patients are seen by the most experienced clinicians	Monitor consultant cover of ICU	<i>Productivity</i>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
			<p>1.1.15 This option ensures that there will be the appropriate level of ICU for each type of service it supports (level III for undifferentiated A&E, and acute medical inpatients, specialist obstetric unit and complex surgery; level II for low risk obstetrics; level I for non-complex surgery)</p>	Enhanced patient safety and clinical outcomes through ensuring patients have access to the care they require	Monitor that provision of ICU facilities at each location complies with guideline requirements	<i>Productivity</i>
			<p>1.1.16 This option ensures clear transfer protocols and networking arrangements to ensure that patients in hospitals without level III care are stabilised and transferred quickly and safely when required</p>	Enhanced patient safety and clinical outcomes assured by compliance with clear protocols and effective networks	Monitor that protocols and networks are in place and working effectively.	<i>Productivity</i>
		<i>Maternity and Newborn</i>	<p>1.1.17 This option enables that there will be a suitable number of experienced and skilled consultants to deliver 98 hour consultant cover and progress toward 168 hour specialist cover in compliance with EWTD as recommended by CRG and RCOG</p>	Enhanced patient safety and clinical outcomes by ensuring that care is consultant led	Exceptions to 98 hour consultant cover being achieved Obstetrics have defined standards for clinical cover, defining cover round-the-clock and these standards are delivered	<i>Reconfiguration</i>
			<p>1.1.18 Continuity of care in established labour by providing all women with a dedicated midwife</p>	Enhanced patient safety and clinical outcomes by ensuring continuity of care through labour	%age of women with a designated midwife during established labour	<i>Productivity</i>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
			1.1.19 Creation of streamed neonate rotas separate from paediatric rotas as recommended by CRG and RCOG	Enhanced patient safety and clinical outcomes by ensuring appropriately experienced consultant care is available when needed	Audit of separation of rotas	<i>Productivity through reconfiguration</i>
			1.1.20 This option provides high quality of care for the most likely scenarios of 34,000 deliveries per year and resilience to deal with up to 38,000 deliveries per year	Ability to cope with high end delivery forecasts	Audit of capacity plan	<i>Reconfiguration</i>
			1.1.21 This option allows for midwife led units of 400-600 deliveries a year	Critical mass to achieve effective resourcing of midwife led teams	Monitor level of deliveries in each unit	<i>Productivity</i>
			1.1.22 This option allows women with high foetal risk to be streamed to commissioned specialist perinatal centres	Reduction in neonatal mortality	Monitor rate of neonatal mortality	<i>Productivity</i>
			1.1.23 This option makes it more likely that maternity units will be able to provide an environment enabling women to have the privacy and dignity important to them during their stay, in accordance with national policy.	Patient experience leading to reduced stress on patients	Patient survey	<i>Reconfiguration</i>
		<i>Children's Services - all services</i>	1.1.24 Consolidation of surgical care to enable access to specialist surgery support by appropriately specialist staff in accordance with HfL and Royal Colleges guidance.	Enhanced patient safety and clinical outcomes by ensuring patients at higher risk have access to the right facilities	Audit of consolidation of high dependence and surgical care for paediatrics	<i>Reconfiguration</i>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
		<i>Children's Services - all services</i>	1.1.25 CRG's view is that paediatric services should include full access to relevant specialist consultants and clinicians to provide a highly specialised multi-disciplinary team. This should include paediatric anaesthetists, radiologists and nurses	Enhanced patient safety and clinical outcomes by ensuring that patients have access to the most skilled and specialist staff when needed	Monitor consultant cover and availability of other paediatric facilities round-the-clock	<i>Reconfiguration</i>
			1.1.26 This option provides the critical mass that enables children to always be treated in a bespoke child friendly environment in accordance with national policy	Patient experience, leading to less stress on patients and carers	Audit of paediatric facilities	<i>Reconfiguration</i>
		<i>Children's Services - Emergency and urgent care</i>	1.1.27 This option introduces a consistent primary care led urgent care model across NEL with GP led Urgent care provision at the front end of every A&E and in community settings, with easy to access and high quality services, to stream 40% of urgent minor illnesses and injuries away from A&E	Enhanced patient experience Fewer inappropriate admissions to A&E	Monitor paediatric admissions to A&E Monitor that services are available 12 hours per day and round-the-clock in centres collocated with A&Es	<i>Productivity</i>
			1.1.28 This option will enable the provision of PATS units across NEL as recommended by the CRG	Enhanced patient safety and clinical outcomes through ensuring rapid assessment	Monitor availability of PATS services	<i>Reconfiguration</i>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
			<p>1.1.29 This option supports the staffing of Paediatric Assessment and Treatment Services (PATS) at every site where there is an A&E as recommended by the CRG and RCPCH</p>	Enhanced patient safety and clinical outcomes through ensuring access to specialised staff for assessment and treatment	Monitor availability of PATS services	<i>reconfiguration</i>
			<p>1.1.30 This option supports complex inpatient paediatric surgery being carried out in specialist paediatric centres by a consultant delivered service equipped with the appropriate facilities and specialist staff</p>	Enhanced patient safety and clinical outcomes by ensuring patients at highest risk have access to the most experienced clinical staff and specialised facilities	Monitor outcomes	<i>reconfiguration</i>
		<i>Children's Services - Emergency and urgent care</i>	<p>1.1.31 Consolidation of high dependency units, in accordance with HfL strategy, in conjunction with development of care closer to home for critically ill children</p>	Enhanced patient safety and clinical outcomes by ensuring that patients at highest risk have access to the most experienced clinical staff and specialised facilities	Audit configuration of PICUs in context of HDUs	<i>reconfiguration</i>
		<i>Planned care</i>	<p>1.1.32 Separation (streaming) of patients between elective and emergency surgery in accordance with HfL and national policy</p>	Streaming planned care away from non-elective care enables planned care patients to be pre-screened for infection reducing the risk of cross infection. The reduced rates of cancelling surgery (to fit in non-elective surgery) reduces the risks of deterioration and increased stress levels on the patient	%age of elective surgery patients with hospital acquired infections Patient satisfaction Average length of stay 18 weeks target	<i>Reconfiguration</i>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
			<p>1.1.33 This option creates the opportunity to establish elective centres for high volume specialties (e.g. General Surgery, Gastroenterology, Ophthalmology, Orthopaedics, Urology - possibly also ENT gynaecology) - achieving a catchment of 500,000 population to achieve critical mass at procedural level</p>	<p>Enhanced clinical outcomes by providing critical mass for surgeons for each procedure Increase the proportion of day case patients Reduce ALOS Better waiting list management</p>	<p>Patient outcome metrics %age of operations as day cases ALOS 18 weeks target</p>	<p><i>Productivity through reconfiguration</i></p>
			<p>1.1.34 This option includes new ways of working via integrated clinical networks</p>	<p>Better communication Improved patient satisfaction Greater efficiency Improved clinical outcomes</p>	<p>Monitor patient satisfaction Monitor clinical outcomes</p>	<p><i>Productivity</i></p>
		Specialist Services	<p>1.1.35 For services that are highly specialised and low volume, there is a clinical rationale for specialist centres that will handle a caseload that supports a team of highly specialised clinicians, support services and specialist facilities</p>	<p>Enhanced patient safety and clinical outcomes by ensuring patients at higher risk have access to the most experienced clinical staff and specialist facilities</p>	<p>Patient mortality Patient complications Revisions</p>	<p><i>Productivity through reconfiguration</i></p>
			<p>1.1.36 Reconfiguration enables the specialist services of neuro, vascular and cardiac services to be consolidated into centres of excellence.</p>	<p>Enhanced patient safety and clinical outcomes by ensuring patients at higher risk have access to the most experienced clinical staff and specialist facilities</p>	<p>Patient mortality Patient complications Revisions</p>	<p><i>Productivity through reconfiguration</i></p>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
			1.1.37 This option facilitates optimal deployment of the workforce and helps manage demand and supply gaps	Workforce is specialised in the procedures as they are treating a high volume of similar cases	Monitor specialisation and sub-specialisation of workforce.	<i>Reconfiguration</i>
	1.2 Will the option enable risk and surges in demand to be effectively managed, for example infection control, pandemics?	<i>All services</i>	1.2.1 This option provides a service model that minimises the risk of hospital acquired infections and supports progress to the lowest possible levels.	Enhanced patient safety	HCAIs	<i>Productivity</i>
			1.2.2. This option provides flexibilities to react to unforeseen events effectively and safely - for example pandemics or bombs	Enhanced patient safety	Audit flexibility using scenario planning, (including pandemics)	<i>Reconfiguration</i>
	1.3 Will the option enable standards to be consistently delivered across NEL?	<i>All services</i>	1.3 This option ensures that there is a shared understanding of the standards to be delivered and protocols to be used across NEL	Reduction in inequalities across NEL	Monitor variation in services and outcomes across NEL	<i>Productivity</i>
	1.4 Will the option enable patients to have access to services supported by research and technology?	<i>All services</i>	1.4.1 This option enables NEL hospitals to contribute to research programmes and enables rapid take up of new technologies	Enhanced patient safety and clinical outcomes through access to the latest innovations and technology	Monitor participation in R&D	<i>Productivity</i>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
	1.5 Will the option allow the NHS in NEL to attract, develop and retain the staff needed to provide high quality healthcare, that provides senior clinical decision making early in the patient pathway?	All services	1.5.1. This option creates confidence in the ability of providers to fully resource their organisations with staff of the required levels of skills and experience	Enhanced patient safety and clinical outcomes through providers being able to fully resource their services with staff of the required skills and experience	Staff vacancies Staff churn	Productivity through reconfiguration
	1.6 Will the option enable mixed wards to be removed from hospital sites?	All services	1.6.1 Government policy in separation of the sexes in wards is fully met. (Note: should be achieved in all NEL hospitals in 2009)	Enhanced patient experience Compliance with Policy requirement	Audit options for removal of mixed sex wards Monitor mixed sex wards	Productivity
	1.7 Will the option provide patients with enough choice of hospitals that they can go to for care / treatment?	All services	1.7.1 The option promotes patient choice by ensuring that there is sufficient capacity to sustain a viable range of high quality patient services	Patient satisfaction and high quality of care incentivised through choice	Patient satisfaction Level of choice of services for NEL patients	Reconfiguration
	1.8 Will the option enable services to be joined up across health and	All services	1.8.1 The option ensures a sustainable model of service provision across the NHS, local government and community services	NEL population have sustainable secure access to the services they need	Monitor services at risk	Productivity

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
	social care ensuring, for example, continuity of care into the community on discharge including rehabilitation?		1.8.2 This option will ensure that patients can be discharged to primary and social care effectively	Enhanced patient experience Reduction in cost	Monitor delayed discharges	<i>Productivity</i>
	1.9 Will the option improve communications between hospitals and patients?	<i>All services</i>	1.9.1 The option ensures that there is a sustainable communications model for communicating with patients	Patients understand the services available and when to use which service	Patient satisfaction surveys	<i>Productivity</i>
	1.10 Will the option enable people to be treated with dignity and respect?	<i>All services</i>	1.10.1 The option has a model of care which enables patients to be treated with dignity and respect, and staff are trained to treat patients with dignity and respect.	Enhanced patient experience Reduction in inequalities	Patient satisfaction surveys	<i>Productivity</i>
2. Capacity	2.1 Will the option have the capacity to deliver predicted demand for healthcare and have flexibility to downsize if demand is less than anticipated	<i>All services</i>	2.1. Capacity scenario models show that the option provides a robust capacity solution for NEL for the next 10 years - and flexibility to remain sustainable if demand is less than forecast	NEL London population have access to sustainable high quality services at appropriate locations	Scenario modelling of capacity	<i>Reconfiguration</i>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
	2.2 Will PCTs have the ability to deliver the out of hospital services needed to match demand assumptions	<i>All services</i>	2.2. This option enables PCTs to invest in effectively in out of hospital services to provide the capacity in the community assumed in the capacity modelling	NEL London population have access to sustainable high quality services at appropriate locations	Scenario modelling of capacity	<i>Reconfiguration</i>
3. Finance and use of existing NHS resources	3.1 Will the option be affordable within the spending envelope defined in the Government's current Comprehensive Spending Review or other spending pledges and anticipated growth rates?	<i>All services</i>	3.1 The NEL health economy is forecast to break even or better over the planning horizon	NEL London health services are sustainable and affordable	Scenario modelling of financial position	<i>Productivity and reconfiguration</i>
	3.2 Will the option make best use of the existing NHS buildings, equipment and technology such that the overall quality of these resources is enhanced across	<i>All services</i>	3.2.1 This option effectively utilises NHS assets to provides services to the population in the best facilities possible.	Enhanced patient experience due to improved quality of facilities across NEL. Investment needed is affordable Use of best existing facilities minimises timescales for delivery by avoiding new building wherever appropriate.	Scenario modelling of new capacity needed for each option Liabilities from under-utilised assets	<i>Reconfiguration</i>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
	NEL?		3.2.2 Minimises the risk of the need to invest in the design and development of new infrastructure	Investment needed is affordable Use of best existing facilities minimises timescales for delivery by avoiding new building wherever appropriate.	Scenario modelling of new capacity needed for each option Liabilities from under-utilised assets	<i>Reconfiguration</i>
	3.3 Is the investment required fundable and viable for the providers	<i>All services</i>	3.3. Providers are confident that investment needed is fundable in the current financial environment and viable to support in the long term	Option is affordable and sustainable	Scenario modelling of new capacity needed for each option Liabilities from under-utilised assets	<i>Reconfiguration</i>
	3.4 Is plurality of supply maintained within the health economy	<i>All services</i>	3.4 Does the option maintain plurality of providers within the health economy to maintain commissioner choice and avoid monopoly providers	Commissioner retains the levers to maintain the quality of performance required	Audit of plurality delivered by the configuration of services.	<i>Reconfiguration</i>
4. Workforce development and staff experience	4.1 Will the option provide an appropriate training environment?	<i>All services</i>	4.1 The service model can effectively support the training and continuing professional development of clinical staff In accordance with local needs	NEL can attract and retain the high quality staff needed to fully resource the service model	Vacancies on medical training posts Training and workforce development plans	<i>Productivity</i>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
5. Transport access	5.1 Will the service model meet the LAS clinical travel time targets for “blue light” services to take patients to an appropriate point of care (e.g. 30 minute maximum transfer time to HASU)?	<i>All services</i>	5.1 LAS are able to meet "Blue light" response and journey time standards for all services	Patient safety and clinical outcomes	LAS modelled response times LAS reporting of actual response times	<i>Reconfiguration</i>
	5.2 Will the option ensure that there is no significant increase in journey times for carers, patients and visitors including public transport?	<i>All services</i>	5.2 This option ensures that patients and carers do not experience an inappropriate increase in their journey times via public or private transport to planned care	Patient are able to access services within acceptable travel times	No of patients predicted to have longer travel times	<i>Reconfiguration</i>
	5.3 Will the option provide suitable access for disabled patients and their carers	<i>All services</i>	5.3 All sites have appropriate disability access for patients and their carers	Patient satisfaction	Audit of disabled access facilities for patient and the vehicles used to transport them	<i>Reconfiguration</i>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
	5.4 Is the road access to providers appropriate for the type and volume of traffic	<i>All services</i>	5.4 Access roads to all providers are appropriate to the type and volume of traffic that will result from this option	Patient satisfaction	Audit of road access to providers	<i>Reconfiguration</i>
6. Service access	6.1 Will the option enable services to be provided at times and locations that are convenient to the needs of the diverse population?	<i>All services</i>	6.1.1 This option provides choice of providers in different locations spread across the sector and has opening times convenient to the patient	Patient satisfaction	Patient complaints about lack of choice	<i>Productivity</i>
			6.1.2 This option will reduce the number of cancellations for elective admission	Enhanced patient safety and patient satisfaction	Monitor number of cancellations for admissions	<i>Productivity</i>
	6.2 Will the option include facilities for translation and interpretation?	<i>All services</i>	6.2 Translation and interpretation facilities will be provided as necessary by all providers to meet the needs of the local population	Patient satisfaction	Patient satisfaction surveys	<i>Productivity</i>
	6.3 Will the option include facilities to help people navigate around the NHS?	<i>All services</i>	6.3 This option includes communications and support to patients to help them identify how they can and should be using the NHS.	Patient satisfaction	Patient satisfaction surveys	<i>Productivity</i>
	6.4 Will the option provide facilities to enable people to book on-line?	<i>All services</i>	6.4 This option includes on-line booking facilities for the majority of services in line with Government policy.	Reduced administration and enhanced patient choice	% of bookings made on-line	<i>Productivity</i>

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
7. Deliverability	7.1 Will the option enable sustainable change to be delivered by the dates that have been set out?	All services	<p>7.1.1 The option minimises the risk of disruption to service continuity during transition to the proposed new service configuration</p>	Patients experience no discernable disruption to services during reconfiguration	Project management of the service reconfiguration	Reconfiguration
		All services	<p>7.1.2 Implementation plans demonstrate that the option can be delivered such that the level of risk to service quality, timescales, access, and financial sustainability can be managed down to an acceptable level</p> <p>The option minimises the risk of achieving the specified outcomes from service reconfiguration by reducing the time required for implementation and the complexity of implementation</p>	Service configuration delivering enhanced services and financial sustainability are achieved in a reasonable timescale	Risk assessment Value for money in risk mitigation investment	Reconfiguration
8. Reducing Health Inequalities	8.1 Will the option provide services that better meet the needs of a diverse population?	All services	<p>8.1 This option ensures that there is no additional disadvantage or discrimination for disadvantaged groups</p>	Health inequalities are reduced	Health Inequalities Impact assessment	Productivity
	8.2 Will the option comply with statutory requirements for disability access?	All services	<p>8.2 This option will comply with statutory requirements for disability access</p>	Compliance with the Disability Act	Audits to ensure compliance	Productivity

Criteria	Key line of enquiry	Service	Critical Success factor	The benefits	How it will be measured	What is needed to achieve CSF?
9. Patient involvement	9.1 Will the option enable effective patient involvement and provide the right channels to ensure patients are genuinely listened to?	<i>All services</i>	9.1 All options will have processes built into them that take account of views of the members of the engaged public and hard to reach groups.	Patient involvement in service design	Monitoring use of patient groups	<i>Productivity</i>
10. Environment	10.1 Will the option minimise the NHS' carbon footprint?	<i>All services</i>	10.1 This option will keep the NHS carbon footprint to a minimum.	Carbon footprint kept at a minimum	Carbon footprint impact assessment	<i>Productivity</i>

APPENDIX D: ASSUMPTIONS USED FOR FORECASTING

Assumptions Included in PCT Forecasts

Underlying Rate	Resource Base Growth	NHS Inflation	Pay Inflation	Efficiency Savings	Tariff Uplift	Community Services Uplift	Prescribing Uplift	Primary Care Uplift	PCT Corporate Services Uplift	Other Contracts	Contingency % of Turnover
	%	%	%	%	%	%	%	%	%	%	%
2009/10	5.23%	4.70%	2.40%	-3.00%	1.70%	4.70%	8.00%	5.50%	4.70%	5.00%	0.50%
2010/11	5.14%-5.5%	4.70%	2.25%	-3.50%	1.20%	4.70%	8.00%	5.50%	4.70%	5.00%	0.50%
2011/12	2.50%	3.50%	2.25%	-4.00%	-0.50%	3.50%	8.00%	5.50%	3.50%	5.00%	0.50%
2012/13	2.50%	3.50%	2.25%	-4.00%	-0.50%	3.50%	8.00%	5.50%	3.50%	5.00%	0.50%
2013/14	2.50%	3.50%	2.25%	-4.00%	-0.50%	3.50%	8.00%	5.50%	3.50%	5.00%	0.50%
2014/15	2.50%	3.50%	2.25%	-4.00%	-0.50%	3.50%	8.00%	5.50%	3.50%	5.00%	0.50%
2015/16	2.50%	3.50%	2.25%	-4.00%	-0.50%	3.50%	8.00%	5.50%	3.50%	5.00%	0.50%
2016/17	2.50%	3.50%	2.25%	-4.00%	-0.50%	3.50%	8.00%	5.50%	3.50%	5.00%	0.50%

Real Terms Rate	Resource Base Growth	NHS Inflation	Pay Inflation	Efficiency Savings	Tariff Uplift	Community Services Uplift	Prescribing Uplift	Primary Care Uplift	PCT Corporate Services Uplift	Other Contracts	Contingency % of Turnover	Cost Price Index Applied
	%	%	%	%	%	%	%	%	%	%	%	%
2009/10	2.73%	2.20%	-0.10%	-3.00%	-0.80%	2.20%	5.50%	3.00%	2.20%	2.50%	0.50%	2.50%
2010/11	2.64%-3.0%	2.20%	-0.25%	-3.50%	-1.30%	2.20%	5.50%	3.00%	2.20%	2.50%	0.50%	2.50%
2011/12	-0.20%	0.80%	-0.45%	-4.00%	-3.20%	0.80%	5.30%	2.80%	0.80%	2.30%	0.50%	2.70%
2012/13	-0.20%	0.80%	-0.45%	-4.00%	-3.20%	0.80%	5.30%	2.80%	0.80%	2.30%	0.50%	2.70%
2013/14	-0.20%	0.80%	-0.45%	-4.00%	-3.20%	0.80%	5.30%	2.80%	0.80%	2.30%	0.50%	2.70%
2014/15	-0.20%	0.80%	-0.45%	-4.00%	-3.20%	0.80%	5.30%	2.80%	0.80%	2.30%	0.50%	2.70%
2015/16	-0.20%	0.80%	-0.45%	-4.00%	-3.20%	0.80%	5.30%	2.80%	0.80%	2.30%	0.50%	2.70%
2016/17	-0.20%	0.80%	-0.45%	-4.00%	-3.20%	0.80%	5.30%	2.80%	0.80%	2.30%	0.50%	2.70%

	Annual Population Growth	Annual Non-Population Growth	Total Demand Growth
Tower Hamlets	1.30%	0.90%	2.20%
City and Hackney	1.70%	0.90%	2.60%
Newham	2.34%	0.90%	3.24%
Waltham Forest	0.94%	0.90%	1.84%
Barking & Dagenham	1.30%	0.90%	2.20%
Redbridge	0.94%	0.90%	1.84%
Havering	0.18%	0.90%	1.08%

Notes:

1. Resource rate shown above refers to the "Core Assumption" for allocation.
2. All forecasts have been converted to "real-terms" on a 2007-08 price base using the Cost Price Index shown in the right-hand column.
3. Tariff uplift now includes "CQUINN" as a new cost in years 2009-10 and 2010-11 only.
4. Community and Mental Health Services costs are shown with the efficiency saving added to the acute tariff. This is than shown as a part of the savings to be achieved.

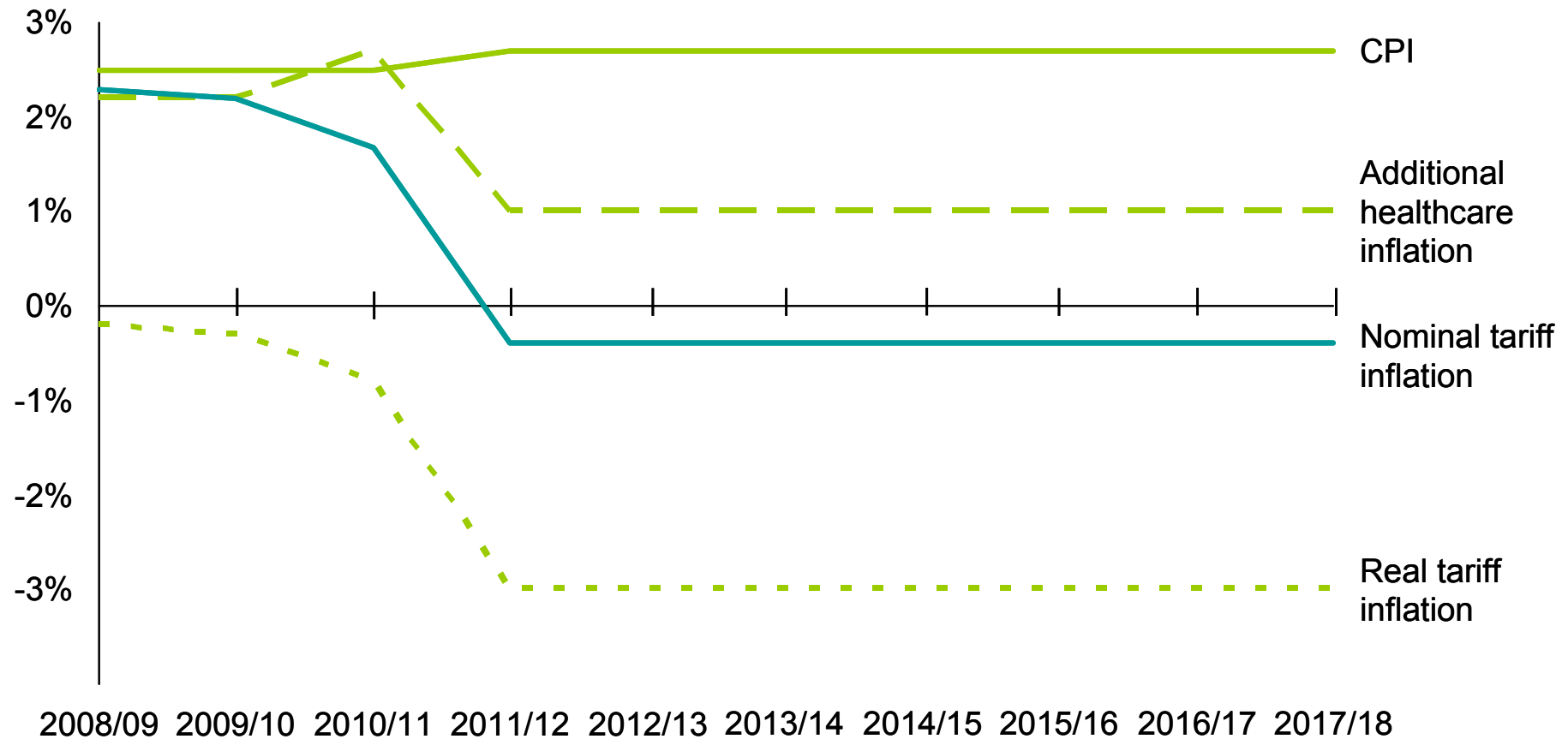
Assumptions adopted for provider modelling: contrasted with assumptions used by NHS London (1 of 2)

	NEL assumption	HfL assumption	Source
Funding allocation	<ul style="list-style-type: none"> Until 2010/11: announced allocations From 2011/12: 0% real growth 	<ul style="list-style-type: none"> Same for base case. Upside 0.75% real growth Downside -2.3% real growth until 2012/14, then 0.5% 	<ul style="list-style-type: none"> HfL
Demographic growth	<ul style="list-style-type: none"> PCTs projections: GLA low (exception: Redbridge ONS; Barking & Dagenham GLA high) 	<ul style="list-style-type: none"> GLA low 	<ul style="list-style-type: none"> PCTs
Non demographic growth	<ul style="list-style-type: none"> NHSL affordability assumptions at service line level, adjusted for obstetrics based on CRG guidance. Weighted average growth of service lines: 1.4% per year 	<ul style="list-style-type: none"> NHSL affordability assumptions 	<ul style="list-style-type: none"> CRG
Price changes in acute sector	<ul style="list-style-type: none"> Until 2011/12 – Monitor assumptions 2011/12 and forward, net tariff of -3% 	<ul style="list-style-type: none"> Same 	<ul style="list-style-type: none"> Monitor
Healthcare cost inflation	<ul style="list-style-type: none"> 2008/09-2009/10 2.2% 2010/11 2.7% 2011/12 and forward 1% Equivalent to 1.45% CAGR 	<ul style="list-style-type: none"> 1.45% cost inflation 	<ul style="list-style-type: none"> Monitor
Length of stay	<ul style="list-style-type: none"> Providers moved to Upper Quartile ALOS by HRG (equivalent to total improvement of approx. 3% p.a.) 	<ul style="list-style-type: none"> Not specifically modelled 	<ul style="list-style-type: none"> FDs

Assumptions adopted for provider modelling: contrasted with assumptions used by NHS London (2 of 2)

	NEL assumption	HfL assumption	Source
Patient flows	<ul style="list-style-type: none"> ▪ Patient flows for A&E, non elective and maternity are modelled based on travel time; Outpatient flows on historical flows, and elective on available capacity 	<ul style="list-style-type: none"> ▪ Not addressed 	<ul style="list-style-type: none"> ▪ FDs
LTC and case management	<ul style="list-style-type: none"> ▪ Included in shifts to out of hospital settings of care 	<ul style="list-style-type: none"> ▪ 20% of acute LTC prevented (each hospital admission replaced with 4 consultations at Polyclinic) 	
Prevention	<ul style="list-style-type: none"> ▪ Not considered given time frame 	<ul style="list-style-type: none"> ▪ Same 	
Shift of acute to lower cost setting	<ul style="list-style-type: none"> ▪ CWG recommendations: 12% of planned care, 3% of non-elective medicine, 11% of non-elective surgery, 1% of paed's medical, 42% of outpatients, 40% of A&E ▪ Based on 3 month consultation with clinicians 	<ul style="list-style-type: none"> ▪ 20% of elective medicine, 8% non-elective medicine, 55% outpatients, 60% A&E 	<ul style="list-style-type: none"> ▪ CWGs
Decommissioning	<ul style="list-style-type: none"> ▪ CWG recommendations: 6% of all elective procedures, 20% of outpatient, 0% of A&E ▪ Based on 3 month consultation with clinicians 	<ul style="list-style-type: none"> ▪ 5-8% of selected elective surgery, 30% of total outpatient activity ▪ 5% of A&E 	<ul style="list-style-type: none"> ▪ CWGs
Cost scaling	<ul style="list-style-type: none"> ▪ When activity is moved between providers: <ul style="list-style-type: none"> – 95% of direct costs are carried over – 50% of indirect costs are carried over 	<ul style="list-style-type: none"> ▪ Not addressed 	<ul style="list-style-type: none"> ▪ FDs

Assumptions for Tariff and Inflation included in the Provider Cost Model



APPENDIX E: PROVIDER FORECASTS

Forecast Income/Expenditure before any productivity gains (1 of 2)

NORTH EAST LONDON TOTAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	1,450	1,531	1552	1457	1320	1214	1187	1160	1134	1110
Net Expenditure, excluding productivity gains	1,438	1,514	1583	1563	1508	1480	1503	1532	1561	1583
Operating surplus	12	17	(31)	(106)	(188)	(266)	(316)	(372)	(426)	(473)
PDC and net interest	-26	-28	(28)	(28)	(28)	(28)	(28)	(28)	(28)	(28)
Retained surplus	(14)	(11)	(59)	(134)	(216)	(294)	(344)	(400)	(454)	(501)
Cost Reduction Required	-1%	-1%	-4%	-9%	-14%	-20%	-23%	-26%	-29%	-32%

QUEEN'S HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	221	242	254	232	203	180	175	169	164	159
Net Expenditure, excluding productivity gains	242	258	277	269	252	241	243	245	246	248
Operating surplus	(21)	(16)	(22)	(37)	(50)	(61)	(68)	(75)	(82)	(89)
PDC and net interest	(4)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Retained surplus	(25)	(21)	(27)	(42)	(55)	(66)	(73)	(80)	(87)	(94)
Cost Reduction Required	-10%	-8%	-10%	-15%	-22%	-27%	-30%	-33%	-35%	-38%

KING GEORGE HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	124	136	147	140	128	119	117	115	113	111
Net Expenditure, excluding productivity gains	132	139	151	150	144	141	144	147	150	153
Operating surplus	(8)	(3)	(4)	(10)	(16)	(22)	(27)	(32)	(37)	(42)
PDC and net interest	(2)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Retained surplus	(10)	(5)	(7)	(13)	(19)	(24)	(30)	(35)	(40)	(45)
Cost Reduction Required	-8%	-4%	-5%	-9%	-13%	-17%	-20%	-23%	-26%	-29%

BHRUT (QUEEN'S AND KING GEORGE COMBINED)

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	345	378	401	371	331	300	292	284	277	270
Net Expenditure, excluding productivity gains	375	396	428	418	397	382	387	392	397	402
Operating surplus	(29)	(18)	(26)	(47)	(66)	(83)	(95)	(107)	(119)	(131)
PDC and net interest	(6)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
Retained surplus	(36)	(26)	(34)	(54)	(74)	(90)	(103)	(115)	(127)	(139)
Cost Reduction Required	-9%	-7%	-8%	-13%	-19%	-24%	-27%	-29%	-32%	-35%

Forecast Income/Expenditure before any productivity gains (2 of 2)

BARTS & THE LONDON

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	592	614	610	582	538	504	494	484	474	464
Net Expenditure, excluding productivity gains	569	596	616	619	612	618	628	645	659	667
Operating surplus	23	18	(6)	(36)	(74)	(114)	(134)	(161)	(186)	(203)
PDC and net interest	(8)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Retained surplus	15	11	(13)	(44)	(81)	(121)	(142)	(168)	(193)	(211)
Cost Reduction Required	3%	2%	-2%	-7%	-13%	-20%	-23%	-26%	-29%	-32%

WHIPPS CROSS UNIVERSITY HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	196	212	207	190	167	150	143	137	130	124
Net Expenditure, excluding productivity gains	189	204	207	199	187	177	176	176	175	174
Operating surplus	7	8	(1)	(10)	(19)	(27)	(33)	(39)	(45)	(50)
PDC and net interest	(6)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Retained surplus	1	1	(7)	(17)	(26)	(34)	(40)	(46)	(52)	(57)
Cost Reduction Required	0%	0%	-3%	-8%	-14%	-19%	-23%	-26%	-30%	-33%

NEWHAM GENERAL HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	157	161	168	161	149	139	140	141	141	142
Net Expenditure, excluding productivity gains	157	157	171	171	166	164	170	177	184	192
Operating surplus	1	3	(4)	(10)	(18)	(25)	(30)	(36)	(43)	(49)
PDC and net interest	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Retained surplus	(2)	(2)	(7)	(13)	(21)	(27)	(33)	(39)	(46)	(52)
Cost Reduction Required	-1%	0%	-4%	-8%	-12%	-17%	-20%	-22%	-25%	-27%

HOMERTON UNIVERSITY HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	159	166	165	152	135	121	118	115	112	109
Net Expenditure, excluding productivity gains	148	160	161	156	146	140	141	143	146	148
Operating surplus	11	6	4	(3)	(11)	(18)	(23)	(29)	(34)	(39)
PDC and net interest	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Retained surplus	8	3	2	(6)	(14)	(21)	(26)	(31)	(37)	(42)
Cost Reduction Required	5%	2%	1%	-4%	-10%	-15%	-19%	-22%	-25%	-28%

Forecast Income/Expenditure having applied aggressive productivity targets (1 of 2)

NORTH EAST LONDON TOTAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	1450	1531	1552	1457	1321	1216	1188	1161	1135	1111
Net Expenditure, excluding productivity gains	1438	1514	1588	1571	1519	1495	1517	1548	1577	1599
Forecast productivity gain	-	-	(73)	(217)	(297)	(383)	(462)	(495)	(503)	(512)
Avoided costs and transition costs	-	-	5	8	10	13	13	14	15	15
PDC and net interest	(26)	(28)	(28)	(28)	(28)	(28)	(28)	(28)	(28)	(28)
Surplus	(14)	(11)	14	83	81	89	118	94	49	11

QUEEN'S HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	221	242	254	232	203	180	175	169	164	159
Net Expenditure, excluding productivity gains	242	258	281	273	256	245	247	249	250	252
Forecast productivity gain	-	-	(21)	(35)	(49)	(62)	(75)	(79)	(80)	(81)
Avoided costs and transition costs	-	-	4	4	4	4	4	4	4	4
PDC and net interest	(4)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Surplus	(25)	(21)	(6)	(7)	(6)	(4)	1	(1)	(7)	(13)

KING GEORGE HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	124	136	147	140	129	121	118	116	114	112
Net Expenditure, excluding productivity gains	132	139	151	150	145	142	145	148	151	155
Forecast productivity gain	-	-	(4)	(30)	(29)	(37)	(45)	(49)	(50)	(51)
Avoided costs and transition costs	-	-	-	-	-	-	-	-	-	-
PDC and net interest	(2)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Surplus	(10)	(5)	(3)	17	10	13	16	14	10	5

BHRUT (QUEEN'S AND KING GEORGE COMBINED)

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	345	378	401	372	332	301	293	286	278	271
Net Expenditure, excluding productivity gains	375	396	432	423	402	387	392	397	402	407
Forecast productivity gain	-	-	(25)	(65)	(78)	(99)	(120)	(128)	(130)	(131)
Avoided costs and transition costs	-	-	4	4	4	4	4	4	4	4
PDC and net interest	(6)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
Surplus	(36)	(26)	(9)	11	4	9	17	13	2	(8)

Forecast Income/Expenditure having applied aggressive productivity targets (2 of2)

BARTS & THE LONDON

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	592	614	610	582	538	504	494	484	474	464
Net Expenditure, excluding productivity gains	569	596	617	622	618	627	637	655	670	678
Forecast productivity gain	-	-	(23)	(84)	(123)	(161)	(195)	(209)	(212)	(216)
Avoided costs and transition costs	-	-	1	3	6	9	9	10	11	11
PDC and net interest	(8)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Surplus	15	11	10	41	42	40	53	40	19	6

WHIPPS CROSS UNIVERSITY HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	196	212	207	190	167	150	143	137	130	124
Net Expenditure, excluding productivity gains	189	204	207	199	187	177	176	176	175	174
Forecast productivity gain	-	-	(7)	(25)	(36)	(45)	(54)	(56)	(56)	(56)
Avoided costs and transition costs	-	-	-	-	-	-	-	-	-	-
PDC and net interest	(6)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Surplus	1	1		9	10	11	13	10	4	(1)

NEWHAM GENERAL HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	157	161	168	161	149	139	140	141	141	142
Net Expenditure, excluding productivity gains	157	157	171	171	166	164	170	177	184	192
Forecast productivity gain	-	-	(7)	(22)	(32)	(42)	(51)	(56)	(59)	(61)
Avoided costs and transition costs	-	-	-	-	-	-	-	-	-	-
PDC and net interest	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Surplus	(2)		1	9	11	14	18	17	13	9

HOMERTON UNIVERSITY HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	159	166	165	152	135	121	118	115	112	109
Net Expenditure, excluding productivity gains	148	160	161	156	146	140	141	143	146	148
Forecast productivity gain	-	-	(10)	(20)	(28)	(36)	(43)	(46)	(47)	(47)
Avoided costs and transition costs	-	-	-	-	-	-	-	-	-	-
PDC and net interest	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Surplus	8	3	12	14	14	15	17	14	10	6

Forecast Income/Expenditure having applied less aggressive productivity targets (1 of 2)

NORTH EAST LONDON TOTAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	1450	1531	1552	1457	1321	1216	1188	1161	1135	1111
Net Expenditure, excluding productivity gains	1438	1514	1583	1563	1509	1482	1504	1533	1562	1584
Forecast productivity gain	-	-	(35)	(86)	(137)	(172)	(203)	(234)	(266)	(285)
Avoided costs and transition costs	-	-	-	-	-	-	-	-	-	-
PDC and net interest	(26)	(28)	(28)	(28)	(28)	(28)	(28)	(28)	(28)	(28)
Surplus	(14)	(11)	(24)	(48)	(79)	(122)	(142)	(167)	(189)	(216)

QUEEN'S HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	221	242	254	232	203	180	175	169	164	159
Net Expenditure, excluding productivity gains	242	258	277	269	252	241	243	245	246	248
Forecast productivity gain	-	-	(12)	(14)	(22)	(28)	(32)	(37)	(42)	(45)
Avoided costs and transition costs	-	-	-	-	-	-	-	-	-	-
PDC and net interest	(4)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Surplus	(25)	(21)	(16)	(27)	(32)	(38)	(41)	(43)	(45)	(49)

KING GEORGE HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	124	136	147	140	129	121	118	116	114	112
Net Expenditure, excluding productivity gains	132	139	151	150	145	142	145	148	151	155
Forecast productivity gain	-	-	(2)	(8)	(13)	(17)	(20)	(23)	(26)	(28)
Avoided costs and transition costs	-	-	-	-	-	-	-	-	-	-
PDC and net interest	(2)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Surplus	(10)	(5)	(5)	(5)	(6)	(8)	(10)	(12)	(14)	(17)

BHRUT (QUEEN'S AND KING GEORGE COMBINED)

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	345	378	401	372	332	301	293	286	278	271
Net Expenditure, excluding productivity gains	375	396	428	418	398	383	388	393	398	403
Forecast productivity gain	-	-	(14)	(22)	(36)	(44)	(52)	(60)	(68)	(73)
Avoided costs and transition costs	-	-	-	-	-	-	-	-	-	-
PDC and net interest	(6)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
Surplus	(36)	(26)	(20)	(32)	(38)	(46)	(51)	(55)	(59)	(67)

Forecast Income/Expenditure having applied less aggressive productivity targets (2 of 2)

BARTS & THE LONDON

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	592	614	610	582	538	504	494	484	474	464
Net Expenditure, excluding productivity gains	569	596	616	619	612	618	628	645	659	667
Forecast productivity gain	-	-	(10)	(35)	(57)	(72)	(85)	(98)	(112)	(120)
Avoided costs and transition costs	-	-	-	-	-	-	-	-	-	-
PDC and net interest	(8)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Surplus	15	11	(3)	(8)	(24)	(49)	(57)	(70)	(81)	(91)

WHIPPS CROSS UNIVERSITY HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	196	212	207	190	167	150	143	137	130	124
Net Expenditure, excluding productivity gains	189	204	207	199	187	177	176	176	175	174
Forecast productivity gain	-	-	(4)	(11)	(17)	(21)	(24)	(27)	(30)	(31)
Avoided costs and transition costs	-	-	-	-	-	-	-	-	-	-
PDC and net interest	(6)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Surplus	1	1	(3)	(6)	(10)	(13)	(17)	(19)	(22)	(26)

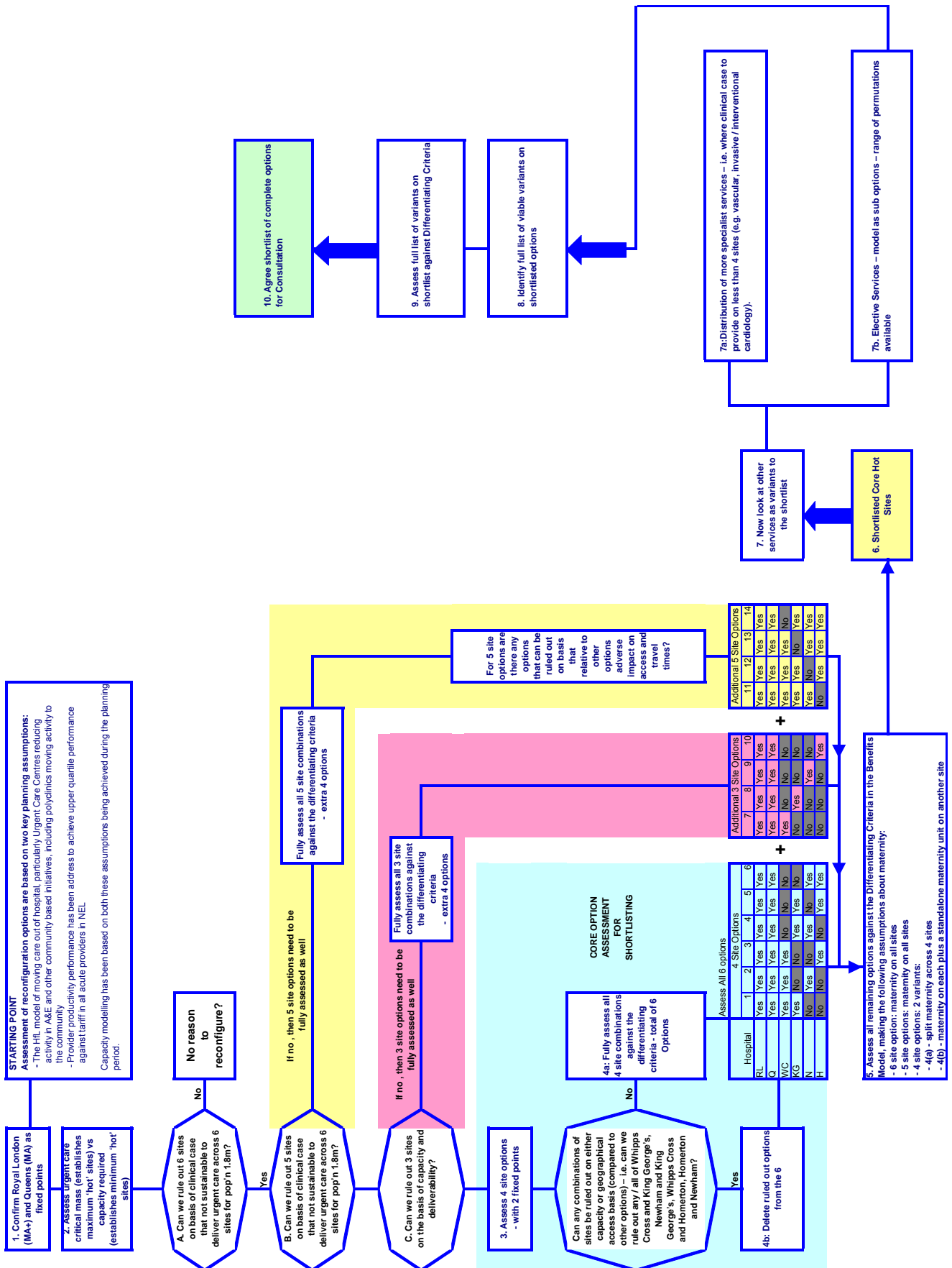
NEWHAM GENERAL HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	157	161	168	161	149	139	140	141	141	142
Net Expenditure, excluding productivity gains	157	157	171	171	166	164	170	177	184	192
Forecast productivity gain	-	-	(4)	(9)	(15)	(19)	(23)	(27)	(31)	(34)
Avoided costs and transition costs	-	-	-	-	-	-	-	-	-	-
PDC and net interest	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Surplus	(2)		(2)	(4)	(6)	(9)	(10)	(12)	(14)	(18)

HOMERTON UNIVERSITY HOSPITAL

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Net income	159	166	165	152	135	121	118	115	112	109
Net Expenditure, excluding productivity gains	148	160	161	156	146	140	141	143	146	148
Forecast productivity gain	-	-	(3)	(8)	(13)	(16)	(19)	(22)	(25)	(27)
Avoided costs and transition costs	-	-	-	-	-	-	-	-	-	-
PDC and net interest	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Surplus	8	3	4	2	(1)	(5)	(7)	(10)	(12)	(15)

APPENDIX F: THE DECISION TREE



APPENDIX G: SCORING FOR 'CLINICAL AND WORKFORCE' CRITERIA

G.1 PURPOSE OF THIS APPENDIX

The *Health for North East London* Clinical Working Groups (CWGs) have identified and agreed a comprehensive list of options for reconfiguring the provision of acute services in the north east London sector.

The options are in the process of being shortlisted, as part of a three-stage process:

1. Decision tree: Application of a hierarchy of decision steps to reduce the complete list of options for the configuration of services across acute hospitals in North East London to a 'long' short list of options that meet the first test of capacity and deliverability.
2. Decision making criteria: Application of a set of financial and non-financial decision criteria by relevant expert groups. This process will initially rank options according to non financial benefits. Financial analysis will then be applied to allow a 'cost benefit' appraisal of the different options on the 'long' short list. External assurance, including involvement of local stakeholders, will be built in to the overall timetable once agreed.
3. The outcome of this option appraisal process will be considered by the Clinical Reference Group (CRG) and the *Health for North East London* Programme Board who will make a recommendation to the JCPCTs for outer north east London and inner north east London in respect of the final short list of options for consultation.

The decision tree has been applied to the long list, and it was agreed that the options with three sites with A&E should be ruled out of consideration due to the difficulties of delivering the large scale builds that would be required to enable the capacity requirements to be met.

The programme is now going through the process of applying the decision making criteria to the options to enable a ranking of the options.

The first stage of this process has been to evaluate "site-agnostic" options against a set of clinical and workforce criteria.

This paper presents the results of the "site agnostic" option appraisal as completed by the Clinical Reference Group on 15th July 2009.

G.2 THE OPTIONS BEING CONSIDERED

The "site-agnostic" options that are being considered are:

- Six sites with A&E and six obstetric-led maternity units (as per the current configuration);
- Five sites with A&E and five obstetric-led maternity units;
- Four sites with A&E and four obstetric-led maternity units;
- Four sites with A&E and five obstetric-led maternity units (one standalone);

- Three sites with A&E and four or five obstetric-led maternity units (one or two standalone).

It should be noted that a “first pass” review of the three site options suggested that they would fail the capacity and deliverability hurdle criteria as discussed at CRG on 24th June. However, it was agreed that the 3 site option should be ranked as part of this exercise for the sake of completeness.

G.3 THE PROCESS FOLLOWED AND HIGH LEVEL RESULTS

The CRG was presented with a “straw-man” analysis of the evaluation of options against each of the criteria. This was discussed line by line in detail and a new analysis of the options was completed.

Options were ranked 1 to 4 against each of the criteria. Options that were believed to be equal in rank were given the same ranking. A ranking of four means that the option meets the criteria very well.

The rankings were then averaged, and an overall “score” was calculated.

The detailed analysis is presented at section C.6 to this report and the overall results are shown in the table that follows. A relatively high score indicates that the option does well against the criteria for assessment, and a relatively low score indicates that the option does not do so well against the criteria for assessment.

	Clinical quality		Workforce	
	Average "Score"	Ranking	Average "Score"	Ranking
Six sites with A&E	1.38	5	1.38	5
Five sites with A&E	2.75	3	2.38	4
Four sites with A&E and four maternity	3.50	1	3.25	2
Four sites with A&E and five maternity	3.38	2	3.00	3
Three sites with A&E and four maternity	2.00	4	3.75	1

G.4 RESULTS AGAINST THE CLINICAL QUALITY CRITERIA

- **Urgent Medicine** – the discussion focussed on the number of high acuity cases, and the number that can be expected to be treated in an hour at an A&E. It was estimated that there are 600,000 cases treated in north east London each year, but that about 40% to 50% of these would be treated in Urgent care services in the future. It was agreed that case through put would be too high if the number of A&Es is reduced to 3 only, but that 4 sites would enable some consolidation of services without increasing unnecessary risk;
- **Urgent Surgery** – The CRG noted the potential for “network” models to safely deliver urgent surgical support (in the context of increased sub-specialisation) across multiple sites. However, attendees expressed a clear view that providing urgent surgery on fewer sites would optimise quality and safety even within a networked approach. It was agreed that Urgent Surgery would largely follow the ranking of urgent medicine. However, with network-based working being an option, it was agreed that three and four site options should be ranked equally;
- **Maternity and newborn** – It was recognised that ranking the maternity options needs to be done on a site specific basis given the variation of patient flows and size of the units. Therefore it was agreed that the CRG non-site specific ranking would be a preliminary view only. It was agreed that an expert group (based on the maternity CWG) would be convened to rank the maternity options on a site specific basis.
- The CRG view is that the optimum model would see all A&Es supported by an on-site obstetric maternity unit, and that vice versa, all obstetric units should be supported by an A&E. However, they did believe that a high quality service could be provided at a “standalone” maternity hospital if it is well developed. Equally, the CRG view is that it is possible to design safe, urgent emergency obstetric and gynaecological care pathways with separated provision.

The preliminary ranking undertaken by CRG was against the following three criteria:

- The first is about the need for obstetric led maternity units to have between 6,000 and 8,000 births. It should be noted that there was a debate about whether 6,000 to

8,000 births is the optimum size for maternity, and the relevance of this as a measure. It was agreed that the expert group would revisit this;

- The second criterion was about the resilience in the system;
- The third criterion was about the environment, privacy and dignity. CRG agreed that this criterion was more appropriately considered as part of the analysis on the capacity and deliverability criteria, and so the options were not ranked against this criterion;

The preliminary results of the non-site specific ranking by CRG was:

- *First:* Five obstetric-led units (all co-located with A&E);
- *Second:* Five obstetric-led units (four co-located with A&E, one “standalone”);
- *Third:* Four obstetric-led units (all co-located with A&E);
- *Fourth:* Six obstetric-led units (all co-located with A&E);
- *Fifth:* Three “hot” sites with four or five obstetric-led units.

The above will all be subject to thorough review when the expert maternity group meets.

In addition, it was agreed that there should be an additional criterion relating to NICUs for maternity and newborn. This will be added before the expert maternity group meets.

- **Children’s services** – two criteria were considered against children’s services:
 - The first relates to the provision of a child-friendly environment. CRG agreed that this criterion does not differentiate between the options, and therefore should be excluded from the analysis;
 - The second relates to the provision of round-the-clock PATS units across all A&E sites. It was agreed that it would be difficult to upgrade all locations; that 4 A&E sites would be the best option, with five hot sites following and three being better than six.
- **Planned care** – CRG agreed that this criterion does not differentiate between the options, at this stage and that this will be modelled in more detail at the short-listing stage.
- **Specialist Services** - CRG agreed that this criterion does not differentiate between the options at this stage. Recommendations from the Specialist Services CWG should be implemented in all options, so this was excluded from the ranking exercise.

G.5 RESULTS AGAINST THE WORKFORCE CRITERIA

- **Urgent medicine** – It was agreed that it is easiest to staff three and four sites, followed by five then six. However, the discussion picked up that the key question relates to the number of services that north east London can afford to staff.
- **Urgent surgery** – The underlying assumption is that for multiple sites of four or more there would need to be a network model of working for urgent surgery. Notwithstanding the

network model of cover that is proposed, it was agreed that staffing fewer sites is easier to achieve, hence CRG agreed that the three site option is optimum against this criterion.

- **Children's services** – There were three criteria for Children's services:
 - The first relates to the creation of a dedicated A&E service for children;
 - The second relates to the staffing of PATS at every A&E;
 - The third relates to a skilled consultant-led multi-disciplinary team.

Options were ranked the same against each of the criteria. It was agreed that fewer sites in general would be easier to staff than more sites, although it was not clear at this stage where the "tipping point" would lie between four and three sites. CRG agreed that there should be more detailed modelling if the three site option reaches the shortlist.

- **Maternity and new born** – There were two criteria for maternity and new born:
 - The first relates to the ability to staff 98 hour cover and progress towards 168 hour cover. It was agreed that staffing issues would be similar for three to five sites, but six sites would be much more difficult to deliver given the level of consultancy support required;
 - The second relates to the creation of dedicated neonate rotas. It was agreed that this would be easier to achieve for three and four sites than for five and six sites.

It was agreed that both of these scores would be reviewed when the maternity group meets to discuss site specific options.

- **Planned care** – CRG agreed that this criterion does not differentiate between the options at this stage, and that this would be modelled in more detail at the short list stage.
- **Specialist Services** - CRG agreed that this criterion does not differentiate between the options at this stage. Recommendations from the Specialist Services CWG should be implemented in all options, so this was excluded from the ranking exercise.

G.6 DECISION MAKING CRITERIA AND CRG SCORING

G.6.1 Clinical Quality

Is the option likely to comply with or exceed the guidelines on clinical quality, safety, efficiency and effectiveness of patient care set by the Government, Royal Colleges and NICE and the recommendations of the Clinical Working Groups?			Ranking of four means that the option is most likely to meet the criteria. Ranking of one means the option is least likely to meet the criteria							
Area of enquiry	Decision criteria	6 Hot Sites		4 Hot Sites + 4 Maternity		4 Hot Sites + 5 Maternity		3 Hot Sites + 4 maternity minimum		Assumptions / comments
		Score	Rationale	Score	Rationale	Score	Rationale	Score	Rationale	
Urgent Medicine	This option creates a more coherent emergency service without introduction of increased risk to patients - in accordance with College of Emergency Medicine Way Ahead Guidance (10km rule)	1	With move of activity to UCCs - 6 small A&E is resource and likely full of ability to attract full staffing model	2	There are multiple sites within 10km of each other - so 1 can be collapsed into another significant increase in risk. Some benefit in use of resources and ability to attract and retain staff	4	Can achieve 4 site model without moving services more than 10km. Once all critical mass over 5 site option more likely to be able to attract and retain full staffing model	4	Can achieve 4 site model without moving services more than 10km. Once all critical mass over 5 site option more likely to be able to attract and retain full staffing model	There are approx 600,000 emergency cases each year in NEL. Maximum of about 40 to 50% would be dealt with by urgent care centres. Scoring is reasonable unless activity levels drop activity for a particular hospital site. This scoring is dependent on good quality urgent care centres
Urgent Surgery	This option supports a catchment of at least 500,000 for emergency surgery in accordance with Royal College of Surgeons recommendations	1	Catchment < 300,000, but many specialist services already consolidated so issue diminished. However, critical mass is still sub-optimal to support sub-specialisation in doubt	2	<400,000 population catchment	4	Catchment >400,000, but many specialist services already consolidated, so impact diminished. However, critical mass is still sub-optimal to support sub-specialisation in doubt	4	Catchment >400,000, but many specialist services already consolidated, so impact diminished. However, critical mass is still sub-optimal to support sub-specialisation in doubt	Urgent surgery is linked to urgent medicine. However, using a network model of working, three and four sites are ranked equally
Maternity and Newborn	This option allows for specialist obstetric units with approximately 8000 deliveries a year in line with HL policy of 6000 to 8000	3	At 33,000 deliveries, scale 5,500. Slightly sub-optimal	4	39k births across 5 sites = 7.2 per site	3	Scale would require units to be split to keep below 6,000	3	Scale would require units to be split to keep below 6,000.	Prefer 5 hot sites with 5 maternity. This needs to be reviewed by the maternity CWG against site specific options.
	This option provides high quality of care for the most likely scenarios of 34,000 deliveries per year and resilience to deal with up to 38,000 deliveries per year - in accordance with current capacity modelling	2	Maintaining sustainable capacity across 6 sites is more difficult than across 5 sites	4	5 sites could deal with 40k without moving to double rotas	3	4 sites less flexible than 4 but better than 3	4	5 sites could deal with 40k without moving to double rotas	CRG agreed that is a matter of capacity and deliverability rather than clinical quality - hence all scores are zero
	This option makes it more likely that maternity units will be able to provide an environment enabling women to have the privacy and dignity important to them during their stay, in accordance with National policy	1	Need to add in a criteria on NICU							CRG agreed that there should be an additional criterion to reflect the requirements of the NICU
Children's services	This option provides the critical mass that enables children to always be treated in a bespoke child friendly environment in accordance with national policy	2	Difficult to upgrade all locations	4	5 sites may be too many to upgrade at once	3	4	4	4	CRG agreed that this criterion does not differentiate between options and was therefore excluded from this analysis.
Planned Care	This option is likely to enable the provision of 24/7 PATS units across NEL as recommended by the CRG	1	Difficult to upgrade all locations	3	5 sites may be too many to upgrade at once	3	4	3	3	This needs further modelling at the storming stage
	This option is likely to enable the separation of elective and non-elective pathways in accordance with HL and national guidance	1		3		3		3		CRG agreed that this criterion does not differentiate between options and was therefore excluded from this analysis
Specialist Services	This option enables consolidation of specialist services where they are currently below the critical mass suggested by the evidence base in accordance with HL and national best practice guidance									CRG agreed that this criterion does not differentiate between options and was therefore excluded from this analysis
Overall	This option is likely to provide optimum combination of services on each site, taking into account interdependencies between services as identified by the CWGs	1.38		3.50		3.38		2.00		
	Average Score	1.38		3.50		3.38		2.00		
	Ranking	5		1		2		4		

G.6.2 Workforce

Area of enquiry		Decision criteria		6 Hot Sites		6 Hot Sites		4 Hot Sites + 4 Maternity		4 Hot Sites + 5 Maternity		3 Hot Sites + 4 maternity minimum		Assumptions / comments	
		Score	Rationale	Score	Rationale	Score	Rationale	Score	Rationale	Score	Rationale	Score	Rationale	Score	Rationale
Urgent Medicine		This option facilitates optimal deployment of the workforce and helps manage demand and supply gaps – taking account of guidance from Royal Colleges on optimal staffing of services	2	Intensivists are in good supply, but some supporting specialists to fully staff mode are in shortage. Risk of difficulty to fully staff model. 5 sites more difficult to make optimal use of resource of 4 sites (increases needed to match best practice guidance) - hence expensive	3	Intensivists are in good supply, but some supporting specialists to fully staff mode are in shortage. Risk of difficulty to fully staff model. 5 sites more difficult to make optimal use of resource of 4 sites (increases needed to match best practice guidance) - hence expensive	3.00		4	Likely to support optimal use of resources	4	Likely to support optimal use of resources	4	No benefit over 4 site option	The key question here is the availability and affordability of a consultancy delivered service on multiple sites compared with consolidating the service onto fewer sites.
Urgent surgery		<i>Subtotal</i> This option is likely to ensure there is the cover required to provide urgent surgery on all sites with an AGE (as per the CRG recommendation) in accordance with guidance from the Royal College of Surgeons	2.00	<i>Subtotal</i>	3.00	Requires the development of new to cover sites and variation in consultant contracts	2		4.00		4.00		4.00		There is an underlying assumption that there will be a network made of working for four or more sites. It was agreed that it is difficult to deliver a network made of six or five sites. 3 sites will optimise use of staff.
Children's services		<i>Subtotal</i> This option allows creation of a dedicated paediatric AGE at each site that has an AGE and will availability of appropriately skilled staff as recommended by CRG and RCPCH	1.00	<i>Subtotal</i> This option supports the staffing of Paediatric Assessment and Treatment services at every 'hot' site as recommended by CRG and RCPCH	1	It is likely to be very hard to staff 5 sites - though better than 6 site option	2		3.00	Significantly more likely to be able to fully staff than 5 site options	3	Significantly more likely to be able to fully staff than 5 site options	4		Need to move to a smaller number of sites to provide the cover of paediatricians required if 3 sites are preferred, then we will need to test further workforce assumptions.
Maternity & Newborn		<i>Subtotal</i> This option is likely to enable a suitable number of experienced and skilled consultants to deliver 96 hour consultant cover and progress toward 168 hour specialist cover in compliance with EWTD as recommended by CRG and RCOG	1.00	<i>Subtotal</i> This option is likely to facilitate the move towards the creation of dedicated neonatal rooms as recommended by CRG and RCOG	1	It is likely to be very hard to staff 5 sites	2		3.00	Significantly more likely to be able to fully staff than 5 site options	3	Significantly more likely to be able to fully staff than 5 site options	4		Further review required by the Maternity CWG
Planned Care		<i>Subtotal</i> This option's facilitates optimal deployment of the workforce and helps manage demand and supply gaps	1.50	<i>Subtotal</i> This option's facilitates optimal deployment of the workforce and helps manage demand and supply gaps	2	Staffing issues similar for 3 - 5 sites	3		3.00	Staffing issues similar for 3 - 5 sites	3	Staffing issues similar for 3 - 5 sites	3.00		CRG agreed that at this criterion does not differentiate between options and was therefore excluded from this analysis.
Specialist Services		<i>Subtotal</i> This option's facilitates optimal deployment of the workforce and helps manage demand and supply gaps	1.38	<i>Subtotal</i> This option's facilitates the delivery of education and training across NEL	6	Staffing issues similar for 3 - 5 sites	3		3.00	Staffing issues similar for 3 - 5 sites	3	Staffing issues similar for 3 - 5 sites	3.00		CRG agreed that this criterion does not differentiate between options and was therefore excluded from this analysis.
Overall		Average Score	1.38	Ranking	6	2.39	4	3.25	2	3.00	3	3.75	1		

APPENDIX H: THE LIST OF 110 POTENTIAL OPTIONS

Option definition									Hurdle - hot, no maternity ruled out
Option no.	Count options	RL	Q	WC	KG	N	H		
No reconfiguration -	1	1	H MU	H MU	H MU	H MU	H MU	H MU	
	2	2	H MU	H MU	H MU		H MU	H MU	
Five hot sites, five maternity - King George's is cold	2i	3	H MU	H MU	H MU		H MU	H MU	Hot, no maternity
	2ii	4	H MU	H MU	H MU		H MU	H MU	Hot, no maternity
	2iii	5	H MU	H MU	H MU		H MU	H MU	Hot, no maternity
	2iv	6	H MU	H MU	H MU		H MU	H MU	Hot, no maternity
	3	7	H MU	H MU	H MU	H MU	H MU		
	3i	8	H MU	H MU	H MU	H MU	H MU		Hot, no maternity
Five hot sites, five maternity - Homerton is cold	3ii	9	H MU	H MU	H MU	H MU	H MU		Hot, no maternity
	3iii	10	H MU	H MU	H MU	H MU	H MU		Hot, no maternity
	3iv	11	H MU	H MU	H MU	H MU	H MU		Hot, no maternity
	4	12	H MU	H MU	H MU	H MU	H MU		
Five hot sites, five maternity - Newham is cold	4i	13	H MU	H MU	H MU	H MU	H MU		Hot, no maternity
	4ii	14	H MU	H MU	H MU	H MU	H MU		Hot, no maternity
	4iii	15	H MU	H MU	H MU	H MU	H MU		Hot, no maternity
	4iv	16	H MU	H MU	H MU	H MU	H MU		Hot, no maternity

Five hot sites, five maternity - Whipps Cross is cold	4iv	16	MU	MU	MU		MU	MU	maternity
	5	17	H	H		H	H	H	
			MU	MU		MU	MU	MU	
	5i	18	H	H		H	H	H	Hot, no maternity
			MU	MU	MU	MU	MU		
	5ii	19	H	H		H	H	H	Hot, no maternity
MU				MU	MU	MU	MU		
5iii	20	H	H		H	H	H	Hot, no maternity	
		MU	MU	MU		MU	MU		
5iv	21	H	H		H	H	H	Hot, no maternity	
		MU	MU	MU	MU		MU		
Four hot sites, four maternity: King Georges cold, Homerton cold	6a	22	H	H	H		H		
	6ai	23	MU	MU	MU		MU		Hot, no maternity
			MU	MU	MU	MU			
	6aai	24	H	H	H		H		Hot, no maternity
			MU		MU	MU	MU		
	6aiii	25	H	H	H		H		Hot, no maternity
			MU	MU		MU	MU		
	6aiv	26	H	H	H		H		Hot, no maternity
			MU		MU	MU		MU	
	6av	27	H	H	H		H		Hot, no maternity
			MU	MU		MU		MU	
6avi	28	H	H	H		H		Hot, no maternity	
		MU	MU	MU			MU		
6avii	29	H	H	H		H		Hot, no maternity	
		MU		MU		MU	MU		
6aviii	30	H	H	H		H		Hot, no maternity	
		MU	MU			MU	MU		
6aix	31	H	H	H		H		Hot, no maternity	
		MU			MU	MU	MU		
Four hot sites, five maternity King Georges cold, Homerton cold	6b	32	H	H	H		H		
			MU	MU	MU		MU	MU	
	6c	33	H	H	H		H		
			MU	MU	MU	MU	MU		
	6d	34	H	H	H		H		Hot, no maternity
			MU		MU	MU	MU	MU	
6e	35	H	H	H		H		Hot, no maternity	
		MU	MU		MU	MU	MU		
6f	36	H	H	H		H		Hot, no maternity	
			MU	MU	MU	MU			

Four Hot sites four maternity, King Georges cold, Newham cold	7a	37	H MU	H MU	H MU			H MU	
	7ai	38	H MU	H MU	H MU	MU		H	Hot, no maternity
	7aii	39	H MU	H	H MU	MU	MU	H	Hot, no maternity
	7aiii	40	H MU	H MU	H	MU	MU	H	Hot, no maternity
	7aiv	41	H MU	H MU	H MU		MU	H	Hot, no maternity
	7av	42	H MU	H	H MU	MU		H MU	Hot, no maternity
	7avi	43	H MU	H MU	H	MU		H MU	Hot, no maternity
	7avii	44	H MU	H	H MU		MU	H MU	Hot, no maternity
	7aviii	45	H MU	H MU	H		MU	H MU	Hot, no maternity
	7aix	46	H MU	H	H	MU	MU	H MU	Hot, no maternity
Four Hot sites five maternity, King Georges cold, Newham cold	7b	47	H MU	H MU	H MU		MU	H MU	
	7c	48	H MU	H MU	H MU	MU		H MU	
	7d	49	H MU	H MU	H MU	MU	MU	H	Hot, no maternity
	7e	50	H MU	H	H MU	MU	MU	H MU	Hot, no maternity
	7f	51	H MU	H MU	H	MU	MU	H MU	Hot, no maternity
Four hot sites, four maternity, King Georges cold, Whipps Cross cold	8a	52	H MU	H MU			H MU	H MU	
	8ai	53	H MU	H MU	MU	MU		H	Hot, no maternity
	8aii	54	H MU	H	MU	MU	MU	H	Hot, no maternity
	8aiii	55	H MU	H MU		MU	MU	H	Hot, no maternity
	8aiv	56	H MU	H MU	MU		MU	H	Hot, no maternity
	8av	57	H MU	H	MU	MU		H MU	Hot, no maternity
	8avi	58	H MU	H MU		MU		H MU	Hot, no maternity
	8avii	59	H MU	H MU	MU			H MU	Hot, no maternity
	8aviii	60	H MU	H	MU		MU	H MU	Hot, no maternity
	8aix	61	H MU	H		MU	MU	H MU	Hot, no maternity

Four hot sites, five maternity, King Georges cold, Whipps Cross cold	8b	62	H MU	H MU			H MU	H MU	
	8c	63	H MU	H MU			H MU	H MU	
	8d	64	H MU	H MU			H MU	H MU	Hot, no maternity
	8e	65	H MU	H MU			H MU	H MU	Hot, no maternity
	8f	66	H MU	H MU			H MU	H MU	Hot, no maternity
	Four hot sites, four maternity. Newham and Homerton cold	9a	67	H MU	H MU	H MU	H MU		
9ai		68	H MU	H MU	H MU	H MU			Hot, no maternity
9aai		69	H MU	H MU	H MU	H MU			Hot, no maternity
9aiii		70	H MU	H MU	H MU	H MU			Hot, no maternity
9aiv		71	H MU	H MU	H MU	H MU			Hot, no maternity
9av		72	H MU	H MU	H MU	H MU			Hot, no maternity
9avi		73	H MU	H MU	H MU	H MU			Hot, no maternity
9avii		74	H MU	H MU	H MU	H MU			Hot, no maternity
9aviii		75	H MU	H MU	H MU	H MU			Hot, no maternity
9aix		76	H MU	H MU	H MU	H MU			Hot, no maternity

Four hot sites, five maternity. Newham and Homerton cold	9b	77	H	H	H	H			
			MU	MU	MU	MU		MU	
	9c	78	H	H	H	H			
			MU	MU	MU	MU	MU		
	9d	79	H	H	H	H			Hot, no maternity
			MU		MU	MU	MU	MU	
	9e	80	H	H	H	H			Hot, no maternity
			MU	MU		MU	MU	MU	
	9f	81	H	H	H	H			Hot, no maternity
			MU	MU	MU		MU	MU	
Four hot sites, four maternity. Homerton and Whipps Cross are cold.	10a	82	H	H		H	H		
			MU	MU		MU	MU		
	10ai	83	H	H		H	H		Hot, no maternity
			MU	MU	MU	MU			
	10aaii	84	H	H		H	H		Hot, no maternity
			MU		MU	MU	MU		
	10aaiii	85	H	H		H	H		Hot, no maternity
			MU	MU	MU		MU		
	10aaiiv	86	H	H		H	H		Hot, no maternity
			MU		MU	MU		MU	
	10aav	87	H	H		H	H		Hot, no maternity
		MU	MU		MU		MU		
10avii	88	H	H		H	H		Hot, no maternity	
		MU	MU	MU			MU		
10aviii	89	H	H		H	H		Hot, no maternity	
		MU		MU		MU	MU		
10aviiii	90	H	H		H	H		Hot, no maternity	
		MU	MU			MU	MU		
10aix	91	H	H		H	H		Hot, no maternity	
		MU			MU	MU	MU		
Four hot sites, five maternity. Homerton and Whipps Cross are cold.	10b	92	H	H		H	H		
			MU	MU		MU	MU	MU	
	10c	93	H	H		H	H		
			MU	MU	MU	MU	MU		
	10d	94	H	H		H	H		Hot, no maternity
			MU		MU	MU	MU	MU	
10e	95	H	H		H	H		Hot, no maternity	
		MU	MU	MU		MU	MU		
10f	96	H	H		H	H		Hot, no maternity	
		MU	MU	MU	MU		MU		
Four hot sites, four maternity. Whipps Cross and Newham cold	11a	97	H	H		H	H		
			MU	MU		MU		MU	
	11ai	98	H	H		H	H		Hot, no maternity
			MU	MU	MU	MU			
	11aii	99	H	H		H	H		Hot, no maternity
			MU		MU	MU	MU		
	11aiiii	100	H	H		H	H		Hot, no maternity
			MU	MU		MU	MU		
	11aiv	101	H	H		H	H		Hot, no maternity
			MU	MU	MU		MU		
	11av	102	H	H		H	H		Hot, no maternity
		MU		MU	MU		MU		
11avii	103	H	H		H	H		Hot, no maternity	
		MU	MU	MU			MU		
11aviii	104	H	H		H	H		Hot, no maternity	
		MU		MU		MU	MU		
11aviiii	105	H	H		H	H		Hot, no maternity	
		MU	MU			MU	MU		
11aix	106	H	H		H	H		Hot, no maternity	
		MU			MU	MU	MU		
Four hot sites, five maternity. Newham and Whipps Cross	11b	107	H	H		H	H		
			MU	MU	MU	MU		MU	
	11c	108	H	H		H	H		
			MU	MU		MU	MU	MU	

APPENDIX I: SCORING FOR THE 'MATERNITY' CRITERIA

I.1 PURPOSE OF THIS APPENDIX

The *Health for North East London* clinical working groups have identified and agreed a comprehensive list of options for reconfiguring the provision of acute services in the north east London sector.

The options are in the process of being shortlisted, as part of a three-stage process:

1. Decision tree: Application of a hierarchy of decision steps to reduce the complete list of options for the configuration of services across acute hospitals in north east London to a 'long' short list of options that meet the first test of capacity and deliverability.
2. Decision making criteria: Application of a set of financial and non-financial decision criteria by relevant expert groups. This process will initially rank options according to non financial benefits. Financial analysis will then be applied to allow a 'cost benefit' appraisal of the different options on the 'long' short list. External assurance, including involvement of local stakeholders, will be built in to the overall timetable.
3. The outcome of this option appraisal process will be considered by the Clinical Reference Group (CRG) and the *Health for North East London* Programme Executive and Programme Board who will make a recommendation to the JCPCTs for outer north east London and inner north east London in respect of the final short list of options for consultation.

The decision tree has been applied to the long list, and it was agreed that the options with three sites with A&E should be ruled out of consideration due to the difficulties of delivering the large scale builds that would be required to enable the capacity requirements to be met.

The programme is now going through the process of applying the decision making criteria to the options to enable a ranking of the options.

The first stage of this process was carried out by the CRG on 15th July, and it was to evaluate "site-agnostic" options against a set of clinical and workforce criteria.

The results of this "site-agnostic" appraisal are available at Appendix C.

During the process of appraising the "site-agnostic" options, it became clear that it was not appropriate to shortlist maternity options on a "site-agnostic" basis. This was because it was recognised that ranking the maternity options needs to be done on a site specific basis given the variation of patient flows and size of the units, driven by significant differences in birth rates and demographics across the sector. It was therefore agreed that the CRG non-site specific ranking would be a preliminary view only in respect of maternity and it was agreed that an expert group would be convened to rank the options on a site-specific basis.

This paper presents the work of the specially convened maternity group that met on the 5th August 2009. The people who attended the workshop are listed at Section E.7 below.

I.2 THE PROCESS FOLLOWED

The workshop was divided into four main sections:

The first part of the workshop was used to explain the demographic assumptions behind calculated patient flows, the number of expected births for each hospital in the sector and information about patient access times. This was to set the scene and provide participants with a general understanding of the data being used to shape decisions, and to provide a pack of information that could then be referred to later in the afternoon;

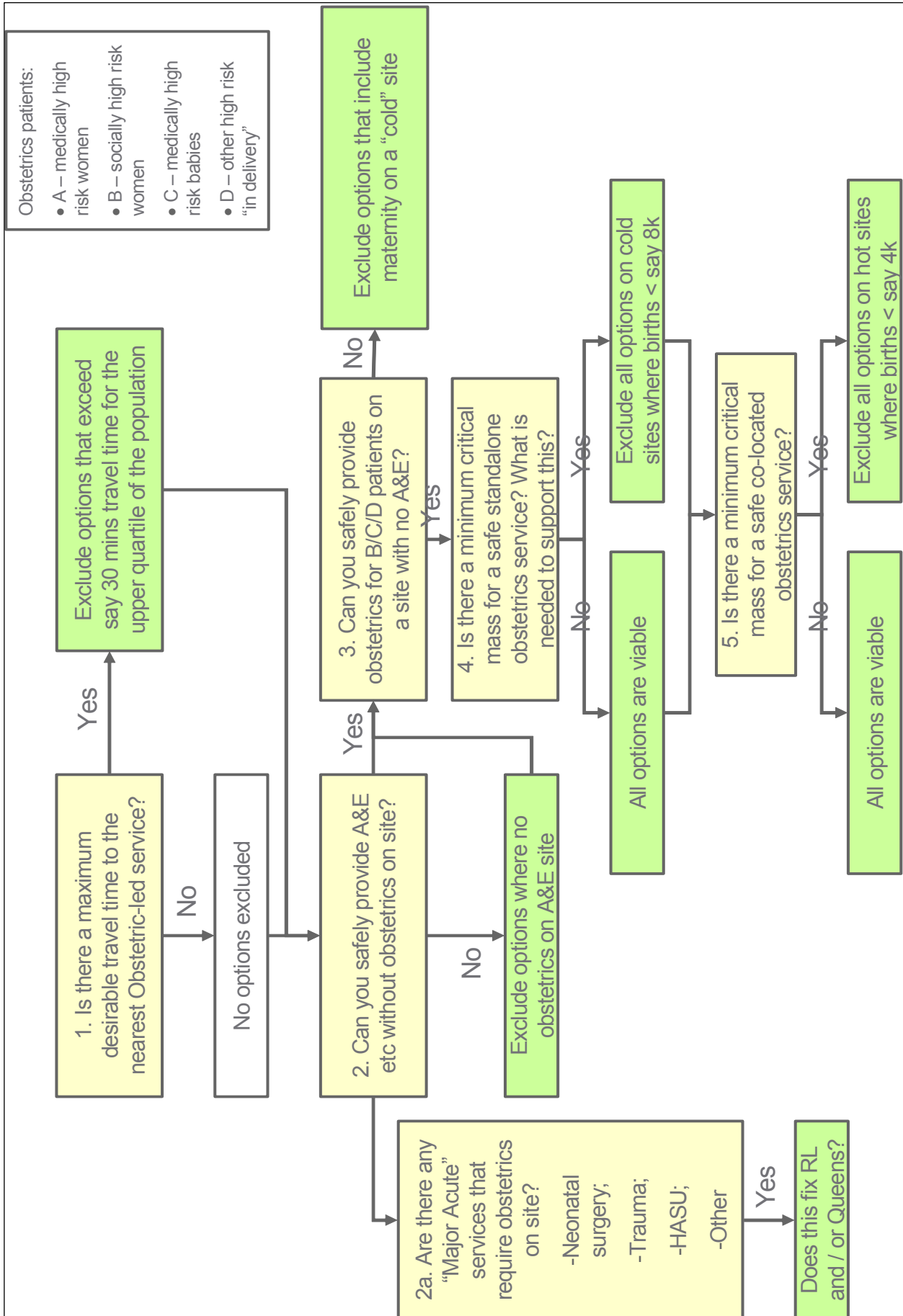
The second part of the workshop focused on a maternity decision tree, and asked participants to discuss the different elements of the decision tree to help arrive at conclusions about which options should remain in the short-listing process. This is explained in greater detail later in this paper (and an amended decision tree is attached that reflects the inputs provided by participants).

The third part of the workshop introduced a set of decision making criteria that can be applied to maternity. These are introduced later in this paper;

The final part of the workshop worked through a series of options looking at individual hospital sites and pairs of sites. This is discussed in the final part of the paper.

I.3 THE DECISION TREE

The decision tree, presented below, has been developed in response to some of the difficult questions that the CRG and Maternity CWG have been grappling with. The group was guided through the decision tree and then two tables were asked to discuss and feedback on questions 1, 2, 2a and 5, and the other tables were asked to discuss and feedback on questions 1, 3 and 4.



The feedback against each of the questions is in the paragraphs that follow.

I.3.1 Question 1: Is there a maximum desirable travel time to the nearest Obstetric-led service?

- There was general agreement that travel time is a significant factor in delivery high quality care and meeting patient expectations.
- Travel time is most relevant in relation to ‘delivery’ as ante-natal and post natal care should be provided as close to home as possible – e.g. children’s centre networks, primary care led / shared care.
- The general feel of the group was that 30 minutes was a reasonable target maximum travel time (travel by road – by either private or public transport);
- It was suggested that this question should be tested with women living in NEL and that the national evidence base for this should be reviewed.
- It was suggested that NEL has a high risk population, so the maximum travel time may be less than for other areas.

Recommendation: *That shortlisted options should be assessed in relation to the impact on travel times for women. Options that minimise the number of women for whom travel times to the nearest obstetric led service exceed 30 minutes should be ranked higher than options where travel time exceeds this.*

I.3.2 Question 2: Can you safely provide A&E etc without obstetrics on site?

- ‘A&E etc’ refers to the full range of services required on sites with A&E services – i.e.
- Urgent Medicine;
- Urgent Surgery;
- Paediatric assessment and treatment;
- Critical care.

In answer to the question, the group initially had different views:

- Glasgow and Liverpool were identified as models where this worked – though discussion identified particular factors in their favour. For example, in the Liverpool example, the A&E is only a short distance away from the Obstetrics unit at the Liverpool women’s hospital;
- Charing Cross is another model that appears to work well;
- Oldchurch, however, was cited as a local model that was considered to have not worked well.

The group agreed that if we need to separate it, the A&E must have:

- Emergency gynaecology round-the-clock;
- Reasonable proximity to obstetrics.

The group was split between whether the answer to the question was a definite “no”

Recommendation: *There was a strong preference for options where A&E is co-located with obstetrics and gynaecology services.*

- The key issue that would need to be addressed would be the emergency gynaecology pathway and its proximity to emergency obstetrics.
- On the basis of the above the working hypothesis at this stage is to exclude options with A&E that have no on site maternity provision.

I.3.3 Question 2a: Are there any “Major Acute” services that require obstetrics on site? For example neonatal surgery, trauma, HASU, or other.

After debate, the group agreed that there were strong clinical reasons that hospitals providing the following services must be supported by obstetrics:

- Trauma;
- Neonatal surgery.

Recommendation: *Hospitals providing trauma or neonatal surgery, must have obstetrics on site. This means that the Royal London becomes a fixed site for an obstetric-led maternity unit.*

I.3.4 Questions 3 and 4: Can you safely provide obstetrics for B/C/D patients on a site with no A&E? Is there a minimum critical mass for a safe standalone obstetrics service? What is needed to support this?

Patient types: A – medically high risk women; B – socially high risk women; C – medically high risk babies; D – other high risk “in delivery”

The answers to these questions were discussed together.

The majority view of the group was that obstetrics can be provided with no A&E. There was, however, a preference for providing obstetrics with an A&E.

The view of the group was that obstetric led maternity services based on sites with no A&E / acute medical and surgical services would require:

- Very robust risk assessment (i.e. to exclude high risk deliveries)
- Rapid access to surgery (rapid but could be off-site);
- Level 2 ICU available
- Neonatal Intensive care on site

On the question of critical mass, it was agreed that the minimum size for a standalone obstetrics unit would need to be around 8,000 to 9,000 births to create the necessary critical mass for all the appropriate supporting services. This number of births would also need to sustain a separately (paediatrician) staffed NICU. It was noted recruitment to such standalone units is only likely to be attractive to neonatologists and then only if the NICU is at level 3.

- **Recommendation:** Options that co-locate obstetrics with A&E are preferred. However, should an option be considered that has obstetrics without an A&E, it would need to meet the criteria set out above.

I.3.5 Question 5: Is there a minimum critical mass for a safe co-located obstetrics service? (Co-located with A&E)

There was clear agreement in the group that there is a minimum critical mass issue for an obstetrics unit co-located with A&E. This conclusion relates primarily to financial and workforce viability.

There was a general consensus that 4,000 minimum should be the working assumption in accordance with Healthcare for London recommendations and national guidance.

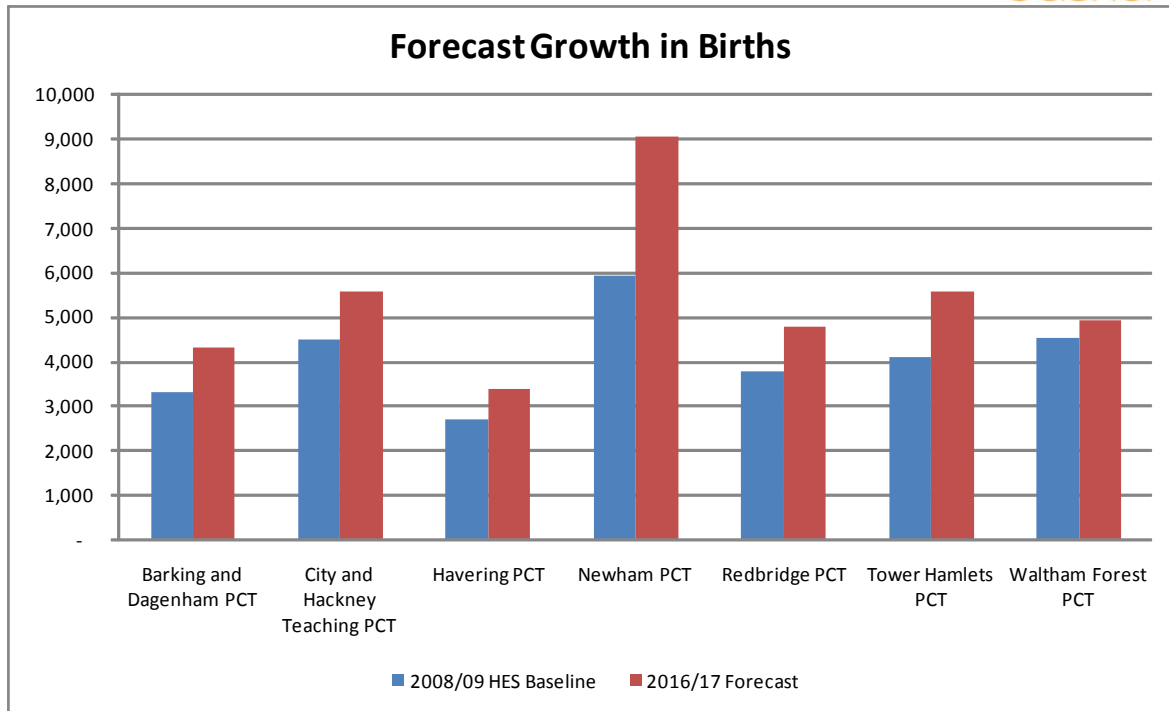
Recommendation: 4,000 to be used as a working assumption for the minimum number of births for a 'co-located' obstetric led maternity service.

Section E.11 shows the decision tree showing the route that the workshop agreed on.

I.4 MODELLING PATIENT FLOWS

The Programme Team had produced a set of data of predicted births at each unit under a range of options (derived from the long list of options for maternity vs A&E and acute medical and surgical provision across NEL). The predictions for number of births per unit was derived from population data re expected birth rates and non demographic growth of 2%. This gives a total anticipated birth rate for the sector of up to 38 000 births.

	2008/09 HES Baseline	Population Growth	Non- demographic Growth	2016/17 Forecast	Increase %
Barking and Dagenham PCT	3,334	364	626	4,324	29.7%
City and Hackney Teaching PCT	4,489	279	811	5,579	24.3%
Havering PCT	2,711	187	493	3,391	25.1%
Newham PCT	5,935	1,847	1,288	9,070	52.8%
Redbridge PCT	3,791	297	695	4,783	26.2%
Tower Hamlets PCT	4,122	646	803	5,571	35.2%
Waltham Forest PCT	4,534	(315)	731	4,950	9.2%
Sector	28,916	28,916	28,916	37,668	30.3%



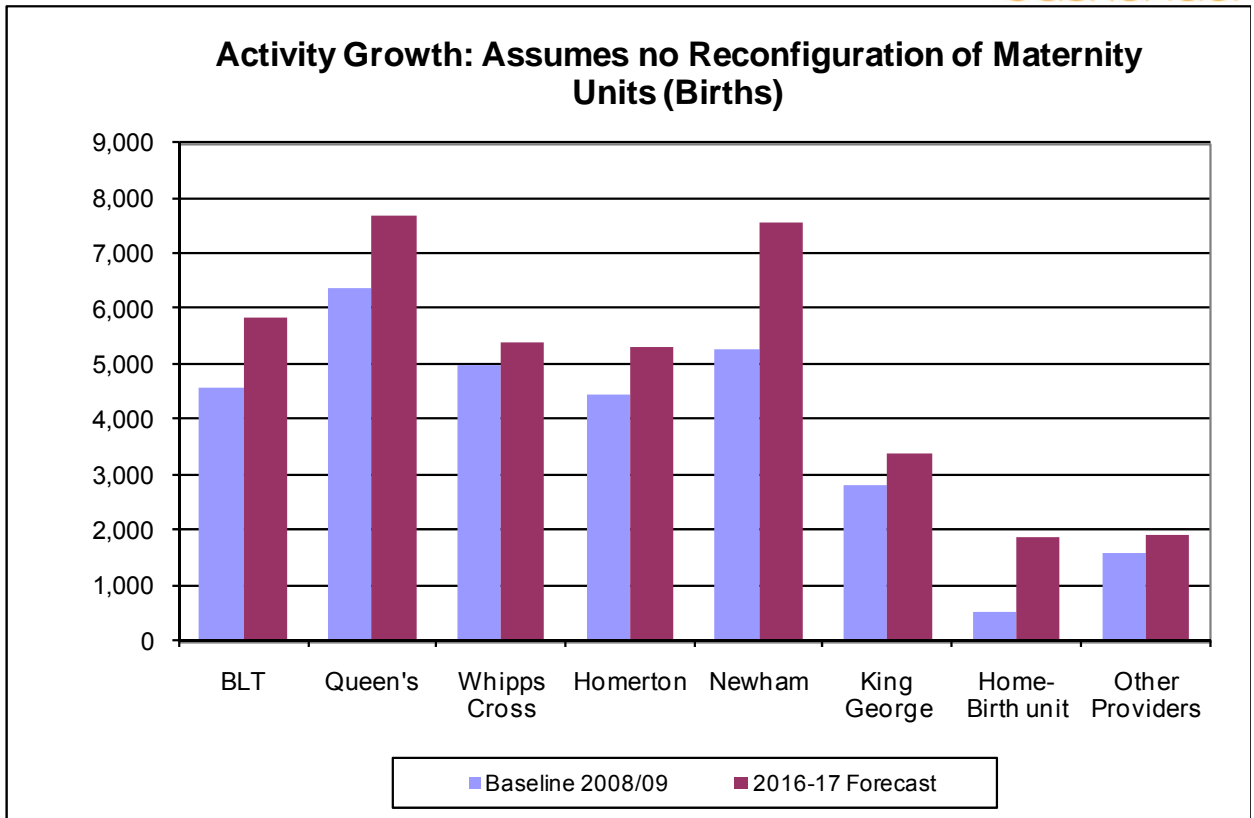
If a non demographic growth rate of 1% is applied the total number of births predicted for 2016/17 would reduce to c. 35,000. It was noted that this level of growth was somewhat lower than forecasts used by the GLA.

It was also noted that the number of births projected for non obstetric led (or non co-located, i.e. 'standalone' midwifery led units, home births) settings was relatively modest at c 2000 and that should this number increase over time then the projections for the number of 'hospital based' births that need to be planned for would decrease. For the purpose of this exercise it has been assumed that home births and births in other non-hospital settings will increase to 5% of all births by 2016/17.

Initially this activity has been mapped to sites in the same ratios as was recorded in 2008/09. This produced a distribution of births that assume no change in the patterns of service delivery apart from the increase in home births.

Forecast Distribution of Births: Assumes no reconfiguration of Maternity Units

Baseline: No Change	BLT	Queen's	Whipps Cross	Homerton	Newham	King George	Home/Birth Units	Other Providers	Total
Havering PCT	8	2,807	7	6	0	316	170	77	3,391
Barking and Dagenham PCT	16	2,755	22	9	39	1,212	216	54	4,324
City and Hackney Teaching PCT	72	2	8	4,413	9	1	279	793	5,579
Tower Hamlets PCT	4,749	4	12	150	15	4	279	358	5,571
Newham PCT	510	83	395	192	7,130	93	454	215	9,070
Redbridge PCT	23	1,906	720	32	34	1,673	239	156	4,783
Waltham Forest PCT	21	29	4,167	188	28	10	248	259	4,950
Other Commissioners	437	107	37	295	302	81	0	0	1,259
	5,836	7,692	5,369	5,285	7,557	3,391	1,883	1,913	38,927



To forecast activity at each site under each of the options the activity that is displaced from the unit that closed is mapped to alternative maternity units. A model was developed that take account of the nearest unit to each electoral ward combined with the preferences that women exhibit for one unit over another. The activity at each site under each option was forecast. The table and graph below shows one example for the preferred option.

Option 2: KGH (Movement)	BLT	Queen's	Whipps Cross	Homerton	Newham	King George	Home/Birth Units	Other Providers	Total
Havering PCT	0	316	0	0	0	-316	0	0	0
Barking and Dagenham PCT	0	789	0	0	424	-1,212	0	0	0
City and Hackney Teaching PCT	0	1	0	0	0	-1	0	0	0
Tower Hamlets PCT	4	0	0	0	0	-4	0	0	0
Newham PCT	0	0	0	0	93	-93	0	0	0
Redbridge PCT	0	954	544	0	176	-1,673	0	0	0
Waltham Forest PCT	0	0	10	0	0	-10	0	0	0
Other Commissioners						-81	0		-81
	4	2,059	554	0	692	-3,391	0	0	-81
Option 2: KGH (Activity)	BLT	Queen's	Whipps Cross	Homerton	Newham	King George	Home/Birth Units	Other Providers	Total
Havering PCT	8	3,123	7	6	0	0	170	77	3,391
Barking and Dagenham PCT	16	3,544	22	9	463	0	216	54	4,324
City and Hackney Teaching PCT	72	4	8	4,413	9	0	279	793	5,579
Tower Hamlets PCT	4,753	4	12	150	15	0	279	358	5,571
Newham PCT	510	83	395	192	7,223	0	454	215	9,070
Redbridge PCT	23	2,859	1,264	32	209	0	239	156	4,783
Waltham Forest PCT	21	29	4,178	188	28	0	248	259	4,950
Other Commissioners	437	107	37	295	302	0	0	0	1,178
	5,840	9,752	5,923	5,285	8,250	0	1,883	1,913	38,846

It is likely that patient flows over time will change in response to changes to patterns of service delivery, changes to transport routes and other factors that may influence patient choice.

One discussion point at the session was the extent to which local health services commissioners would be able to influence patient flows to map to preferred models of service provision. For example should 7- 8 000 deliveries per annum be agreed as a target optimum / maximum for a unit (based on workforce efficiency) could flows be directed to achieve this? (Given a start point from the ‘nearest unit’ modelling that suggests that there would be significant variations in births at each unit due to variations in birth rates across the sector).

The view of the group was that a range of factors influence where women will chose to book for maternity care – including configuration of community midwifery services (i.e. access to antenatal care in a locality) , GP advice / referral patterns, as well as travel times and reputation of services. It should therefore be possible to exert some influence via strategic planning / commissioning of services but the important principle of patient choice should not be compromised within this.

It is important that these issues are taken into consideration when considering the figures presented re future deliveries at each site.

I.5 DECISION MAKING CRITERIA

The programme team had developed a set of decision making criteria to be applied to maternity, and these were introduced in the workshop before the groups were asked to consider a number of options.

Access	This options will increase the percentage of women able to access an obstetric service within half an hour
Clinical quality and safety	This option will enable the minimum number births at a “hot site” to be 4,000
Clinical quality and safety	This option will enable the minimum number of births at a “cold site” to be 6,000 to 8,000
Clinical quality and safety	This option will provide safe, high quality care for all women – eg availability of the full range of support services needed and will minimise the need to transfer women from one site to another
Clinical quality and safety	This option provides high quality of care for the most likely scenarios of 34,000 deliveries per year and resilience to deal with up to 38,000 deliveries per year - in accordance with current capacity modelling
Clinical quality and safety	This option allows patients to have choice over where they give birth
Workforce	This option is likely to enable a suitable number of experienced and skilled consultants to deliver 98 hour consultant cover and progress toward 168 hour specialist cover in compliance with EWTD as recommended by CRG and RCOG
Workforce	This option will attract sufficient numbers of appropriately qualified, high calibre midwives.

These criteria were used as a framework for subsequent discussions during the afternoon. As part of the process, the following observations were made about the criteria:

Access: This criterion should be re-worded to say “This option will maximise the number of women able to access an obstetrics service within half an hour”.

Clinical quality and safety: The criteria on minimum number of births become ‘hurdle’ criteria – ie a site with A&E and maternity should have at least 4,000 births; a site with maternity and no A&E should have at least 8,000 births. *Hurdle criteria are used to exclude options from the long list, decision making criteria are used to compare the relative benefits of shortlisted options. The issues outlined above re. activity modelling are important in this respect*

The criteria will be amended to reflect these changes for the full option appraisal.

I.6 GROUP PREFERENCES ON POTENTIAL OPTIONS

The group was asked to discuss a number of potential options against the outcomes of the decision tree discussion and the decision making maternity criteria introduced above. Rather than taking a whole system view, the group was asked to discuss different elements of the system, to limit the number of options being discussed and to help crystallise thinking.

- The first group of options related to Newham. Section E.8 sets out the results of this work;
- The second group of options related to Queen’s and King George. Section E.9 D sets out the results of this work;
- The third group of options related to Whipps Cross and Homerton. Appendix E holds the results of this work.

I.6.1 Royal London

Options relating to the Royal London were not explicitly considered. However, the Royal London is established as an obstetrics site given that it will have the trauma and neonatal responsibilities for the area. (As per decision tree question 2a).

I.6.2 Newham (see section E.8 for detailed analysis)

Based on the modelling work described the expected number of births at Newham is between 7,600 and 8,900 depending on which other maternity units are open.

In all configurations where Newham retains a maternity unit there are a high number of births at Newham.

The group was asked to review from a maternity perspective the following permutations of services for the Newham site:

- A&E, emergency medicine and surgery and paediatrics service and co-located obstetric led maternity unit.
- A&E, emergency medicine and surgery and paediatrics service but no maternity provision.

- Polyclinic / urgent care service (i.e. not full A&E) and 'standalone' maternity provision.
- Polyclinic / urgent care service (i.e. not full A&E) and no maternity provision.

The preference was for A&E with obstetrics at Newham.

However, its clinical activity would still warrant a viable maternity unit on a non co-located site – i.e. the view of the group was that a standalone obstetric service on the Newham site would be preferable to no obstetric lead provision for Newham, assuming all criteria listed above could be satisfied.

I.6.3 Queen's and King George (see section E.9 for detailed analysis)

The expected number of births at Queen's is between 7,700 and 10,500 depending on which other maternity units are open. Queen's always has A&E and associated acute medical, surgical and paediatric provision (it has been 'fixed' in this process as one of two major acute providers for the sector).

The expected number of births at King George is between 3,400 and 5,400 depending on which other maternity units are open.

In options where both sites retain full A&E, emergency medicine and surgery and paediatrics services two maternity units could potentially be sustained. However the majority view suggested that in most options there is insufficient activity to sustain an obstetrics unit on both sites even were both sites to retain full A&E, emergency medicine and surgery and paediatrics service.

The majority view of the group was therefore that in all options where King George is a polyclinic/Urgent care services (no A&E) it should no longer provide maternity services with local women instead accessing services at Queen's or at an alternative appropriate local service (midwifery led or obstetric led services on other hospital sites.)

Should both sites remain as hospitals with A&E then it was still felt there should be consolidation of obstetric led provision onto one site due to critical mass and workforce efficiency.

It was noted that there were some queries over the data re number of births across the two sites, and it was agreed that the data would be checked.

I.6.4 Homerton and Whipps Cross (see section E.10 for detailed analysis)

If both sites have an A&E and associated provision the data showed that there are sufficient births to sustain two obstetric units in all options. Should one site become a polyclinic/Urgent care services (no A&E), there was consensus that serious consideration should be given to having a obstetrics maternity unit on the polyclinic site given local demographics. In such an option it would be necessary to actively influence patient flows to achieve critical mass.

I.6.5 In summary the recommendations of the group work were:

Coming back to a whole system view, and recognising that the number of hospital sites with A&E is outside the remit of this group, the majority view of the group was:

- Strong preference for options where A&E sites are supported by on site obstetric and gynaecology services.
- Preference for five hospitals with A&E and associated provision and five co-located obstetric led maternity units;
- Should the decision be for four hospital sites with A&E and associated provision, serious consideration should be given to having a fifth obstetrics site on an appropriate polyclinic/Urgent care services site.

I.7 LIST OF ATTENDEES

Surname	First name	Job title	Organisation
Adebayo	Elizabeth	Midwifery Clinical Practice Facilitator	Newham University Hospital NHS Trust
Ali	Sharafat	Commissioning Manager for Children	NHS Waltham Forest
Cox	Philippa	Consultant Midwife / Supervisor of Midwives	Homerton University Hospital NHS Foundation Trust
Dawlatly	Bashir	Director of Delivery Suite/Consultant Obstetrician & Gynaecologist	Whipps Cross University Hospital Trust
Douglas	Joan	Head of Midwifery	Homerton University Hospital NHS Foundation Trust
Eilbert	Kay	Public Health Consultant	NHS Waltham Forest
Elnahas	Amir	Consultant Obstetrician and Gynaecologist	Newham University Hospital NHS Trust
Fiddler	Alison	Community Midwife Manager	Barts and the London NHS Trust
Forrest	Natalie	Director of Nursing and Midwifery	Newham University Hospital NHS Trust
Howard	Richard	Medical Director - Womens and Childrens	BHR University Hospital NHS Trust
Jarvis	Dawn	Associate Director, Maternity and Childrens Commissioning	NHS Tower Hamlets
Johnston	Scott	Head of Midwifery	Newham University Hospital NHS Trust
Kurtianyk	Olga	Lead Nurse, London Perinatal Networks	London Perinatal Networks (LSCG)
laird	Fiona	Maternity Modernisation Commissioner	NHS Newham
Littlejohns	Judith	GP Maternity rep	NHS Tower Hamlets
Lovell	Sue	Associate Director of Midwifery	BHR University Hospital NHS Trust
Mathew	Satheesh	Consultant Paediatrician and Clinical Director	Newham University Hospital NHS Trust
McEaney	Denise	Maternity Development Manager	Barts and The London NHS Trust
Moore	Cathy	Clinical Governance Manager - Women & Children	Whipps Cross University Hospital Trust
Olusile	Mary	Clinical Facilitator	Barts and the London NHS Trust
Reading	Sandra	Head of Midwifery	Barts and the London NHS Trust
Redknapp	Debbie	Senior Public Health Commissioner	NHS Havering
Sanghi	Anita	Consultant Obstetrician	Barts and the London NHS Trust
Sharma	Bal	Consultant Neonatologist	BHR University Hospital NHS Trust
Sinha	Ajay		Barts and the London NHS Trust
Sullivan	Caroline	Consultant Paediatrician	Whipps Cross University Hospital Trust
Turner	Rachel	Specialist Trainee Public Health	Homerton University Hospital NHS Foundation Trust

I.8 NEWHAM – RESULTS OF GROUP WORK

The group was asked to review each of the potential options relating to Newham.

The expected number of births at Newham is between 8,800 and 13,500 depending on which other maternity units are open.

Option number	Newham	Table score				Overall score	Comment
		1	2	3	4		
1	H + M	4	4	4		12	A&E with maternity site preferred to option 3 where there is no A&E
2	H + X	1	1	1		3	Ruled out – A&E site with no maternity
3	C + M	3	3	3		9	Example of where patient flows mean it would make sense to have a maternity unit on a polyclinic site. The maternity unit on a polyclinic site would meet the critical mass requirement of having at least 8k to 9k births.
4	C + X	1	1	1		3	No maternity at Newham, not seen as a viable option.

H = “hot site” – ie with A&E
 C = “cold site” – ie without A&E
 M = maternity unit
 X = no maternity unit

I.9 QUEEN’S AND KING GEORGE – RESULTS OF GROUP WORK

The group was asked to review each of the potential options relating to Queen’s and King George.

The expected number of births at Queen’s is between 6,100 and 9,500 depending on which other maternity units are open. Queen’s always has A&E.

The expected number of births at King George is between 4,100 and 13,300 depending on which other maternity units are open.

Option number	King George	Queen's	Table score				Overall score	Comment
			1	2	3	4		
1	HM	HM		1	4		5	Size of KG unit a concern for sustainability in situation where there both sites have maternity
2	HX	HM		2			2	Rule out – A&E site with no maternity
3	HM	HX		1.25			1.25	Rule out – A&E site with no maternity
4	CM	HM		1.5	1		2.5	Critical mass at King George is low (4k to 5k) – too low for a site with no A&E (decision tree says that minimum number of births on a polyclinic site should be at least 8k to 9k.)
5	CX	HM	4	4	2		10	Preferred option
6	CM	HX		1			1	Rule out – A&E site with no maternity.

I.10 WHIPPS CROSS AND HOMERTON – RESULTS OF GROUP WORK

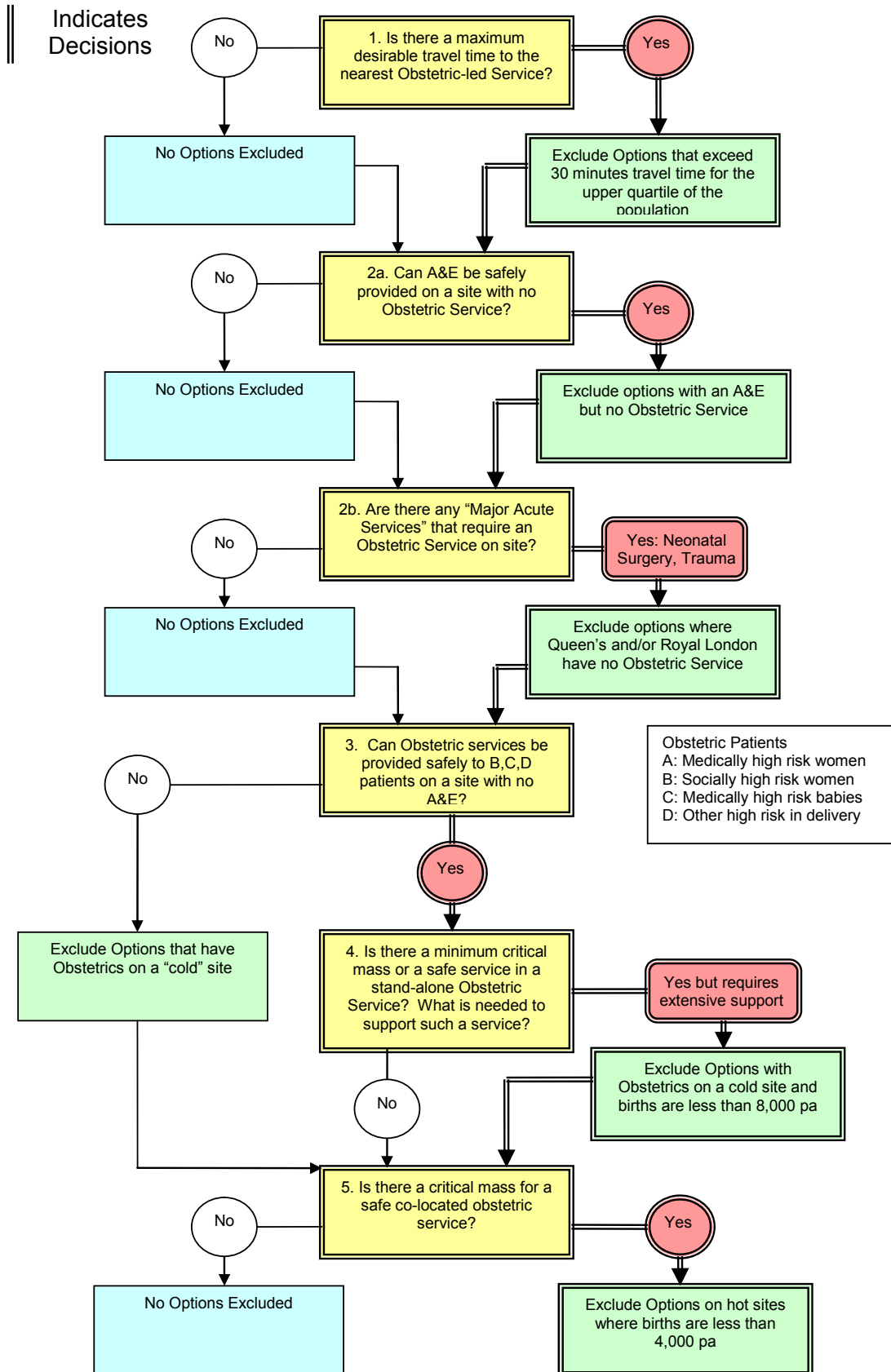
The group was asked to review each of the potential options relating to Whipps Cross and Homerton

The expected number of births at Whipps Cross is between 7,900 to 11,300 depending on which other maternity units are open

The expected number of births at Homerton is between 6,400 to 14,200 depending on which other maternity units are open

Option number	Whipps Cross	Homerton	Table score				Overall score	Comment
			1	2	3	4		
1	HM	HM		4	4		8	Good access to maternity sites
2	HM	HX			1		1	Rule out – A&E site with no maternity
3	HX	HM			1		1	Rule out – A&E site with no maternity
4	CM	HM		2	2.5		4.5	Greater choice when compared with option 5. An example of where patient flows mean it makes sense to have a maternity unit on a polyclinic. Number of births meets the 8k to 9k minimum for having maternity at a polyclinic site.
5	CX	HM		3	1		4	Polyclinic maternity sites disliked by one table
6	CM	HX			1		1	Rule out – A&E site with no maternity
7	HM	CM	4	2	2.5		8.5	Greater choice when compared with option 5. Homerton would approach the minimum number of births for a polyclinic site (8k to 9k)
8	HX	CM			2		2	Rule out – A&E site with no maternity
9	HM	CX			1		1	Very large A&E with maternity site – not desirable

I.11 FINAL DECISION TREE FOR MATERNITY



APPENDIX J: SEPARATE AND COMBINED SCORING FOR ACUTE AND MATERNITY SUB-CRITERIA

Scoring of Maternity Options Calculations

Option Code	Configuration						Assumed birth volumes (000s)						Birth Volume score per unit						Normalised Score	Small unit penalty	MU only penalty	Adjusted & Normalised Score
	RL	Q	WC	KG	N	H	RL	Q	WC	KG	N	H	RL	Q	WC	KG	N	H				
1	H/MU	H/MU	H/MU	H/MU	H/MU	H/MU	5.84	7.69	5.37	3.39	7.56	5.28	5	5	5	1	5	5	3.47	OK	0	3.47
2	H/MU	H/MU	H/MU	none	H/MU	H/MU	5.84	9.75	5.92	0	8.25	5.28	5	5	5	0	5	5	4.00	OK	0	4.00
3	H/MU	H/MU	H/MU	H/MU	H/MU	none	7.54	7.69	7.24	3.44	7.75	0	5	5	5	1	5	0	3.36	OK	0	3.36
4	H/MU	H/MU	H/MU	H/MU	none	H/MU	8.6	7.98	7.56	3.88	0	6.8	5	5	5	1	0	5	3.36	OK	0	3.36
5	H/MU	H/MU	none	H/MU	H/MU	H/MU	6.02	8	0	4.41	7.9	7.28	5	5	0	5	5	5	4.00	OK	0	4.00
6a	H/MU	H/MU	H/MU	none	H/MU	none	7.55	9.78	7.8	0	8.44	0	5	5	5	0	5	0	4.00	OK	0	4.00
6b	H/MU	H/MU	H/MU	none	H/MU	MU	5.84	9.75	5.92	0	8.25	5.28	5	5	5	0	5	1	3.36	OK	-1	2.36
6c	H/MU	H/MU	H/MU	MU	H/MU	none	7.54	7.69	7.24	3.44	7.75	0	5	5	5	1	5	0	3.36	Reject	-1	0.00
7a	H/MU	H/MU	H/MU	none	none	H/MU	8.71	10.5	8.69	0	0	6.8	5	3	5	0	0	5	3.60	OK	0	3.60
7b	H/MU	H/MU	H/MU	none	MU	H/MU	5.84	9.75	5.92	0	8.25	5.28	5	5	5	0	3	5	3.68	OK	-1	2.68
7c	H/MU	H/MU	H/MU	MU	none	H/MU	8.6	7.98	7.56	3.88	0	6.8	5	5	5	1	0	5	3.36	Reject	-1	0.00
8a	H/MU	H/MU	none	none	H/MU	H/MU	6.02	10.8	0	0	8.91	7.31	5	3	0	0	5	5	3.60	OK	0	3.60
8b	H/MU	H/MU	MU	none	H/MU	H/MU	5.84	9.75	5.92	0	8.25	5.28	5	5	1	0	5	5	3.36	OK	-1	2.36
8c	H/MU	H/MU	none	MU	H/MU	H/MU	6.02	8	0	4.41	7.9	7.28	5	5	0	1	5	5	3.36	Reject	-1	0.00
9a	H/MU	H/MU	H/MU	H/MU	none	none	11	8.16	9.69	4.15	0	0	3	5	5	5	0	0	3.60	OK	0	3.60
9b	H/MU	H/MU	H/MU	H/MU	none	MU	8.6	7.98	7.56	3.88	0	6.8	5	5	5	1	0	1	2.72	OK	-1	1.72
9c	H/MU	H/MU	H/MU	H/MU	MU	none	7.54	7.69	7.24	3.44	7.75	0	5	5	5	1	1	0	2.72	OK	-1	1.72
10a	H/MU	H/MU	none	H/MU	H/MU	none	8.65	8.14	0	4.88	8.09	0	5	5	0	5	5	0	4.00	OK	0	4.00
10b	H/MU	H/MU	none	H/MU	H/MU	MU	6.02	8	0	4.41	7.9	7.28	5	5	0	5	5	1	3.36	OK	-1	2.36
10c	H/MU	H/MU	MU	H/MU	H/MU	none	7.54	7.69	7.24	3.44	7.75	0	5	5	1	1	5	0	2.72	OK	-1	1.72
11a	H/MU	H/MU	none	H/MU	none	H/MU	8.51	10.8	0	5.48	0	8.48	5	3	0	5	0	5	3.60	OK	0	3.60
11b	H/MU	H/MU	MU	H/MU	none	H/MU	8.6	7.98	7.56	3.88	0	6.8	5	5	1	1	0	5	2.72	OK	-1	1.72
11c	H/MU	H/MU	none	H/MU	MU	H/MU	6.02	8	0	4.41	7.9	7.28	5	5	0	5	1	5	3.36	OK	-1	2.36

Final Scoring of Options (All scores are out of 5)

Option Code	Configuration						Clinical Quality 50%	Clinical Workforce 50%	Overall Score 100%	Maternity 75%	Non-Maternity 25%	Overall Clinical Score	Clinical Score 45%	Deliveribility 20%	Access 35%	Overall Score 100%	Capacity	Final Score
	RL	Q	WC	KG	N	H												
1	H/MU	H/MU	H/MU	H/MU	H/MU	H/MU	1.00	1.33	1.17	3.47	1.17	2.89	2.89	4.00	4.00	3.50	Reject	
2	H/MU	H/MU	H/MU	none	H/MU	H/MU	2.33	2.33	2.33	4.00	2.33	3.58	3.58	3.00	3.86	3.56	OK	3.56
3	H/MU	H/MU	H/MU	H/MU	H/MU	none	2.33	2.33	2.33	3.36	2.33	3.10	3.10	3.00	3.71	3.30	OK	3.30
4	H/MU	H/MU	H/MU	H/MU	none	H/MU	2.33	2.33	2.33	3.36	2.33	3.10	3.10	3.00	3.00	3.05	OK	3.05
5	H/MU	H/MU	none	H/MU	H/MU	H/MU	2.33	2.33	2.33	4.00	2.33	3.58	3.58	3.00	3.64	3.49	Reject	
6a	H/MU	H/MU	H/MU	none	H/MU	none	3.67	3.33	3.50	4.00	3.50	3.88	3.88	2.00	3.57	3.39	OK	3.39
6b	H/MU	H/MU	H/MU	none	H/MU	MU	3.33	3.00	3.17	2.36	3.17	2.56	2.56	2.00	3.59	2.81	OK	2.81
6c	H/MU	H/MU	H/MU	MU	H/MU	none	3.33	3.00	3.17	Reject	3.17	0.79	0.79	2.00	3.59	2.01	OK	
7a	H/MU	H/MU	H/MU	none	none	H/MU	3.67	3.33	3.50	3.60	3.50	3.58	3.58	2.00	2.86	3.01	Reject	
7b	H/MU	H/MU	H/MU	none	MU	H/MU	3.33	3.00	3.17	2.68	3.17	2.80	2.80	2.00	2.86	2.66	Reject	
7c	H/MU	H/MU	H/MU	MU	none	H/MU	3.33	3.00	3.17	Reject	3.17	0.79	0.79	2.00	2.86	1.76	Reject	
8a	H/MU	H/MU	none	none	H/MU	H/MU	3.67	3.33	3.50	3.60	3.50	3.58	3.58	2.00	3.43	3.21	Reject	
8b	H/MU	H/MU	MU	none	H/MU	H/MU	3.33	3.00	3.17	2.36	3.17	2.56	2.56	2.00	3.43	2.75	Reject	
8c	H/MU	H/MU	none	MU	H/MU	H/MU	3.33	3.00	3.17	Reject	3.17	0.79	0.79	2.00	3.43	1.96	Reject	
9a	H/MU	H/MU	H/MU	H/MU	none	none	3.67	3.33	3.50	3.60	3.50	3.58	3.58	1.00	2.71	2.76	OK	2.76
9b	H/MU	H/MU	H/MU	H/MU	none	MU	3.33	3.00	3.17	1.72	3.17	2.08	2.08	1.00	2.73	2.09	OK	2.09
9c	H/MU	H/MU	H/MU	H/MU	MU	none	3.33	3.00	3.17	1.72	3.17	2.08	2.08	1.00	2.75	2.10	OK	2.10
10a	H/MU	H/MU	none	H/MU	H/MU	none	3.67	3.33	3.50	4.00	3.50	3.88	3.88	2.00	3.21	3.27	Reject	
10b	H/MU	H/MU	none	H/MU	H/MU	MU	3.33	3.00	3.17	2.36	3.17	2.56	2.56	2.00	3.21	2.68	Reject	
10c	H/MU	H/MU	MU	H/MU	H/MU	none	3.33	3.00	3.17	1.72	3.17	2.08	2.08	2.00	3.21	2.46	Reject	
11a	H/MU	H/MU	none	H/MU	none	H/MU	3.67	3.33	3.50	3.60	3.50	3.58	3.58	2.00	2.50	2.88	Reject	
11b	H/MU	H/MU	MU	H/MU	none	H/MU	3.33	3.00	3.17	1.72	3.17	2.08	2.08	2.00	2.50	2.21	Reject	
11c	H/MU	H/MU	none	H/MU	MU	H/MU	3.33	3.00	3.17	2.36	3.17	2.56	2.56	2.00	2.50	2.43	Reject	

NE London Healthcare Reconfiguration

DRAFT - HSTAT CAPITAL Accessibility Study – Summary of Results

Prepared for NHS Tower Hamlets




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CALCULATIONS EXPLAINED

INTRODUCTION

This chapter outlines how specific statistics were calculated within McKinsey's Travel Time Model. Much of the data used within each calculation has itself been derived from other data within the model. It is not practical to fully audit and document each calculation (from source data to final statistic), and as such, this chapter will provide a summary in sufficient detail to convey the essence and logic of each calculation.

TRAVEL TIME TO WORST AFFECTED WARD

For each scenario, this simply states the longest travel time for any origin-to-destination pair (i.e. furthest possible journey between any ward and any relevant hospital / polyclinic site). At the same time it also identifies the name of whichever ward this is.

WEIGHTING

The weighting statistic is calculated as a factor of four variables: the change in PT time, the change in driving time, the size of the population affected, and the associated level of non-car ownership.

The calculation has three parts:

1. The change in PT travel time for each ward is multiplied by the population of that ward and then multiplied again by the non-car ownership of that ward. This is done for each ward and added together. (This gives the total change in travel for everyone deemed not to own a car. The calculation assumes that these people would only be able to use public transport).
2. The change in Driving travel time for each ward is multiplied by the population of that ward and then multiplied again by inverse of the non-car ownership of that ward (i.e. 1 minus non-car ownership). This is done for each ward and added together. (This gives the total change in travel for everyone deemed to own a car. The calculation assumes that these people would always use their car in preference of public transport).
3. The sum of both 1 and 2, above, is then divided by the total population of all wards.

So, where a ward has a high non-car ownership (i.e. low car ownership) increased weighting is given to the change in PT time (in minutes per journey) compared to the corresponding change in Driving time (in minutes per journey), and vice versa.

IMPACT (MAN WORK YEARS)

The number of lost Man Work Years (in terms of work time assumed to be lost due to increased travel times) was calculated and presented for each scenario.

The calculation has two parts:

1. The change in travel time for each ward is multiplied by the population of that ward. This is done for each ward and added together. (This gives the total change in travel for everyone – in minutes).
2. The value calculated in 1, above, is then divided by 117,000 (see below) to convert the value from minutes to working years (thereby giving Man Work Years lost).

The value of 117, 000 is calculated as follows:

= (minutes in an hour * working hours in a week) * weeks in a year.

= (60 * 37.5) * 52 = 117,000

It is not known whether the calculation above is 'standard' for NHS purposes. It seems logical that if this is a Man Work Years calculation that the 'number of weeks in a year' part should to some degree reflect annual leave as well, and may be better represented by, say, 48 weeks, rather than 52 weeks. This would, however, have the effect of increasing the number of Man Work Hours presented in each result.

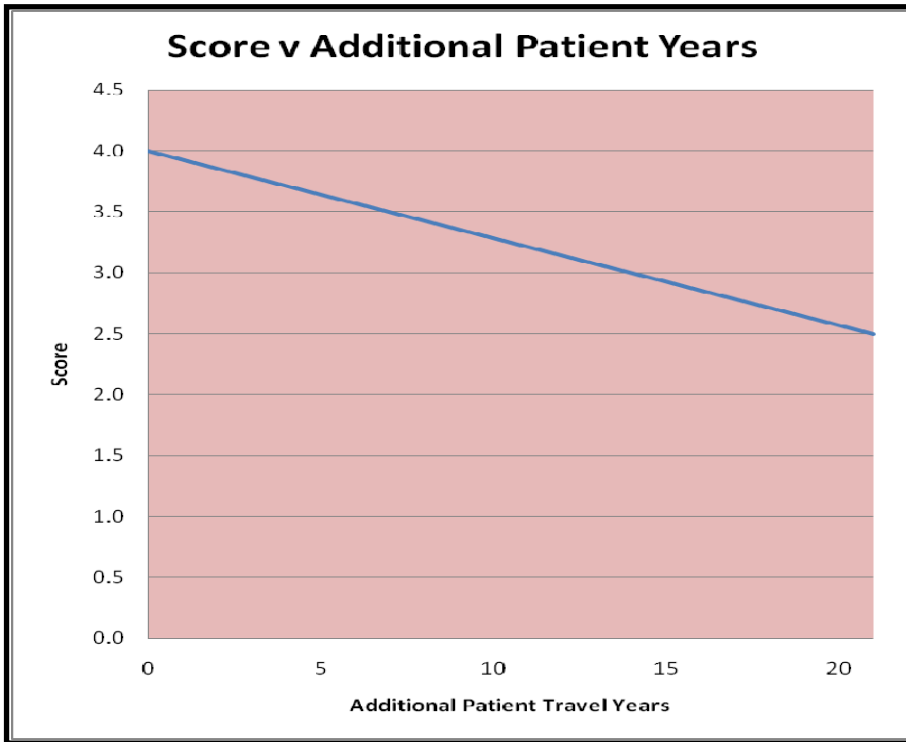
ACCESS SCORE

It is important to understand that although the methodology for calculating the Access Score is fixed, the variables used within the calculation itself change depending on the upper and lower values of Man Work Years within the corresponding dataset (see Section 0, above).

An Access Score arbitrarily lies within the range of 4 and 2.5, with 4 being the score for the no-change scenario and 2.5 being the score for the worst option being presented. It should be noted, however, that were the lowest score only marginally 'worse' than the best score (the no-change scenario) it would still have a score of only 2.5.

The Access score for all options is calculated based on the straight line created between the two points, see Figure 1, below (although this is for schematic purposes only).

Figure 1 Basis of Calculating Access Score



Although it is possible to figure out a good estimate of the access score for any given Man Work Years value, in mathematical terms, it is the slope of this straight line that is required to calculate the exact Access Score. The calculation is as follows:

The corresponding Man Work Years value for the given scenario is multiplied by the slope of the straight line, and then added to this is the score for the no-change scenario (always 4).

$$= (\text{Man Work Years} * \text{Slope}) + 4$$

For information's sake, the slope is calculated as follows:

$$= (4 - 2.5) / (\text{minimum Man Work Years value} - \text{maximum Man Work Years value})$$

SUMMARY OF RESULTS

INTRODUCTION

This chapter presents both in table and figure form the different types of results outputted from McKinsey’s Travel Time Model. The results have been provided for the datasets listed below:

- Steer Davis Gleave Highway Data (McKinsey)
- McKinsey Public Transport Data
- HSTAT COA based Public Transport and Highway Data
- HSTAT Ward based Public Transport and Highway Data

The Steer Davis Gleave and McKinsey dataset were already integrated into the Travel Time Model; so copies of this were taken, and the HSTAT datasets were manipulated to replace the corresponding travel times. No other aspects of the model were altered, so any variation in the results can only be attributed to the different datasets used.

TABLES

Table 1: Travel Time (Minutes) from Worst Affected Ward - Highway

OPTION:	1	2	3	4	5	6a	7a	8a	9a	10a	11a
SDG (McKinsey)	21	21	21	21	21	21	21	21	22	22	25
HSTAT (COA BASED)	21	21	21	26	21	21	28	21	26	23	26
HSTAT (WARD BASED)	25	25	25	25	25	25	27	25	25	25	26

Table 2: Impact (Man Work Years) - Public Transport

OPTION:	1	2	3	4	5	6a	7a	8a	9a	10a	11a
SDG (McKinsey)	0	1	4	20	6	5	20	8	23	11	26
HSTAT (COA BASED)	0	6	8	16	11	14	22	19	24	22	28
HSTAT (WARD BASED)	0	7	9	16	10	15	23	19	24	23	27

Table 3: Impact (Man Work Years) - Highway

OPTION:	1	2	3	4	5	6a	7a	8a	9a	10a	11a
SDG (McKinsey)	0	3	4	9	5	7	12	9	14	11	18
HSTAT (COA BASED)	0	4	3	9	4	7	13	8	12	9	16
HSTAT (WARD BASED)	0	4	3	8	4	6	12	8	11	10	15

Table 4: Impact (Man Work Years) - Car Ownership Weighted Average

OPTION:	1	2	3	4	5	6a	7a	8a	9a	10a	11a
SDG (McKinsey)	0	2	4	14	5	6	16	8	18	11	21
HSTAT (COA BASED)	0	4	6	12	7	10	16	12	18	15	20
HSTAT (WARD BASED)	0	4	6	12	6	10	16	12	18	15	19

Table 5: Access Score – Public Transport Based

OPTION:	1	2	3	4	5	6a	7a	8a	9a	10a	11a
SDG (McKinsey)	4.00	3.94	3.77	2.85	3.65	3.71	2.83	3.54	2.66	3.35	2.50
HSTAT (COA BASED)	4.00	3.67	3.56	3.11	3.40	3.22	2.82	2.95	2.72	2.79	2.50
HSTAT (WARD BASED)	4.00	3.61	3.52	3.08	3.42	3.14	2.73	2.94	2.66	2.72	2.50

Table 6: Access Score – Highway Based

OPTION:	1	2	3	4	5	6a	7a	8a	9a	10a	11a
SDG (McKinsey)	4.00	3.77	3.68	3.24	3.58	3.45	2.99	3.29	2.89	3.06	2.50
HSTAT (COA BASED)	4.00	3.66	3.69	3.15	3.59	3.35	2.78	3.21	2.83	3.10	2.50
HSTAT (WARD BASED)	4.00	3.64	3.71	3.17	3.56	3.36	2.77	3.16	2.86	3.03	2.50

Table 7: Access Score – Car Ownership Weighted Average

OPTION:	1	2	3	4	5	6a	7a	8a	9a	10a	11a
SDG (McKinsey)	4.00	3.84	3.72	3.01	3.63	3.56	2.86	3.41	2.74	3.23	2.50
HSTAT (COA BASED)	4.00	3.69	3.56	3.09	3.51	3.25	2.79	3.13	2.68	2.91	2.50
HSTAT (WARD BASED)	4.00	3.66	3.54	3.08	3.52	3.20	2.74	3.10	2.64	2.83	2.50

FIGURES

Figure 2 Travel Time from Worst Affected Ward (Highway Based)

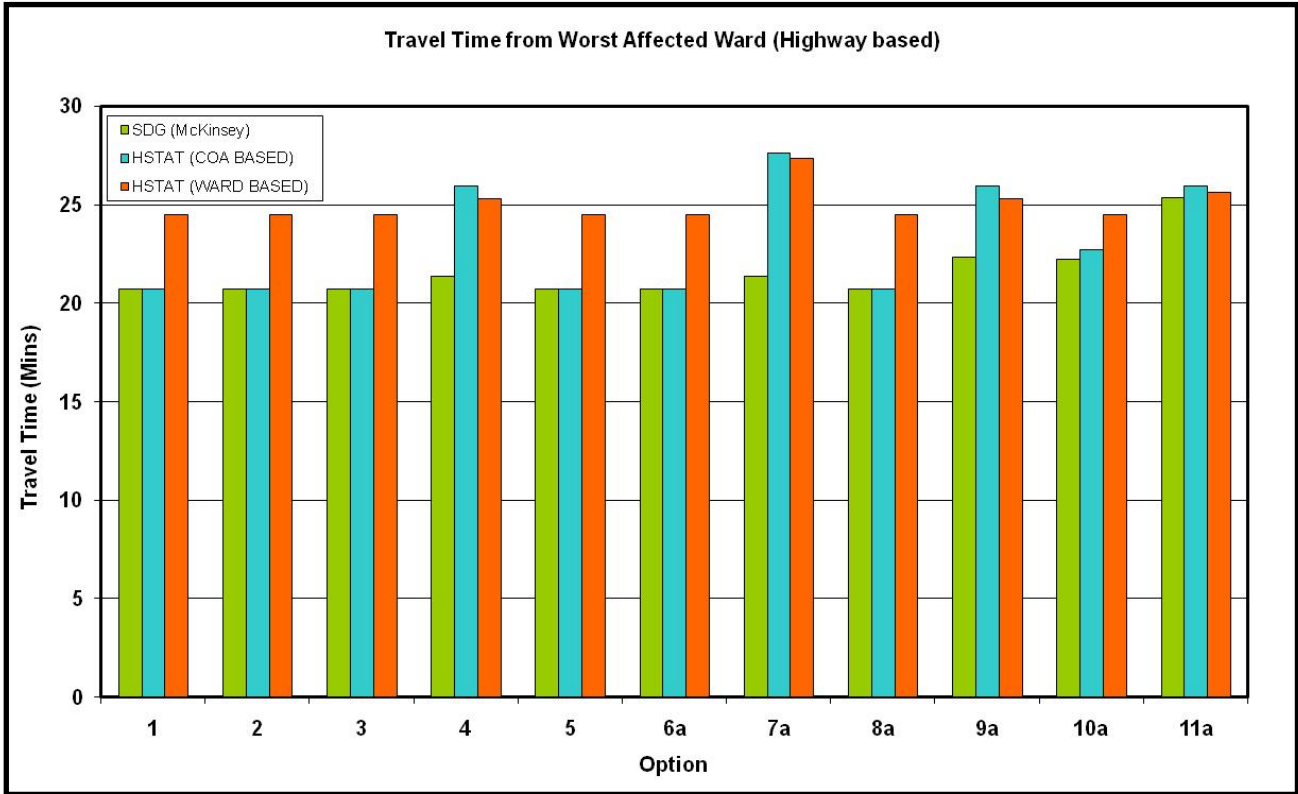


Figure 3 Growth in Travel Time (Man Work Years) – Public Transport

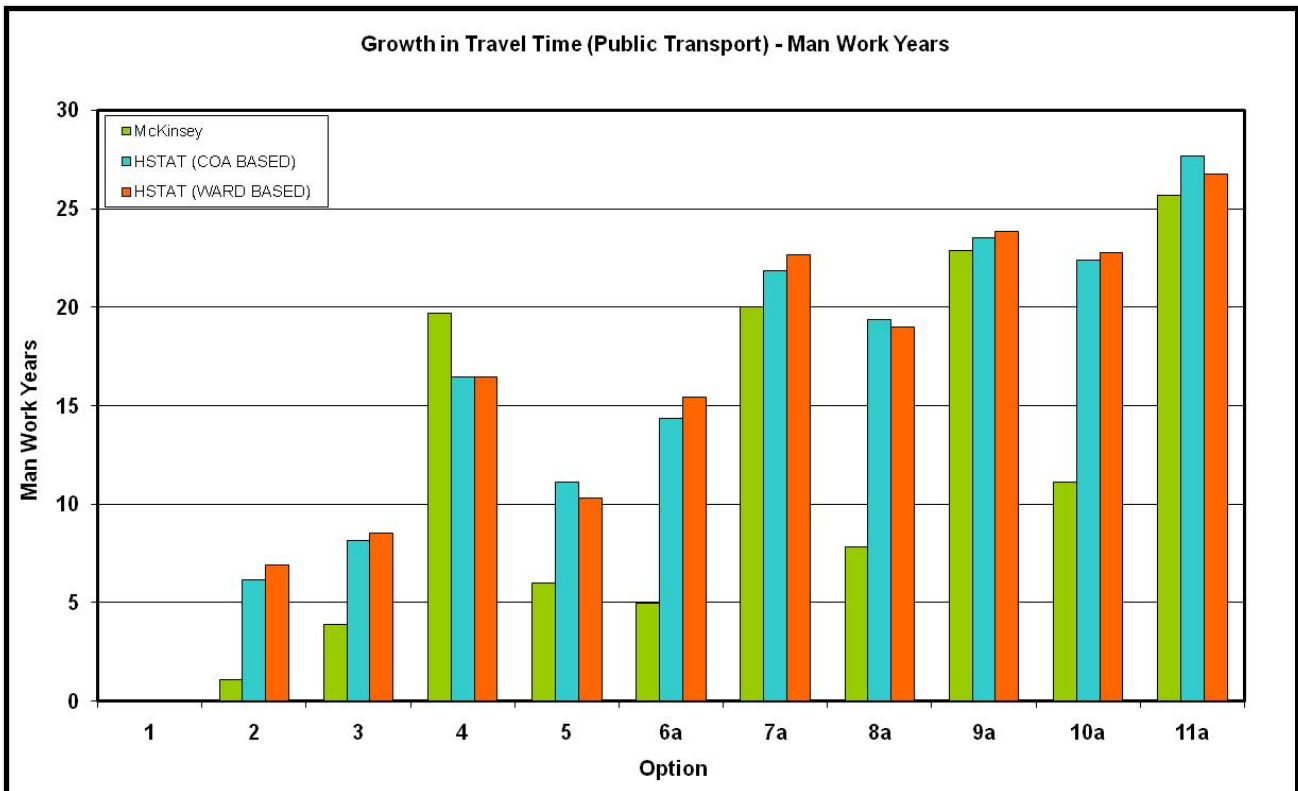


Figure 4 Growth in Travel Time (Man Work Years) – Highway

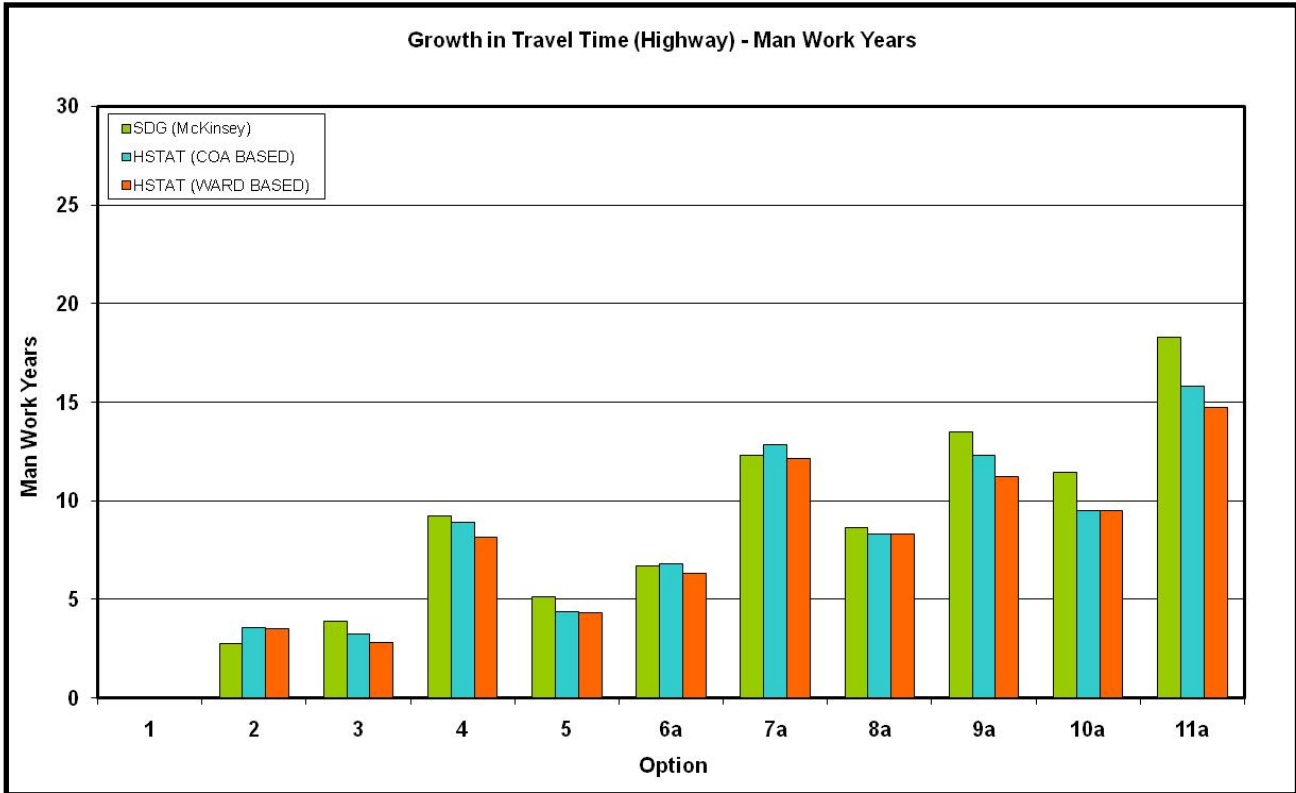


Figure 5 Growth in Travel Time (Man Work Years) – Car Ownership Weighted Average Based

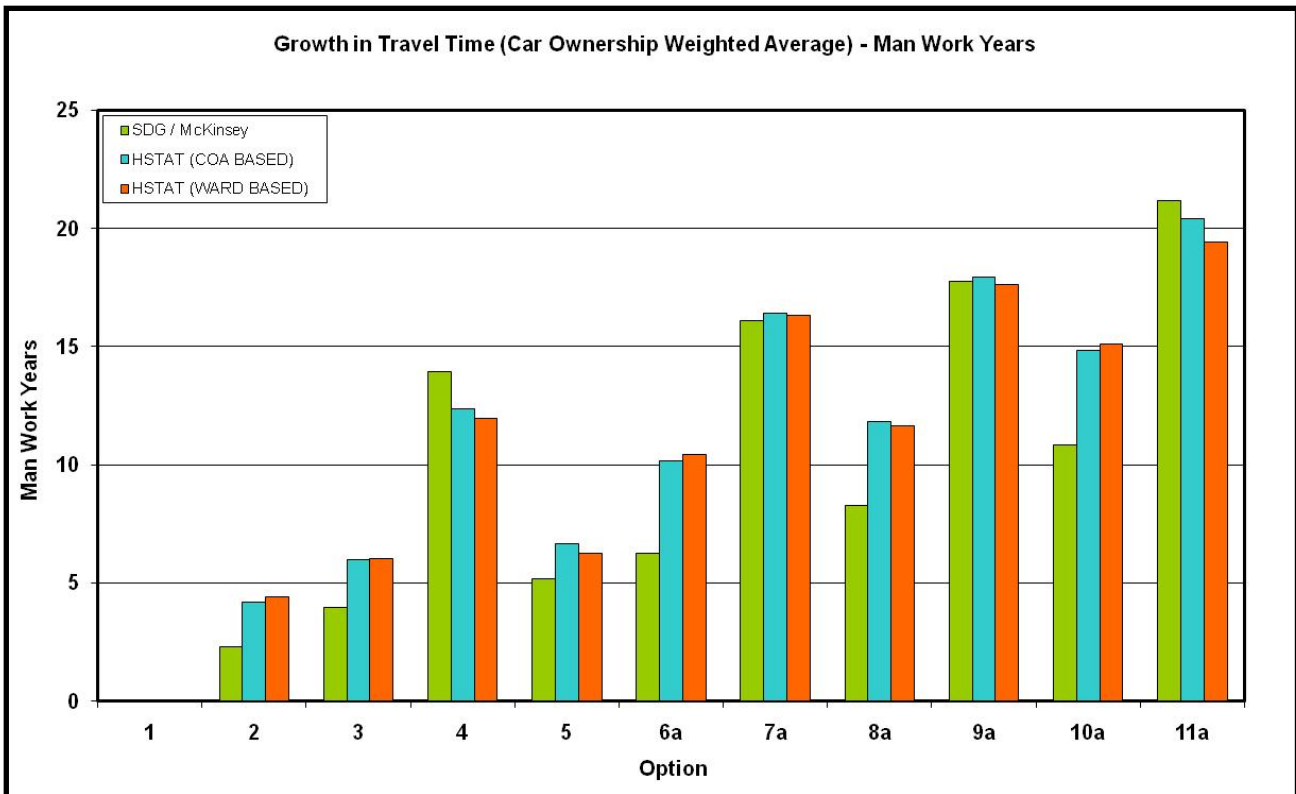


Figure 6 Access Score – Public Transport Based

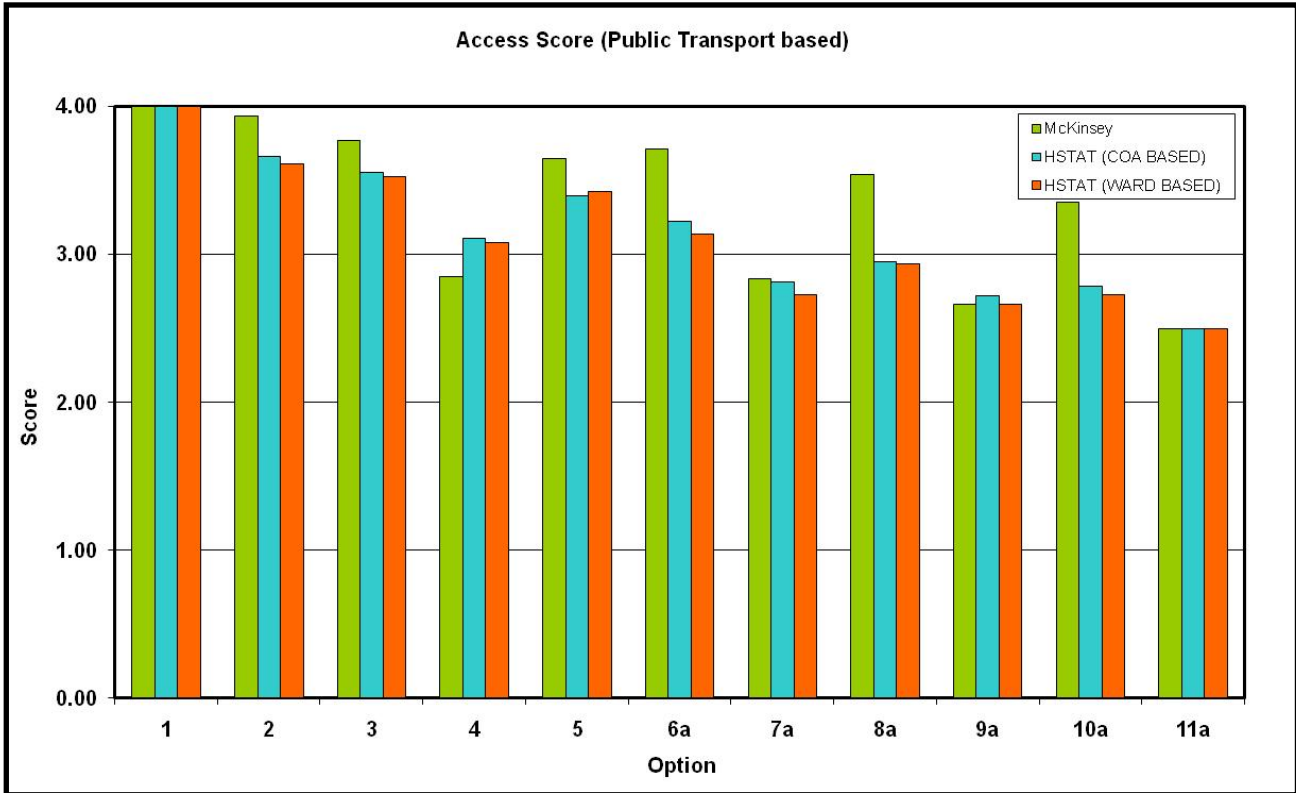


Figure 7 Access Score – Highway Based

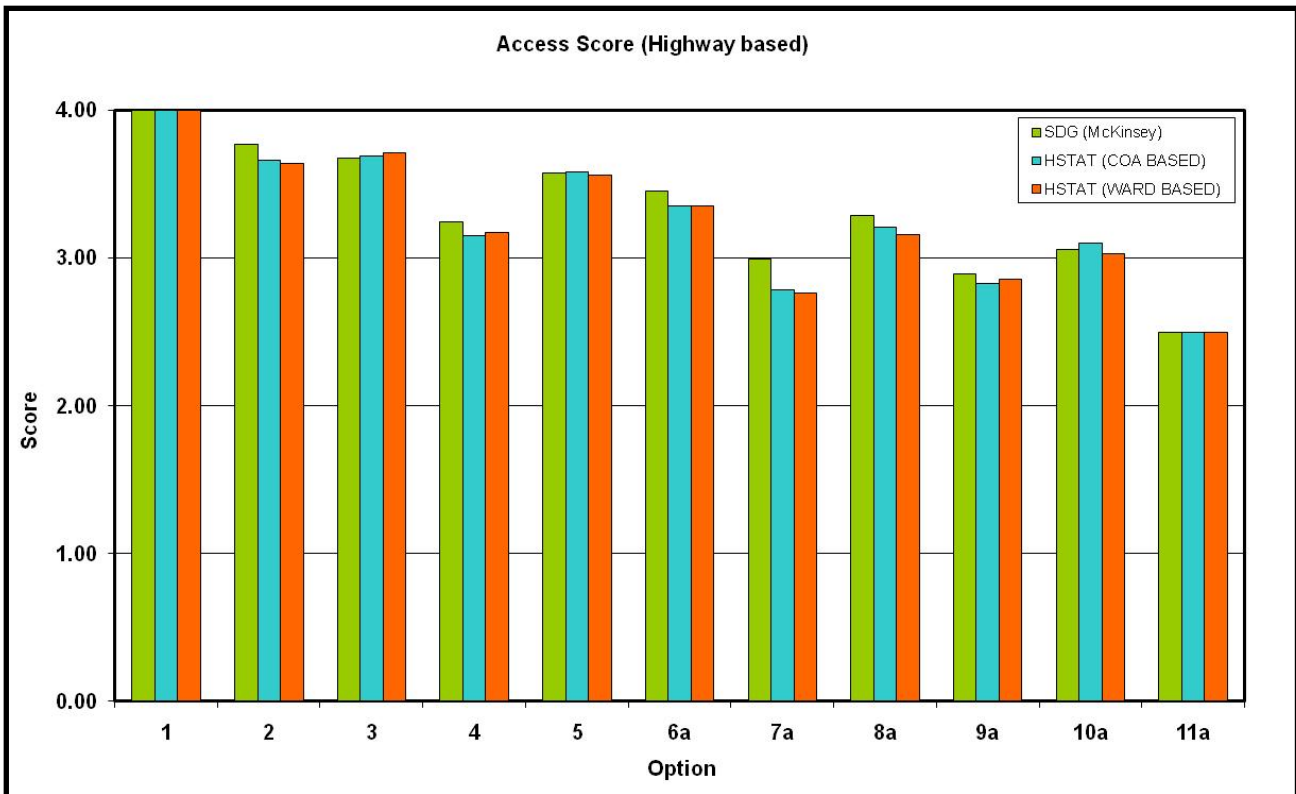
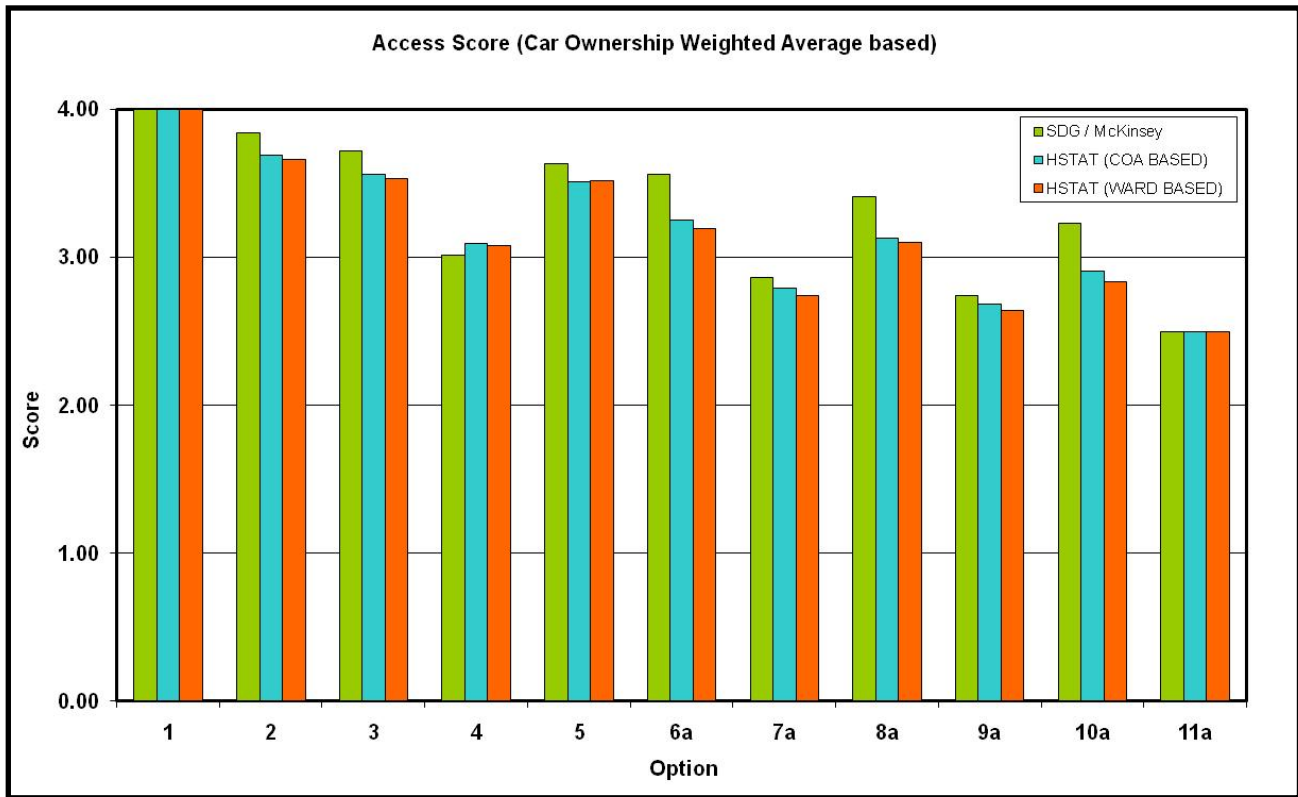


Figure 8 Access Score – Car Ownership Weighted Average Based



APPENDIX L: ASSESSMENT OF PROVIDER SURPLUS AND DEFICIT

Year-by-year surplus/deficit for each hospital under each option after aggressive productivity gains (Page 1 of 2)

Option 1 - Do minimum

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Queen's	(25)	(21)	(6)	(15)	(14)	(15)	(14)	(13)	(11)	(13)
KGH	(10)	(5)	(3)	2	5	6	6	7	7	5
WHX	1	1		2	4	3	2	2	1	(1)
Homerton	8	3	7	9	9	8	8	8	8	6
Newham	(2)		1	3	6	6	7	9	10	9
BLT	15	11	10	20	21	10	12	9	9	6
NEL Total	(14)	(11)	4	21	31	17	21	20	24	11

Option 2 - KGH 'cold'

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	Movement
Queen's	(25)	(21)	(6)	(12)	(7)	1	4	5	7	5	18
KGH	(10)	(5)	(3)	1	6	1		4	4	3	(3)
WHX	1	1		4	6	7	6	5	5	2	3
Homerton	8	3	7	9	9	8	8	8	8	6	
Newham	(2)		1	4	7	8	9	11	13	11	3
BLT	15	11	10	20	21	9	12	9	8	5	()
NEL Total	(14)	(11)	4	25	42	35	39	41	46	32	21

Year-by-year surplus/deficit for each hospital under each option after aggressive productivity gains (Page 2 of 2)

Option 4 - Newham 'cold'

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	Movement
Queen's	(25)	(21)	(6)	(14)	(10)	(6)	(3)	(2)		(3)	11
KGH	(10)	(5)	(3)	3	7	12	13	14	14	12	7
WHX	1	1		4	6	9	9	8	8	5	6
Homerton	8	3	7	10	11	14	16	15	15	12	7
Newham	(2)		1	(6)	(2)	(3)	(10)	(3)	(3)	(4)	(13)
BLT	15	11	10	21	24	19	24	21	21	18	12
NEL Total	(14)	(11)	4	18	37	45	49	53	56	40	30

Option 5 - Whipps Cross 'cold'

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	Movement
Queen's	(25)	(21)	(6)	(15)	(13)	(12)	(10)	(8)	(6)	(9)	5
KGH	(10)	(5)	(3)	2	6	9	10	10	11	9	3
WHX	1	1		(3)	1	(3)	(7)	(1)	(1)	(2)	(1)
Homerton	8	3	7	10	11	12	13	12	13	10	5
Newham	(2)		1	4	7	9	10	12	14	12	3
BLT	15	11	10	20	21	10	14	11	10	7	2
NEL Total	(14)	(11)	4	18	32	24	30	35	40	28	17

APPENDIX M: FORECAST INCOME AND EXPENDITURE FOR THE CLINICAL PROPOSALS FOR CHANGE

All north east London trusts: forecast income and expenditure following reconfiguration of King George Hospital:

Income

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Income			1464	1464	1464	1464	1464	1464	1464	1464
Changes in activity level			96	107	118	131	144	158	173	188
Site reconfiguration			-	-	1	1	0	(0)	(1)	(2)
Shifts in settings of care, Demand management			-	(95)	(203)	(283)	(287)	(290)	(294)	(298)
Net Tariff deflation			(8)	(19)	(59)	(94)	(131)	(168)	(204)	(240)
Income	1,450	1,531	1552	1456	1320	1219	1190	1163	1136	1111

Expenditure

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Cost			1448	1455	1463	1479	1480	1486	1491	1489
Changes in activity level			72	80	89	98	108	118	129	141
Shifts in settings of care, Demand management			-	(70)	(150)	(211)	(213)	(215)	(218)	(220)
Site reconfiguration			-	-	(1)	(6)	(6)	(7)	(8)	(8)
Healthcare cost inflation			63	99	108	116	131	145	160	175
Expenditure before productivity gains			1583	1563	1508	1477	1499	1527	1555	1577
Productivity gains			(68)	(160)	(256)	(317)	(370)	(423)	(478)	(511)
Expenditure	1438	1514	1515	1403	1252	1160	1129	1104	1077	1065

Additional costs avoided due to reconfiguration

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Cost avoided due to reconfiguration	-	-	-	-	7	14	14	14	14	14

Transition costs

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Reconfiguration deployment and programme management	-	-	-	-	(3)	(3)	(3)	(3)	-	-
Reconfiguration double running	-	-	-	-	(1)	(6)	(5)	-	-	-
Total Transition cost	-	-	-	-	(4)	(9)	(8)	(3)	-	-

Other

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
PDC	(28)	(29)	(29)	(29)	(29)	(29)	(29)	(29)	(29)	(29)
Net interest	3	1	1	1	1	1	1	1	1	1
PDC and Net interest	(26)	(28)	(28)	(28)	(28)	(28)	(28)	(28)	(28)	(28)

Surplus

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Operating surplus	12	17	37	53	70	63	67	69	74	60
CIP (before productivity)	0.8%	1.1%	2.4%	3.4%	4.7%	4.3%	4.5%	4.5%	4.7%	3.8%
Retained surplus excluding exceptionals	(14)	(11)	9	25	42	35	39	41	46	31.7
Surplus margin	(1.%)	(0.7%)	0.6%	1.7%	3.2%	2.9%	3.3%	3.6%	4.0%	2.9%

Queen's Hospital: forecast income and expenditure following reconfiguration of King George Hospital

Income

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Income			233	233	233	233	233	233	233	233
Changes in activity level			22	22	22	22	22	22	22	22
Site reconfiguration			-	-	9	45	50	50	50	50
Shifts in settings of care, Demand management			-	(18)	(39)	(61)	(61)	(61)	(61)	(61)
Net Tariff deflation			(1)	(3)	(10)	(17)	(24)	(31)	(37)	(43)
Income	221	242	254	235	216	223	221	214	207	201

Expenditure

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Cost			251	252	250	250	250	250	250	249
Changes in activity level			15	15	15	15	15	15	16	16
Shifts in settings of care, Demand management			-	(14)	(30)	(42)	(42)	(42)	(42)	(42)
Site reconfiguration			-	-	6	31	34	34	33	33
Healthcare cost inflation			10	16	17	21	23	26	28	31
Expenditure before productivity gains			277	269	259	275	280	282	284	287
Productivity gains			(21)	(26)	(42)	(59)	(70)	(80)	(90)	(95)
Expenditure	242	258	255	242	217	216	211	203	195	191

Additional costs avoided due to reconfiguration

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Cost avoided due to reconfiguration	-	-	-	-	-	-	-	-	-	-

Transition costs

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Reconfiguration deployment and programme management	-	-	-	-	(1)	(1)	(1)	(1)	-	-
Reconfiguration double running	-	-	-	-	-	-	-	-	-	-
Total Transition cost	-	-	-	-	(1)	(1)	(1)	(1)	-	-

Other

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
PDC	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Net interest	1	0	0	0	0	0	0	0	0	0
PDC and Net interest	(4)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)

Surplus

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Operating surplus	(21)	(16)	(1)	(7)	(2)	6	9	10	12	9
CIP (before productivity)	(8.8%)	(6.1%)	(0.3%)	(2.7%)	(0.8%)	2.1%	3.1%	3.5%	4.4%	3.3%
Retained surplus excluding exceptionals	(25)	(21)	(6)	(12)	(7)	1	4	5	7	4.5
Surplus margin	(10.4%)	(8.8%)	(2.3%)	(5.2%)	(3.3%)	0.4%	1.7%	2.3%	3.6%	2.2%

King George Hospital: forecast income and expenditure following reconfiguration of King George Hospital

Income

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Income			133	133	133	133	133	133	133	133
Changes in activity level			15	16	18	20	22	24	26	28
Site reconfiguration			-	-	(14)	(68)	(74)	(75)	(76)	(77)
Shifts in settings of care, Demand management			-	(13)	(26)	(23)	(23)	(23)	(24)	(24)
Net Tariff deflation			(1)	(2)	(5)	(4)	(6)	(7)	(9)	(11)
Income	124	136	147	134	107	58	52	51	50	50

Expenditure

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Cost			132	132	132	132	132	132	132	132
Changes in activity level			12	14	15	17	18	20	22	24
Shifts in settings of care, Demand management			-	(6)	(13)	(19)	(19)	(19)	(20)	(20)
Site reconfiguration			-	-	(12)	(56)	(59)	(60)	(60)	(61)
Healthcare cost inflation			6	10	10	7	8	9	9	10
Expenditure before productivity gains			151	150	133	82	80	82	84	86
Productivity gains			(4)	(20)	(30)	(23)	(24)	(25)	(27)	(28)
Expenditure	132	139	147	130	102	59	56	57	57	58

Additional costs avoided due to reconfiguration

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Cost avoided due to reconfiguration	-	-	-	-	7	14	14	14	14	14

Transition costs

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Reconfiguration deployment and programme management	-	-	-	-	(2)	(2)	(2)	(2)	-	-
Reconfiguration double running	-	-	-	-	(1)	(6)	(5)	-	-	-
Total Transition cost	-	-	-	-	(3)	(8)	(6)	(2)	-	-

Other

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
PDC	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Net interest	0	0	0	0	0	0	0	0	0	0
PDC and Net interest	(2)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)

Surplus

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Operating surplus	(8)	(3)	(0)	4	9	4	3	7	7	6
CIP (before productivity)	(6.1%)	(1.9%)	(0.3%)	2.6%	6.4%	5.2%	4%	8.2%	8.2%	6.5%
Retained surplus excluding exceptionals	(10)	(5)	(3)	1	6	1	0	4	4	2.7
Surplus margin	(7.8%)	(3.9%)	(2.2%)	0.8%	5.3%	2.5%	0.8%	7.7%	8.1%	5.5%

BHRUT: forecast income and expenditure following reconfiguration of King George Hospital

Income

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Income			366	366	366	366	366	366	366	366
Changes in activity level			37	39	41	43	44	47	49	51
Site reconfiguration			-	-	(5)	(23)	(24)	(25)	(26)	(27)
Shifts in settings of care, Demand management			-	(31)	(65)	(84)	(84)	(85)	(85)	(86)
Net Tariff deflation			(2)	(5)	(14)	(22)	(30)	(38)	(46)	(54)
Income	345	378	401	369	323	280	272	265	257	250

Expenditure

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Cost			383	384	383	383	382	382	382	382
Changes in activity level			27	29	31	32	34	36	37	39
Shifts in settings of care, Demand management			-	(20)	(44)	(61)	(61)	(62)	(62)	(62)
Site reconfiguration			-	-	(5)	(25)	(25)	(26)	(27)	(28)
Healthcare cost inflation			17	26	27	28	31	34	38	41
Expenditure before productivity gains			428	418	392	357	361	364	368	372
Productivity gains			(25)	(46)	(73)	(82)	(94)	(105)	(117)	(123)
Expenditure	375	396	402	372	319	275	267	259	252	249

Additional costs avoided due to reconfiguration

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Cost avoided due to reconfiguration	-	-	-	-	7	14	14	14	14	14

Transition costs

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Reconfiguration deployment and programme management	-	-	-	-	(2)	(2)	(2)	(2)	-	-
Reconfiguration double running	-	-	-	-	(1)	(6)	(5)	-	-	-
Total Transition cost	-	-	-	-	(4)	(9)	(7)	(2)	-	-

Other

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
PDC	(7)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
Net interest	1	0	0	0	0	0	0	0	0	0
PDC and Net interest	(6)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)

Surplus

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Operating surplus	(29)	(18)	(1)	(3)	6	10	12	17	19	15
CIP (before productivity)	(7.8%)	(4.6%)	(0.3%)	(0.8%)	1.6%	2.8%	3.3%	4.6%	5.2%	4.4%
Retained surplus excluding exceptionals	(36)	(26)	(9)	(11)	(1)	2	4	9	11	7.3
Surplus margin	(9.5%)	(6.6%)	(2.2%)	(3.3%)	(0.4%)	0.8%	1.6%	3.3%	4.5%	2.9%

Barts & the London: forecast income and expenditure following reconfiguration of King George Hospital

Income

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Income			584	584	584	584	584	584	584	584
Changes in activity level			30	36	42	49	55	62	69	76
Site reconfiguration			-	-	(0)	(1)	(1)	(1)	(1)	(1)
Shifts in settings of care, Demand management			-	(30)	(64)	(90)	(91)	(92)	(94)	(95)
Net Tariff deflation			(3)	(8)	(24)	(39)	(54)	(70)	(85)	(100)
Income	592	614	610	582	538	503	493	483	473	463

Expenditure

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Cost			570	576	586	602	602	608	613	610
Changes in activity level			21	26	31	35	40	45	50	55
Shifts in settings of care, Demand management			-	(22)	(47)	(66)	(66)	(67)	(68)	(69)
Site reconfiguration			-	-	(0)	(1)	(1)	(1)	(1)	(1)
Healthcare cost inflation			24	38	42	46	52	58	64	70
Expenditure before productivity gains			616	619	612	617	627	644	659	667
Productivity gains			(23)	(63)	(102)	(131)	(153)	(177)	(202)	(216)
Expenditure	569	596	593	555	509	487	474	467	457	451

Additional costs avoided due to reconfiguration

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Cost avoided due to reconfiguration	-	-	-	-	-	-	-	-	-	-

Transition costs

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Reconfiguration deployment and programme management			-	-	0	0	0	0	-	-
Reconfiguration double running			-	-	-	-	-	-	-	-
Total Transition cost	-	-	-	-	0	0	0	0	-	-

Other

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
PDC	(10)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Net interest	2	1	1	1	1	1	1	1	1	1
PDC and Net interest	(8)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)

Surplus

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Operating surplus	23	18	18	27	29	17	19	16	16	13
CIP (before productivity)	4.1%	3.3%	3.3%	4.4%	4.7%	2.7%	3.1%	2.5%	2.4%	1.9%
Retained surplus excluding exceptionals	15	11	10	20	21	9	12	9	8	5.2
Surplus margin	2.7%	1.8%	1.7%	3.4%	4.0%	1.8%	2.4%	1.8%	1.8%	1.1%

Homerton: forecast income and expenditure following reconfiguration of King George Hospital

Income

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Income			159	159	159	159	159	159	159	159
Changes in activity level			8	8	8	8	9	10	11	13
Site reconfiguration			-	-	0	0	0	0	0	0
Shifts in settings of care, Demand management			-	(12)	(25)	(36)	(37)	(37)	(38)	(38)
Net Tariff deflation			(1)	(2)	(6)	(9)	(13)	(17)	(20)	(24)
Income	159	166	165	152	135	122	119	116	113	110

Expenditure

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Cost			148	148	148	148	148	148	148	148
Changes in activity level			6	6	7	7	8	9	10	12
Shifts in settings of care, Demand management			-	(9)	(20)	(28)	(28)	(29)	(29)	(29)
Site reconfiguration			-	-	0	0	0	0	0	0
Healthcare cost inflation			7	11	11	12	14	15	17	18
Expenditure before productivity gains			161	156	147	140	142	144	146	149
Productivity gains			(5)	(15)	(24)	(29)	(34)	(39)	(44)	(48)
Expenditure	148	160	156	141	123	111	108	105	102	101

Additional costs avoided due to reconfiguration

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Cost avoided due to reconfiguration	-	-	-	-	-	-	-	-	-	-

Transition costs

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Reconfiguration deployment and programme management			-	-	(0)	(0)	(0)	(0)	-	-
Reconfiguration double running			-	-	-	-	-	-	-	-
Total Transition cost	-	-	-	-	(0)	(0)	(0)	(0)	-	-

Other

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
PDC	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Net interest	1	1	1	1	1	1	1	1	1	1
PDC and Net interest	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)

Surplus

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Operating surplus	11	6	10	12	12	11	11	11	11	9
CIP (before productivity)	7.2%	3.9%	6.2%	7.6%	8.4%	8%	7.6%	7.4%	7.3%	5.8%
Retained surplus excluding exceptionals	8	3	7	9	9	8	8	8	8	5.8
Surplus margin	5.4%	2.1%	4.4%	5.9%	7%	6.9%	6.7%	6.7%	6.9%	5.2%

Newham: forecast income and expenditure following reconfiguration of King George Hospital

Income

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Income			159	159	159	159	159	159	159	159
Changes in activity level			10	16	22	29	37	44	52	60
Site reconfiguration			-	-	2	7	8	8	8	9
Shifts in settings of care, Demand management			-	(11)	(25)	(38)	(40)	(42)	(44)	(46)
Net Tariff deflation			(1)	(2)	(7)	(11)	(16)	(21)	(27)	(32)
Income	157	161	168	161	151	146	147	148	149	150

Expenditure

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Cost			158	158	158	158	159	159	159	160
Changes in activity level			7	12	16	21	27	32	38	44
Shifts in settings of care, Demand management			-	(9)	(20)	(29)	(30)	(31)	(32)	(34)
Site reconfiguration			-	-	1	5	6	6	6	6
Healthcare cost inflation			7	11	12	14	16	18	20	23
Expenditure before productivity gains			171	171	168	170	177	184	191	199
Productivity gains			(7)	(16)	(27)	(35)	(42)	(50)	(58)	(64)
Expenditure	157	157	164	155	141	135	134	134	133	135

Additional costs avoided due to reconfiguration

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Cost avoided due to reconfiguration	-	-	-	-	-	-	-	-	-	-

Transition costs

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Reconfiguration deployment and programme management			-	-	(0)	(0)	(0)	(0)	-	-
Reconfiguration double running			-	-	-	-	-	-	-	-
Total Transition cost	-	-	-	-	(0)	(0)	(0)	(0)	-	-

Other

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
PDC	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Net interest	0	0	0	0	0	0	0	0	0	0
PDC and Net interest	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)

Surplus

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Operating surplus	1	3	4	7	10	11	12	14	16	14
CIP (before productivity)	0.4%	2.0%	2.2%	4.0%	5.9%	6.6%	7.0%	7.5%	8.1%	7.2%
Retained surplus excluding exceptionals	(2)	0	1	4	7	8	9	11	13	11.4
Surplus margin	(1.5%)	0.1%	0.4%	2.4%	4.6%	5.7%	6.4%	7.3%	8.5%	7.6%

Whipps Cross: forecast income and expenditure following reconfiguration of King George Hospital

Income

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Income			196	196	196	196	196	196	196	196
Changes in activity level			12	9	5	2	(2)	(5)	(8)	(12)
Site reconfiguration			-	-	4	18	17	17	17	16
Shifts in settings of care, Demand management			-	(11)	(24)	(36)	(35)	(34)	(34)	(33)
Net Tariff deflation			(1)	(3)	(8)	(13)	(18)	(22)	(26)	(30)
Income	196	212	207	191	173	167	159	152	145	138

Expenditure

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
2007/08 Cost			189	189	189	189	189	189	189	189
Changes in activity level			10	7	4	1	(1)	(4)	(6)	(9)
Shifts in settings of care, Demand management			-	(10)	(20)	(28)	(27)	(27)	(27)	(26)
Site reconfiguration			-	-	3	14	14	13	13	13
Healthcare cost inflation			9	14	15	17	18	20	22	23
Expenditure before productivity gains			207	199	190	193	192	191	190	190
Productivity gains			(7)	(19)	(30)	(40)	(46)	(52)	(58)	(61)
Expenditure	189	204	200	180	160	153	146	139	133	129

Additional costs avoided due to reconfiguration

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Cost avoided due to reconfiguration	-	-	-	-	-	-	-	-	-	-

Transition costs

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Reconfiguration deployment and programme management			-	-	(0)	(0)	(0)	(0)	-	-
Reconfiguration double running			-	-	-	-	-	-	-	-
Total Transition cost	-	-	-	-	(0)	(0)	(0)	(0)	-	-

Other

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
PDC	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Net interest	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
PDC and Net interest	(6)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)

Surplus

	2007/08a	2008/09a	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Operating surplus	7	8	7	11	13	14	13	12	12	9
CIP (before productivity)	3.7%	3.9%	3.7%	5.3%	6.8%	7.3%	6.8%	6.4%	6.4%	4.8%

Retained surplus excluding exceptionals	1	1	0	4	6	7	6	5	5	2.0
Surplus margin	0.4%	0.4%	0.2%	1.9%	3.4%	4.2%	3.8%	3.5%	3.6%	1.5%

Newham University Hospital NHS Trust

Our Ref: AW/BD

16th October 2009

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Dear Geoff,

In response to your letter, I am writing to describe our current thinking about the likely impact on our future bed and capital expenditure requirements if King George's Hospital is closed to emergency admissions.

Overall future bed requirements and capacity

We currently have 480 beds open (including day cases and 20 NNU cots). Following the first phase of the maternity and newborn development this will rise to 488. If the Health4NEL modelling is correct, that would indicate that by 2016/17, we would need to increase the overall number of funded beds by 39 to meet the additional demand projected from changes at King Georges.

Given the limitations of any model, the Health4NEL projections may not reflect the reality of what is required by 2016/17. As noted within the model, there is the potential to move elective care provision between sites and we have questioned the assumption that we will not be able to further improve our Length of Stay.

If necessary, we have estimated that we could most easily increase our capacity by another 43 beds by converting two wards that are currently used for office space. This would cost in the region of £5.5m, (£2.3m for ward capacity and £2.2m for office provision). As described in our original submissions, we have space on the NUHT site to further expand the number of beds considerably beyond this, though it would require significant capital investment.

Maternity and Newborn development

You asked in your letter for specific details of our Maternity and Newborn development. Phase one will cost £17.5m, provide 96 maternity beds, 28 NNU cots and therefore capacity for 6,500 births. Given the projected population growth in Newham and the proposals of the clinical working groups, our maternity development would be required irrespective of the decision about King Georges.

As you observe, there is still some uncertainty about the projections for births in Newham and until it is agreed what type of maternity services will be provided on the King George's site, it is not possible to be specific about what proportion of the

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Acting Chairman: Martin Heys Chief Executive: Andrew Woodhead

additional capital investment required beyond phase one would be attributable to patient flows otherwise served by King Georges. We have demonstrated that we could accommodate 9,000 births, but only with significant investment. Before our phase 2 business case is finalised, the actual capacity we plan for will be adjusted to reflect the most accurate available demand projections.

Other areas requiring capital development in the next 5 years

There are outline plans for capital investment which the Trust feels will be needed to enable the NUHT estate to reflect the requirements of future service models and levels of demand. These developments will be needed anyway while there are hospital services at NUHT, though additional demand flowing from the King George's will be part of the business case. This includes:

- o Plans to redevelop our urgent and emergency care facilities to reflect Health4NEL recommendations, at an estimated cost of £4m for Urgent Care (funding already identified by the PCT) and £4m for the Emergency Department and Assessment Area.
- o Development of our current paediatric facilities to (a) comply with single sex accommodation requirements and (b) make space for the Urgent Care Centre provisionally planned to occupy space currently used by the Paediatric service. The cost of this is estimated at £4m.

Backlog maintenance

As has been observed throughout the Health4NEL process, the NUHT site is largely modern, with potential to increase bed numbers within the existing templates with relatively limited capital expenditure.

Our backlog maintenance currently stands at £3m. To achieve full compliance for all ward areas not covered by other schemes (including single sex and DDA requirements), would cost more, though this would of course be phased over an extended period.

We have not provided any supporting information at this stage, but are of course happy to work with you to refine these assumptions over coming months.

Yours sincerely,

Andrew Woodhead
Chief Executive

cc Ian O'Conner
Michaela Morris
Hugh Steward
Penny Pereira
David Cryer
Will Huxter

Whipps Cross Hospital Paper to Trust Board

Health 4 NEL Feasibility Study

Section 1 Introduction

1.1. Purpose

The purpose of this document is to set out the Trust's response to the recent Health for North East London (Health 4 NEL) planning exercise. It identifies the consequences of the preferred option for the Trust's estate and quantifies the likely capital expenditure. This report has been requested by the programme office for Health 4 NEL in order to contribute to the Pre Consultation Business Case which is being prepared to take forward their recommendations for the wider health economy.

As part of the exercise, McKinsey's were retained by Health 4 NEL to develop a clinical activity model to project patient and bed numbers for the hospitals in North East London and produced a 'do minimum option' which retained six major sites:

- Barts and the London
- Homerton
- King George's
- Newham
- Queens
- Whipps Cross

However, as requested by Health 4 NEL, this feasibility study focuses on the implications for Whipps Cross Hospital of their preferred option. The latter is predicated on the reshaping of King George's hospital as a much smaller centre for elective ('cold') services with a polyclinic and rehabilitation services. The preferred option retains the other hospitals, including Whipps Cross as an acute hospital admitting the majority of emergency patients and with consultant led maternity services. In addition, this feasibility study also includes an alternative option which explores the consequences for Whipps Cross if some of the radical assumptions underpinning the clinical activity model, such as a 40% shift of outpatients away from acute hospitals, do not actually materialise. This was not requested by Health 4 NEL but has been produced by the Trust to test the sensitivity of the assumptions around the preferred option and the potential impact on the site.

1.2 Structure

In addition to this introduction, the rest of this document is structured as follows:

- Section 2 sets out background to the study, including a brief summary of the Trust's strategic intentions and its capital investment plans
- Section 3 summaries the key features of the two options being explored
- Section 4 summarises the results of the feasibility study
- Section 5 sets out a preliminary assessment of the capital and revenue implications
- Section 6 summarises the conclusions which can be drawn from the exercise

Section 2: Background

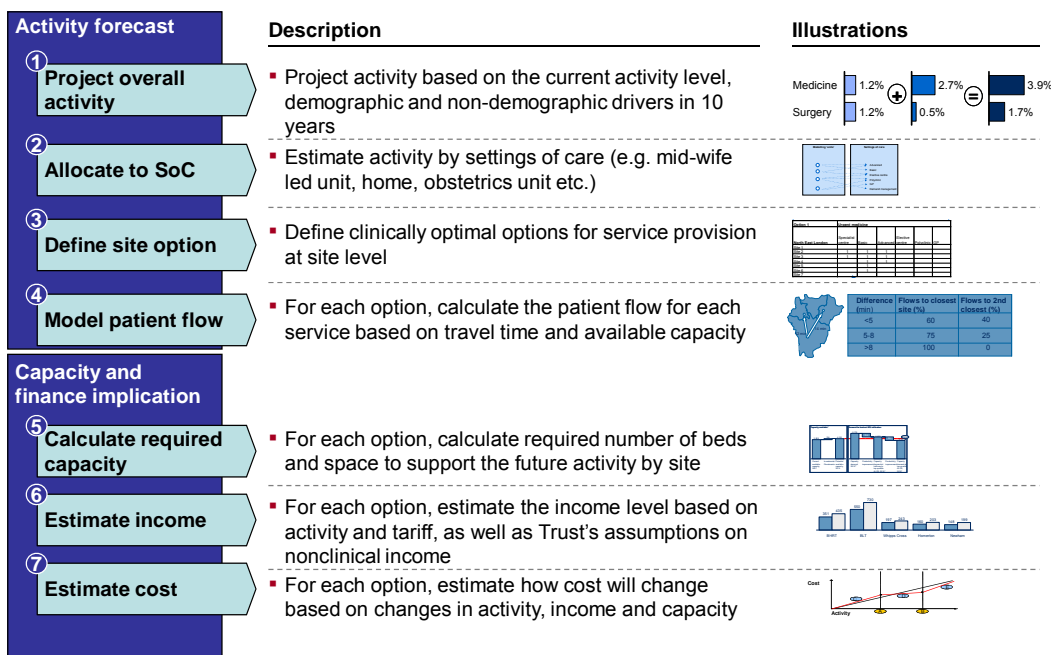
2.1 Health 4 NEL

Health 4 NEL is an NHS programme review, run on behalf of north east London's primary care trusts and acute hospital trusts. The review is aimed at improving the quality, productivity and sustainability of healthcare in north east London. This is a clinically led review on healthcare services in north east London primarily based on acute (hospital) care but it is also considering primary, community care and mental health services where these link to or have an effect on hospital services.

The Health 4 NEL planning exercise was aimed at producing high level strategic projections of patient activity and bed numbers using HRG data, taking the advice of a number of clinical working groups to adjust flows for improvement in best practice in terms of, for example, lengths of stay and shifts of care away from acute settings to primary care. The table below summarises the planning methodology (NB in this instance, the term SoC refers to setting of care not Strategic Outline Case):

Figure 9 Planning methodology

The forecast model includes 7 steps



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The bed numbers produced by this methodology have been used for this feasibility study (but please see Section 3 below).

The clinical working groups, referred to above, also had a significant impact on the output of the modelling as they proposed radical shifts in the way services are delivered. Their advice is summarised in the table below;

Figure 10 Clinical Working Group Recommendations

Clinical working groups have recommended changing the way service is delivered

Children's Services	<ul style="list-style-type: none"> Deliver 39% of outpatient activity in a polyclinic setting Develop two designated general surgery centres Create one specialist paediatric centre
Planned Care	<ul style="list-style-type: none"> Deliver 42% of outpatient activity in a polyclinic setting Create elective centres for the majority of high volume specialities
Specialist Care	<ul style="list-style-type: none"> Maintain two neurosurgery and reduce to two vascular units Maintain three cardiac specialist units Designate one Level I trauma centre Ensure that all low volume specialist services are consolidated
Urgent Medicine	<ul style="list-style-type: none"> Deliver 40% of urgent care in an UCC setting Change from all acute sites providing HASU services to two HASUs
Urgent Surgery	<ul style="list-style-type: none"> Consultant-led decision making to eliminate unnecessary operations from 10 p.m.–8 a.m.
Maternity & Newborn	<ul style="list-style-type: none"> Create 2–3 hubs for complex obstetrics which are aligned with the neonatal networking arrangements

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SOURCE: Clinical working groups draft reports, May 2009

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2.2 Trust Strategy

This feasibility study is entirely consistent with the Trust's clinical strategy which is to:

- Focus on delivery of a full emergency care service and consultant led maternity services to serve the needs of the local population and beyond, and,
- Achieve Foundation Trust status.

The salient points of the strategy are:

- As a District General Hospital the Trust provides a range of acute services; under Healthcare for London, the model is to deliver services as an acute hospital which broadly reflects the current service base.
- Critical and emergency care is at the core of delivery whilst ensuring that the services essential to support this are provided.
- The Trust will provide a range of services that should be provided in an acute setting moving to provide care based on patient acuity rather speciality need.
- The Trust recognises that some services will, in the future, be provided in a community care setting but envisages working beyond traditional boundaries in terms of care provision across primary and secondary care settings building on current success in a number of areas.
- To function as or as part of a Foundation Trust in the future.

The Trust is currently working with both NHS Waltham Forest and NHS Redbridge to support the development of polyclinics. It expects to deliver some services within the Loxford polyclinic in Redbridge and to be successful, jointly with PELC, in providing polyclinic services in Waltham Forest, including one on the Whipps Cross Hospital site.

The medium and long term future of Whipps Cross Hospital, including the plans to become a Foundation Trust and its estates strategy, are dependent on the future service and financial strategy for health services in North East London articulated in Health 4 NEL. The London PCTs' medium term financial strategy, which would enable the Trust's accumulated deficit to be paid off, is welcomed as a first step in this process. During 2009/10 the Trust is actively contributing to the North East London provider landscape review to ensure clarity for the future of acute services in North East London.

Accordingly, the proposals set out in this feasibility study are entirely consistent with the Trust's plans to:

- Sustain recurrent financial balance
- Meet or better the standards set by the Care Quality Commission
- Develop clinical services which support the Trust's core specialities
- Make significant improvement to the Trust estate.

2.3 Estate strategy

The Trust's estate strategy is summarised below.

- The Estate strategy is focused on improving patient care quality, improving clinical adjacencies for service efficiencies, reducing operating costs and inward infrastructure investment to reduce estate overhead costs and release planned redundant estate for land sale receipts and so improving the Trusts financial position.
- Improving clinical adjacencies in the Hospital site by the relocation of clinical service departments and wards.
- The development and construction of a new Accident & Emergency / Emergency Elective Care Centre Building and Emergency Medical Centre building.
- The systematic upgrade of Hospital Wards in the Victorian and Edwardian sections of the estate.
- The improvement /expansion of Maternity department with an inward infrastructure investment, providing additional clinical accommodation, two operating theatres, larger teaching facilities, and improved staff accommodation.
- Planning and construction of two additional operating theatres, and enclosed service corridor linking the Phase 1 building with the Maternity department to improve staff access and emergency patient transfer requirements.
- The existing site is being rationalised in size by the commissioning of an Energy Centre and new electrical power distribution infrastructure that when full operational shall allow the existing Boiler House and auxiliary plant to decommissioned, so releasing approximately one quarter of the site for residential redevelopment.

2.3.1 Whipps Cross Hospital

The Whipps Cross Hospital site comprises

- 1900s (A to D) blocks with additions containing A and E, theatres, X ray and pathology
- 1930s block containing critical care, medical wards, rehabilitation and cardiology
- 1970s maternity block
- 1980s phases 1 and 2, containing surgical wards, theatres and outpatients
- New build e.g. Endoscopy suite, ophthalmology, plane tree day unit, elderly day hospital, emergency and urgent care centre, Margaret centre and energy centre.

There has been a recognised need for capital investment at Whipps Cross University Hospital for 10 years. The Trust has accumulated a backlog maintenance requirement reflecting the age, construction and condition of some of the Trust's estate as well as its suitability for the delivery of modern health care.

Following Sir George Alberti's review of the Fit for Future proposals, which identified the requirement for significant capital investment at Whipps Cross Hospital, the Trust developed an estates strategy – agreed by the Trust board in June 2007 - which proposed a phased development.

In February 2008 the Trust submitted to NHS London a strategic outline case for the first phase of this development which proposed a new A and E department, the relocation of maternity and the building of a link building between the 1900s block and existing phases 1 and 2.

NHS London raised concerns about the affordability of these proposals which cost £150m capital with significant revenue costs.

In order to make some progress and address immediate risks, the Trust was asked to submit an outline business case for the highest priority element of the scheme. An Outline Business Case (OBC) for the redevelopment of A&E and extension of the Emergency Medical Centre was submitted in April 2009 and following approval by the SHA the Trust is now developing a full business case (FBC) for submission in December 2009. The estimated cost is £23m.

It is essential that this development is taken forward to address both clinical quality and efficiency issues, and patient safety. The current A&E department has high risk asbestos and one of the current admissions wards is not fit for purpose and is not suitable for refurbishment.

To proceed, the Trust has received an exceptional borrowing facility of £19m which was authorised by the Department of Health as part of the OBC approval and subject to final approval of the FBC. The balance of cost, £4m, will be funded by the Trust.

2.3.2 Capital investment plans for 2009/10

In addition to the A& E project, the current projects which the Trust has in hand are summarised below:

Table 8 Current Capital Projects

Project	Investment
Maternity	During 2008/9 the Trust agreed a business case for the expansion and refurbishment of the maternity delivery suite at a cost of £3m. This development will be phased over two years and ensure that the capacity of the delivery suite is increased from 2500 to 5000+ deliveries per year.
Energy Centre	Following works commenced in 2008/09 the Trust expects the energy centre to be commissioned early in 2009/10 delivering significant energy savings and freeing up some areas/buildings on the site for demolition.
Ward refurbishment	Building on the work to upgrade Mary Ward in 2008/9 – Cedar Ward is being upgraded giving the Trust a contingency/winter pressures ward. Elizabeth Ward is also being refurbished and upgraded to improve compliance with HCC standards and in particular single sex accommodation.
Heating infrastructure	The electrical power distribution and thermal heating systems will be upgraded to ensure they are of a standard to receive services from the new energy centre.
Pathology upgrade	A phased upgrade of the pathology department is planned to ensure compliance with accreditation bodies.
MDU/Margaret Centre	The Medical Day Unit (MDU) cancer service is being reprovided in the new Margaret Centre. The former MDU is being converted into a mixed sex compliant specialist stroke ward. This then frees Wavell ward to become a winter pressures ward.
ICT	The Trust plans to re-locate the ICT service and provide a data centre facility within the energy centre. This will enable the Trust to reduce identified risks around current ICT accommodation. As part of the business case for this proposal the Trust will need to ensure the risk around a VAT liability is avoided if possible

2.3.3 Longer term estate strategy

The Trust will build upon this feasibility study to complete a more robust and overarching estate strategy to align with the Health 4 NEL provider landscape review. The Trust assumes the strategy will aim will to:

- Continue to undertake essential maintenance and address identified risks
- Rationalise the site to release parcels of land
- Improve the physical environment for patients
- Increase the utilization of the estate
- Ensure the Trust is compliant with Health Care commission standards

In order to achieve this, the Trust has set aside approximately £25m (at 2009/2010 prices) over the period 2009/2010 to 2016/2017 in its long term capital programme. This is shown below under the Estates heading, in the lines general estates investment and infrastructure reinvestment. IT developments are difficult to assess as this will depend on the review of Connecting for Health’s (CfH) national programme and more specifically how it’s implemented in London.

Table 9 Long term capital programme

	<u>2009/10</u>	<u>2010/11</u>	<u>2011/12</u>	<u>2012/13</u>	<u>2013/14</u>	<u>2014/15</u>	<u>2015/16</u>	<u>2016/17</u>
FUNDING								
Depreciation	9.0	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Cfwd	4.4							
A & E Depreciation	0.0	0.0	0.5	0.5	0.8	0.8	0.8	0.8
<i>Loan Repayments</i>		<i>-0.3</i>	<i>-0.7</i>	<i>-0.8</i>	<i>-1.0</i>	<i>-1.0</i>	<i>-1.0</i>	<i>-1.0</i>
Total Funding	13.4	9.2	9.3	9.2	9.3	9.3	9.3	9.3
EXPENDITURE								
	<u>£m</u>	<u>£m</u>	<u>£m</u>	<u>£m</u>	<u>£m</u>	<u>£m</u>	<u>£m</u>	<u>£m</u>
IT								
Replacement	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Developments	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Medical Equipment								
Replacement	1.8	1.1	0.9	1.9	3.0	2.6	1.9	1.9
Developments	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
MFS	1.0	1.6	0.7	0.4	0.7	0.5	1.0	1.1
Equipment Sub Total	4.2	4.6	3.5	4.2	5.6	5.0	4.8	4.9
	31%	50%	38%	46%	60%	54%	52%	53%
Estates								
General estates investment	2.2	0.0	0.0	0.0	1.7	2.3	2.5	2.4
Infrastructure Reinvestment	0.0	1.0	2.0	3.0	2.0	2.0	2.0	2.0
Theatres x 4		1.8	1.8	0.0	0.0	0.0		
Maternity	2.9							
Pathology Lab	0.9	1.8						
MDU	1.3							
Energy centre	1.9							
A & E - Trust Contribution only			2.0	2.0				
Estate Sub Total	9.2	4.6	5.8	5.0	3.7	4.3	4.5	4.4
	69%	50%	62%	54%	40%	46%	48%	47%
Total Spending	13.4	9.2	9.3	9.2	9.3	9.3	9.3	9.3
Under / Over commitment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

It should be noted that this capital programme does not include the investments needed to implement either of the options discussed in this feasibility report. The capital implications of these options are discussed in Section 5 below. However the table does demonstrate that the Trust has set aside a prudent reinvestment programme to maintain and improve the fabric of its estate in the longer term and address the backlog maintenance issues. It should be noted that the Trust has invested significantly in the energy centre, elective care (endoscopy,

ophthalmology), diagnostics (CT suite), research and development and education (simulation suite) in recent years pending a more comprehensive estates strategy.

Section 3: Options

This section sets out the development of the options for this feasibility study.

3.1 Activity and bed projections

The Health 4 NEL forecasts did not disaggregate their findings by specialty or by day case/inpatient in the normal NHS manner. Rather, the Health 4 NEL data differentiated primarily between, A&E attendances, children’s beds (defined as patients aged less than 18), deliveries and maternity beds. The remaining beds were split between planned care and urgent but with no day case/inpatient or specialty breakdown. The results of this modelling are reported in the tables below:

Table 10 Bed Projections

Beds	2009-10	2016-17
Planned Care	211	182
Urgent Care	450	343
Maternity beds	53	70
Cots/Children’s beds	85	58
Total beds¹	799	653

The figure of 799 in 2009-2010 includes the figure of 85 for cots whereas the figure of 58 in 2016-2017 is for children’s beds

Table 11 Activity projections

Activity	2009-10 '000s	2016-17 '000s
A&E	101.7	112.2
Outpatients	289.5	139.6
Births / Obstetrics	5.2	6.2
Inpatients (excluding births)	67.4	68.1

The Trust has worked within the projected bed totals and activity, but, for the purposes of this report, re-cast the bed numbers, in order to develop the estate solutions.

¹.

3.2 Option development

This report sets out two separate site development options. To avoid any possible confusion with the terminology used to describe the options in the Health 4 NEL report, this paper refers to the options which it explores as options A and B, as follows:

- Option A is the Health 4 NEL 'preferred option'
- Option B is a variant of the Health 4 NEL preferred option using different assumptions about patient preferences.

These are explored in more detail below:

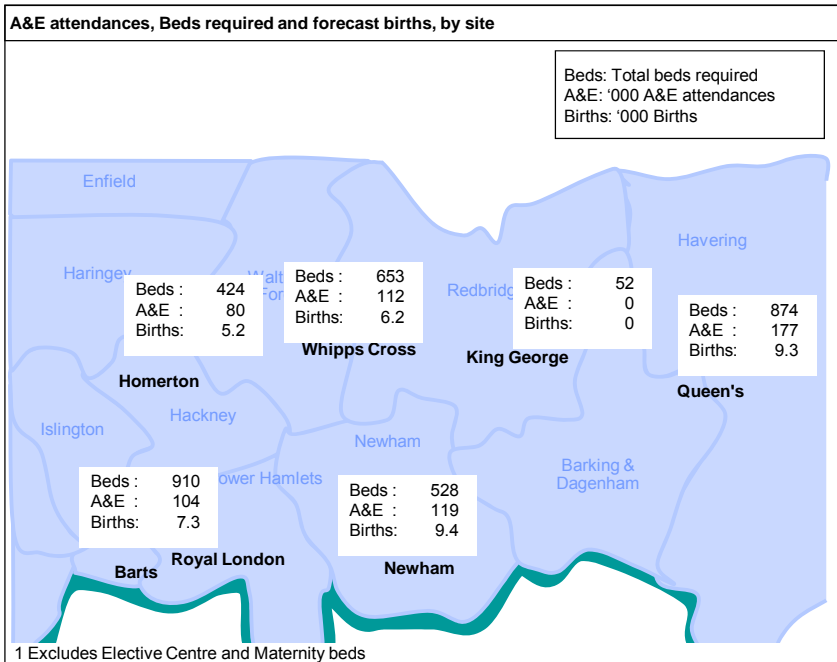
3.3 Option A: The Health 4 NEL 'preferred option'

This option examines the consequences for the Whipps Cross site of the preferred option which reshapes the role of the King George Hospital site to a 52 bed elective site with a polyclinic and rehabilitation, and shifts some additional emergency and maternity workload to Whipps Cross whilst reducing outpatients and elective workload. This is illustrated in the diagram below:

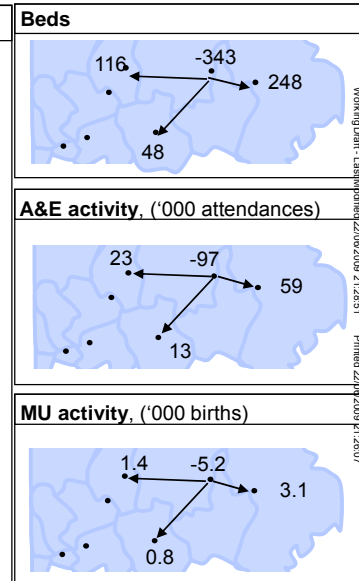
Figure 11 Preferred Option Patient Flows

2: 5 sites (KGH cold)

Patient flows in 2016/17



Difference from option 1



SOURCE: Capacity forecast model v29, August 7th, 2009

*moving activity from KGH appears to result in additional beds in system. This is due to the very high reported utilisation rate at KGH

The site feasibility study has been based on the following interpretation of the Health 4 NEL model and shows where certain facilities not included in the model (e.g. delivery suites) have been extrapolated to match the activity growth. This is shown in the table below:

Table 12 Option A Workload and Beds

	Current 2009-2010	Projected 2016-2017	Change/notes
Patients (spells)	67,432	68,100	1% growth but masks shift away from elective work to emergency cases
Inpatient and day case beds	578	525	-53 Taken from McKinsey's
Births	5200	6200	19% growth
Maternity beds	53	70	+17 Taken from McKinsey's
Delivery unit	15	20	+ 5 Pro rata based on growth in births
Birth Unit	4	5	Ditto
Children's Beds	45	58	+13 Taken from McKinsey's but assumes all patients aged less than 18 are 'children'
Outpatients	289,500	139,600	52% reduction ²
Total beds ³	695	678	-17 based on the Trust's July bed state
A & E attendances	101,700	112,200	11% growth, taken from McKinsey

In addition to the changes in beds and so forth the additional activity would have a knock on effect on certain support services. This is illustrated in the table below:

Table 13 Additional support facilities for Option A

Support facility	Option 1. Health 4 NEL preferred option
ITU beds	+6
Theatres	No change
SCBU cots	+5
Endoscopy rooms	+1 room
Radiology	No change
Pathology	No change
Pharmacy	No change

² The percentage shift is higher than the 42% shown in Figure 2 as it also includes decommissioned activity

³ The figure for total beds differs from Table 3 as that included cots which this does not.

3.3 Option B Health 4 NEL Variant

Option B is a variant of the Health 4 NEL preferred option, with different assumptions about patient preferences. The latter were planning assumptions in the model to reflect travel time, amended to take account of the fact that some hospitals currently attract more patients than pure travel time would predict, (perhaps due to, historical patterns or GP referrals). Specifically, Whipps Cross is estimated to only receive 80% of the activity which might otherwise have been expected. The table below shows the progression of adjustments within the model:

Figure 12 Patient preferences

Appendix III: We have modelled on travel time, amended to take into account current 'preferences'

Version	Description	Assumption	Model detail												
Pure travel time	A patient will always travel to their nearest hospital	Patients will choose their closest hospital	Calculated using drive time from centre of ward												
With matrix	For patients in the border area between two hospitals, we apply a matrix of possible outcomes	Where there is a choice between two close hospitals, a certain percentage will choose the hospital that is marginally further away	<table border="1"> <thead> <tr> <th>Difference (min)</th> <th>Flows to closest site (%)</th> <th>Flows to 2nd closest (%)</th> </tr> </thead> <tbody> <tr> <td><5</td> <td>60</td> <td>40</td> </tr> <tr> <td>5-8</td> <td>75</td> <td>25</td> </tr> <tr> <td>>8</td> <td>100</td> <td>0</td> </tr> </tbody> </table>	Difference (min)	Flows to closest site (%)	Flows to 2nd closest (%)	<5	60	40	5-8	75	25	>8	100	0
Difference (min)	Flows to closest site (%)	Flows to 2nd closest (%)													
<5	60	40													
5-8	75	25													
>8	100	0													
With matrix and preferences	In addition to the matrix of possible outcomes, we modify the distance that a patient 'perceives' to help explain the fact that some patients currently travel to the hospital that is not their closest	Some hospitals currently attract more patients than pure travel time would predict, (perhaps due to either quality, historical patterns, or GP referrals) therefore we should continue to model this preference	<table border="1"> <thead> <tr> <th>Site:</th> <th>Preference factor</th> </tr> </thead> <tbody> <tr> <td>Kings</td> <td>1.20</td> </tr> <tr> <td>Queens</td> <td>1.35</td> </tr> <tr> <td>Whipps</td> <td>0.80</td> </tr> <tr> <td>The London</td> <td>1.20</td> </tr> </tbody> </table>	Site:	Preference factor	Kings	1.20	Queens	1.35	Whipps	0.80	The London	1.20		
Site:	Preference factor														
Kings	1.20														
Queens	1.35														
Whipps	0.80														
The London	1.20														

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In Option A, the model's results have been taken at face value. For Option B the activity projections were recast to reflect the impact on Whipps Cross. In particular the 0.8 preference for the Trust was mitigated back to a factor of 1.0 i.e. to show the workload if there were no negative preference against the hospital. This preference adjustment was also made for parents choosing where to have their babies delivered.

In addition, this option assumes that the outpatients who are assumed to be treated in primary care will be treated in a polyclinic setting on the Whipps Cross site. The reasoning behind this assumption was to test the physical capacity of the site.

The revised activity and bed assumptions for Option B are shown in the table below.

Table 14 Option B Workload and Beds

	Current 2009-2010	Projected 2016-2017	Change/notes
Patients (spells)	67,432	85,125	Reflects patient preference for Whipps Cross
Inpatient and day case beds	578	656	Pro rata growth to reflect patient preference
Births	5200	7750	Ditto
Maternity beds	53	83	Prop rata with births
Delivery unit	15	25	Pro rata based on growth in births
Birth Unit	4	7	Ditto
Children's Beds	45	75	Pro rata but still but assumes all patients aged less than 18 are 'children'
Outpatients	289,500	139,600	52% reduction - no change
Total beds	695	846	+151 based on the Trust's latest bed state but only + 105 compared to closed beds
A & E attendances	101,700	140,000	Reflects patient preference for Whipps Cross

In addition to the changes in beds above the additional activity would have a knock on effect on certain support services. This is illustrated in the table below:

Table 15 Additional support facilities for Option B

Support facility	Option 3 Health 4 NEL Variant
ITU beds	+9
Theatres	+2
SCBU cots	+12
Endoscopy rooms	+2 rooms
Radiology	No change
Pathology	No change
Pharmacy	TBC

Section 4: Results of the feasibility study

The feasibility of accommodating the additional workload projected in Option A and B was undertaken by the Trust's Director of Estates and Facilities with assistance from Freeman and Ankerman (Architects) and Davies Langdon (Cost Advisors). The results of this exercise are shown below and are illustrated in Appendix 1

Option A

Construction of an expansion of the existing ITU to accommodate 6 additional Beds £M

Construction of 6 cot SCBU expansion £ M

Construction of 1 additional endoscopy room £ M

Option B

Construction of an expansion of the existing ITU to accommodate 9 additional Beds £ M

Construction of SCBU expansion to 9 Beds £ M

Construction 2 Additional Endoscopy Rooms £ M

4.1 Feasibility of Option A, the Health for NEL 'preferred option'

This option would not prove difficult for the Trust to implement. Essentially it would involve additional ITU beds and SCBU cots but would not require any significant works to increase the number of beds on site. In fact, projected numbers required in 2016/2017 is less than the number of beds currently available. Similarly, the work currently being completed on site to modify the existing maternity unit will provide sufficient space to accommodate the forecast growth in deliveries, so no additional capital expenditure would be required other than that for the additional SCBU cots noted above.

Preliminary analysis also shows that there would be no significant consequential requirements for additional capital expenditure to expand pharmacy, radiology or pathology.

4.2 Feasibility of Option B, the Health 4 NEL Variant

Although more complex than Option A, it is also feasible for the Trust to deliver this option. It would involve expanding into and converting 50% of the existing outpatient area, building additional theatres, converting wards which are not in clinical use (e.g. the existing Trust HQ and Finance offices) and building a link corridor and external access road.

Section 5: Capital and revenue consequences

The capital and revenue consequences for the two options have been estimated and are set out below.

5.1 Capital costs

Capital costs for the two options are set out below:

Table 16 Capital Cost Estimates

Option A	Option B
Health for NEL 'preferred option'	Health 4 NEL Variant.
£3.6m	£ 8.1m

It should be noted that the Trust's existing capital programme, as set out in Table 2, does not include these capital items and that either option would need to be funded by through other sources, including Department of Health loans. These costs also exclude the capital expenditure associate with the development of a polyclinic as it is assumed that this would not be a Trust development.

5.2 Revenue costs

The Health 4 NEL review included an estimate of the likely financial consequences of their options based on a series of assumptions about tariff and about potential cost reductions. The Health 4 NEL modelling assumptions for the financial projections are summarised below:

- The assumptions on PCT allocations are in line with the NHS London base case
- Activity growth is driven by demographic and non-demographic factors
 - Growth: Demographic assumptions used by PCT
 - Growth: Non-demographic growth has been updated by NHS London based on the Healthcare for London assumptions
- The base-case scenario developed by NHS London forecasts tariff deflation
- The assumptions on Tariff and healthcare inflation are in line with NHS London's planning assumptions and Monitor.
- The assumptions underpinning the cost savings are set out below:

Figure 13 Cost Saving Assumptions

1 Cost savings are calculated based on simplifying assumptions

Cost types	2007/8 Costs		Amount of cost that follows activity (rest is saved) ¹	Key comments from trust's financial departments	
	£m	%			
Direct	Staff – Medical	254	18%	95%	"As a broad indicator this seems in the right ball park." Homerton University hospital
	Staff – Nursing	308	21%		
	Staff – Agency	40	3%		
	Clinical supplies & services	228	16%		
Indirect	Staff – management	41	3%	50%	"In terms of the Direct costs we feel that 95% of costs following activity is fairly accurate" Whipps Cross
	Staff – Other	219	15%		
	Other general services	25	2%		
	Other	118	7%		
	Depreciation & Amortization	48	3%		
Premises	Premises costs ²	172	12%	0%	"For indirect costs, we think that an additional 50% of costs if activity increased is probably a prudent assumption" Whipps Cross
					"If the premises costs include other costs such as oil, gas, water, electricity and maintenance, the assumption does not seem reasonable - we think it would be more like 10%." Whipps Cross
					"These percentages are not just a function of the cost type but also of the scale of the change proposed." BHRT

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¹ Savings due to restructuring were assumed to vary by cost type, but stay the same within each cost type regardless of the restructuring scale. This is because magnitude of restructuring is uniform across scenarios

SOURCE: FD workshop 22 May, Trust submissions, team analysis 23

Using these core assumptions, with some refinement for local factors (see below), the model forecasts for the Trust for Option A can be summarised as follows:

Table 17 Revenue Consequences for Option A

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
	£m	£m	£m	£m	£m	£m	£m	£m
Income	222.9	225.9	221.3	211.0	201.0	191.3	181.9	172.7
Expenditure	222.9	224.3	218.3	208.7	199.3	190.2	181.4	172.9
Surplus / (Deficit)	(0.0)	1.6	3.1	2.3	1.7	1.0	0.4	(0.2)
Cum BIP achieved		(8.1)	(17.2)	(25.9)	(34.3)	(42.2)	(49.8)	(57.0)

The local factors include assumptions that:

- An annual CIP rising to 4% per annum (pa) by 2016/17 can be delivered
- Activity reductions occur at a constant rate pa over the planning period
- Activity will increase as a result of KGH becoming 'cold'
- There will be no respite from interest charges on the original £26m loan

- The A&E/EMC FBC will be agreed, that the additional £3.6m investment will be financed through loan and that CfH IT costs will be manageable.

These show that the Trust would be in surplus until 2015/16 and would then have a marginal deficit in 2016/17. Given that the latter only arises after significant activity changes and the inherent difficulty in making projections over the long term this shortfall should be manageable. Moreover, by 2016/17 the full extent of activity reductions would have occurred to provide a more stable planning horizon.

Using the same methodology the Trust has also forecast the consequences of Option B, the Health 4 NEL variant which explores the consequences of greater patient flows to Whipps cross. The results are shown below:

Table 18 Revenue Consequences for Option B

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
	£m	£m	£m	£m	£m	£m	£m	£m
Income	222.9	225.9	222.4	213.1	204.1	195.4	186.9	178.6
Expenditure	222.9	224.3	219.1	210.2	201.7	193.3	185.2	177.5
Surplus / (Deficit)	(0.0)	1.6	3.3	2.9	2.4	2.0	1.6	1.1
Cum BIP achieved		(8.1)	(17.3)	(26.0)	(34.4)	(42.3)	(50.0)	(57.2)

These also show that the Trust would be in surplus if Option B was implemented. The cumulative surplus over this period is higher than Option A as would be expected given the increase in activity assumed under the change in preferences from 0.8 to 1 referred to earlier. The assumptions are otherwise the same as Option A except that the revenue costs arising from a higher level of capital investment of £4.5m (£8.1m - £3.6m) have been included.

Section 6: Conclusions and way forward

6.1 Conclusions

The report has demonstrated that it is perfectly feasible to accommodate the changes in workload and activity set out in the Health4 NEL preferred option. This option would reinforce the Trust's status as an acute hospital serving its local population and would help secure its future. The report has also demonstrated that such developments are entirely consistent with the Trust's business strategy and with its existing estate plans.

The feasibility study has also demonstrated that it would be also possible for the site to accommodate more workload in the event that the modelling assumptions which underpin the preferred option are too conservative regarding the propensity for local people to travel to Whipps Cross.

6.2 Way forward

The Trust is keen to help progress the preferred option and looks forward to working with the Health 4 NEL team and the SHA to progress the pre-consultation business case.

APPENDIX P: CAPITAL COSTS: HOMERTON

Homerton University Hospital 

NHS Foundation Trust

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Mr Geoff Sanford
Associate Programme Director
Health for North East London
Aneurin Bevan House
81 Commercial Road
London E1 1RD

7th October 2009

Dear Geoff

Capital consequences of acute reconfiguration in North East London

Firstly, apologies for the delay in replying to your letter of 12 September, addressed to Nancy Hallett.

The modelling you have done indicates that with the preferred option the number of beds required at the Homerton only increases marginally compared to the do nothing option. In order to continue using this site we would expect to continue investing in the estate to deal with backlog maintenance, ensure ongoing legislative compliance and to maintain the fabric of our buildings which are in the main around 20+ years old. In particular we will continue refurbishing ward accommodation each year and we plan to replace the existing boiler house with a modern, energy efficient one. Ballpark estimates of the costs associated are £1/2m pa plus £2m for the new boilers. We will also have the option of redeveloping the East Wing when it is vacated by the East London Mental Health Trust.

As you are aware, we are developing a new Perinatal wing which will have extended capacity for neonatal care and maternity. The maternity facility will be sufficient for a capacity of over 6,000 births but initially we will be staffing it for a lower level of demand.

I hope this is sufficient information to enable you to respond to the query from NHS London.

Yours sincerely

Anna Anderson
Finance Director

c.c Nancy Hallett Andrew Panniker

APPENDIX Q: SPACE UTILISATION ON THE KING GEORGE SITE

Workings for space utilisation calculations (page 1 of 2)

Department	Type	Note	Current	Variant 2a	Variant 2b	Variant 2c
KDAD Uniform Issue	Facilities	Shared	231	231	231	231
KDPG Post Graduate Training & Library	Facilities	Shared	830	830	830	830
KDCA Catering Store	Facilities	Shared	117	117	117	117
Catering / Canteen	Facilities	Shared	944	944	944	944
Stores	Facilities	Shared	346	346	346	346
Mortuary	Facilities	Shared	253	253	253	253
Pharmacy	Pharmacy	Shared	607	407	407	407
Plant Room	Facilities	Shared	220	220	220	220
Hospital Street	Common Area	Shared	216	216	216	216
Fern Ward	Clinical - Ward	Acute	580		0	0
Foxglove Ward	Clinical - Ward	Acute	600		0	0
Rheumatology	Clinical - Treatment & Therapy	Acute	78	78	78	78
Chemical Pathology	Pathology	Acute	382		0	0
Haematology	Pathology	Acute	442		0	0
Pathology	Pathology	Acute	152		0	0
Ash Ward	Clinical - Ward	Acute	600		0	0
Angelica Ward	Clinical - Ward	Acute	580		0	0
Physiotherapy	Clinical - Treatment & Therapy	Shared	979	779	779	779
Speech Therapy	Clinical - Treatment & Therapy	Shared	75	50	50	50
Occupational Therapy	Clinical - Treatment & Therapy	Shared	207	132	132	132
Hospital Street	Common Area	Shared	312	312	312	312
Begonia Ward	Clinical - Ward	Acute	205		0	0
Beech Ward	Clinical - Ward	Acute	600		0	0
Gentian Ward	Clinical - Ward	Acute	580		0	0
Gardenia Ward	Clinical - Ward	Acute	600		0	0
Hospital Street	Common Area	Shared	318	318	318	318
Medical Secretaries/Coding Office	Administration	Shared	642	642	642	642
Cardiology & Lung Function	Clinical - Treatment & Therapy	Acute	754		0	0
Hospital Street	Common Area	Shared	233	233	233	233
Clover Ward	Clinical - Ward	Acute	819		0	0
Chiropody	Clinical - Treatment & Therapy	Community	30	30	30	30
Dieticians	Clinical - Treatment & Therapy	Shared	30	30	30	30
Switchboard	Facilities	Shared	43	43	43	43
On-Call Accommodation	Facilities	Shared	155	155	155	155
Locker Room	Facilities	Shared	26	26	26	26
Medical Records	Administration	Shared	386	386	386	386
Bank & Cashiers	Administration	Shared	35	35	35	35
Hospital Management	Administration	Shared	310	310	310	310
Relatives Accommodation	Administration	Shared	52	52	52	52
Urology Department	Administration	Shared	26	26	26	26
Gardenia Lockers	Facilities	Shared	26	26	26	26
Haematology	Clinical - Treatment & Therapy	Community	39	39	39	39
Haematology Day Care	Clinical - Treatment & Therapy	Community	267	267	267	267
Outpatients	Clinical - Clinics, Outpatients	Acute	1,718	1,718	1,718	1,718
Holly Ward	Clinical - Ward	Acute	600		0	0
Heather Ward	Clinical - Ward	Acute	580		0	0
Intensive Therapy Unit	Clinical - Ward	Acute	535		0	0
Resuscitation Training	Administration	Shared	108	108	108	108
Dental	Clinical - Treatment & Therapy	Shared	35	35	35	35
Cancer Extension	Clinical - Treatment & Therapy	Acute			0	0
Hospital Street	Common Area	Shared	402	402	402	402

Workings for space utilisation calculations (page 2 of 2)

Department	Type	Note	Current	Variant 2a	Variant 2b	Variant 2c
Dahlia Ward	Clinical - Ward	Acute	542		0	0
Juniper Ward	Clinical - Ward	Acute	542		0	0
MRI Building	Clinical - Diagnostics	Acute	172	172	172	172
Iford Chest Clinic	Clinical - Treatment & Therapy	Acute	144	144	144	144
Ambulance Office	Facilities	Shared	59	59	59	59
Medical Secretaries	Administration	Shared	156	156	156	156
Friends Shop	Facilities	Shared	22	22	22	22
Religious Centre & Vol Services	Facilities	Shared	96	96	96	96
Social Workers	Administration	Shared	112	112	112	112
Snack Bar	Facilities	Shared	16	16	16	16
Porters	Facilities	Shared	12	12	12	12
Iris Ward	Clinical - Ward	Acute	622		0	0
Clinical Measurement	Clinical - Treatment & Therapy	Acute	196	196	196	196
Radiology	Clinical - Diagnostics	Shared	892	892	892	892
Accident & Emergency	A&E, WIC, UCC	Primary Care	688	688	688	688
Observation Ward	Clinical - Ward	Acute	484		0	0
Theatres	Clinical - Theatres	Acute	1,245	1,245	1,245	1,245
Day Hospital	Clinical - Treatment & Therapy	Community	726	726	726	726
Hospital Street	Common Area	Shared	318	318	318	318
Walk In Centre	A&E, WIC, UCC	Primary Care	557	557	557	557
Treatment Centre	Treatment Centre	Other	2,523	2,523	2,523	2,523
Energy Centre	Facilities	Shared	143	143	143	143
Special Care Baby Unit	Clinical - Ward	Acute	487		0	0
On-Call Rooms	Facilities	Shared	52		0	0
Ante-Natal Clinic	Clinical - Clinics, Outpatients	Acute	860	860	860	860
Midwifery Offices	Administration	Shared	155	155	155	155
Midwifery Training	Administration	Shared	74	74	74	74
Central Labour Ward	Clinical - Ward	Acute	985		0	0
Elm Ward	Clinical - Ward	Acute	600		0	0
Japonica Ward	Clinical - Ward	Acute	593		0	0
Haematology	Clinical - Treatment & Therapy	Acute	22	22	22	22
Erica Day Ward	Clinical - Ward	Acute	171		0	0
Erica Ward	Clinical - Ward	Acute	409		0	0
Basement	Common Area	Shared	260	260	260	260
Hospital Street	Common Area	Shared	450	450	450	450
HSDU	Facilities	Shared	1,012	1,012	1,012	1,012
Laundry	Facilities	Shared	735	735	735	735
Common Areas saving assumed	Common Area	Shared		-750	-750	-750
Facilities space saving assumed	Facilities	Shared		-1,590	-1,590	-1,590
Administration saving assumed	Administration	Shared		-600	-600	-600
Saving in Outpatients	Clinical - Clinics, Outpatients	Acute		-1,000	-1,000	-1,000
Polyclinic	Clinical - Clinics, Outpatients	Primary Care	0	850	850	850
Rehabilitation and Intermediate Care	Clinical - Ward	Community		1,200	1,200	1,200
Planned Surgery	Clinical - Ward	Acute		1,200	1,200	1,200
Cedar unit chemotherapy	Clinical - Ward	Acute		500	500	500
Enhanced diagnostics, 'hot' clinics	Clinical - Clinics, Outpatients	Acute			150	150
Additional planned surgery	Clinical - Ward	Acute			1,200	1,200
CDC and CAMHS	Clinical - Ward	Community				1,000
Renal Dialysis	Clinical - Clinics, Outpatients	Acute				750
Totals			36,037	21,251	22,601	24,351