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Appendix L
Deloitte Independent
Health & Equalities
Impact Assessment



Securing sustainable NHS services

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# Health and Equalities Impact Assessment – Full Report.

A Final Report

This report has been prepared on the basis of the limitations set out in the engagement letter and the matters noted in the Important Notice from Deloitte on page 1.

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# **Executive Summary**

The Trust Special Administrator (TSA) has been appointed by the Secretary of State for Health to assume control of South London Healthcare NHS Trust (SLHT) and develop recommendations to address '...the long-standing issues at South London Healthcare NHS Trust (and its predecessor Trusts) and the sustainability challenges that are forecast to be facing the wider south east London system in the future' (TSA 2012a). Final Recommendations are being developed by the TSA, following a public consultation (2 November to 13 December 2012) to consider the TSA's draft recommendations (the recommendations) published on 30 October 2012. The recommendations have six key elements:

- Recommendation 1. Increasing the operational efficiency at hospitals currently making up SLHT;
- Recommendation 2. Developing the Queen Mary's Hospital Sidcup (QMS) into a Bexley Health Campus;
- Recommendation 3. Exiting (leases) or selling (freeholds) vacant and poorly utilised premises;
- Recommendation 4. Providing annual additional funds to the local NHS to cover the excess costs of the Private Finance Initiative (PFI) buildings at the Queen Elizabeth Hospital (QEH) and the Princess Royal University Hospital (PRUH);
- Recommendation 5. Transforming service provision in line with commissioning intentions including emergency care, maternity services, elective surgery for complex and non-complex inpatient services; and
- Recommendation 6. Dissolving SLHT to allow other organisations to take over the management and delivery of services.

Deloitte has been engaged by the TSA to undertake a health and equalities impact assessment (HEIA) of the TSA's recommendations. In addition, the TSA requested that three draft options are considered for the transformation of maternity service provision, under recommendation 5. Two of these options were put forward in the TSA's draft report¹ and the TSA has subsequently provided details of a third option. This additional option involves the concentration of obstetrics led maternity services onto four sites, with the addition of a standalone midwifery-led unit at UHL.

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<sup>&</sup>lt;sup>1</sup> Under Option 1 maternity services would be concentrated onto four sites and under Option 2, UHL would continue to provide obstetrics led services, however high risk births would take place at one of the four hospitals co-located with emergency and critical care.

#### The HEIA is split into two phases:

- An initial screening and scoping of potential impact areas to be focussed on within the full HEIA assessment (the initial assessment); and
- The full HEIA, undertaking analysis and engagement of the areas identified in the initial assessment (the full HEIA).

The initial assessment was published alongside the draft TSA recommendations in October 2012. This report comprises the full HEIA which considers the impact of the draft TSA recommendations. The full HEIA does not provide an evaluation of the TSA's final recommendations as the two work streams have been conducted simultaneously. However, it is envisaged that the full HEIA will inform the final recommendations proposed by the TSA.

The depth and breadth of the inputs feeding into this report, including stakeholder engagement, have been limited by the overall TSA timelines, as set out in statute. The timescales for the TSA process are particularly short; the TSA's work has to be completed and the Secretary of State for Health decides what action to take within 150 working days of the TSA being appointed.

#### The full HEIA has been developed based on:

- Stakeholder engagement across patients, groups representing particular protected characteristics and technical experts, such as Directors of Public Health and Transport for London (TfL). This engagement was conducted in dedicated HEIA discussions as well as being informed by wider TSA led consultation events;
- Data analysis conducted to estimate particular impacts. This analysis included considering the TSA's travel time analysis at a more granular level to determine the impacts on particular groups;
- A literature review informing both the particular health care demands of the south east London population and the impacts of different models of healthcare delivery and transformation; and
- The summary results of the public consultation, particularly focussing on the protected groups.

The rationale and principles behind the TSA's proposals have not been challenged in this report. The full HEIA is limited to assessing the impact of the draft recommendations, as detailed by the TSA, on the population and nine protected groups identified in the Equality Act 2010. In addition to these nine protected groups, the impact of the draft recommendations on the economically deprived is also considered.

# Potential positive impacts

The full HEIA has identified a range of potential positive impacts. These impacts have been identified using the available evidence base. However, it should be noted that in some instances, there is not a consensus in the literature around some of the impacts, where relevant this is described in more detail in the full report.

- Emergency and urgent care health outcomes. The TSA recommendations establish that reducing the variation in performance across organisations and weekdays/weekends could save lives and lead to improved health outcomes for people accessing emergency and urgent care. In relation to emergency care, this finding is consistent with recent recommendations made by the College of Emergency Medicine around increasing consultant support in accident and emergency departments (The College of Emergency Medicine April 2010). The economically deprived and elderly populations in south east London could benefit particularly, as larger users of emergency and urgent care.
- Greater focus on community based services. TSA recommendations suggest that commissioners will be able to focus time and resources on delivering improved community based care services. Delivering the NHS south east London community care strategy could reduce hospital admissions, reduce length of stay in hospital and deliver greater care in the home and bring the greatest survival benefits. Stakeholders suggest that this could provide greater benefits to people with disabilities, older people and the Black, Asian and Minority Ethnic (BAME) population in south east London. For example, the BAME population could benefit from better detection and management of diabetes if the strategy is delivered.
- Improved maternity outcomes. If maternity Option 1 or 3 is pursued, concentrating obstetric-led maternity services onto fewer sites could enable greater consultant presence for 24 hours a day, 7 days a week (24/7). Following the London-wide clinical standards could lead to benefits for mothers and babies. This is supported by the Royal College of Obstetricians and Gynaecologists in their standards for consultant labour presence across hospitals. The benefits of 24/7 obstetric-led care could be particularly important for women with high risk pregnancies.
- Patient benefits from non-complex elective procedure centralisation.
   Patients could benefit from the centralisation of non-complex elective procedures, both in terms of health outcomes and patient experience. These benefits could result from the separation of elective and emergency care, including the reduction and elimination of hospital-acquired infections. This could benefit the elderly and BAME groups who are considered to be higher risk. Stakeholders have set out that the South West London Elective Orthopaedic Centre (SWLEOC) has developed as a centre of excellence, delivering good health outcomes and patient

experience. The SWLEOC is based on a similar service model to that which is recommended by the TSA.

# Potential challenges

The full HEIA has identified a range of potential challenges.

- Emergency and urgent care travel time impact. The estimated change in travel time relating to emergency and urgent care service transformation at University Hospital Lewisham (UHL) is positively correlated with BAME, economically deprived and disabled groups. This implies greater travel time impacts in those areas with a greater density of people from these groups.<sup>2</sup> Despite this increase in travel time, blue light transportation to an alternative accident and emergency (A&E) is estimated to be within 30 minutes for 99.9% of the population, based on peak travel times.
- Impact of capacity on patient experience. The TSA recommendations require SLHT, in particular, to make significant efficiency savings. If the savings are not achieved this could compromise available capacity and services, potentially deteriorating patient experience and outcomes.
- Impact on integrated care. Integrated care will be challenged through increased
  movements of patients across hospitals, settings of care and boroughs.
  Stakeholder engagement identified that this is likely to particularly impact older
  people and those with long-term conditions. Safeguarding risks have also been
  identified particularly for vulnerable residents in Lewisham. However, integration
  of care could also be improved if the community care strategy is successfully
  implemented.
- Non-complex elective travel time impact. The movement of non-complex inpatient elective services into the proposed hub at UHL will lead to greater travel times for some patients to receive treatment. This could particularly impact people with disabilities, economically and socially deprived and older people. Further, those supporting patients, such as carers and relatives, could also be impacted. However, it is noted that public transport access to UHL is rated as very good by TfL Public Transport Accessibility Level (PTAL) score. Accessibility to PRUH and QMS, however, is rated as poor.
- Barriers to A&E access. The different services provided at an Urgent Care Centre (UCC) versus an (A&E) department are currently not well understood by patients. This could lead to patients not understanding where to receive the

<sup>&</sup>lt;sup>2</sup> The magnitude of this impact is determined by the assumption around the number of people currently attending A&E and urgent care services at UHL that could continue to be treated by the UCC at UHL. This assumption is being refined by the TSA. This report considers the original analysis set out in the draft recommendations. However, sensitivity testing varying this assumption has also been conducted and is presented in the full report.

appropriate care, a view that has been endorsed by stakeholders. This barrier is likely to be greater for people with learning difficulties, those who do not speak English and the economically deprived.

- Impact on paediatric A&E. The UHL paediatric A&E department, co-located with
  the main A&E department at UHL, appears successful in achieving lower
  admission rates and enhancing patient experience. However, a separate
  paediatric and adult service is not currently identified in the UHL UCC by the draft
  recommendations.
- Reduced maternity choice. If Option 1 is pursued, this could reduce the number of maternity options available to mothers, particularly in Lewisham. The reduction in choice is likely to impact the economically deprived, BAME groups and teenage mothers particularly in the area. There will also be a reduction in patient choice for high risk women under Options 2 and 3 as these women will no longer be able to give birth at UHL.

# Mitigations and enhancements

A number of specific recommendations have been identified to enhance potential benefits and mitigate potential adverse outcomes arising from TSA recommendations.

- Mitigation of physical and geographical impacts. Greater patient flows, particularly to and from Lewisham, may require public transportation to be enhanced. More broadly, transport in London is radial, though buses give links across south east London. Based on initial discussions with TfL, this could include reviewing bus services and looking at options for enhancing transport links if justified by changes in the numbers of journeys. This review could look at extending bus services currently terminating at Lewisham town centre to UHL. These changes could help to improve accessibility, potentially improving PTAL scores, which could be particularly important at QEH, PRUH and QMS. Further, the eligibility for hospital transportation and funding could be considered and the Hospital Travel Cost Scheme (HTCS) more widely publicised.
- Mitigation of potential information barriers. Good information flows will be needed to underpin the transformed health economy. In particular, information will be required to help patients understand where they can receive the appropriate care. This is a particular issue for emergency and urgent care services as there is evidence to suggest that confusion exists over the role of UCCs (Primary Care Foundation 2012). General Practitioners (GPs) in particular and primary care and community health services staff more generally will be important in providing accurate information to their patients. This information should be particularly targeted to those groups with greater difficulties in understanding the changes. This will need to be targeted at particular groups with specific needs, such as people with learning difficulties.

- Enhancement to ensure realisation of benefits. The TSA recommendations
  are based on ensuring that a range of benefits are delivered whilst achieving
  efficiency savings. A critical enhancement of the TSA's recommendations could
  be the establishment of mechanisms to support the delivery of these benefits,
  whilst ensuring sufficient capacity is maintained. This could include regular
  monitoring and binding commitments from organisations in the health economy.
- Enhancement of community based care services and integration. Strong community based care services could enhance and mitigate several impacts, and there is a large opportunity to develop these services. Additional funding to develop these services should be provided by the Department of Health, particularly during the transition to the proposed new steady state. This will be required given the deliverability risks associated with the community based care strategy and other changes such as the move to the Bexley Healthcare Campus.
- Mitigation of paediatric A&E impact. The level of paediatrician support in the
  UHL UCC should be considered to ensure that health outcomes and avoidable
  admissions for this group are maintained or improved. It is also essential to
  ensure that the TSA's final recommendations clarify the arrangements for children
  who would previously have attended the paediatric A&E at UHL.
- Mitigation of emergency admissions impact. To allow the recuperation of
  emergency admissions closer to the community, the TSA should undertake
  detailed modelling and analysis to understand the clinical and financial viability of
  a step-down service which could be developed at UHL to allow short inpatient
  stays. This service could include a small bedded facility, linked to the UCC,
  analogous to the GP-run facilities found in some rural areas. It is understood that
  the TSA is investigating this step-down service.
- Mitigation of maternity health outcomes and patient experience. There is a
  potential deterioration in health outcomes and patient experience if co-located
  midwifery led units are not implemented at each of the proposed maternity
  centres, as recommended by the TSA. There are currently plans to open a colocated midwifery led unit at QEH. It is recommended that plans are also
  developed for King's College Hospital (KCH) to open a further located midwifery
  led unit during the transition period.

# Next steps

The findings from this report have been reviewed by the HEIA Steering Group. This report is submitted to the TSA to help inform the final recommendations. The TSA will need to decide how to incorporate the full HEIA into their final recommendations, to be published in early 2013.

The TSA may consider in greater detail the exact scope of the mitigations and enhancements proposed. This could involve developing greater clarity about the ownership of recommended mitigations and enhancements going forward, and embedding these actions in the relevant public bodies' equality objectives.

### 1 Introduction

South London healthcare NHS Trust (SLHT) was formed on 1 April 2009 through the merger of three small hospital trusts:

- Queen Mary's Sidcup NHS Trust (QMS);
- Queen Elizabeth Hospital NHS Trust (QEH); and
- Bromley Hospitals NHS Trust (BHT)<sup>3</sup>.

Despite being a large Trust with around £400m turnover per annum, SLHT has generated a deficit of £300m in the three years since its establishment.<sup>4</sup> This deficit led the former Secretary of State for Health to place SLHT into the Regime for Unsustainable Providers (UPR). The Trust Special Administrator (TSA) has been appointed to assume control of SLHT, discharging the Trust's duties. In addition to these duties, the TSA has developed independent recommendations to be presented to the Secretary of State for Health, to establish how the south east London health economy can be secured with high quality and sustainable healthcare services.

The TSA published draft recommendations on 30 October 2012 setting out a number of recommendations for SLHT and for the broader south east London health economy (TSA 2012a). These draft recommendations were subsequently consulted on from 2 November 2012 until 13 December 2012. The results of this public consultation will help to shape the TSA's final recommendations. Further, it should be noted:

- The draft recommendations, as provided by the TSA, have been considered in this analysis. Whilst undertaking the full HEIA, Deloitte has engaged with the TSA to understand the development of the draft recommendations. Deloitte has sought to incorporate amendments to the draft recommendations in its analysis, however, given the ongoing refinement of TSA recommendations, an evaluation of the final recommendations is not undertaken in this report. It is envisaged that the full HEIA will feed into the final recommendations proposed by the TSA. A supplementary report addressing any new proposals will be produced if required;
- This impact assessment has not considered other potential transformation options, i.e. other than those set out in the TSA draft recommendations; and
- Some information and data has been sourced from the TSA to ensure a consistent evidence base, specifically this applies to the travel time analysis.

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<sup>&</sup>lt;sup>3</sup> The remainder of this report refers to PRUH, the Princess Royal University Hospital, as this is the primary site that Bromley Hospitals NHS Trust was comprised of.

<sup>&</sup>lt;sup>4</sup> TSA analysis.

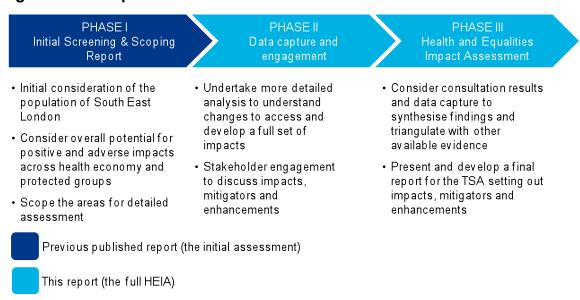
# 1.1 Purpose of this report

Deloitte has been engaged by the TSA to undertake a health and equalities impact assessment (the full HEIA) of the proposed recommendations (the recommendations). The full HEIA aims to:

- Objectively test the potential impacts on general health of the recommendations for the south east London population;
- Determine whether any groups or communities will be impacted disproportionately, paying particular attention to the nine groups with protected characteristics<sup>5</sup>, illustrated in Table 3;
- Specifically consider the impacts of the recommendations in the context of socioeconomic deprivation and carers; and
- Identify recommendations to enhance positive impacts and mitigate negative impacts.

There are three phases to this HEIA, summarised in Figure 1.

Figure 1: Three phases to the HEIA



The initial Phase 1 screening and scoping report (the initial assessment) was published as part of the draft recommendations by the TSA (Deloitte 2012). The initial assessment:

- Set out the high level methodology to be followed in the full HEIA assessment;
- Identified the relevant groups/communities potentially impacted by the draft recommendations; and

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<sup>&</sup>lt;sup>5</sup> As defined in the Equality Act 2010

Developed a set of next steps to undertake a full HEIA assessment.

This report covers Phase II and III, setting out the full HEIA assessment. The full HEIA assessment is based on:

- The initial identification of focus areas:
- Considering the summary consultation;
- Discussions with key stakeholder groups; and
- Significant analytical appraisal of the recommendations, particularly in relation to transport times.

The depth and breadth of the inputs feeding into this report (including stakeholder engagement) have been limited by the overall TSA timelines, as set out in statute. The timescales for the TSA process are particularly short; The TSA's work has to be completed and the Secretary of State for Health decides what action to take within 150 working days of the TSA being appointed.

It is also acknowledged that there are some areas which are being considered outside of the recommendations or yet to be defined and are not considered in this study. These include for example the South London and Maudsley NHS Foundation Trust Ladywell unit of the University Hospital Lewisham (UHL).

# 1.2 Structure of this report

This report is structured as follows:

- Section 2 sets out the initial assessment findings, amendments and TSA recommendations;
- Section 3 establishes the methodology employed to undertake this HEIA;
- Section 4 establishes any cross cutting impacts, considering the population at large;
- Section 5 provides more detail on the protected characteristics, supplementing the initial assessment;
- Section 6 considers the impacts from urgent and emergency service changes at UHL;
- Section 7 considers the impacts from the maternity service changes at UHL; and
- Section 8 considers the impacts from the elective and community service changes.

# 2 The initial assessment and TSA recommendations

This section summarises the initial assessment, providing details of where the scoping and screening has been altered following stakeholder discussions. Further, the draft TSA recommendations have been reproduced.

# 2.1 Summary of the initial assessment

The initial assessment set out a number of impact areas to be considered in the full HEIA. Based on stakeholder discussions the impact areas have been renamed to ensure there is a clear understanding of the impacts. A summary of the changes to the impacts is provided in Table 1.

Table 1: Stakeholder suggested changes to impact names

Term used in Phase 1 Scoping Report	New name following stakeholder engagement
Patient outcomes	Health outcomes
Travel considerations	Physical and geographical barriers
Psychological barriers	Other barriers
Integrated pathways	Integrated care
Care closer to the home	Community Based Care

Source: Deloitte Analysis based on stakeholder discussions

In addition, a further direct impact has been included accounting for the potential changes to NHS staffing as a result of the recommendations. The assessment of the impact on staffing has been considered based on the available information at the time of writing the report. It is anticipated that further analysis of these impacts will be required once further workforce modelling is conducted. The final impact areas which are considered in the remaining report are reproduced in Table 2.

Table 2: Scoping of potential impact areas

Potential impact areas	Degree of scope	Example impact to be tested	Suggested areas for full HEIA assessment
Health outcomes	High	<ul> <li>Greater development of acute standards and the application of standardisation across the health economy, could be supported through the proposed recommendations achieving greater stability</li> </ul>	<ul> <li>Further consideration by specialty and sub-specialty</li> <li>Key services moving location</li> </ul>
Community Based Care	Medium	<ul> <li>Securing the long term sustainability of services may enable an increased focus on community healthcare services</li> <li>Commissioners have highlighted their intent to focus</li> </ul>	Understand the interrelationships between the proposed transformation and the impact this could have on Community Based Care

Potential impact areas	Degree of scope	Example impact to be tested	Suggested areas for full HEIA assessment
		on community based care particularly for the older people and people with long term conditions	
Patient experience	Medium	<ul> <li>Potential for increased pressure on service capacity at certain hospital sites, impacting patient experience</li> <li>Potential psychological impact on patient experience through lack of continuity</li> </ul>	Stakeholder engagement to understand perceived impact on quality/patient experience as a result of transformation
Physical & geographical barriers	Medium	<ul> <li>Increased travel times for some non-elective services and elective services</li> <li>Particular impacts for electoral wards in Lewisham from changes around non-elective services</li> <li>Further detailed analysis required to determine the materiality of the impacts</li> </ul>	Further detailed travel analysis to understand more fully the travel access implications
Integrated care	Medium	<ul> <li>Development of QMS as a health campus could assist with pathway integration</li> <li>Consider mitigations in the HEIA around developing plans to ensure current pathways are not adversely impacted by service and organisational change</li> </ul>	Wider assessment of key pathways likely to be impacted
Other barriers	Medium	<ul> <li>Potential increases in the complexity of journeys by patients</li> <li>Changes in the organisations and services delivered could reduce patients accessing the appropriate services</li> </ul>	<ul> <li>Stakeholder engagement to understand the scale of barriers</li> <li>Potentially identify relevant mitigators</li> </ul>
Patient choice	Low	Patient choice for elective care could be marginally reduced due to the transformation of services and organisations	<ul> <li>Consulting stakeholders on the perceived changes in choice</li> <li>Travel analysis to understand actual level of choice.</li> </ul>
Staff impacts	Medium	<ul> <li>Area not considered in the initial assessment but identified as important subsequently</li> </ul>	Considered in this report

Source: Deloitte Analysis (Deloitte 2012) amended for stakeholder discussions

The initial assessment also undertook a scoping of the protected characteristics defined in The Equality Act 2010, reproduced in Table 3. Based on stakeholder feedback, the importance of the characteristic 'race' has been increased to High. This change in

scoping reflects stakeholder's views that, particularly in Lewisham and Greenwich, these groups could be differentially impacted by the recommendations.

Table 3: Scoping of potential impact areas across protected groups

Protected group	Degree of scope	Example impact to be tested	Suggested areas for full HEIA assessment
Age	High	Potential impact on access to A&E services for older people	Analysis of the age profile for services which the recommendations propose to transform
Disability	High	<ul> <li>Possible transport constraints and increased travel time for this group, potential for increased CCH service to mitigate these impacts</li> </ul>	Will need to analyse whether people with disabilities materially use the services with greater proposed changes
Race	High	Changes to access to some services potentially demanded more from BAME groups	More detailed appraisal of which services are consumed by BAME groups and incidence of particular conditions within groups
Pregnancy and maternity	High	A change to the model of delivering pregnancy and maternity care at UHL could impact this group, but this could lead to improvements in quality due to increased consultant-delivered care	<ul> <li>Consider in more detail the proposed changes to pregnancy and maternity services including positive and negative impacts, including impact on quality and choice</li> </ul>
Gender	Low/ Medium	<ul> <li>Transformation of services could have a gender specific impact, depending on patient profile for particular services</li> </ul>	Understand changes in services for gender-specific conditions
Religion	Low	<ul> <li>Cultural sensitivity of particular hospitals, e.g. UHL</li> </ul>	Challenge and triangulate with a broader set of stakeholders
Sexual orientation	Low	<ul> <li>No material impacts over and above existing prejudice and/or discriminatory attitudes have been identified at this stage</li> </ul>	Challenge and triangulate with a broader set of stakeholders
Gender reassignment	Low	<ul> <li>No material impacts over and above existing prejudice and/or discriminatory attitudes have been identified at this stage</li> </ul>	Challenge and triangulate with a broader set of stakeholders

Protected group	Degree of scope	Example impact to be tested	Suggested areas for full HEIA assessment
Marriage & civil partnerships	Low	No material impacts have been identified at this stage	<ul> <li>Challenge and triangulate with a broader set of stakeholders</li> </ul>

Source: Deloitte Analysis (Deloitte 2012) amended for stakeholder discussions

#### 2.2 Recommendations

The TSA's draft recommendations for the transformation of services across south east London are reproduced below.

'The draft recommendations ... propose a response to the long-standing issues at South London Healthcare NHS Trust (and its predecessor Trusts) and the sustainability challenges that are forecast to be facing the wider south east London system in the future. The recommendations are set in the context of the need to move towards a model of healthcare that ensures continued improvement in life expectancy and quality of life while addressing the challenges of an ageing population, the growth in the number people with long term conditions and constrained levels of funding to the NHS. Only through a response to all of these dimensions can safe, high quality, affordable health services be secured for the population of south east London in a sustainable way.

The scale of change required both in the Trust and across the wider health economy is significant and cannot be delivered instantly. A three-year transformation programme is recommended. Through this, the NHS in south east London will be able to deliver services within the resources available by the end of the financial year 2015/16. At this point of the UPR process, it is proposed that the transformation programme has six elements to it:

- Recommendation 1: The operational efficiency of the hospitals that make up South London Healthcare NHS Trust needs to improve so that the Trust's costs are in line with strong performing NHS organisations.
- Recommendation 2: Queen Mary's Hospital Sidcup should be developed into a
  Bexley Health Campus providing a range of services to the local population,
  including day case elective surgery, endoscopy and radiotherapy. The facility
  should be owned by Oxleas NHS Foundation Trust and services should be
  provided by a range of organisations.
- Recommendation 3: Vacant and poorly utilised premises should be exited (leases) or sold (freeholds). The NHS should engage with the local authorities in Bromley and Bexley in the process of selling surplus estate to ensure its future use maximises regeneration opportunities.
- Recommendation 4: On an annual basis until the relevant contracts end, the Department of Health should provide additional funds to the local NHS to cover

- the excess costs of the PFI buildings at Queen Elizabeth Hospital and Princess Royal University Hospital.
- Recommendation 5: In line with commissioner intentions to improve the quality of care for the local population, there should be a transformation in the way services are provided in south east London. Specifically, changes are recommended in relation to community-based care and emergency, maternity and elective services:
  - The community-based care strategy for south east London should be implemented to deliver improved primary care and community services in line with the aspirations in the strategy. This will enable patients to receive care in the most appropriate location, much of which will be closer to, or in, their home.
  - Emergency care for the most critically unwell patients should be provided from four sites King's College Hospital, St Thomas' Hospital, Queen Elizabeth Hospital and Princess Royal University Hospital. Alongside this, services at University Hospital Lewisham, Guy's Hospital and Queen Mary's Hospital Sidcup will provide urgent care for those that do not need to be admitted to hospital. Emergency care for those patients suffering from a major trauma (provided at King's College Hospital), stroke (provided at King's College Hospital and Princess Royal University Hospital), heart attack (provided at St Thomas' Hospital and King's College Hospital) and vascular problems (provided at St Thomas' Hospital) will not change from the current arrangements.
  - There are two options under consideration to ensure that a high quality of care is provided for women needing to be in hospital during pregnancy and for women when giving birth. Obstetric-led deliveries could be centralised in line with critical emergency care across King's College Hospital, St Thomas's Hospital, Queen Elizabeth Hospital and Princess Royal University Hospital; alternatively, there could also be a 'stand-alone' obstetric-led delivery unit at University Hospital Lewisham. All other maternity care will continue to be provided in a range of locations across south east London.
  - Elective surgery day cases should continue to be provided at all seven main hospitals in south east London; but there should be two dedicated elective centres for inpatient services, one at University Hospital Lewisham for noncomplex cases (such as hip and knee replacements) and one at Guy's Hospital for specialist and non-complex cases (such as complicated operations for major cancers). In addition to this, complex procedures will be delivered at Kings' College Hospital, St Thomas' Hospital, Queen Elizabeth Hospital and Princess Royal University Hospital to ensure immediate access to appropriate clinical support services. Outpatient services should be delivered from a range of local locations.

- Recommendation 6: In order to deliver this transformation programme, South London Healthcare NHS Trust should be dissolved and other organisations should take over the management and delivery of the NHS services it currently provides. In addition to the proposals for Queen Mary's Hospital Sidcup outlined above:
  - The Queen Elizabeth Hospital site should come together with Lewisham Healthcare NHS Trust to create a new organisation focused on the provision of care for the communities of Greenwich and Lewisham.
  - There are two options for Princess Royal University Hospital. The first is an acquisition by King's College Hospital NHS Foundation Trust, which would enable the delivery of service change, enhance the services offered at the site and strengthen the capacity of the site to deliver the necessary operational improvements. This is the preferred option at this stage. However, an alternative option is to run a procurement process that would allow any provider from the NHS or independent sector to bid to run services on the site.
  - It is important that these new organisations are not saddled with the issues of the past. To this end, it is recommended that the Department of Health writes off the debt associated with the accumulation of deficits at South London Healthcare NHS Trust. By 31 March 2013, this is estimated to be £207m.

Taken together, this proposed set of actions should improve outcomes for patients, resolve the financial issues within South London Healthcare NHS Trust and, more broadly, secure financial sustainability across the wider health economy. However, delivering this is a considerable task that will require strong leadership and implementation capacity. Further analysis will be undertaken to define the transition and implementation requirements before completion of the final report in January 2013 and in conjunction with the consultation process. However, it is already clear that transitional support will be required to allow time to implement change.'6

The draft recommendations propose two options for the transformation of maternity services in south east London. However, the TSA has subsequently provided details of a third option that is under consideration. The full HEIA considers each of the three maternity options. These are outlined below.

 Option 1. This involves a centralisation of obstetric-led deliveries in line with critical emergency care at KCH, PRUH, QEH and STH. Additionally, ante-natal and outpatient maternity services, for example check-ups and scans, would continue to be provided at UHL. However, no deliveries would take place at UHL.

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<sup>&</sup>lt;sup>6</sup> The TSA, 2012

Under this option, obstetric-led maternity care would be provided in four locations across south east London.

- Option 2. Under this option it is envisaged that there would be a stand-alone obstetrics-led maternity service at UHL. Ante-natal and outpatient maternity services would continue to be provided at UHL (as in Option 1). Additionally, midwife led delivery and low risk obstetric led delivery would also take place at UHL. Under this option, obstetric-led maternity care would be provided in five locations across south east London, albeit with only the low risk at UHL.
- Option 3. This involves a centralisation of obstetric-led deliveries in line with critical emergency care at King's College Hospital (KCH), PRUH, QEH and St. Thomas' Hospital (STH). Additionally, under this option it is envisaged that there would be a stand-alone midwifery-led maternity service at UHL, similar to certain maternity models observed in other parts of the country. Ante-natal and outpatient maternity services would continue to be provided at UHL (as in Option 1).

From the HEIA perspective, the service changes set out in the recommendations are of particular importance. The direct changes to services in hospital care recommended are summarised across UHL, PRUH, QEH, QMS, KCH, STH and Guy's Hospital (GH) in Figure 2.

Key to service area **Emergency and urgent care** Service offered Fully admitting A&E Service previously offered Urgent care centre Service added 24/7 surgical emergency admissions Major trauma <sup>1</sup> Non-admitting Hyper acute stroke Heart attack Emergency vascular Critical care unit 24/7 emergency medicine Maternity Option 1 - 4 hospital sites Obstetrics led deliveries (co-located) Ante-natal/post-natal outpatient Maternity Option 2 - 5 hospital site Obstetrics led deliveries (co-located) Ante-natal/post-natal outpatient Maternity Option 3 - 5 hospital sites Obstetrics led deliveries (co-located) Standalone midwifery-led unit (low risk) Ante-natal/post-natal outpatient Elective care Non-complex elective care Non-complex elective care day case Complex inpatient surgery Outpatients and diagnostics

Figure 2: Summary of service changes and provision

Source: TSA recommendations

This report is structured around the direct service changes outlined in the recommendations. Changes for specific equality characteristics are described in reference to each of the three areas:

- · Emergency and urgent care;
- Maternity care; and
- Elective care.

The recommendations also have particular implications for community services. These changes to community services are examined within the context of the more direct service changes, particularly how they provide mitigations and enhancements to some of the direct service changes.

Broader impacts from the other recommendations are also considered in this report across the impact areas.

# 3 Methodology

This HEIA has been undertaken based on a defined framework as well as through stakeholder discussions and drawing on summary consultation responses. Further, as established in the initial assessment, the HEIA has drawn on both the Department of Health Guidance (Department of Health July 2010) and the Gothenburg Consensus (European Centre for Health Policy 1999).

# 3.1 Framework for impact analysis

The impacts of the recommendations are both direct and indirect: direct effects result from service changes recommended by the TSA; whereas indirect effects are the result of changes to behaviours, which then in turn impact on services. This distinction is important as some of the recommendations are creating the conditions in which positive future changes can be better facilitated.

The overall framework for considering these impacts is summarised in Figure 3. The framework separates between levers, impacts and mitigations and enhancers. The levers relate to changes in the system resulting in impacts which, if positive, could be enhanced, or if negative mitigated against.

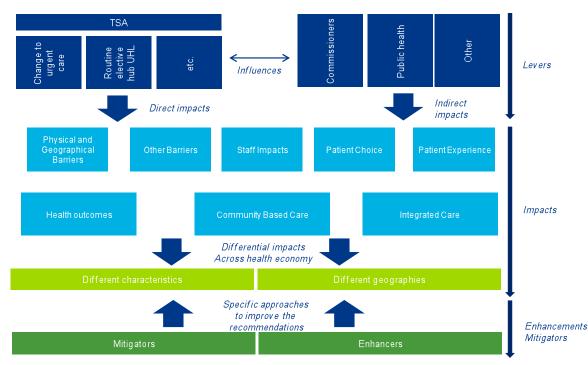


Figure 3: Impact framework

Source: Deloitte Analysis (Deloitte 2012) amended from stakeholder discussions

# 3.2 Data analysis

This section provides a summary of the analysis that has been undertaken to inform the HEIA. A detailed discussion of the analysis is provided in Appendix F. The data analysis

comprises three main strands: patient level analysis, provider level analysis and travel time analysis.

### 3.2.1 Patient level analysis

Patient level analysis is conducted to determine the impact of the TSA recommendations on particular groups within the population. The analysis is carried out at the Lower Layer Super Output Area (LSOA)<sup>7</sup> for each of the three major service changes: accident and emergency, maternity and elective services. Population groups have been identified along several dimensions including health needs, age, race and economic and social deprivation on the basis of their propensity to use services that the recommendations propose to transform. The analysis is conducted using publicly available data and data provided by the TSA. Where possible large national datasets are used, such as the neighbourhood statistics published by the Office of National Statistics (ONS).

#### 3.2.2 Provider level analysis

Provider level analysis is undertaken to understand the variation in performance across providers and the extent to which this could impact health outcomes and patient experience, as patient activity flows are changed. For example, clinical quality indicators are considered for each of the three main service groups in order to understand how clinical standards vary across hospitals and the potential impact of this post transformation. This analysis, although informative, needs to be seen in the context of the recommendations actually leading to changes in the quality of care. Where possible, recent literature has been drawn on to help inform the understanding of the impacts.

Service transformation resulting from the recommendations is accompanied by a change in activity levels across hospitals due to changes in patient flows. These changes in turn impact capacity and costs, all of which are analysed to help inform potential changes to provider performance.

### 3.2.3 Travel analysis

Travel analysis is undertaken to ascertain the possible impact on journey times for patients that are affected by the transformation. This analysis has been undertaken at the LSOA level and considers the change in travel time based on a variety of modes of transport.

The underlying travel times from point to point have been provided by the TSA, as set out in our scope of work. It is understood from the TSA that travel information, across all modes, is estimated based on peak times in the morning. This is described in more detail in Appendix F.3.

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<sup>&</sup>lt;sup>7</sup> LSOAs are a sub-ward geography averaging approximately 1,500 people.

This report also considers changes to journey complexity. One measure considered was the number of journey changes on public transport required. Unfortunately, existing travel time tools do not provide a simple method by which this information can be extracted for a large number of postcodes. As such, working with TfL, a proxy for travel complexity has been developed. This proxy involves dividing the travel times by the straight line distances between LSOAs and hospitals. The limitations of this measure are acknowledged, however, it does provide some information about journey complexity.

### 3.2.4 Blue light travel time analysis

The analysis of blue light travel times presented in this report is based on data provided by the TSA. Through the course of this project, concerns have been raised over the results of this analysis. In particular, it has been mentioned that the blue light travel times presented in this report appear to be higher than and inconsistent with blue light travel times presented in previous consultations, for example over stroke service transformation.

This discrepancy has been identified by the TSA to be explained by the different methodologies employed across the various analyses. The analysis of blue light travel times in this report is based on peak travel times and these estimates are therefore 'worst-case' estimates. However, the blue light estimates presented in the stroke service transformation were based on average drive times. These estimates were sourced using the 'MapInfo' drive time tool.

Given these differences, a direct comparison cannot be made between the blue light travel times presented in this report and the travel times estimated in previous consultations.

# 3.2.5 Activity assumptions

The analysis of emergency and urgent care activity presented in this report is based on the assumption that 77% of people currently attending A&E and urgent care services at UHL could continue to be treated by the UCC at UHL. This assumption was proposed in the TSA's draft recommendations. It is understood, however, that this assumption may be revised downwards based on new information. The revised assumption was not available at the time of writing this report; as such a sensitivity analysis around the relevant impacts is conducted and reported in Appendix C.3 looking at an assumption of 50% of activity being retained at the UCC, instead of 77%

#### 3.3 The counterfactual

It is necessary to have a reference point against which the impacts of the TSA recommendations can be considered. This is known as the 'counterfactual'. The counterfactual allows a comparison of the scenario post the recommendations, against a scenario in which these do not proceed, thus identifying the impacts.

The rationale for the application of the UPR is identified by the Department of Health as 'a long-standing history of underperformance, particularly around financial management and access standards, and a consistent inability to deliver high quality services whilst balancing income with expenditure' (Department of Health July 2012). This rationale suggests a potential counterfactual of a deterioration of financial position, inducing the paying off of old debt, with potentially clinical quality being rationed through these constraints. Although this scenario could be considered in the counterfactual, this report has adopted the current position within the health economy as the relevant yardstick against which the impacts are considered. This provides a more objective and measurable yardstick which could be seen as more conservative.

However, it is worth highlighting that the current position is neither stable nor sustainable for any time with the unplanned collapse of services being a distinct possibility.

This choice of yardstick also means the potential health benefits from the reduction of the PFI burden and debt are not considered in this appraisal. It is acknowledged that these benefits could be material.

#### 3.4 Literature review

In order to inform the full HEIA, a review of relevant academic and health literature was undertaken. Input from public health experts was also sought in order to identify appropriate literature, datasets and other publicly available information. It is however, important to note that the depth and breadth of the inputs feeding into the literature review have been limited by the overall TSA timelines, as set out in statue. The timescales for the TSA process are particularly short; the TSA's work has to be completed and the Secretary of State for Health decides what action to take within 150 working days of the TSA being appointed.

# 3.5 Stakeholder engagement

Stakeholder engagement was undertaken as part of developing the full assessment, the engagement aimed to:

- 1. Test the methodology used in the HEIA and the initial findings;
- 2. Gather additional qualitative information to contribute to the HEIA; and
- 3. Provide key stakeholders a voice in the HEIA process.

The first stage of the stakeholder engagement involved establishing contact with technical experts who could test and validate our approach to engaging with protected groups. Examples of experts engaged with included Directors of Public Health, Equality and Diversity Leads in Primary Care Trusts, Local Authorities and TfL. These experts helped to provide useful insight into the potential health and equality impacts and

provide insights into local demographics in south east London and health services consumed.

The second stage of the stakeholder engagement involved establishing contact with groups and organisations to gather qualitative information to contribute to the full assessment. The main focus of this stage was to engage with groups identified in the initial scoping report as being impacted by the changes and groups identified under the protected characteristics for this piece of work. To achieve this engagement, a long list of stakeholders was developed based on the protected characteristics and engagement with the TSA Team (PPI Advisor and Communications). This list was refined based on the initial assessment and with the TSA Team to focus effort on particular groups in boroughs. This refinement was necessary due to the limited timeframe available for stakeholder engagement.

The Local Involvement Networks (LINks), across the six boroughs, were used as the primary mechanism for contacting protected and community groups to engage with. The engagement with groups involved a variety of:

- One on one meetings;
- · Workshops; and
- Presentations.

Table 4 summarises the engagement activity undertaken:

Table 4: Engagement undertaken

Engagement undertaken	Technical Experts	Community/Protected Groups
Established Contact	15	48
Meeting held	10 <sup>A</sup>	16
Declined to participate <sup>8</sup>	2	8 <sup>B</sup>
No response	3	24 <sup>C</sup>

Source: Deloitte. <sup>A</sup>Including the HEIA Steering Group. <sup>B</sup>Excluding the six LINks group contacted. <sup>C</sup>Excluding 400+ groups contacted through Links

The level of stakeholder engagement for the HEIA was limited by the availability of stakeholders at short notice and the overall deadlines for the engagement to take place. However, where possible the HEIA engagement was supplemented by the wider TSA consultation process.

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<sup>&</sup>lt;sup>8</sup> The reasons for community groups declining to participate related to lack of resource to facilitate a meeting, meetings not being held in the assessment time frame and/or the group did not feel sufficiently informed about the changes to contribute constructively.

# 3.6 Consultation inputs

Deloitte has considered IPSOS MORI's draft report on responses to the TSA's public consultation. Given the time available from the end of the consultation to the submission of the full HEIA to the TSA, this report has focused on identifying additional impacts on protected groups identified in the IPSOS MORI report. Further, Appendix H presents some descriptive analysis of certain consultation questions, particularly those relating to service changes, under recommendation 5. Reference should be made to IPSOS MORI's report for an assessment of responses to the TSA's public consultation.

# 4 Impacts on all service users

This section considers the impacts of the TSA's draft recommendations on health care service users in south east London. As outlined in Section 3.1, there are a number of potential impacts resulting from the TSA's recommendations. Some of these are direct impacts resulting from changes to service delivery; for example, shifting of services from one location to another. However there are also indirect impacts, for example the interface between the TSA recommendations and commissioners' intentions, enabling commissioners to place emphasis on particular community based services.

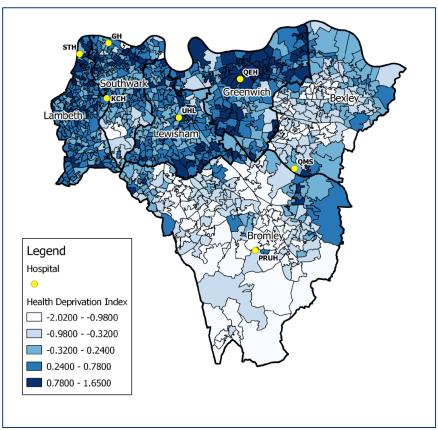
This section does not consider the extent to which TSA recommendations have a differential impact on particular protected groups, analysis of which is presented in Sections 6, 7 and 8; it explores the mechanisms through which TSA recommendations could have an impact on all service users. Before considering the impacts of the transformation, a more detailed review of the current health needs for south east London has been undertaken, based particularly on the relevant Joint Strategic Needs Assessments (JSNAs).

Stakeholder views presented in this section are drawn from the stakeholder engagement that was undertaken as part of the HEIA process, unless otherwise stated. For a detailed analysis of the responses to the TSA's public consultation reference should be made to IPSOS MORI's report.

#### 4.1 Health needs

The initial assessment considered the Department of Health Unified Needs Index and ONS neighbourhood statistics to understand, at a high level, the relative demands of the population. Based on 2010 information at an LSOA level on health deprivation, a more detailed appraisal of health demand can be made. The Health Deprivation Index (HDI) is calculated based on considering years of potential life lost, comparative illness and disability, acute morbidity and the proportion of adults under 60 suffering from mood or anxiety disorders (Communities and Local Government March 2011), with a higher value denoting a higher degree of deprivation. Figure 4 maps the LSOAs of south east London by their HDI scores.

Figure 4: HDI by LSOA



Source: Deloitte analysis based on information from ONS (2010)

This analysis supports the findings of the initial assessment. Specifically, there are high levels of health deprivation particularly in Lambeth, Southwark, Lewisham and Greenwich but with some pockets of deprivation in Bexley and Bromley.

In terms of the specific challenges across south east London, the JSNAs and Health and Wellbeing Board strategies give particular prominence to a range of challenges. These challenges vary across and within the boroughs. For example, in Bromley dementia is identified in the JSNA (NHS Bromley 2011), potentially driven by the older population, whilst Lambeth has the highest prevalence of HIV in the country (Lambeth Directorate of Public Health June 2012).

The south east London commissioning cluster has identified, in its commissioning strategy for 2012/13 to 2013/15, a number of the most significant local health challenges across the health economy. The cluster has also established a number of ways to mitigate against these challenges (NHS South East London 2011).

- Cancer. Mitigate through London wide programmes, for example smoking cessation, reducing alcohol misuse and screening.
- Stroke and cardiovascular disease. Mitigate through integration of care between different settings of care and the implementation of the agreed pathways for

stroke and cardiovascular services, through the south east London Stroke and Cardiac Network.

- Long Term Conditions (including diabetes, chronic obstructive pulmonary disease and HIV). Mitigate through the integration of care and productive care; specifically, reducing admissions and attendances and providing a 'localised model for routine healthcare' closer to the home.
- Mental Health. Mitigate through integrating care. Examples include designing the older people care pathway to be more integrated with mental health, developing primary care and expanding Improving Access to Psychological Therapies (IAPT) programmes.
- Healthy Living. Mitigate through the promotion of healthy living.

A recent report on health inequalities in London also helps to identify the health inequalities by borough across a range of key indicators (Baker, et al. 2011). This report shows that boroughs in south east London have statistically significant health inequalities, as summarised in Table 5. The TSA recommendations are considered with these inequalities in mind.

Male life expectancy at birth (years)

Female life expectancy at birth (years)

Male disability-free life expectancy (years)

Female disability-free life expectancy (years)

Children achieving a good

Table 5: Health inequalities identified

level of development at age 5

Young people not in employment, education or

People in households in receipt of means-tested

training (%)

benefits (%)

(%)

Source: Green illustrates statistically significantly better, red statistically significantly worse than England average and grey is statistically insignificant.

In addition to current health needs, it is important for the TSA to consider future health needs in defining its service transformation plans. In particular, it is important to account for population growth and changes in the demographic composition of the population of south east London. Whilst it is difficult to ascertain future population levels with great accuracy, estimates are available. The Greater London Authority (GLA January 2012) projects a population increase of between 36% and 54% between 2006 and 2031 in

parts of south east London such as Greenwich. However, estimates for Croydon and Bromley suggest low levels of population growth in these areas. An ageing population is also likely to impact future health needs. The older population is projected to grow by 16% in Bromley between 2006 and 2031, thus potentially exacerbating current challenges around dementia, identified in Section 4.1.

#### 4.2 Health outcomes

There will be an impact on health outcomes resulting from the change in service delivery following the TSA recommendations. The key changes are likely to result primarily from the service changes in emergency and urgent care, maternity and elective services. There are also potential changes to health outcomes deliverable in primary care and the community. Table 6 summarises some of the key health outcomes measures for these services across the relevant hospitals in south east London.<sup>9</sup>

**Table 6: Selected quality statistics** 

	A&E re- attendance <sup>10</sup> rate <sup>1</sup>	Maternity ratio of births to midwives <sup>2</sup>	Elective median time <sup>11</sup> waited <sup>3</sup> (days)
UHL	7%	30.5	N/A
GST	7%	27.2	36
KCH	3%	26.6	35
SLHT	6%	34.0	42

Source: <sup>1</sup>HES (2012a), <sup>2</sup>HES (2011a), <sup>3</sup>HES (2012b)

# 4.2.1 Emergency and urgent care

The TSA anticipates that its recommendations will allow hospitals to meet the London clinical care standards in emergency care, leading to a number of quality benefits. Specifically, the TSA establishes five core benefits from achieving the clinical standards:

- Reducing the variation in mortality rates across south east London hospitals between weekdays and weekends could lead to 100 fewer deaths every year;
- 2. Bringing consistency to service arrangements across hospitals could lead to the above reduction in the number of deaths per year;
- 3. Reducing variation of consultant cover for acute admissions, particularly over the weekend;

<sup>&</sup>lt;sup>9</sup> These measures are a combination of quality indicators and clinical standards.

<sup>&</sup>lt;sup>10</sup> Estimated based on the number of re-attendances within 7 days of a previous attendance at A&E divided by the total number of attendances in A&E HES. Yearly averages have been calculated using HES monthly data.

<sup>&</sup>lt;sup>11</sup> Time elapsed between decision to admit and admission time.

- 4. Reducing the variation in available skilled senior staff could reduce mortality and morbidity if patients are treated laparoscopically by specialist surgeons; and
- 5. Reduce unnecessary paediatric admissions to hospital, as senior decision makers are available.

These benefits could be significant if they can be delivered as part of the transformation. It should also be noted that these benefits are consistent with the College of Emergency Medicine's view that there is a growing body of evidence around the benefits of consultant presence in A&E departments (The College of Emergency Medicine April 2010) and consultant delivered care (Academy of Medical Royal Colleges 2012). Further, based on a correlation analysis, the Royal College of Physicians finds that for acute admissions, hospitals in which consultants have no other fixed clinical commitments while on acute, had a lower adjusted case fatality rate (Royal College of Physicians 2012).

In terms of research on the impact of scale on outcomes in emergency care, it is difficult to identify existing research which robustly identifies a causal relationship between the scale of hospitals and outcomes. This difficulty is particuarly driven by the differences in reconfiguration between current A&E departments in south east London and those investigated in the literature. For example, in south east London some service areas, including stroke and major trauma, are already centralised. In order to investigate the relationship between scale and outcomes a specific study would be required accounting for the movement of these services. The importance of adjusting for patient mix has also been highlighted in previous studies into hospital volumes and health outcomes (Effective Healthcare 1996).

# 4.2.2 Maternity services

Previous studies have identified issues around maternal outcomes in London, including levels of excess mortality. As identified by a survey carried out in 2007 by the Healthcare Commission, some maternity units in London are not performing well with 19 out of 27 classified as 'least well performing,(Commission for Healthcare Audit and Inspection 2008). As such, a clinical expert panel has devised a set of minimum quality standards for births taking place in London. None of the hospitals in south east London currently meet all of these standards. The impact on health outcomes under the three proposed maternity options is outlined below.

Option 1. The TSA anticipates that the recommendations under Option 1 will
enable hospitals to the meet the clinical quality standards in maternity care, which
will deliver enhanced health outcomes to patients. In particular, this will benefit
women with high risk pregnancies. Under this option, critical mass of deliveries
may be achieved, thus justifying 168-hours (24/7) consultant presence. The TSA
believes that 168-hours (24/7) consultant labour ward presence will reduce risk to
mothers and babies and improve health outcomes (TSA 2012a). The benefits

associated with increased consultant presence on labour wards are identified by the Royal College of Obstetricians and Gynaecologists in their standards for consultant labour presence across hospitals (Royal College of Obstetrics and Gynaecologists; Royal College of Midwives; Royal College of Anaesthetists; Royal College of Paediatrics and Child Health 2007). Whilst there is evidence to suggest concentrating obstetric units onto fewer sites is associated with positive health impacts, this is by no means conclusive and is an issue which is debated in the relevant literature (Macfarlane 2008).

- Option 2. Under this option, low risk births will continue to be delivered at UHL and a significant impact on health outcomes is not identified for these births. However, there is a potentially negative impact on health outcomes if complications arise during labour and women must be transferred to one of the obstetric-led units co-located with emergency and critical care. Additionally, there are concerns around the sustainability of appropriate levels of staffing in Option 2. Certain stakeholders have suggested that under Option 2 of the TSA's proposed maternity service transformation it may be difficult to meet the 24/7 senior staffing requirements across maternity centres in south east London, thus potentially negatively impacting on all mothers. This could have a disproportionate impact on high risk births.
- Option 3. Under Option 3, high risk births will be delivered at one of the four obstetric-led maternity units co-located with emergency and critical care (KCH, PRUH, QEH, STH). The impact on these births is considered under Option1 and no additional impacts are identified. For low risk births, there are potential benefits in terms of health outcomes; midwife-led care is associated with improved birth experience for mothers and fewer interventions, as discussed in the Birthplace Study (Birthplace in England Collaborative Group 2011). However, concerns have been raised over the staffing requirements of a stand-alone midwife-led unit at UHL, which would have to be led by senior midwives, thus depriving other centres of their expertise. This could impact health outcomes for higher risk women.

#### 4.2.3 Elective services

The TSA identifies two main benefits related to elective service transformation (TSA 2012a)<sup>12</sup>:

1. No last minute cancellations by hospitals for non-clinical reasons<sup>13</sup> due to separation of elective and emergency activity; and

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<sup>&</sup>lt;sup>12</sup> These two potential benefits have been debated by stakeholders (including the HEIA Steering Group), with no overall consensus being reached

<sup>&</sup>lt;sup>13</sup> Last minute cancellations are often experienced in locations which provide both emergency and elective services, when emergency care takes priority over planned care.

2. There will be a reduction in waiting times, meeting the pledge to patients in the NHS constitution.

There is research suggesting that separating emergency and elective services can prevent the admission of emergency patients, both medical and surgical, from disrupting planned activity and vice versa, thus minimising patient inconvenience and maximising productivity for the Trust (The Royal College of Surgeons of England 2007). This research suggests that health outcomes may be enhanced by the transformation of noncomplex inpatient elective procedures; A&E services will no longer be provided at UHL<sup>14</sup> which removes the possibility of emergency patients disrupting planned activity. Separating emergency and elective services can also lead to a reduction in hospital-acquired infections through avoiding admissions from the emergency department and transfers from within/outside the hospital (The Royal College of Surgeons of England 2007).

Additionally, stakeholders have mentioned that the South West London Elective Orthopaedic Centre (SWLEOC) which has developed as a centre of excellence, and analogous to the proposed model, is associated with improvements to health and patient outcomes.

There is also research considering the relationship between procedure volumes and health outcomes for elective surgery. A literature survey (Murray and Teasdale 2005) highlights the fact that the volume-outcome relationship seems extremely clear for high risk procedures. This relationship is not as evident for routine operations but, it is still present. As such, the development of the non-complex elective inpatient centre at UHL could lead to enhanced health outcomes as it represents a move towards a high-volume model, with non-complex inpatient procedures from across south east London being undertaken at this site. Another recent review of the literature also identified a general consensus that higher procedure volumes lead to superior patient outcomes in terms of mortality. However this review largely considered complex elective procedures (Cooperation and Competition Panel 2010). The CCP review also identified studies that do not find a relationship between procedure volumes and health outcomes. As such, there is no definitive relationship between the two variables and it is not certain that the transformation will currently enhance health outcomes.

# 4.2.4 Mitigations and enhancements

Enhancement 1 Monitoring processes could be put in place to understand the impacts of the transformation. To help ensure that the identified clinical benefits are achieved, there could be a commitment to achieve clinical standards through a contracting process covering primary and secondary care. This will require a strong commitment from the six

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<sup>&</sup>lt;sup>14</sup> And they are currently not provided at GH, the other provider of non-complex elective inpatient services, under the TSA's recommendations.

Clinical Commissioning Groups (CCGs) to collaborate on issues such as shared standards as the south east London cluster is abolished by 1 April 2013. Monitoring should be undertaken both during and after the transition across clinical standards, and a range of outcome measures should be developed. Information drawn from the providers should be published by the CCGs initially on a frequent basis (potentially monthly).

#### Enhancement 2

The benefits estimated by the TSA are based on the hospitals reaching defined benchmarks through the transformation. For example, the 100 fewer observable deaths achieved from making the weekend mortality rate the same as the weekday, the sector share of the 520 expected across London. The achievability of this benefit could be restricted by other factors beyond the control of the TSA. It is important to ensure that the barriers to the realisation of the benefits are identified prior to the implementation of any of the recommendations and a plan is developed for their mitigation. It is recommended that a clearer linkage between TSA defined clinical benefits and the transformation is developed. In particular, to develop a bottom-up understanding of whether the underlying health needs and supply conditions in the transformed health economy could impede the benefits from being realised.

**Enhancement 3** Stakeholders have raised concerns around how the concentration of non-complex inpatient elective surgery will be enforced; in particular there were questions around the willingness of hospitals to 'give up' their elective patients. It is recommended that the TSA ensures an appropriate mechanism is in place to direct patients towards the noncomplex elective centre. This may involve drawing on best practice adopted at other elective centres, for example the partnership model that is employed by the SWLEOC.

#### 4.3 Community based care

Community based care could form the basis of a number of key enhancements and mitigations to a number of impacts. NHS south east London established their strategy for developing community based care, in Appendix I of the draft TSA recommendations report. It is important to note that primary care trusts (PCTs) and PCT clusters are responsible for developing the community based care strategy, whilst the CCGs will be responsible for implementing the strategy. 15 Currently the implementation plan and detail around the changes to community care are under development as part of the

 $<sup>^{15}</sup>$ This is important due to the current period of transition as existing PCTs are abolished and new CCGs are in the process of obtaining authorisation.

establishment of the CCG plans. The strategy identifies three areas of focus for community based care in south east London.

- 1. Primary and community care. Providing high quality primary and community care for the whole population.
- 2. Integrated care. Providing integrated care, particularly for high risk groups such as the older people, based on a patient centric view and with an aim to support people in their homes.
- 3. Planned care. Simple, timely and convenient services for planned care with seamless transitions across primary and secondary care.

Given the level of current development of the plans it is difficult to pre-judge the potential impact of the strategy. However, the TSA has outlined some of the potential benefits from the implementation of the strategy. These potential impacts are considered in this report, particularly in the context of the secondary care service changes recommended by the TSA.<sup>16</sup>

## 4.3.1 Emergency and urgent care

The TSA sets out in its draft recommendations report that community based care could:

- Reduce emergency admissions for 10% of older people with long term conditions, through effective management in the community;
- Reduce 6% of A&E attendances for same-day or out -of-hours services; and
- Reduce A&E attendance rates and unnecessary admissions by improving access to out of hours primary care and dealing with more activity in the community where appropriate.

These positive impacts, if realised, could help to reduce the burden on emergency and urgent care services delivered in secondary care. The potential positive impact of effective community care is also supported by recent research. For example, the New Economic Foundation found that preventative schemes can provide both benefits to patients and deliver value to health and social care commissioners (New Economics Foundation 2012). Deloitte has also conducted a study for the British Red Cross considering schemes aimed at reducing admissions, readmissions and hospital length of stay (Deloitte 2012). This study confirms the finding that these services can reduce the reliance on secondary care, benefiting commissioners and patients. Academic studies of similar schemes, such as the re-ablement services delivered in people's homes, also

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<sup>&</sup>lt;sup>16</sup> This report has focussed on the relationship with the secondary care service changes given the difficulty in determining which elements of community strategy are genuinely additional and realised directly as a result of the TSA recommendations.

find benefits. For example, a longitudinal study commissioned by the Department of Health found 're-ablement had positive impacts on users' health-related quality of life and social care outcomes; the probability that re-ablement is a cost-effective service [is] therefore very high' (Arksey, et al. 2010).

## 4.3.2 Maternity services

Stakeholders have raised concerns around the impact of maternity service transformation on home births supported by UHL. Stakeholder consensus is that home birthing services provided by UHL are of a high standard and these should not be lost as part of the transformation. Specifically, certain stakeholders felt that women would feel less secure about the option of home birth without the familiar, local UHL back-up. Additionally, clinical evidence suggests there are benefits associated with home births for uncomplicated pregnancies; many argue that home births provide a familiar, relaxing and private environment where women experience less pain and use less pharmacological pain relief, lower levels of intervention, more autonomy and ultimately, increased satisfaction (Royal College of Obstetricians & Gynaecologists; Royal College of Midwives 2007).

### Option 1

Under Option 1 of the TSA recommendations, no births would take place at UHL and this would include support of home birthing services. However, all the other hospitals in south east London provide home birthing facilities; for example, in 2008/9, 8.3% of all births at KCH were home births (compared to 3.9% at UHL) (NHS 2011). Home births will still be possible for women under this scenario.

#### Option 2

Under Option 2 of the TSA recommendations, low risk deliveries would continue to take place at UHL. Under this scenario, women receiving maternity care at UHL would be able to choose to have a home birth. Therefore, there is no impact on community based care for low risk pregnancies.

#### Option 3

The TSA has not provided details of home birthing arrangements under Option 3 of its proposed maternity service transformation.

#### 4.3.3 Elective services

The community based care strategy for south east London does not provide specific impacts for elective services. However, it does describe some of the potential benefits of increased community care for people with specific planned healthcare needs. In particular:

- Patients will receive expert support from staff in primary care and outpatient clinics to help them decide how to manage their health problems;
- Patients will have access to informative 'decision' tools (for example DVDs) that outline the options which patients have and enable them to make informed decisions;
- Patients will receive much of their care before and after an operation in appropriate local settings; and
- Certain procedures (for example minor surgery) which would have previously taken place in hospital will now take place in an enhanced community setting, where appropriate.

If this strategy is successfully implemented, there could be significant benefits for patients through the whole planned care process. Specifically, there are benefits associated with receiving pre and post-operative care in community settings. In terms of rehabilitation services, several studies suggest that helping people to take responsibility for their rehabilitation and recovery is essential; one way of achieving this is through clear information, noted as part of the community based care strategy for south east London. Additionally, guidelines note that rehabilitation should begin as soon as possible and rehabilitation that combines numerous components is more likely to be effective. The most successful rehabilitation services include personal care plans, physical and cognitive therapies, regular practice and proactive follow-up (Department of Health 2009).

#### 4.3.4 Other services

The TSA also notes that community based care could deliver benefits in other service areas, for example:

- Early detection of risk factors could prevent 37 heart attacks and strokes each year;
- Early detection and improved management of diabetes could save up to 700 lives each year and approximately 200 amputations could be avoided each year.
   Whilst improving health outcomes, these can also be associated with cost savings to the NHS;
- 85% of patients will feel supported to manage their long term conditions (currently 41% patients do not feel sufficiently supported in managing their long term conditions);
- Improved patient satisfaction with GPs, illustrated through an improvement in the percentage of respondents to annual GP patient survey that are very or fairly satisfied with GP opening hours, by 2015/16; and

Significant increase in the number of patients that are supported to die in their preferred place of death by 2015/16.

The impact of improved detection and management of diabetes could be of particular importance to people from BAME groups, giving the relatively high prevalence of diabetes within these groups, as discussed in Section 5.

## 4.3.5 Mitigations and enhancements

**Enhancement 4** Community care could help to improve patient experience and mitigate some of the impacts of the recommended changes in secondary care. Specifically, this can be done by reducing people's reliance and use of secondary care services and focussing on the delivering of services closer to the home. The aspirations of the South East London community strategy appear aligned to achieving these aims. However, the strategy does not yet set out specific recommendations, timescales or resources to support local commissioners in effectively delivering the strategy. Stakeholders have identified a number of risks to implementing the community care strategy which the TSA must consider, including: the ability of newly formed CCGs to spearhead and lead on these reforms to community care; the level of support to be provided by the Department of Health to support and guide the number of commissioners that will need to collaborate and coordinate community care services across south east London; and the requirement to implement far reaching changes to community care services at a time when the partners involved (for example Local Authorities and social services) are having to implement spending cuts.

**Enhancement 5** The south east London community based care strategy requires development and formalisation as the CCGs establish their plans. For the potential positive impacts of the strategy to be realised, CCGs will need to ensure they have appropriately identified investment, funding and management capacity to deliver specific community care schemes. It is envisaged that this funding will be particularly important during the transitional phase as the recommendations are implemented, and where there is an element of double running. Stakeholders have stressed the important nature of the community based care strategy in delivering the overall changes; not only must the strategy be realised, but it must be implemented in a clear, planned manner, that ensures there is sufficient capacity in the system at all times.

**Enhancement 6** In order to help the success of the community based care strategy, the TSA could focus on specific care schemes for patient groups that will be particularly impacted by the proposed service transformation. For example, the potential closure of the A&E unit at UHL could cause a proportion of patients currently attending UHL for emergency and urgent care to receive care elsewhere. The TSA could seek to understand the profile of these patients and which specific community care schemes are being implemented to mitigate the impact on patients. A falls prevention strategy (older people) and strategy for community management of diabetes (management of long term conditions) are examples of these schemes.

#### Patient experience 4.4

Supporting the initial analysis, stakeholders have noted their concerns around the ability of KCH, GH, STH, QEH and PRUH to respond to potentially higher activity from the changes to services at UHL. Their concerns are that the increased pressure on the capacity of these hospitals could, for example, lead to higher A&E waiting times, rationed access to care and a deterioration of patient experience. In order to understand the key changes to capacity implied by the TSA recommendations, both Recommendations 1 and 5 are considered. These recommendations have potentially the greatest impact on capacity. 17 Issues around capacity of particular hospital sites have been considered at a high level. However, a detailed analysis of these issues is beyond the scope of the full HEIA. It is envisaged that the TSA will consider this issue in the context of implementing its recommendations.

# 4.4.1 Recommendation 1 capacity consideration

TSA Recommendation 1 focuses on ways in which the hospitals forming SLHT can become the most productive hospitals possible, maximising the outcomes and activity served for an efficient cost. In theory, the efficiency savings should change patient experience, as they define ways to provide the same or better services for less. However, if the savings potential is not estimated accounting for costs not within the control of the hospital, this could lead to patient experience being impacted.

The cost savings associated with Recommendation 1 are estimated to be around £79m over three years, with £43.3m of these savings deliverable from current cost improvement plans (CIPs). To achieve the savings of £79m, a number of initiatives are outlined by the TSA. Considering the initiatives proposed, around 60% of these savings are driven by changes in medical and nursing pay.18 The medical savings relate to

<sup>&</sup>lt;sup>17</sup> Based solely on the capacity information provided by the TSA, it was difficult to undertake an analysis focussed on

<sup>&</sup>lt;sup>18</sup> Based on analysing the initiatives set out in Appendix K and assuming the 2% additional productivity growth applies proportionately across productivity areas.

moving income per permanent full time equivalent (FTE) and aligning external spending to the top quartile. A number of other efficiency assumptions are also made, moving costs to the quartile or median of other Trusts costs.

In order to validate the findings in the productivity envelope, the TSA has also deployed other techniques to triangulate the findings; including an analysis against a selection of peers. This benchmarking exercise is useful to check the savings envelope, reducing the likelihood of patient experience being negatively impacted. However, it should be noted that these savings are significant.

#### 4.4.2 Recommendation 5

Recommendation 5 involves service transformation across south east London, as summarised in Figure 2. This is estimated to provide savings of £17.1m by 2015/16. The savings result from 10% reductions in length of stay over 3 years and the achievement of greater economies of scale. The economies of scale relate to 10% cost savings on pay costs, from the movement of activity across hospitals. It is noted that fully variable costs are assumed to not achieve additional economies of scale, which is potentially conservative.

Economies of scale are difficult to estimate within healthcare provision, particularly whilst systematically controlling for differences in service quality and outcomes. Deloitte has recently conducted analysis in this area for the NAO, finding that that the hypothesis of no economies of scale could be rejected at the 1% level of significance. Considering the A&E change in activity the implied reduction in cost can be estimated based on this elasticity, as presented in Table 7. A high level analysis using the Deloitte elasticity shows that the economies of scale from transformation, as modelled by the TSA, are relatively consistent, except for the case of KCH emergency.

Table 7: Implied cost savings

	Obstetric births (Option 1)			Emergency (Standard)		
	Change in activity from current	Change in cost: Deloitte elasticity	Change in cost: TSA	Change in activity from current	Change in cost: Deloitte elasticity	Change in cost: TSA
UHL	-100.0%	N/A	N/A	-100.0%	N/A	N/A
Hospital PRU	22%	20%	21%	6%	6%	4%
QEH	28%	26%	37%	5%	5%	4%
STH	4%	3%	3%	1%	1%	1%
KCH	29%	27%	30%	6%	55%	9%

Source: Deloitte analysis based on information provided by TSA

In addition to variable and pay costs, an appraisal of the estates footprint has been undertaken by the TSA. In order to ensure capacity is sufficient, £77.3m of capital

expenditure for estates is identified. In particular, this capital expenditure focuses on the receiving hospitals (KCH, QEH, SHT and PRUH) increasing their footprint for A&E and maternity activity from UHL. Further, costs are also identified for the large scale restacking of estates at UHL.

The estates capacity changes were estimated by the TSA by considering the changes in activity from the transformation across the sites and matching to the current estates footprint. In some instances, the required estates are not estimated to be linearly related to the activity increases. For example, the TSA assumes that some changes in theatre utilisation are made.

#### 4.4.3 Elective services

There are also some anticipated impacts on patient experience resulting from the proposed transformation of elective services. Stakeholder engagement has identified potential improvements to patient experience from establishing a non-complex elective inpatient centre at UHL. The proposed transformation impacts three distinct components of the NHS Patient Experience Framework (NHS 2012).

- Welcoming the involvement of family and friends. There are proposals to build a
  new car park at UHL. This proposal could facilitate the involvement of family and
  friends of patients undergoing non-complex inpatient elective procedures.
   Particularly, the new car park will make it easier for friends and family to come
  and visit patients. In doing so, the development of a new car park at UHL could
  enhance patient experience.
- Access to care. Lower waiting times and fewer cancellations (anticipated by the TSA) both enhance patient access to care and thus patient experience.
- Physical comfort. There are questions about the capacity of the non-complex elective inpatient centre at UHL. If sufficient capacity is not developed in a timely manner, then physical comfort and patient experience could both deteriorate.

Additionally, stakeholders have reported to us that the SWLEOC has been a successful venture and has resulted in improvements to patient experience. For example, testimonials from patients who have used SWLEOC have highlighted that it provides a good patient experience, as they are able to meet with their consultant locally but receive an efficient and high quality service for their operation (EOC 2010).

## 4.4.4 Mitigations and enhancements

#### Mitigation 1

The modelling of efficiency savings has involved some estimation of the productivity envelope available to SLHT. It is recommended that during the transition phase further detailed analysis is undertaken to validate the potential savings to ensure inappropriate changes are not

implemented. This will be important to ensure that cost savings are not undertaken potentially risking capacity and therefore patient experience.

# 4.5 Physical and geographical barriers

Greater transport times and difficulty in accessing healthcare services can lead to patients restricting their usage of healthcare service. Further, in some circumstances the timeliness by which patients can access care could have a direct impact on health outcomes.

In order to inform the access considerations, TfL has provided PTALs. PTALs provide a summary measure of the accessibility of a location to the public transport network. PTALs for the key hospital locations in south east London are reproduced in Table 8. These scores are discussed in relation to the key changes in service delivery across south east London. It should be noted that these scores are not specific to particular services and do not identify accessibility for other forms of transport, such as ambulances.

Table 8: PTALs for key hospital locations

Hospital	PTAL	Description	
UHL	5	Very good	
PRUH	2	Poor	
KCH	4	Good	
QEH	3	Moderate	
QMS	2	Poor	
GH	6b	Excellent	
STH	5	Very good	

Source: TfL (provided by TSA 2012)

Based on these PTAL scores, UHL performs well in terms of public transport accessibility, as compared to other hospitals in south east London such as PRUH and QEH. This is particularly relevant given the potential shift in services from UHL to these sites. Moreover, stakeholder views corroborate the PTAL scores, with stakeholders noting the poor access to QEH and PRUH, particularly from certain parts of Lewisham, for example southern Lewisham. This feedback is considered when designing potential mitigations and enhancements of the potential physical and geographic impacts of the TSA's recommendations.

## 4.5.1 Emergency and urgent care

As noted in Section 3.2.4, the methodology used to calculated blue light travel times in this report is based on peak travel times. This differs from the approach undertaken in previous analyses, for example the consultation over stroke service transformation,

which was based on average drive times. As such, a direct comparison cannot be made between the blue light travel times presented in this report and the travel times estimated in previous consultations.

In order to understand the scale of the impact for those unable to receive treatment at UHL, the TSA undertook travel time analysis demonstrating that a 30 minute benchmark was achievable at the average and 95<sup>th</sup> percentile for ambulances travelling under blue light.

This report has used the underlying peak TSA transport analysis to understand the travel time more generally for all those who would be unable to receive treatment at UHL. Specifically, Table 9 analyses the absolute travel times for the population who previously received treatment at UHL.<sup>19</sup>

Table 9: Travel time, all population, A&E UHL transformation

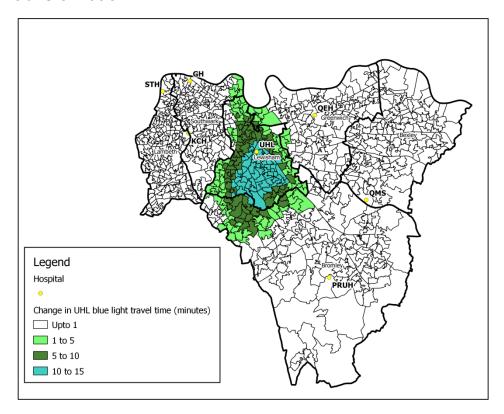
Travel time (minutes)	Total population
Up to 10	0
10-15	9,226
15-20	99,337
20-25	180,605
25-30	48,326
Over 30	1,560

Source: Deloitte analysis based on blue light travel time information provided by TSA

This analysis shows there are only around 1,500 people impacted who could have a travel time by an ambulance under blue light at peak time of greater than 30 minutes, while 99.9% of the population are within 30 minutes. This population relates to a single LSOA in Lewisham. For this LSOA and closely surrounding areas the ambulance service will need to be particularly aware of achieving efficient transport times. In Figure 5, the changes to blue light transport time for the impacted populations are presented. This analysis shows that those areas most impacted are towards the south of Lewisham.

<sup>&</sup>lt;sup>19</sup> This blue light travel analysis refers to the time taken with the patient in the ambulance. However, a few stakeholders have raised the issue of transit times (i.e. the time from call for ambulance to arrival at hospital) and associated link with clinical outcomes.

Figure 5: Change in blue light travel time, total population, UHL A&E transformation



Source: Deloitte analysis based on blue light travel time information provided by the TSA

If a patient previously attending the A&E at UHL, and subsequently admitted, is now cared for at another hospital, this could lead to increases in journey times for carers and relatives for the period of the admission. Stakeholder engagement further corroborates this finding, with a particular impact identified on the population of southern Lewisham. To consider this impact, for those populations impacted by the changes to emergency services a travel time analysis is also conducted for public transport to understand the impact on carers and relatives, as summarised in Table 10.

Based on the PTAL scores, if the patient is admitted particularly to PRU or QEH, access could also be more difficult by public transport for carers and relatives if they take public transportation.

Table 10: Total public transport time, total population, A&E UHL transformation

Travel time (minutes)	Total population
Up to 30	5,230
30-35	38,153
35-40	70,117
40-45	99,020
45-50	83,759
Over 50	61,065

Source: Deloitte analysis based on public travel time information provided by TSA

## 4.5.2 Maternity services

This full HEIA assessment has used the TSA transport analysis to understand the impact on physical and geographical barriers more generally for all women who would be unable to give birth at UHL after the proposed transformation. It is important to note that the analysis below is driven by the assumptions provided by the TSA, and is high-level in nature. The analysis focuses on private travel times.

#### Option 1

Table 11 presents the total private peak travel times for pregnant women previously giving birth at UHL.

Table 11: Total private peak travel time, women giving birth, UHL maternity transformation

Travel time (mins)	Live births
Up to 20	32
20 to 25	367
25 to 30	860
30 to 35	1,404
35 to 40	660
40 to 45	144
Over 45	9

Source: Deloitte analysis based on travel time information provided by TSA, ONS (2010d)

This analysis shows that the vast majority of women that would have to travel to an alternative hospital (that is, other than UHL) to give birth, would be able to do so in less than 45 minutes. As noted above, this analysis is based on TSA high level assumptions and does not account for the actual methods of transport used by women in labour. The TSA has not established a travel time benchmark for maternity services and there is not a conclusive literature on the relationship between travel time and maternity outcomes. However, stakeholders identified potential adverse health outcomes for mothers having to travel further to give birth; particularly, the risk of an increase in the number of babies born before arrival (BBA) was flagged.

The analysis presented in Table 11 is based on actual births for a particular year. It is also important to consider the hypothetical impact of the proposed transformation, namely the increased travel time for potential mothers. Women aged 16 to 44 are taken as a proxy for 'potential' mothers and the peak travel time impacts for these women are presented in Table 12. The analysis in Table 12 shows that of the 'potential' mothers currently going to UHL to give birth, the majority could reach an alternative hospital in less than 45 minutes. Additionally, the majority of potential mothers could access an alternative hospital within 40 minutes.

Table 12: Total private peak travel time, women aged 16 to 44 years, UHL maternity transformation

Travel time (mins)	Live births
Up to 20	149
20 to 25	3,301
25 to 30	9,439
30 to 35	14,996
35 to 40	7,648
40 to 45	1,832
Over 45	133

Source: Deloitte analysis based on travel time information provided by TSA, ONS (2010d)

#### Option 2

Under Option 2, low risk deliveries would continue to take place at UHL. There could be an increase in travel time for women with high risk pregnancies, along with their visitors and carers. However, the TSA has not provided information on the anticipated number of high risk pregnancies that would be diverted from UHL to one of the four other obstetric-led maternity units in south east London (KCH, PRUH, QEH, STH). Therefore, further analysis of the impact of physical and geographical barriers under Option 2 cannot be undertaken.

### Option 3

Under Option 3, high risk deliveries would take place at one of the four obstetric-led maternity units co-located with emergency and critical care (KCH, PRUH, QEH, STH). The impact on travel time for these births is captured above, under Option 1. There would be no impact on travel time for women previously delivering at UHL who choose to deliver at the stand-alone midwife-led unit at UHL.

#### 4.5.3 Elective services

The TSA has not provided detailed activity and travel time analysis for the proposed elective service transformation. Accordingly, this section is not able to present a systematic analysis of the overall impact of recommendations on physical and geographical barriers, as undertaken for A&E and maternity service changes. However, a high level analysis is presented.

#### Non-complex elective services

At the time of writing, the TSA has not provided details of the particular non-complex elective procedures that will be provided at UHL and GH. This high level analysis assumes that both sites would provide non-complex complex services. The main impacts of non-complex elective (planned) inpatient transformation on physical and geographical barriers are noted below.

Journey travel times will increase for patients switching from STH, KCH, PRUH, QEH and QMS to UHL or GH for non-complex elective inpatient procedures. The TSA has not undertaken detailed travel time analysis for non-complex elective service transformation. Deloitte has undertaken, using TSA travel data and assumptions, a high level analysis of the proposed transformation option in which non-complex elective inpatient services are only provided at UHL and GH. Table 13 shows the impact on travel time, for both public and private transport. The analysis shows that approximately 50% of people experience an increase in travel time of less than ten minutes, regardless of whether public or private transport is used. Further, it is noted that a small minority of patients would experience an increase in travel time of more than 30 minutes. Concerns have been identified around the increase in public transport travel time for residents of Bexley and Bromley, particularly older people and people with disabilities. However, it is noted that whilst travel time would increase for the actual procedure, pre- and post appointment check-ups will take place closer to home and so the overall impact is not anticipated to be material.

Table 13: High level travel time analysis, non-complex elective inpatient transformation

Increase in peak travel time (mins)	% of LSOAs (private travel time)	% of LSOAs (public travel time)	
Less than 10	48%	56%	
10-20	29%	25%	
20-30	18%	14%	
More than 30	6%	5%	
Weighted average increase in travel time <sup>20</sup>		40.00	
time	11.15 minutes	10.02 minutes	

Source: Deloitte analysis based on travel time information provided by the TSA

• There are plans to build a new car park at UHL. This could reduce journey complexity and could make it more attractive for patients to attend UHL. The development of this car park will enable UHL to accommodate the increased number of inpatient attendances once it becomes a non-complex inpatient elective centre.<sup>21</sup> Certain stakeholders have mentioned that there are issues with car parking capacity at QEH; the development of the non-complex inpatient elective centre at UHL (along with the proposed new car park) may alleviate some of these capacity issues, as non-complex elective inpatient procedures are transferred from QEH to UHL.

<sup>&</sup>lt;sup>20</sup>Weighted by LSOA population

<sup>&</sup>lt;sup>21</sup>Additionally, stakeholders have told us that KCH currently has parking issues problems for A&E attendances during normal hours. As such, shifting elective procedures to UHL might abate this issue. However, this could be offset by the increase in A&E volumes anticipated at KCH.

- Given the elective nature of the service, adverse health outcomes are not identified as a result of potentially increased travel time. People know in advance that a certain procedure is required and they book the procedure for a certain date.
- As discussed in Section 4.5, UHL performs well in terms of public transport accessibility, which is proxied by the PTAL score. As such, whilst there may be an increase in travel time for some patients, this may suggest a less material impact on accessibility for the majority of patients travelling by public transport.

#### Complex elective services

The main impacts of complex elective inpatient transformation on physical and geographical barriers are noted below.

- Journey travel times will increase for patients previously attending UHL for complex elective inpatient procedures. Whilst travel time would increase for the actual procedure, pre-and post-appointment check-ups will take place closer to home and therefore the overall impact is not anticipated to be material.
- Given the elective nature of the service, adverse health outcomes are not identified as a result of potentially increased travel time. Particularly, people know in advance that a certain procedure is required and they book the procedure for a certain date.
- As discussed in Section 4.5, UHL score the highest among all hospitals in south east London in terms of public transportation accessibility, as measured by the PTAL score. There could potentially suggest a potentially negative impact on accessibility and journey complexity for patients having to move from UHL to KCH, PRUH, and QEH.

#### **Specialist elective services**

There is no travel time impact for specialist elective surgery, as the recommendations do not impact these services.

Certain stakeholders have noted that historically south east London does not have the same level of public transport amenities as found across the rest of London. This has been considered when designing mitigations and enhancements around transport facilities, as outlined below.

## 4.5.4 Mitigations and enhancements

#### Mitigation 2

Detailed consideration of the public transport routes will need to be undertaken to ensure that people are able to access the services in their new locations across south east London. Discussions with TfL indicate this could include, for example, assessing whether there are sufficient changes in patient flows to modify bus routes. Discussions

so far have highlighted that options are possible to provide better access to UHL, particularly where buses currently terminate in Lewisham town centre. These could include better interchanges between existing high frequency services or, if there are significant increases in numbers to justify it, structural changes in routes. A full understanding of trip rates and the times of journeys would be required to inform this. Additionally, given the more limited public transport between certain parts of Lewisham and QEH/PRUH, the TSA could work with TfL to see whether PTAL scores can be improved. However, TfL have indicated that there is currently no additional funding available from TfL at this stage for additional bus services. This will need to be considered by the TfL and TSA. Further, changes to bus services will be subject to consultation prior to implementation.

#### Mitigation 3

It is important to inform patients of the travel options that are available to them; this is currently available from the online TfL route planner. One possible way to further address this could be for hospital administrative staff to use the TfL journey planner to help patients when they are struggling to understand the options available.

## Mitigation 4

Certain stakeholders have voiced concerns around the relationship between transit times and clinical outcomes; that is, the time from calling an ambulance to arrival at hospital. A simple analysis of journey travel times does not capture this potential relationship. As such, further research during the transition could seek to understand in greater detail the relationship between transit time and clinical outcomes and to ascertain the importance of this relationship for different protected groups.

Table 14: Buses between key areas in south east London

	From UHL to	Bus Stop	Changes/Notes	Important route
	PRUH	Locksbottom	Direct	208
<u>v</u>	KCH	Kings College Hospital	Direct	185
ita	QEH	Queen Elizabeth Hospital	Lewisham town centre	178
Hospita	QMS	Sidcup QMS <sup>*</sup>	Direct, one change	269 then 208
I	GH	London Bridge	Direct	47
	STH	Westminster Bridge County Hall	Direct, one change	136 then 53
	Greenwich	DLR	Direct	199
(O	Bexley	Bexleyheath shopping centre	Lewisham town centre	89
tre	Woolwich	Woolwich town centre	Direct	54
Centres	Croydon	Fairfield hall	Direct	75
	Bromley	Market square	Direct	208
	Peckham	Town centre	Direct	136

Source: TfL discussions and using the TfL journey planner. \*An alternative is the 321, with 0.7m walk from QMS to bus stop

#### Mitigation 5

It is important to ensure that the population, particularly in south Lewisham, are able to access A&E services with the lowest disruption possible. There must also be provision for quick and easy access to ambulance services when necessary.

# 4.6 Integrated care

The initial assessment identified potential impacts on healthcare pathways as a result of the proposed transformation of services. For example, healthcare pathways could be enhanced by the development of the Bexley health campus. However, the transformation of elective, maternity and emergency services could also impact on safeguarding. In particular, there may be safeguarding issues for vulnerable groups in the UHL catchment area as a result of services being diverted to other hospitals. This section considers the impact on integration of care across the primary areas of service change.

# 4.6.1 Emergency and urgent care

Stakeholders have highlighted concerns around the impact to pathways for patients who cannot be seen at the UHL UCC and are seen and admitted to another hospital, potentially further from their local community. In particular, stakeholders felt this could be an issue for the people with disabilities and older people. This impact is discussed in respect to these specific groups in Section 6.

## 4.6.2 Maternity services

Stakeholders have raised concerns around patient pathways following the proposed transformation of maternity services. In particular, concerns have been raised about women who have their delivery dates around the time of the transformation.

#### Option 1

Under Option 1 of the TSA's maternity recommendation, no births will take place at UHL but ante-natal and post-natal care services will continue to be provided at UHL. This implies a potential breakdown in continuity of care for pregnant women as services will be provided at different locations. Additionally, stakeholders have noted that whilst one midwife may lead care throughout a pregnancy, it may not always be possible (due to staffing/rotas) for this midwife to be at the birth at an alternative hospital. Stakeholders also raised questions over the extent to which women can currently expect to have their ante-natal midwife at the birth. Under Option 1, there are also concerns around safeguarding given the potential for disruption to pathways and links (for example with Local Authority and mental and community health services) for Lewisham residents previously delivering at UHL.

## Option 2

Under Option 2 of the TSA's maternity recommendation, low risk births will continue to take place at UHL and as such there is likely to be no impact on patient pathways for these births. Higher risk deliveries will move from UHL to one of the other four obstetrics-led maternity units (KCH, PRUH, QEH or STH). There is a potential breakdown in continuity of care as patients receive ante-natal and post-natal services at UHL, but go to another hospital to deliver their baby. Additionally, whilst one midwife may lead care throughout a pregnancy, it may not always be possible (due to staffing/rotas) for this midwife to be at the birth at an alternative hospital.

#### Option 3

Under Option 3, high risk births will not take place at UHL. The impact on integrated care for these high risk births is outlined above under Option 1. No additional impacts on integrated care are identified for high risk births under Option 3. For women who previously giving birth at UHL who choose to deliver at the stand-alone midwife-led unit at UHL, no material impacts on integrated care are identified.

#### 4.6.3 Elective service

There is the potential for breakdown in continuity of care under the proposed transformation of elective services as patients attend locations close to the home for preand post-surgical care whereas they attend the non-complex inpatient elective centre (or GH, which would continue to provide non-complex elective inpatient care) for the actual

operation. Given the partnership model which is envisaged for the elective centre at UHL, consultants from various trusts will perform operations at the centre. Thus, patients may see a consultant in a location close to home for their pre-surgery appointment and the same consultant team would undertake the operation for them at the centre.

#### 4.6.4 Other services

The NHS South East London community health strategy identifies integration of care as one of its three areas of focus (NHS South East London 2011). The strategy identifies that integration of care should enable patients to:

- Receive more proactive support;
- · Be involved in developing a care plan;
- Have a defined care coordinator;
- Access multidisciplinary teams; and
- Be supported in preventing hospital admission and discharge.

These measures, if implemented effectively, could help to mitigate the potential impacts arising from the greater geographical dissipation of services. The importance of the care plan and care coordinator within this is likely to be particularly important. It will be important that this integration also considers joint working opportunities with social services and local authorities.

Recommendation 2 sets out the vision for the Bexley Health Campus, providing a range of services including the UCC, day case elective surgery and various community services. In this context, the impact of the Health Campus on integration is likely to be positive.

# 4.6.5 Mitigations and enhancements

#### Mitigation 6

Stakeholders have suggested that to mitigate the movement of emergency and medical admissions for patients requiring lower level care, a bedded facility linked to the UCC, analogous to the GP-run facilities found in some rural areas, could be established. This step-down service could help to move people closer to the community as well as reducing the demand on the non-elective inpatient beds. The appropriate clinical input into this unit would need to be considered as part of the implementation. Certain stakeholders indicated that 20 beds could be required whereas other stakeholders felt that a viable unit would probably require 28 beds. It is recommended that a formal capacity modelling is undertaken before implementing this proposal. In addition, the overlap between a step-down facility and the

proposed inpatient non-complex elective centre must be considered, in order to avoid the interference of planned elective care.<sup>22</sup>

**Enhancement 7** Oxleas NHS Foundation Trust and other providers are encouraged by commissioners to develop the range of services at the proposed Bexley Health Campus. This could include an inpatient mental health centre for the local population.

Community based care is likely to provide an important role in ensuring continuity of care is maintained and enhanced. Enhancements set out in Section 4.3.5, particularly around additional funding for community services, will be important in helping to support integration of care.

### 4.7 Patient choice

## 4.7.1 Emergency and urgent care

Some stakeholders have raised concerns about a reduction in patient choice for emergency and urgent care as a result of the proposed closure of the accident and emergency department at UHL. It is important to note that patient choice is not generally exercised for the most urgent cases, particularly, life threatening incidents.<sup>23</sup> Generally, patients in these situations will be transported to hospital by ambulance and therefore do not decide where they will go; this is determined by the ambulance service. In this sense, there is not a material reduction in choice for the most urgent conditions<sup>24</sup>. However, particular regard will need to be given to the needs of children as they may well be brought to the paediatric A&E department at UHL by their parents rather than by ambulance, see Section 6.2.1.

# 4.7.2 Maternity services

There is a potential reduction in patient choice for maternity services in south east London as a result of the proposed transformation. The four national choice guarantees, relating to maternity services, are the following (Department of Health 2007):

- Choice of how to access maternity care;
- Choice of type of antenatal care;
- Choice of place of birth; and

<sup>&</sup>lt;sup>22</sup> It is understood this facility is being considered by the TSA.

<sup>&</sup>lt;sup>23</sup> For example, when the Co-operation and Competition Panel (CCP) considers competition for emergency services, it looks at the commissioner intentions rather than patient choice.

<sup>&</sup>lt;sup>24</sup> It may not always be like this: for an urgent patient sent in by the GP, the choice of hospital may be made in discussion with the patient and the ambulance obliges.

Choice of place of postnatal care.

#### Option 1

Under Option 1, there is a reduction in patient choice as women can no longer give birth at UHL; as such the number of obstetrics led maternity units in south east London would reduce from five to four. This reduction in choice is potentially offset by improved clinical outcomes, resulting from the concentration of obstetrics-led services onto fewer sites. There is an additional reduction in patient choice for co-located midwifery led birthing units under Option 1. Specifically, KCH and QEH do not currently have co-located midwifery-led units and patients giving birth at these hospitals will not be able to opt for midwifery-led birth. However, there are currently plans to open a co-located midwifery led unit at QEH and it is recommended plans are developed for KCH.

#### Option 2

Under Option 2, there is a marginal reduction in patient choice as women with high risk pregnancies will no longer be able to give birth at UHL. However, the majority of pregnancies will still take place in the stand-alone obstetrics led maternity department at UHL. There will be no impact on patient choice in terms of co-located midwifery-led services, as these will be maintained at UHL. As such the impact on patient choice is limited under this option.

#### Option 3

Under Option 3, women with low risk pregnancies will continue to have the choice of delivering at UHL in a stand-alone midwife-led birthing unit, but the UHL site will no longer be available for those choosing or requiring obstetrician-led delivery.

#### 4.7.3 Elective services

The TSA recommendations impact patient choice for non-complex elective inpatient and complex elective inpatient procedures.

- Non-complex there is a material reduction in patient choice for non-complex inpatient elective procedures. Specifically, there are currently six providers of non-complex inpatient services in south east London (GH, KCH, PRUH, QEH, QMS, STH), after the proposed transformation there will only be two providers (UHL and GH).
- Complex there is a reduction in patient choice for complex inpatient elective procedures. Currently, there are six providers of complex inpatient elective services in south east London (GH, KCH, PRUH, QEH, STH, UHL), after the proposed transformation there will be four providers (KCH, PRUH, QEH, STH). Stakeholders have not raised material concerns with this reduction in patient choice, noting that there is still sufficient choice for complex elective procedures.

 Specialist – the proposed transformation of elective care does not impact specialist services and paediatric surgery and as such there is no impact on patient choice for these particular service groups.

The reduction in patient choice for non-complex elective inpatient services appears to be substantial. It is envisaged that the non-complex elective centre at UHL will utilise a similar partnership model to the SWLEOC (TSA 2012a). Under this model, surgeons from across hospital trusts within south east London come together. Thus, despite the apparent reduction in choice, patients will benefit from a centre with a large number of consultant surgeons and multidisciplinary teams and therefore retain a wide choice of surgeons.

The reduction in patient choice for the location of complex inpatient elective procedures ensures that complex inpatient elective services are co-located with critical care services and specialist support services. There are benefits associated with the co-location of these services as described in more detail in Section 8.

#### 4.8 Other barriers

## 4.8.1 Cultural and Linguistic Issues

Stakeholder engagement also identified cultural and linguistic factors as potential barriers to access for particular groups. Specifically, certain stakeholders voiced concerns over the difference in cultural sensitivity across different hospitals. These issues have also been identified in the relevant literature on health care access (Szczepura 2004). There was a view among certain stakeholders that UHL is particularly good at catering to the ethnic and cultural diversity of its patients, and that UHL performs better than QEH in this regard. If this is the case, there could be adverse impact on patients from particular ethnic groups who have to attend QEH rather than UHL in the future for particular services. However, this was not a universal view as other stakeholders felt there were no great differences in cultural sensitivity across hospitals.

Additionally, the developed London clinical standards include provisions around English; for example, one of the maternity standards is 'During labour, birth and immediate postnatal care all women who do not speak English or women with minimal English should receive appropriate interpreting services' (TSA 2012a). Meeting these standards will to some extent ensure that all hospitals are sensitive to the needs of particular groups with linguistic barriers.

There was also a view that cultural and linguistic issues may impact the extent to which people understand the transformation. This is something which is discussed in the context of enhancements and mitigations in the subsequent sections.

## 4.8.2 Journey complexity

Whilst physical and geographical barriers have been discussed, the main focus has been on journey times. However, stakeholders also noted the potential impact of service transformation on journey complexity. Complexity involves the route that patients have to take to reach a certain hospital, the number of changes that have to be made and the walking distance from a bus stop and train station to a hospital.

In order to proxy for journey complexity, speed is considered. Speed is calculated using straight line distances and public travel time information, by provided by TfL. Complexity of public transport is estimated for public travel to UHL and subsequently for travel to an alternative hospital offering relevant services. This analysis indicates that transformation increases journey complexity for 10% of people taking public transport who change hospitals. Although useful, this estimate has been considered more in the context of the analysis of bus routes, established in Table 14.

### 4.8.3 Other

Stakeholders have voiced concerns over the distinction between A&E departments and UCCs. There is also evidence to suggest a lack of patient understand about the role of an UCC (Primary Care Foundation 2012). This lack of understanding could lead to delays in patients seeking assistance. This could have a disproportionate impact on current users of UHL's A&E department as there may be confusion within this group around how to access appropriate urgent and emergency care.

## 4.8.4 Mitigations and enhancements

#### Mitigation 7

In order to mitigate the potential confusion around the role of A&E and UCC facilities, education is extremely important. The TSA could consider the mechanisms which can be used to facilitate effective patient education. This could involve drawing on successful models currently implemented at other hospitals; for example, the A&E department at KCH has a meet and greet policy so that those attending for what are primary care or UCC medicine complaints can be appropriately directed back to primary care – this type of model could be implemented across other A&E centres in south east London. Additionally, the TSA could encourage GPs and primary care and community health services staff more generally to provide accurate information to their patients.

#### Mitigation 8

Further potential mitigation of the confusion around the role of A&E and UCC facilities, could be the introduction of UCCs across all seven hospitals in south east London. Stakeholders have suggested that the implementation of TSA recommendations could provide a good opportunity to establish a uniform perception of the difference

between A&E (for life threatening and potentially life threatening conditions) and UCC (for less critical, but still serious conditions). However, this would require UCCs to run according to the same model and it is noted that this still involves a degree of patient knowledge and understanding.

# 4.9 Staff impacts

Stakeholders have identified that the impact of the changes on staffing are important to consider as part of this full HEIA. The changes to staffing are likely to be driven by a number of aspects of the recommendations.

- Recommendation 1. Based on the productivity benchmarking this could include 22% and 14% reductions in medical and nursing pay costs as well as change to non-clinical and qualified scientific, therapeutic and technical staff (ST&T) pay costs.<sup>25</sup> These reductions are estimated to come from both changes to overall staff levels and realignment of staffing bands (which may mean the loss of specific expensive staff).
- Recommendation 5. The consolidation of activity across hospitals in south east London is estimated to lead to a 10% reduction in pay costs with further efficiencies achieved, for example in theatre utilisation.
- Adoption of London-wide quality standards will necessitate new rotations for many staff groups, potentially increasing overnight or weekend working for some.

Based on an analysis of demographics of the NHS workforce, outlined in greater detail in Appendix E, these changes could have implications for several groups covered by the Equality Act.

- Gender. Non-medical staff in the NHS are largely female; suggesting a greater impact on female staff members can be expected. For medical staff, the NHS is more equal but with a slight higher proportion of males, especially among the more senior grades, suggesting males could be more impacted more highly by the changes. However, even among medical staff, part-timers are more likely to be women.
- Race. 41% of medical and 14% of non-medical staff are from ethnic minority groups across the NHS (NHS Information Centre 2011). However, across the hospitals in south east London the proportion of black and minority ethnic groups is expected to be greater, reflecting the demographics of the population at large, see Section 5.4. The impact on BAME and minority groups of the recommendations could therefore be larger.

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 $<sup>^{25}</sup>$  Based on analysing the initiatives set out in Appendix K of the TSA draft recommendations report.

 Religion. The increased working at weekend for some expert staff could be disruptive to established patterns of worship for some staff.

In addition to reductions in staffing, staff may also be impacted through movements in activity meaning services are now delivered at other sites and from altered rotas needed to deliver more expert care 24/7. Stakeholders have also raised concerns over possible increases in travel time for consultants, who may be required to work across hospital sites as a result of the TSA recommendations potentially as a result of the proposed elective service transformation.

Stakeholders have identified some additional issues relating to staffing impacts. Whilst it is beyond the scope of the full HEIA to explore these issues in significant detail, it is important to identify the impacts and their potential scale.

- The potential impact of staff job losses could impact on the health outcomes for the staff themselves. In particular, there is evidence in the recent Public Health Annual Report for Lewisham which assesses the impact of loss of income and of unemployment on health. It will be important for the TSA to consider these impacts during the transition and implementation phase.
- The recommendations could have an impact on staff training, including the training of doctors.
- Stakeholders have raised general concerns around the difficulties in implementing staffing changes which aim to generate revenue savings and the speed with which these changes can be made.
- The recommendations have a potential impact on staff morale, which in turn could impact upon health outcomes and patient experience.
- Certain stakeholders have raised concerns over the possible movement of consultants, trainee doctors and GPs out of Lewisham, resulting from a perceived downgrading of services and facilities provided at UHL.

## 4.9.1 Mitigations and enhancements

#### Mitigation 9

This consideration of the staffing impacts has currently been undertaken at a preliminary level, based on the available information, time and scope of the HEIA. Before the transition is undertaken, engagement with the impacted groups and the staff at large will be required. This could include detailed discussions with staff, unions, human resource leads and legal advisors. It is understood from the TSA that some of these activities have already formed part of the development of the recommendations.

#### Mitigation 10

Given the potential impact of TSA recommendations on the local workforce, it is important that staff are given due consideration in the implementation and transition phase. It is recommended that the TSA draws on the experience and best practice of other bodies in transition (for example SHAs and the NHS Commissioning Board) and the methods they have employed for tracking staff movements. These methods include sender-receiver organisations sharing information, planning and publishing workforce updates jointly. The TSA could use similar means to ensure that certain groups of people sharing protected characteristics are not disproportionately impacted (NHS Employers 2010).

#### Mitigation 11

In order to fully understand the impact of TSA recommendations on staff and medical training, the TSA could engage with and obtain views of the relevant Royal Colleges and professional bodies.

#### Mitigation 12

It is recommended that the TSA takes account of staff morale in the transition and implementation phase. In terms of ongoing monitoring, there is a possibility of designing future staff contracts which include expected levels of care which can be measured. This monitoring process could enable the TSA to track staff performance and detect any potential adverse impact of staff morale on patient experience and health outcomes.

# 5 Background to protected characteristics

The initial assessment provided an analysis of the protected characteristics, generally at the ward level. This analysis looks at the geographical distribution and concentration of groups with protected characteristics using information at a LSOA level where data is available. In cases where data mapping to the exact characteristic under consideration are unavailable, proxies have been used, drawing from other equality impact assessments.

# 5.1 Economic and social deprivation

Economic and social deprivation is considered as a separate group, despite not being a protected characteristics identified in the Equality Act 2010. This group is particularly important given the relationship between health needs and economic and social deprivation and the impact deprivation could have on the ability to access services under the final recommendations. This group was identified in the initial assessment (Social Disadvantage Research Centre 2009) and subsequently through stakeholder engagement.

Extending the analysis from the initial assessment, economic and social deprivation can be considered at the LSOA level. In the left pane of Figure 6 the map presents the absolute value of the economic and social deprivation index, whilst in the right pane those LSOAs that fall within the top quintile of the most economically and socially deprived in England are highlighted.

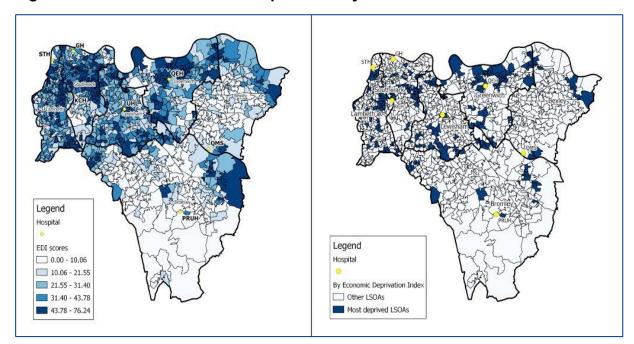


Figure 6: Economic and social Deprivation by LSOA<sup>26</sup>

Source: Deloitte analysis based on information from Social Disadvantage Research Centre (SDRC), 2008

A study of economic and social deprivation at the LSOA level reveals that within boroughs which in aggregate appear less deprived there still remain pockets of high economic and social deprivation.<sup>27</sup> For example, in Bexley there are two LSOAs directly opposite QMS which are in the top quintile of economic and social deprivation.<sup>28</sup>

The South East Public Health Observatory considered the relationship between deprivation and cardiovascular disease. In relation to A&E services and economic and social deprivation the Observatory notes that coronary heart disease, heart failure and stroke emergency admission rates are 1.7, 1.9 and 1.7 times greater for the most deprived than the emergency admission rates for persons who live in the least deprived areas of south east London (South East Public Health Authority 2005). An assessment of the impact of the recommendations for services targeted at these health needs is therefore of particular relevance.

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<sup>&</sup>lt;sup>26</sup> Most recent EDI score available is for the year 2005 at the time of writing this report, within the data set published in 2009. (Data for Neighbourhoods and Regeneration 2008).

<sup>&</sup>lt;sup>27</sup> It is to be noted with regard to EDI that it is based on geographical areas and not individual circumstances and not all people living in deprived areas are disadvatanged (Townsend 1987).

<sup>&</sup>lt;sup>28</sup> The LSOAs Bexley 028C (E01000385) and Bexley 028D (E01000386) adjacent to QMS fall within the most economically deprived quintile in England.

# 5.2 Age

# 5.2.1 Over 65 years old

Age is one of the protected characteristics in the Equality Act 2010 and stakeholders have identified two age groups which are particularly important; the young (those aged 0 to15) and the older people (those aged over 65). Figure 7 shows the number of older people in the local health economy, at the LSOA level. It shows that there is a large concentration of older people in Bromley and Bexley, with pockets of older people in Greenwich, Lewisham and Southwark. Lambeth appears to have fewer LSOAs with a high concentration of older people.

There is evidence to suggest that older people have specific health needs. Empirical research illustrates the continued high level use of A&E by those aged over 5 years (Danny and Wilson 2004). As such, the proposed changes around non-elective care at UHL will be of particular significance to this group. Additionally, the older people are high users of elective and community services and the impact of changes to these services on this group are of particular relevance.

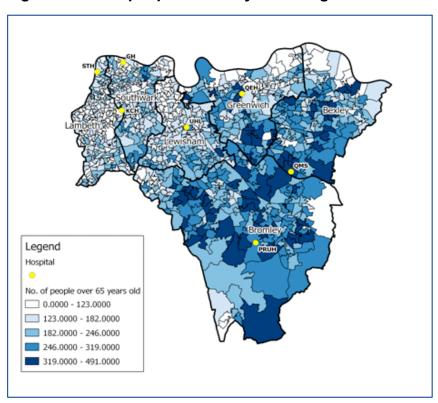


Figure 7: No. of people over 65 years of age

Source: ONS (2010)

## 5.2.2 Children between 0 to 15 years

Children are another group that have specific health needs. This has been suggested in the literature (Aynsley-Green et.al 2000) and has been corroborated by stakeholder engagement. Children also tend to be high users of A&E services, with an increasing rate of A&E attendance in this age group in recent years (HES 2011b)<sup>29</sup>. The proposed transformation of non-elective services at UHL is therefore of particular relevance to this group.

Figure 8 shows the absolute number of children between 0 to 15 years of age living in the local health economy, at the LSOA level. There appears to be a high concentration of children in Lambeth, Lewisham and Southwark. In addition, Bexley, Bromley and Greenwich have pockets with high concentration of children. The map shows that there are two LSOA's with a high concentration of children in very close proximity to QEH, and an LSOA with a high concentration of children in very close proximity to UHL.

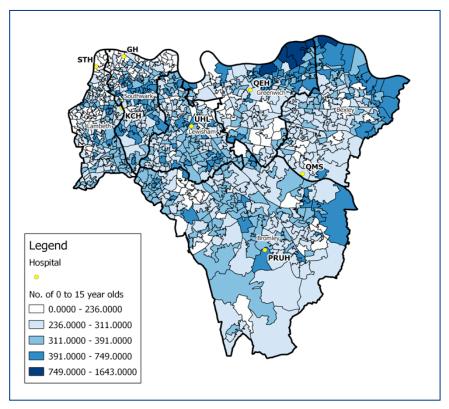


Figure 8: Number of 0 to 15 year olds per LSOA

Source: ONS (2010)

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<sup>&</sup>lt;sup>29</sup> It is important to note that high A&E use does not extend across all of the 0 to 15 range, however, usage is particularly significant for the under 5s.

# 5.3 Disability – physical and mental

The Equality Act 2010 defines a person to have a disability if the person 'has a physical or mental impairment, and the impairment has a substantial and long-term adverse effect on [the person's] ability to carry out normal day-to-day activities'.<sup>30</sup> Both physical and mental impairments are therefore considered.

Extending the analysis from the ward to the LSOA level, Figure 9 presents the absolute number of people on disability living allowance within an LSOA. In general those areas with higher disability living allowance claimants are the same areas where there is higher economic and social deprivation.<sup>31</sup>

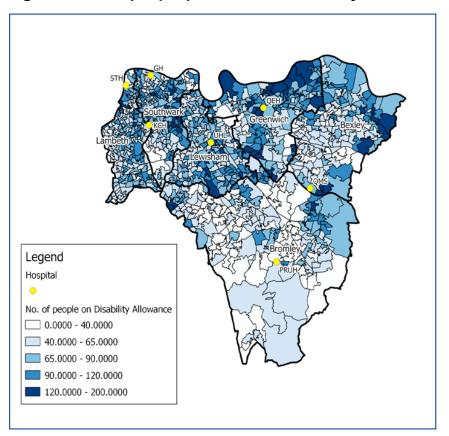


Figure 9: No. of people per LSOA on Disability Allowance

Source: ONS (2010)

It is noted that the total number of people claiming disability living allowance is lower in south east London than the national average, as established in the initial assessment. Claimant numbers are the highest in Lewisham, although the rate is broadly in line with the national average.

<sup>&</sup>lt;sup>30</sup> Part 2, Chapter 1, Section 6. http://www.legislation.gov.uk/ukpga/2010/15/section/6

<sup>&</sup>lt;sup>31</sup> The correlation coefficient is around 76%. However it is noted that disability living allowance will not capture all age groups and in particular it will not reflect the disability in the over 65s, which are more present in Bromley and Bexley.

The health needs of people with physical or mental impairments are likely to go beyond any direct health needs related to their impairment. For example, research suggests that people with learning disabilities are more prone to respiratory disease, coronary heart disease and mental health problems (Royal College of Nursing 2011). Some specific services are provided to people with learning difficulties in south east London, such as the Community Team for Adults with Learning Disabilities (CTALD). The recommendations do not impact on this service directly.

### 5.4 Race

Race is one of the nine protected characteristics included in the Equality Act 2010 and previous health and equality impact assessments in London have identified impacts of proposed hospital transformations on people from black, asian and minority ethnic (BAME) groups.<sup>33</sup>

As identified in the initial assessment, there is a high proportion of BAME residents within the health economy. Figure 10 presents a breakdown of BAME density by LSOA. This analysis suggests there is a large concentration of people belonging to BAME groups in Lewisham, Lambeth and Southwark and Greenwich. The number of people belonging to BAME groups in Bexley and Bromley is significantly lower in totality, although there are some pockets of higher density particularly to the north of Bexley.

In the UK, as in other countries, the growth of various ethnic communities and linguistic groups, each with its own cultural traits and health needs, presents a challenge to healthcare practitioners and policy makers in terms of achieving equitable access to services (Szczepura 2004). This is driven by the diverse health needs of ethnic minorities and also cultural issues which impact their access to appropriate healthcare. There is research to suggest that people from BAME groups have specific health requirements. For example, Black Caribbean people are reported to have high rates of hypertension and a higher probability to contract sickle cell disease; all ethnic minority groups are reported to have high rates of diabetes, and Black Caribbean people, particularly young men, have high rates of admission to hospital with severe mental disorders (House of Commons Health Committee 2009). Furthermore, some of these minorities (especially Pakistani, Bangladeshi and Black African) exhibit high fertility rates as highlighted by several studies (Dubuc and Coleman 2010)34. Given the proposed changes to non-elective, maternity and elective services at UHL, which serves a high number of people from BAME groups, it is important to consider the impact of the final TSA recommendations on people belonging to BAME groups.

<sup>&</sup>lt;sup>32</sup> The Royal College of Nursing also identify cancer, dental, diabetes, epilepsy, gastro-intestinal problems, mental health problems, obesity, sensory impairments and swallowing/feeding problems (Royal College of Nursing 2011).

<sup>&</sup>lt;sup>33</sup> See for example, Mott McDonald report on North East London.

<sup>&</sup>lt;sup>34</sup> Other more recent information is also available from (ONS 2011).

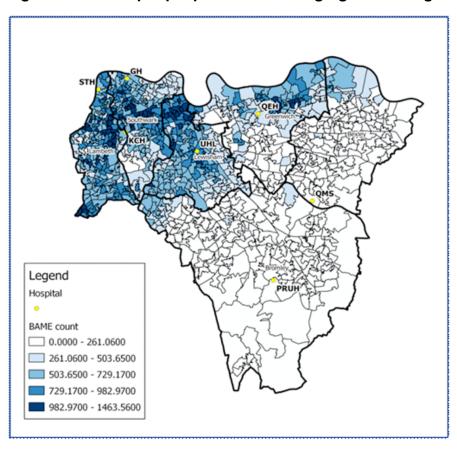


Figure 10: No. of people per LSOA belonging to BAME groups

Source: Deloitte analysis based on ONS (2009, 2010)

# 5.5 Pregnancy and maternity

Pregnancy and maternity is one of the protected groups identified in the Equality Act 2010. The proposed recommendations around maternity service transformation are particularly relevant to this group. The initial assessment identified the importance of this group and stakeholders have further corroborated this.

Figure 11 presents the number of live births per LSOA in the relevant health economy. There is generally a high level of live births<sup>35</sup> in Lambeth, Lewisham and Southwark. In particular, there are a number of LSOAs with high levels of births in very close proximity of UHL and KCH – two hospitals which will potentially be impacted by the TSA recommendations. QEH is also surrounded by LSOAs with a relatively high level of births. There are pockets with very high levels of births towards the north of Greenwich and also the eastern part of Bexley. Bromley is generally characterised by much lower levels of births, although there are a few areas with relatively high levels of live births situated in the central and eastern part of the borough. As such, it is particularly important to focus on the populations of Lewisham, Greenwich and Lambeth.

<sup>35</sup> Subsequently described just as "births".

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The proportion of births from BAME mothers is high in south east London compared to the size of the population. This group will therefore require particular attention.

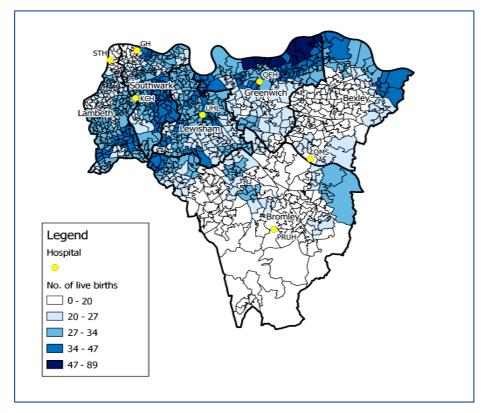


Figure 11: Number of live births per LSOA

Source: Deloitte analysis based on ONS (2011)

# 5.6 Religion

The initial assessment highlighted no specific impacts from the TSA recommendations potentially disadvantaging people from religious and faith groups. From additional stakeholder discussions, it was suggested that any impact of the recommendations on circumcision services provided for social, cultural or religious reasons should be considered. Based on considering exceptional treatment commissioning policy in south east London, circumcision is currently not provided by the NHS for anything other than medical reasons (South East London PCT Cluster 2009). The recommendations do not therefore impact on access to this service for religious or faith groups. However, staff could see additional pressure to cover weekends with changes in rotas, which might disrupt worship for some religions. This impact should be considered if the recommendations are implemented.

From the responses to the TSA's overall public consultation, concerns were mentioned in regards to the future of the chaplaincy team within the QMS as the site is developed

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<sup>&</sup>lt;sup>36</sup> This is further supported by the list of circumcision professionals outlined by the Lewisham Islamic Centre Lewisham Islamic Centre, *LIC LIST of CIRCUMCISION CLINICS*,

http://www.lewishamislamiccentre.com/downloads/26-04-11%20LIC%20Circumcision%20Clinics.pdf (accessed November 20, 2012).

into the Bexley Health Campus. It is recommended that this is carefully considered through any transition.

#### 5.7 Sexual orientation

The initial assessment highlighted the importance of mental health services for lesbian, gay, bisexual (LGB) groups. In relation to mental health services, stakeholders particularly in Bromley mentioned that the final assessment should consider the impact of the recommendations around the withdrawing of Oxleas NHS Foundation Trust from the Green Parks inpatient mental health unit on the PRUH site. This impact is considered as part of the overall assessment in Section 4.

Stakeholders also mentioned that they felt Lewisham had a higher population of LGB inhabitants. In terms of specific impacts on the LGB group, stakeholders particularly noted the impact of increased transportation through areas with greater hate crime.

Stakeholders have raised the point that there is a concern about prejudice and discrimination amongst health care practitioners that needs to be tackled and overcome so that LGB individuals can receive appropriate treatment and care. They also highlighted that changes in health care services might provide the opportunity to make sure that the transformed services are welcoming and suitable for all and not discriminatory in nature.

# 5.8 Gender reassignment

The number of people in south east London who are gender variant is difficult to estimate. Based on research the Gender Identity Research and Education Society (GIRES), it is estimated that 12,500 adults have presented for medical treatment of gender dysphoria with around 7,500 having now undergone transition in the UK (Gender Identity Research and Education Society 2011). GIRES also notes that there is an upward trend with the number of people presenting doubling every six and a half years. NHS gender reassignment operations in London are carried out by Imperial College Healthcare NHS Trust at the Charing Cross hospital.

The scoping and impacts for this group are unchanged from the initial assessment, based on discussions with stakeholders. This impact assessment focuses on the impacts primarily through the changes to mental health services in south east London, but also concern about prejudice and discrimination amongst health care practitioners.

# 5.9 Marriage and civil partnerships

The scoping and impacts for this group are unchanged from the initial assessment, based on discussions with stakeholders.

## 5.10 Carers

Carers are not a specific equality characteristic but are considered given their importance to overall patient experience where relevant. The impacts on this group are considered particularly in relation to their ability to continue to provide support to patients as travel times could increase for some patients. Also, the support of carers can be critical to the fast recovery of patients from procedures and illnesses. It is important to note that carers are not considered in the same detail as each of the protected groups.

#### 5.11 Gender

Gender is another equality characteristic that is considered in the Equality Act 2010. The initial assessment did not identify any specific impacts from the TSA recommendations on different sexes. However, stakeholder engagement has identified potential impacts on the staff of the affected hospitals. Non-medical staff in the NHS is largely female, suggesting a potentially greater impact on female staff members. The numbers for medical staff are more equal but with a slightly higher proportion of males, particularly in senior grades, suggesting males could be more impacted by the changes. Further information on the demographic profile of staff is provided in Appendix E. Whilst the full HEIA identifies this potential staffing impact, as outlined in Section 4.9, a detailed analysis of the staffing impact of the proposed transformation is considered to be beyond the scope of the full HEIA.

# 6 Impact of emergency and urgent care transformation

This section considers the impact of changes to emergency and urgent care in south east London on the groups identified in Section 5. Some groups are considered in greater detail where the initial assessment indicates that there could be a higher impact on the group. Further, the nature of the service change and relevance to the group are also considered. Stakeholder views presented in this section are drawn from the stakeholder engagement that was undertaken as part of the HEIA process, unless otherwise stated. For a detailed analysis of the responses to the TSA's public consultation reference should be made to IPSOS MORI's report.

As summarised in Figure 2, the changes to emergency and urgent care services are focussed at UHL with the movement to a UCC whilst 24/7 surgical emergency admissions, inpatient acute medicine and a critical care unit will no longer be provided at UHL. The TSA has identified that a key driver of this change is addressing some of the variation in service arrangements and outcomes between weekend and weekday admissions. The TSA believes this could save around 100 lives within the health economy (TSA 2012a), see Section 4.2.1 for a discussion on this.

The summary statistics in Table 15 illustrate the variation in attendance performance across A&E departments in south east London currently.

Table 15: Summary A&E attendance statistics across Trusts

A&E clinical indicator	GST	КСН	UHL	SLHT	UK average
Left dept. before being seen for treatment (%)	5%	4%	4%	3%	3%
Re-attendance rate (%)	7%	9%	7%	6%	7%
Time to initial assessment (mins), emergency ambulance cases, 95 <sup>th</sup> percentile	19	n/a	13	37	45
Time to treatment (minutes), 95 <sup>th</sup> percentile	211	181	183	188	190
Total time in A&E, all patients (mins), 95 <sup>th</sup> percentile	271	259	254	365	263

Source: HES (2012)

This table summarises the clinical performance of A&E units in south east London against key performance metrics. Additionally, it presents the average for all UK A&E departments. The figures cover a six month period and are weighted by the number of A&E attendances. UHL compares favourably to the UK as a whole, with the exception of the percentage of patients leaving the department before being seen for treatment. In terms of time to treatment KCH, SLHT and UHL perform better than the UK average, whereas GST is marginally worse. KCH appears to have a high re-attendance rate of 9%. GST, KCH and UHL are all quite close to the UK average in terms of total time in A&E, whereas total time in A&E at SLHT appears to be significantly higher. GST and

UHL appear to perform well in terms of time to initial assessment. On the whole, there is variation across the A&E units in the south east London, with no single trust outperforming across the metrics considered.

# 6.1 Economic and social deprivation

#### 6.1.1 Health outcomes

There is significant research into the relationship between economic and social deprivation and demand for healthcare services. For example, Jones and Wildman's recent empirical investigation concludes that absolute levels of income impact health, whilst relative measures of deprivation are of lesser importance (Jones and Wildman 2008). The Department of Health also uses deprivation as a key determinant of the allocation of funds to PCTs.

As set out in the initial assessment, of particular relevance to the economically and socially deprived is the change to emergency and urgent care. Studies have shown that areas of higher economic and social deprivation are associated with higher A&E activity (Carlisle, et al. 1998) and that reduced access to A&E services could disproportionately impact poorer individuals (Shah and Cook 2008). For the economically and socially deprived seeking A&E services no longer provided at UHL, the quality of the care could be marginally lower in terms of re-attendance rates if patients move for example to KCH. The TSA has modelled that the pooling of resources could improve emergency care overall in south east london. The improvement of these services from the pooling of consultant resources is also consistent to the the College of Emergency Medicine which recommends that at a minimum all A&E departments should have ten whole time equivalent consultants. Further, the College notes that 'evidence is building regarding the tangible and demonstrable benefits of such consultant presence' (The College of Emergency Medicine April 2010).

In terms of specific health demands related to the economic and social deprivation, the high rates of cardiovasular disease will mostly be treated through the south east London Stroke and Cardiac Network and primary care. This network centralises urgent stroke services (Hyper Acute Stroke Units) across eight centres across London. In south east London these sites include the KCH and the PRUH where those having a stroke are already taken by ambulance for their initial assessment and treatment.

# 6.1.2 Physical & geographical barriers

As noted in Section 3.2.4, the methodology used to estimate blue light travel times in this report differs from the methodology used in previous analyses. A direct comparison cannot therefore be made between the various estimates.

The change in travel time, relating to emergency and urgent care currently at UHL, is not statistically correlated with economic and social deprivation. A broader measure of

health deprivation is correlated to the change in travel time; implying that those populations that are more deprived across south east London will see greater travel times. This analysis does not consider the number of people affected or the scale of the total travel time, considered as follows.

Analysing the populations falling within the top quintile of economic and social deprivation across England and impacted by the changes in services at UHL indicates that the economically and socially deprived within Bexley, Southwark and Lambeth are less impacted. The weighted travel time impact for the impacted economically and socially deprived is estimated to be seven minutes by blue light. Figure 12 presents the UHL travel time impacts for the economically and socially deprived populations falling within the top quintile of deprived LSOAs. This map shows that the larger increased travel times associated in economically and socially deprived areas are particularly clustered to the south of Lewisham<sup>37</sup> and in the LSOA where UHL is situated.

Legend
Hospital

Change in travel time (minutes)

Upto 1

1 to 5

5 to 10

10 to 15

15 to 20

Figure 12: Map of change in travel time, deprived population, A&E UHL transformation

Source: Deloitte analysis based on blue light travel time information from TSA, SDRC (2008)

A high level assessment can be made of the impact on the economically and socially deprived in terms of the potential A&E attendances impacted. This high level

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<sup>&</sup>lt;sup>37</sup> For example in the ward of Bellinham.

assessment demonstrates that around 7% of total A&E attendances will be impacted and be from the economically and socially deprived.

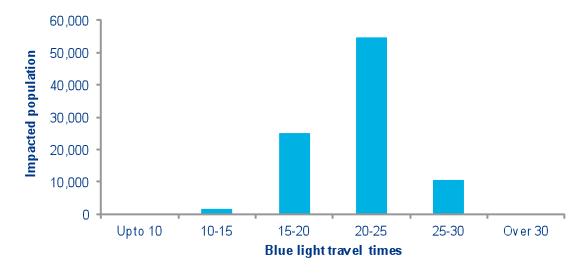
Table 16: Change in travel time, deprived population attendances, A&E UHL transformation

Travel impact (mins)	Bexley	Bromley	Greenwich	Lambeth	Lewisham	Southwark	Total	% of total UHL A&E attendances
<1	0	273	0	0	130	0	404	0%
1 to 5	0	379	133	0	2,236	127	2,875	3%
5 to 10	0	124	130	0	1,939	0	2,192	2%
10 to 15	0	0	0	0	2,632	0	2,632	2%
15 to 20	0	0	0	0	0	0	0	0%
20 to 25	0	0	0	0	0	0	0	0%
>25	0	0	0	0	0	0	0	0%
Total	0	776	262	0	6,936	127	8,102	7%

Source: Deloitte analysis based on information from TSA, SDRC (2008)

Section 4.5 identified that in totality 99% of the impacted population would still have blue light transportation to an A&E department within 30 minutes. Considering the economically and socially deprived population, the whole population has a blue light ambulance travel time of less than 30 minutes to their nearest A&E.

Figure 13: Absolute travel time, deprived population, A&E UHL transformation



Source: Deloitte analysis based on information from TSA, SDRC (2008)

The changes in travel time will relate to increased ambulance travel, as the TSA anticipates that most of the non-elective patients unable to receive treatment at the UCC will be higher risk. For changes to medical admission and critical care this could be a constraint to the economically and socially deprived relatives or carers who will need to travel further to see patients, potentially repeating the journey over several days of admission.

### 6.1.3 Other barriers

The economically and socially deprived are likely to find potentially increased transportation costs a greater burden. Recent research has found that cost can be related to a lower rate of utilisation for emergency services, elective care, outpatient attendances and non-specialist inpatient services (Mason 2010). The potential increase in costs for those using private transport is estimated in Table 17 for the ten most economically and socially deprived LSOAs in Lewisham.<sup>38</sup> This analysis helps to inform of the potential cost increases for those accessing services no longer provided at UHL through taxi transport. As described in Section 6.1.2 this is likely to be particularly important for deprived relatives and carers who are not transported by ambulance. Although it is noted that people may also use their own private transportation, leading to changes in cost relating to fuel and parking costs. Taxi costs may also vary based on fares available through local taxi firms. The fares reported, should therefore only be considered as indicative.

Stakeholders have raised particular concerns about car parking costs at KCH and GST. This is also relevant for carers and relatives from economically and socially deprived groups.

Table 17: Increased cost of one-way black cab transport in deprived LSOAs

Postcode	Alternative	Cost to UHL	Cost to alternative	Difference	Percentage change in cost
SE6 3JS	PRU	£6.00	£21.60	£15.60	260%
SE6 3LA	PRU	£6.30	£22.90	£16.60	263%
SE13 6PN	QEH	£4.00	£14.20	£10.20	255%
SE13 6QS	QEH	£3.40	£13.90	£10.50	309%
SE6 4SW	QEH	£6.10	£17.70	£11.60	190%
SE6 1AZ	QEH	£5.00	£13.40	£8.40	168%
SE6 4TW	QEH	£4.80	£15.80	£11.00	229%
SE6 2BY	QEH	£3.40	£15.10	£11.70	344%
SE6 1PF	QEH	£8.90	£14.20	£5.30	60%
SE6 1UD	QEH	£9.80	£15.40	£5.60	57%

Source: Deloitte Analysis<sup>39</sup>

For public transport the top five<sup>40</sup> LSOAs are considered using TfL's journey planner.

 $<sup>^{38}</sup>$  A postcode has been identified within the LSOA to estimate the costs.

<sup>&</sup>lt;sup>39</sup> Black cabs costs sourced from www.worldtaximeter.com/london. Accessed in November 2012.

Table 18: Increased cost of public transport in deprived LSOAs<sup>41</sup>

Postcode	Next alternative offering A&E	Cost to UHL	Cost to alternative	Difference	Percentage change in cost
SE13 5HE	QEH	£2.30	£2.30	£0.00	0%
SE13 6NL	QEH	£0.00*	£2.30	£2.30	N/A
SE6 4AN	KCH	£2.30	£4.20	£1.90	83%
SE6 4TW	KCH	£2.30	£4.20	£1.90	83%
SE6 2BY	KCH	£2.30	£4.20	£1.90	83%

Source: Deloitte Analysis<sup>42</sup>. \* This is due to TfL identifying walking as the quickest option for this postcode.

Economic and social deprivation is also associated with lower levels of literacy that could further exacerbate access to services for this group (The Department for Education 2005). Information on the service changes will need to be communicated to these groups through other means.

Figure 14: Economic and social deprivation stakeholder views

A number of stakeholders mentioned the impact on those who are more economically and socially deprived. Their concerns centred on the potentially increased cost of transportation for this group. Stakeholders also noted that in the interim report the borough level analysis of deprivation masked some of the pockets of economic and social deprivation in other boroughs which appear in aggregate to be less deprived.

Certain stakeholders have noted that the overall patient experience could be marginally lower for the economically deprived seeking A&E services no longer provided at UHL due to longer travel times. In particular, concerns were raised over a potential increase in re-attendance if patients move for example to KCH or other A&E departments.

<sup>&</sup>lt;sup>40</sup> Most affected in terms of change in travel time.

<sup>&</sup>lt;sup>41</sup>The costs presented in this table do not account for the fact that children under 16 travel free of charge on TfL or the benefits of freedom passes for older people.

<sup>&</sup>lt;sup>42</sup> Public transport costs based on TFL fare finder, accessed in November 2012.

# 6.1.4 Mitigations and enhancements

### Mitigation 13

The Hospital Travel Cost Scheme (HTSC) provides financial assistance for patients who require support to meet the cost of travel to and from care. As a result of the changes to emergency and urgent care services this scheme will be more relevant for travel from care. The HTSC eligibility criteria as outlined by the Department of Health notes that patients who are currently claimants of benefits or allowances, are entitled to full or partial reimbursement of travel expenses (Department of Health 2007). This includes, for example, patients who receive income support and income based jobseekers allowance (Department of Health 2005). This service will be increasingly important as a result of higher transportation costs. It is recommended that the HTSC is more widely publicised by hospitals in South East London. Although it is noted that this may not help deprived relatives and carers, where other mechanisms may need to be considered.

# Mitigation 14

The changes in services will need to be communicated, accounting for potentially low levels of literacy.

# 6.2 Age

### 6.2.1 Health outcomes

### Young

As discussed in the initial assessment, the potential transformation of emergency and urgent care at UHL is particularly relevant for the young population. The emergency medical needs of children have been identified as distinct; paediatric emergency medicine has continued to evolve and is now recognised as a sub-specialty for training from both emergency medicine and paediatrics (Royal College of Paediatrics and Child Health 2012). Children (0 to 15 years old) are associated with higher levels of A&E usage and this trend has increased in recent years as the number of attendances by children in UK emergency departments has gone from approximately 3 million in 2006/7 to 4.5 million in 2010/11 (NHS Information Centre Hospital Episode Statistics 2012). Clinical guidelines stipulate that initial clinical assessment for children should occur within 15 minutes of the patient's arrival, as children are often more difficult to diagnose and can deteriorate quickly (Royal College of Paediatrics and Child Health 2012).

Stakeholders have informed us that the UHL paediatric A&E department, co-located with the main A&E department at UHL, is successful in leading to lower admission rates when compared to other hospitals in south east London and nationally.

Thus, for those children accessing urgent care inpatient services no longer provided at UHL, there could be a negative impact in terms of the quality of the service provided at other south east London hospitals. However, it is noted that there are also separate paediatric A&E services provided at a range of other hospitals in south east London, as summarised in Table 19.

Table 19: Separate paediatric A&E services provided in south east London

UHL	ксн	GST	QEH	PRUH
Yes	Yes	Yes	No	No

Source: Confirmed via discussion with the hospitals

Recent research also shows that there has been an increase in the attendance of children with common medical illnesses including fever, diarrhoea & vomiting, rashes and coughs in A&E (Sans 2011). This research also indicates that the majority of children attending A&E could be treated in an UCC. Therefore, the majority of children currently attending A&E at UHL could continue using the UCC services. Through streamlining A&E attendances and ensuring that children with minor conditions are treated at the UCC or by their own GP, there is a potential positive impact on health outcomes overall as critical A&E paediatric specialists are freed to deal with the most serious conditions in a small number of hospitals.

### **Elderly**

The initial assessment also identified the potential impact of reconfiguring emergency and urgent care services at UHL on older people. Significant research has been undertaken to understand the emergency medical requirements of older people. Specifically, there is research to suggest that older people are relatively frequent users of A&E departments with approximately a third of A&E attendances by older people following a fall or accident and the remainder due to illness (Downing and Wilson 2004). Moreover, the provision of non-elective care is of particular importance to older people due to the high rate of medical admissions following A&E attendance. Studies have found that 48 % of over 65s are admitted to hospital following A&E attendance compared to 20 % of younger patients (Department of Health 2004).

There is significant variation across providers in the use of hospital beds by people over 65 admitted as emergency (King's Fund 2012) and thus a large potential impact through shifting service provision from one location to another. Table 20 presents the emergency readmission<sup>43</sup> rates to hospital within 28 days of discharge from hospital (adults over age 75) for hospitals in south east London.

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<sup>&</sup>lt;sup>43</sup> The HES only considers emergency readmissions given that 'elective readmissions were an intentional part of the treatment'. Furthermore, emergency readmissions are excluded in case of cancer or mental health issues.

Table 20: 28 day emergency readmissions for aged 75+, 2009-2010

Hospital	Rate
UHL	18%
GST	16%
SLHT	17%

Source: HES (2011b), KCH unknown

The results demonstrate that there is not a substantial difference in readmission rates across the three providers. The readmission rates for GST and SLHT are slightly lower than UHL suggesting that a shift in emergency admissions from UHL to GST or SLHT could improve health outcomes for the older people. This marginal difference could be related to other factors such as the current patient mix attending GST.

Additionally, certain stakeholders in Lewisham have noted that confused, older people, make up a substantial proportion of UHL's non-blue light emergency admissions and there could thus be a potential negative impact on this group.

### 6.2.2 Integrated care

Continuity of care is important to older people. Without it, care is unlikely to be clinically effective, safe, personalised, efficient or cost-effective (King's Fund 2011). Under the proposed service transformation, older people who would have previously have attended A&E at UHL would be diverted to four specialist A&E units in south east London if admission is thought likely. If the A&E attendance does indeed result in admission, after a short acute stay, patients may be transferred back to UHL. As such, this process may disrupt continuity of care for older patients, leading to adverse impact on patient experience and health outcomes. For example, if a Lewisham resident attends A&E at KCH and they are then transferred to the step-down facility at UHL before going home, there could be risk of a breakdown in integrated care. Further, currently UHL is a vertically integrated provider of both acute and community care and it could potentially be a challenge to recreate this in the transformed environment.

Whilst there may be negative health outcomes associated with a reduction in continuity of care, there are potential benefits associated with greater integration of non-elective and community care. Evidence suggests that trusts with integrated and collaborative working practices with non-acute services achieve lower lengths of stay (and thus improved health outcomes) for older patients (Foundation Trust Network 2012). Successful extension of community services (as per TSA recommendations) could therefore bring about positive health impacts for the older population.

# 6.2.3 Physical and geographical barriers

As noted in Section 3.2.4, the methodology used to estimate blue light travel times in this report differs from the methodology used in previous analyses. A direct comparison cannot therefore be made between the various estimates.

### Young

Analysing the changes in blue light travel times for children aged 0 to 15 suggests that the larger impacts lie in Lewisham with some impacts in Bromley. The average change in travel time is estimated to be around six and a half minutes.

A high level assessment can be made of the impact on the young (aged 0 to 15) population in terms of the potential A&E attendances. This assessment finds that approximately 4% of total A&E attendances by children aged 0 to 15 will be impacted.

Table 21: Change in travel time, 0 to 15 years old attendances, A&E UHL transformation

Travel impact (mins)	Bexley	Bromley	Greenwich	Lambeth	Lewisham	Southwark	Total	% of total UHL A&E attendances
<1	0	160	0	0	47	61	269	0.2%
1 to 5	0	563	154	0	939	71	1,726	1.5%
5 to 10	0	270	40	0	1,106	0	1,416	1.3%
10 to 15	0	28	0	0	1,180	0	1,208	1.1%
15 to 20	0	0	0	0	0	0	0	0.0%
20 to 25	0	0	0	0	0	0	0	0.0%
>25	0	0	0	0	0	0	0	0.0%
Total	0	1,022	194	0	3,271	131	4,618	4.1%

Source: Deloitte analysis based on blue light travel time information from TSA, ONS (2010c), HES (2011)

Considering the population of children aged 0 to 15, only 300 young people out of the overall population are estimated to have a blue light ambulance time of greater than 30 minutes from the patient's home. This means 99% of children in south east London can access an A&E department within 30 minutes at peak times.

45,000 40,000 35.000 30,000 25,000 20,000 15,000 10,000 5,000 0 Upto 10 10-15 15-20 20-25 25-30 Over 30 Blue light travel times

Figure 15: Absolute travel time, aged 0 to 15 population, A&E UHL transformation

Source: Deloitte analysis based on information from TSA, SDRC (2008)

The changes in travel time will relate to increased blue light ambulance travel, as the TSA anticipates that most of the non-elective patients unable to receive treatment at the UCC will be higher risk. However, for changes to medical admission and critical care this could be a constraint to the relatives or carers of children who will need to travel further to see patients, potentially repeating the journey over several days of admission.

### **Elderly**

The econometric analysis shows that those areas of higher density of older people are not correlated to increases in travel time. However, analysis does not account for the larger attendance of the older people at A&E. At a high level this higher attendance rate can be accounted for to understand the impact on the older people (aged over 65) in terms of potential A&E attendances impacted. This assessment finds that around 9% of total A&E attendances by people aged over 65 will be impacted. The travel time impacts on young people are smaller, in terms of the total number of A&E attendances impacted, driven by the higher attendance rate of elderly people (9% compared to 5% for the young).

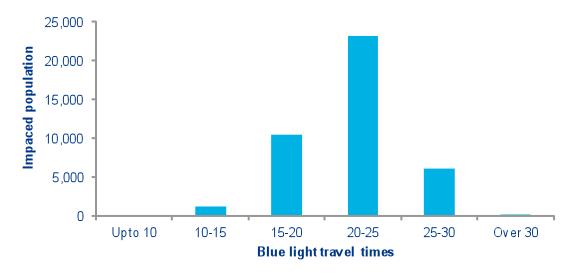
Table 22: Change in travel time, over 65 years old attendances, A&E UHL transformation

Travel impact (mins)	Bexley	Bromley	Greenwich	Lambeth	Lewisham	Southwark	Total	% of total UHL A&E attendances
<1	0	279	0	0	52	156	487	0%
1 to 5	0	1,534	430	0	1,871	101	3,935	3%
5 to 10	0	955	90	0	1,999	0	3,044	3%
10 to 15	0	49	0	0	2,349	0	2,397	2%
15 to 20	0	0	0	0	0	0	0	0%
20 to 25	0	0	0	0	0	0	0	0%
>25	0	0	0	0	0	0	0	0%
Total	0	2,818	520	0	6,270	256	9,864	9%

Source: Deloitte analysis based on blue light travel time information from TSA, ONS (2010c)

Considering the population of older people who are impacted, only 200 out of the overall population are estimated to have a blue light ambulance time of greater than 30 minutes. This suggests that 99.7% of older people in south east London can access an A&E department within 30 minutes.

Figure 16: Absolute travel time, over 65 years old population, A&E UHL transformation



Source: Deloitte analysis based on information from TSA, SDRC (2008)

# 6.2.4 Patient experience

There could be impacts on patient experience for the older people as a result of nonelective service transformation. This is related to the impact on continuity of care, identified in Section 6.2.1.

### 6.2.5 Other barriers

Stakeholder engagement has identified confusion amongst parents as to where to take their children when they are severely unwell. In part this has been driven by the high level of service change in recent years and the diversity of urgent care services. Communication of information is therefore important to ensure that any transformation of services is correctly understood and interpreted by parents.

### 6.2.6 Mitigations and enhancements

# Mitigation 15 Ensure that RCPCH clinical guidelines around treatment time for

children are adhered to and that all children are assessed within 15

minutes of presentation at A&E, UCC or walk-in centre.

# Mitigation 16 Consider the level of paediatrician support in the UCC to ensure that

health outcomes and avoidable admissions for this group are

maintained or improved.

# Mitigation 17 Provide clear and appropriate information to parents and carers about

the different types of urgent care settings. Particularly, information could be provided around the conditions and illnesses that can be treated at an UCC so that parents and carers of young and older people are not unnecessarily confused. Moreover, there could be targeted education campaigns for the parents/carers of these groups in order to inform them of the service changes. In the case of paediatric A&E services, the TSA's final recommendations should be clear around the arrangements for children who previously would

have been seen at the paediatric A&E at UHL.

# **Enhancement 8** Community based programmes for the older people for common

conditions such as trips and falls. There could be a focus on preventative care to ensure that repeat trips and falls are avoided. For example, all people at risk of falls could be offered a home assessment and interventions to modify environmental hazards, as per the National Institute for Health and Clinical Excellence guidelines (NHS National Institute for Clinical Excellence 2004). Stakeholders suggest challenges resulting from elderly patients requiring rehabilitation support before returning home with a care package.

Early involvement of old age specialist teams should be secured for Mitigation 18 A&E attendances<sup>44</sup> by older people.

Figure 17: Age, stakeholder views

A number of stakeholders told us that parents tend to be particularly sensitive about their children and may take children to A&E departments in order to be cautious. Stakeholders also told us that carers are often responsible for taking children to A&E and this group is also likely to be more cautious and risk averse, thus preferring to attend A&E rather than another setting. Stakeholders also raised concerns around capacity and patient experience if the paediatric A&E were to be removed; specifically it is noted that neither QEH nor PRUH currently has a specialist paediatric A&E unit.

#### 6.3 Race

### 6.3.1 Health outcomes

Section 5.4 identified key health issues for people from BAME groups; in particular these include stroke and hypertension, type 2 diabetes and sickle cell anaemia. Stroke related services are centralised across the South London Cardiac and Stroke Network. This network is unaffected by the TSA's recommendations and as such there is no expected impact on health outcomes in relation to stroke services. Additionally, diabetes services are provided in outpatient and community settings. This suggests that the changes to emergency and urgent care provision at UHL are unlikely to impact this service. The changes in relation to community service provision are likely to be more relevant.

The initial assessment identified race as a key protected characteristic to consider when assessing the impact of emergency and urgent care service transformation. Research indicates that people from BAME groups may have lower levels of GP registration rates than the population as a whole (Petersen, et al. 2011). Particularly there are barriers to primary care access for ethnic minorities, including communication problems, social isolation and economic hardship (Hargreaves et al. 2006). New entrants to the UK could have difficulties understanding how to register with a GP, how to access out of hours care and how to identify and access alternative care pathways. Restricted access to primary care has been linked to increased A&E attendance. As such, people from these groups might be more likely to attend urgent care settings, either an UCC or A&E to access healthcare.

Sickle cell anaemia tends to be more prevalent amongst people from BAME groups (NHS Screening Programmes 2012). This is a condition that does present in crisis in

<sup>&</sup>lt;sup>44</sup> Usually, this takes place only for those likely to be admitted under care of the elderly. Otherwise, they wait until the patient is an actual admission rather than an attendance.

A&E and requires appropriate diagnosis and often rapid treatment. Given the prevalence of this condition in south east London, stakeholders have suggested that staff at UHL are likely to have experience in detecting and handling issues related to the condition. There is a potential adverse health impact on current BAME users of the A&E at UHL if the specialist non-elective centres (QEH, PRUH, KCH and STH) do not have sufficient expertise in this condition or, if they do, capacity to respond is stretched. Table 23 shows the number of admissions and bed days for the diagnosis 'sickle-cell anaemia with crisis' across the non-elective service providers in south east London.

Table 23: Total admissions/bed days in relation to 'sickle cell with crisis' diagnosis, 2005/6

Trust	Total admissions	Total bed days
GST	297	1,297
KCH	270	1,232
UHL	186	631
QEH	122	422
PRUH	25	120

Source: HES, NHS Information Centre

The table shows that GST and KCH have considerable experience of handling admissions relating to sickle-cell anaemia and therefore the diversion of patients from UHL to these hospitals should not result in adverse health outcomes so long as sufficient capacity is available. QEH also has experience with admissions of sickle-cell anaemia with 122 admissions. The number of admissions and bed days at PRUH is lower, potentially indicating less experience and a possible risk in terms of appropriately diagnosing and treating sickle-cell anaemia related incidents. This impact could affect people from BAME groups that are diverted from UHL to PRUH for urgent medical services.<sup>45</sup>

# 6.3.2 Physical and geographical barriers

As noted in Section 3.2.4, the methodology used to estimate blue light travel times in this report differs from the methodology used in previous analyses. A direct comparison cannot therefore be made between the various estimates.

The change in travel time relating to non-elective service transformation at UHL is positively correlated with the population from BAME groups, implying greater travel times in these particular areas. Additionally, the analysis suggests that the impact is largely focused on those LSOAs currently served by UHL. However, this does not consider the absolute travel time distance or the number of attendances impacted.

<sup>&</sup>lt;sup>45</sup> It should be recognised that the underlying information is from 2005 and may not be fully reflective of the current situation.

Analysing the BAME population in the LSOAs impacted by the non-elective service transformation at UHL illustrates that BAME populations in Bexley, Lambeth and Southwark are less impacted (with no impact in Bexley and Lambeth). The average increase in travel time by blue light transport is estimated to be around 7 minutes.

A high level assessment can be undertaken on the impact on the population from BAME groups in terms of the potential number of A&E attendances impacted. This high level assessment demonstrates that around 7% of total A&E attendances from BAME groups will be impacted.

Figure 18: Change in travel time, BAME attendances, A&E UHL transformation

Travel impact (mins)	Bexley	Bromley	Greenwich	Lambeth	Lewisham	Southwark	Total	% of total UHL A&E attendances
<1	0	183	0	0	132	75	391	0%
1 to 5	0	454	208	0	1,904	149	2,715	2%
5 to 10	0	204	74	0	2,163	0	2,442	2%
10 to 15	0	26	0	0	2,288	0	2,313	2%
15 to 20	0	0	0	0	0	0	0	0%
20 to 25	0	0	0	0	0	0	0	0%
>25	0	0	0	0	0	0	0	0%
Total	0	867	282	0	6,487	224	7,861	7%

Source: Deloitte analysis based on blue light travel time information from TSA, ONS (2011)

Considering the population of BAME people who are impacted, around 700 people are estimated to have an ambulance time of greater than 30 minutes. This suggests that 99% of the BAME population in south east London can access an A&E department within 30 minutes at peak times.

70,000 60,000 mpacted population 50,000 40,000 30,000 20,000 10,000 0 Upto 10 10-15 15-20 20-25 25-30 Over 30 Blue light travel times

Figure 19: Absolute travel time, BAME population, A&E UHL transformation

Source: Deloitte analysis based on information from TSA, SDRC (2008)

### 6.3.3 Other barriers

Stakeholders have identified issues around linguistic competence and understanding. First generation migrants with low levels of English knowledge might find it particularly hard to accept and understand the changes to urgent care service provision; they may be confused about where to access the service and may lack trust in the service. Additionally, the cultural sensitivity of staff in the non-elective centres (QEH, KCH, STH, and PRUH) will impact upon patient experience. Some stakeholders have reported to us that UHL is good at understanding the ethnic diversity of its patients whilst QEH is less strong in this area. As a result, current UHL A&E users from BAME groups might observe deterioration in patient experience if they are diverted to QEH.

Figure 20: Race, stakeholder views

Stakeholders have told us that there is some confusion over the role of an UCC and the differences between an UCC and A&E. Additionally, stakeholder engagement has also identified a lack of information provision and engagement with the BAME population, particularly around the scope of the TSA's proposed changes and the extent to which key services will be impacted.

# 6.3.4 Mitigations and enhancements

Mitigation 19 Stakeholder engagement has identified that the BAME group may find it harder to access particular services because they are unable to obtain the necessary information. In order to mitigate this potential impact, it will be important to ensure that clear and accessible information is

available to people from the BAME group, and there is an active communications campaign to build knowledge and confidence in the changes and the new services. Additionally, improved provision of access for the BAME group might require the following:

- Bilingual/bicultural staff;
- Adequate translation and interpretation services (particularly around legally binding documents such as consent forms, hospital signage, health education materials, health campaigns); and
- Materials specifically developed and tested for particular ethnic groups.

# 6.4 Disability

#### 6.4.1 Health outcomes

In Section 5.3 three key health issues were identified particularly for people with learning difficulties: respiratory disease, coronary heart disease and mental health problems. The presentation to UHL for urgent health issues related to coronary heart disease is limited by the South London Cardiac and Stroke Network.

For respiratory disease, recent commissioning plans in south east London note 'south east London has a high level of emergency hospital admissions which could be managed in primary and community care, particularly for patients with diabetes and respiratory illnesses' (NHS South East London 2011).<sup>46</sup> Changes to community preventative services are therefore potentially of higher priority for respiratory disease.

For mental health problems key services are provided by Oxleas NHS Foundation Trust, the South London and Maudsley NHS Foundation Trust in the community and at the Ladywell Unit at Lewisham Hospital. These services are not directly impacted by the changes in emergency and urgent care at UHL.

# 6.4.2 Physical & geographical barriers

As noted in Section 3.2.4, the methodology used to estimate blue light travel times in this report differs from the methodology used in previous analyses. A direct comparison cannot therefore be made between the various estimates.

Previous studies into the impact of changes to services in Lewisham have noted 'that any change in service away from UHL is likely to increase the complexity of the

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<sup>&</sup>lt;sup>46</sup> More generally respiratory disorders are a key part of the recommended priorities for adults as identified by the Joint Strategic Needs Assessment (NHS Greenwich 2012).

journey...[t]his will particularly impact on people with physical sensory and learning disability and older people using public transport.' (Matrix insight 2008).

By estimating the change in ambulance travel time for each LSOA from a change to a UCC at UHL, a positive correlation to measures of disability is found, as established in Appendix B. Consistent with other equality impact assessments, the number of people receiving disability living allowance by LSOA has been used as a proxy for people defined under the Equality Act 2010 as being disabled (Department for Work and Pensions 2012). As a sense check to this finding the disability to illness ratio and mood and anxiety disorders indicator making up the health deprivation index published by the ONS were also considered. These indicators also suggest a statistically significant correlation. This finding is likely to be driven by the higher disability living allowance claimant rate being observed in Lewisham, as identified in the initial assessment.<sup>47</sup>

To analyse the travel time impact, Figure 21 establishes the UHL travel time change for the LSOAs which fall within the top quintile of disability living allowance density in England<sup>48</sup>. This map shows some clustering of disability and travel time impact. This is particularly high in some areas of South Lewisham and North Bromley which have a 10 to 15 minute increase in ambulance travel time in peak times.

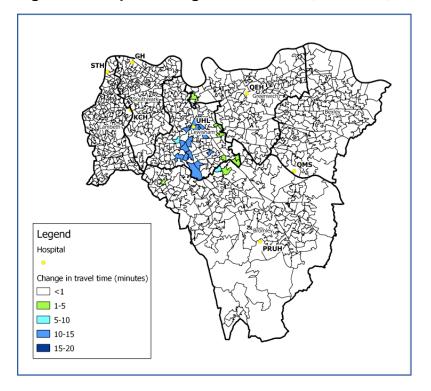


Figure 21: Map of change in travel time, disabled, A&E UHL transformation

Source: Deloitte analysis based on blue light travel time information from TSA and ONS (2010b)

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 $<sup>^{47}</sup>$  It is important to note that the over 65s are not eligible for this, meaning that the elderly disabled are underrepresented.

<sup>&</sup>lt;sup>48</sup> Measured in terms of the absolute number of DLA claimants at LSOA level across England.

A high level assessment can be made of the impact on people with disabilities in terms of the potential A&E attendances impacted. This assessment demonstrates that about 1% of total A&E attendances of people with disabilities will be impacted.

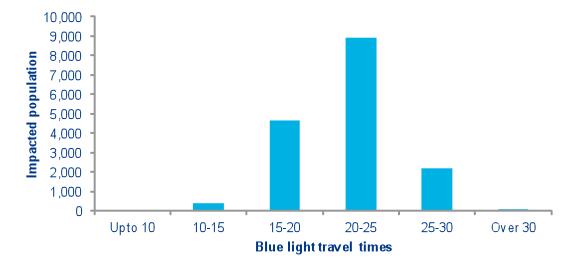
Table 24: Change in travel time, disabled attendances, A&E UHL transformation

Travel impact (mins)	Bexley_	Bromley	Greenwich	Lambeth	Lewisham	Southwark	Total	% of total UHL A&E attendances
<1		0	34	0	0	11	13	58
1 to 5		0	102	34	0	214	19	370
5 to 10		0	47	9	0	257	0	314
10 to 15		0	5	0	0	306	0	312
15 to 20		0	0	0	0	0	0	0
20 to 25		0	0	0	0	0	0	0
>25		0	0	0	0	0	0	0
Total		0	189	44	0	789	32	1,054

Source: Deloitte analysis based on blue light travel time information from TSA, ONS (2010b) and SDRC(2008)

Considering the population of people with disabilities who are impacted, only around 60 people are estimated to have an ambulance time of greater than 30 minutes. This suggests that 99% of people with disabilities in south east London under age 65 will be able to access an A&E department within 30 minutes.

Figure 22: Absolute travel time, disabled population, A&E UHL transformation



Source: Deloitte analysis based on information from TSA, SDRC (2008)

### 6.4.3 Patient experience

The physically and mentally impaired patient experience may be particularly impacted as a result of changes to access and facilities. These changes are discussed in the following Section 6.4.4.

#### 6.4.4 Other barriers

The movement of some services from UHL A&E could impact the people with disabilities if the access facilities are different across the sites. NHS choices provide information on the availability of access facilities across the hospital sites. Based on considering these high level indicators of accessibility and the activity shifts, the movement of 29% of A&E attendances from UHL to QEH is likely to be an area where accessibility is impacted across these broad categories. Specifically, UHL has an induction loop system for those who are hard of hearing whilst this is not present at QEH.

Table 25: Access appraisal by hospital

Hospital	Disabled access	Induction Loop	Signing services
UHL	Yes	Yes	Yes
PRUH	Yes	Yes	Yes
QMS	Yes	No	No
QEH	Yes	No	Yes
KCH (DH)	Yes	Yes	Yes
GH	Yes	Yes	Yes
STH	Yes	Yes	Yes

Source: NHS Choices facilities analysis, accessed 15/11/2012

A more detailed appraisal of access was undertaken across a broader set of facilities. A number of hospitals have not reported information across these categories limiting the comparison. The information available is reproduced in Appendix D.

The movement of A&E services from UHL to other sites may be a particular barrier to people with learning difficulties or mental impairments. This may reduce the ability of people to efficiently access the appropriate service at the appropriate location. It is important to ensure that access to A&E services for this group is not particularly impacted by the proposed transformation.

### 6.4.5 Mitigations and enhancements

**Mitigation 20** Install an induction loop system in QEH, to help the hard of hearing as they move from UHL.

Mitigation 22 Develop an information campaign around the availability of services at each hospital, the campaign should have particular regard for the people

with disabilities. This could also be supported with greater signposting services. The British Red Cross, for example, provides signposting services to older people and the people with disabilities in a number of areas. A forthcoming report authored by Deloitte shows these services can provide both benefits to the receipts but also to health and social care commissioners (Deloitte 2012).

# 6.5 Other protected characteristics

### 6.5.1 Sexual orientation

Stakeholders have suggested that there may be higher levels of hate crimes against people from LGBT groups in particular parts of south east London. Emergency and urgent care transformation could have a disproportionate impact on people from LGBT groups if people previously attending A&E at UHL have to travel through areas with higher levels of hate crimes. However, at this stage sufficient data has not been obtained in order to ascertain the relative levels of hate crimes across areas in south east London.

### 6.5.2 Religion

Stakeholder evidence and a review of literature suggest that Muslim women may have specific emergency and urgent care requirements. A study on health services used by Muslim women found that many Muslim women had concerns directly linked to gender; particularly there were concerns around a lack of gender specific services and the need to see male health care professionals (Muslim Women's Network UK 2008). Emergency and urgent care transformation could have a disproportionate impact on Muslim women if UHL is more sensitive to the abovementioned issues than one of the other four A&E units in south east London (KCH, PRUH, QEH, STH). Stakeholder engagement has not identified this as a concern and therefore a disproportionate impact on Muslim women is considered to be unlikely.

#### 6.5.3 Carers

Transformation of emergency and urgent care services could have a disproportionate impact on carers of patients previously attending UHL. Particularly, carers transporting patients to other hospitals may have to travel further. This is likely to be of particular relevance for A&E attendances which result in medical admissions as carers will have to make repeated trips to one of the four acute hospital units in south east London (KCH, PRUH, QEH and STH). Along with an increase in travel time, there is potential increase in journey complexity and travel cost for carers. This impact could be mitigated by the provision of a bedded facility linked to UHL, for admitted patients with lower level care, as outlined in Section 4.6. This proposal would require thorough clinical assessment and approval.

# 6.5.4 Other

No specific issues have been raised in relation to other protected groups (pregnancy and maternity, gender, gender re-assignment and marriage & civil partnerships).

# 7 Impact of maternity service transformation

This section considers the impact of changes to maternity care in south east London on the groups identified in Section 5. Some groups are considered in greater detail where the initial assessment indicates that there could be a higher impact on the group. Further, the nature of the service change and relevance to the group is also considered. TSA draft recommendations outline two options for the transformation of maternity services in south east London. The TSA has subsequently identified a third maternity option. Details of the three maternity options under consideration are presented in Section 2.2.

Stakeholder views presented in this section are drawn from the stakeholder engagement that was undertaken as part of the HEIA process, unless otherwise stated. For a detailed analysis of the responses to the TSA's public consultation reference should be made to IPSOS MORI's report.

# **Option 1**

Table 26 shows that under Option 1 for maternity, the 4,335 births projected<sup>49</sup> to take place at UHL in 2015/16 are expected to be absorbed by PRUH, QEH and KCH, with a small minority going to STH and other hospitals. This analysis, provided by the TSA, is based on patients' nearest hospital and where possible, patient preference is also factored into the TSA modelling assumptions.

Table 26: Movement of UHL births to other south east London hospitals

Hospital	% of UHL births absorbed by other hospitals, 2015/16
PRUH	23%
QEH	29%
KCH	37%
STH	5%
Other	5%

Source: TSA activity analysis for TSA (2012)

# 7.1 Pregnancy and maternity

### 7.1.1 Health outcomes

Under the proposed transformation of maternity services, there will be a redistribution of activity across south east London. As noted in the TSA draft report, clinical quality standards for maternity services have now been developed (London Health Programmes 2012); the Clinical Advisory Group and External Clinical Panel advised the TSA that any future models of maternity in south east London should consistently meet these standards to secure long-term sustainability and consistent high standards (TSA 2012b).

There is evidence to suggest variation in the achievement of clinical standards in maternity units across south east London hospitals at present. 50 Some clinical standards suggest that the ratio of births to midwives should be around 30 (BirthRate Plus 2009).

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<sup>&</sup>lt;sup>49</sup> TSA activity analysis for TSA (2012)

<sup>&</sup>lt;sup>50</sup> Results from the 2010 CQC maternity services survey for labour and birth indicate outcomes at SLHT are currently lower than they are at UHL (and worse than average outcomes for maternity units across the UK). However, it is important to note that this data is from 2010 and stakeholders have informed us that there have been improvements and changes to the maternity services across these hospitals since 2010.

Table 27: Ratio of births to midwives by trust/unit, 2009/10, south east London

Trust / Maternity Unit	Total Midwives in Post	Births	Births: Midwives in post
STH	246	6,698	27.2
КСН	218	5,804	26.6
UHL	112	3,428	30.5
PRUH	113	3,935	35.0
QEH	125	4,153	33.3

Source: HES (2011a)

Table 27 shows that the clinical standard around the ratio of midwives to births was not met by PRUH, QEH and UHL in 2009/10. However, concentration of obstetric-led maternity services may lead to changes in the staffing ratios across maternity units in south east London, in light of the shortages of skilled staff. As such, historic figures may not provide an indication of future staffing ratios.

Table 28 presents the TSA projections of the number of births in south east London hospitals in 2015/16 under two scenarios. Clinical guidelines require labour wards supporting large numbers of births (over 5000 a year) and/or a complex caseload to adopt a 168-hour consultant-based service. The background to this recommendation is the recognition that the level of activity on the labour ward varies very little during a 24 hour period and that senior presence is therefore required for the totality of the working day, to support and train junior staff and to ensure high level decision making (Royal College of Obstetrics and Gynaecologists; Royal College of Midwives; Royal College of Anaesthetists; Royal College of Paediatrics and Child Health 2007). This could lead to reduced morbidity and mortality, especially for the high risk mothers and those that, although starting as low risk, change status during labour.

Table 28: Total births at south east London hospitals, with and without transformation

Total births, 2015/16	QEH	PRUH	КСН	STH	UHL
Assuming no transformation (Option 2)	4,542	4,685	5,691	6,865	4,335
Assuming transformation (Option 1)	5,798	5,691	7,308	7,099	-

Source: TSA/McKinsey activity analysis for TSA (2012)

Table 28 demonstrates that the TSA recommendations are estimated to take both QEH and PRUH past the 5,000 births threshold for a 168-hour consultant presence service as recommended by the Royal College of Obstetrics and Gynaecology. There is also evidence to support the concentration of obstetrician-led care onto fewer sites, potentially improving outcomes for both mothers and babies (King's Fund 2011). It should, however, be recognised that the literature on the benefits of larger maternity units is mixed, with very large units experiencing diseconomies of scale. In addition,

research indicates that 'transformation may actually limit choice to a smaller number of larger and more geographically remote consultant units... [whilst] there is no guarantee that this will offer them safe childbirth' (Macfarlane 2008). The TSA notes that the option of concentrating obstetric-led maternity care onto four sites was endorsed by the external clinical panel (TSA 2012b). The clinical panel assessed various options against key clinical standards and criteria in order to determine an option which is clinically sustainable in the long-term.

QEH and KCH do not currently provide co-located midwifery-led maternity services with their obstetrics-led services, whereas UHL and PRUH do.<sup>51</sup> Stakeholders have raised concerns that hospitals with purely obstetric-led units can lead to greater, and potentially inappropriate, medical interventions such as caesarean sections whilst there are perceived benefits associated with co-located midwifery led units.<sup>52</sup> There is a potential negative impact on health outcomes if women currently delivering at the co-located midwifery-led unit at UHL will not be able to deliver in midwifery-led units after the transformation. However, the TSA has also considered co-location and they recommend that 'co-located midwifery-led birthing units should be provided alongside all obstetric units in south east London' (TSA 2012b). The development of a co-located service at QEH and KCH could mitigate a potential negative impact on health outcomes from the closure of the co-located midwifery-led service at UHL.

Stakeholders have also raised concerns around the impact of Option 1 on home births currently taking place in Lewisham. Particularly, there are concerns around the risks from longer transit time to hospital for home births in Lewisham and the resultant impact on health outcomes.

# 7.1.2 Physical and geographical barriers

This full HEIA assessment has used underlying TSA transport analysis to understand the impact on physical and geographical barriers more generally for all women who would be unable to give birth at UHL after the proposed transformation. It is important to note that the analysis presented is driven by the assumptions provided by the TSA, and is high-level in nature.

The change in travel time, relating to births moving from UHL, is positively correlated with LSOAs with greater births; implying that those populations that have greater birth rates across South East London will see greater travel times under Option 1. There is also an increase in cost associated with increased travel time.

<sup>&</sup>lt;sup>51</sup> A co-located midwifery-led unit is planned to be opened at QEH in the near future and a unit will also be opened at KCH, as per TSA draft recommendations.

<sup>&</sup>lt;sup>52</sup> For the low risk mother, evidence suggests that a co-located midwife led unit has the benefits of a more natural birth, but also obstetrician help close at hand were complications to arise.

Table 29 presents the change in travel time relating to the maternity services transformed at UHL for births in the relevant health economy, based on the TSA's estimates. The greatest impact is in Lewisham; of the total 3,500 births impacted by the transformation, 2,300 relate to women from LSOAs in Lewisham. There is a smaller impact in Southwark and Greenwich. Of the 2,300 women impacted in Lewisham, approximately 12% experience an increase in travel time to the site of delivery which is greater than 20 minutes. This is based on a mix of transport modes including ambulance, private and public transport and so may not be directly relevant to the woman on her way to give birth, but may be more relevant to her visitors.

Table 29: Change in travel time, women giving birth, maternity transformation

Travel impact (mins)	Bexley	Bromley	Greenwich	Lambeth	Lewisham	Southwark	Total
<1	0	115	0	0	94	65	274
1 to 5	0	350	0	0	413	73	836
5 to 10	0	209	181	0	267	0	657
10 to 15	0	11	74	0	608	0	693
15 to 20	0	51	0	0	689	0	740
20 to 25	0	0	0	0	89	0	89
>25	0	0	0	0	188	0	188
Total	0	736	254	0	2,347	138	3,476

Source: Deloitte analysis based on private travel time information provided by TSA, ONS (2010d)

Stakeholders have also raised concerns about the increase in travel time associated with the proposed transformation. Particular concerns have been voiced around increased births in taxis.

### 7.1.3 Patient choice

Under Option 1, there is a reduction in patient choice as women in south east London will no longer be able to give birth at UHL. Patient choice in maternity services has previously been cited as important. 'Maternity matters' promised 'the opportunity to make informed choices throughout pregnancy, birth and during the postnatal period' (Department of Health, 2007). This includes a promise of choice about place of birth. However, it should be noted that there would remain a wider range of maternity providers in south east London compared to large parts of England.

There is also a potential reduction in patient choice in terms of opting for midwifery led delivery as KCH and QEH do not currently have midwifery led birthing units co-located

with their obstetrics led units. Stakeholders have told us that the birthing centre at UHL performs well and UHL is one of the only hospitals in south east London with a dedicated birthing centre. Therefore, losing this unit could represent a reduction to choice; although it is envisaged that co-located midwifery-led units will be provided at QEH and KCH.

### 7.1.4 Integrated care

There is potential for a breakdown in continuity of care under the proposed transformation as patients continue to receive antenatal and postnatal services at UHL and give birth at other hospitals. There is evidence to suggest that continuity of care is important in maternity service delivery, with some studies suggesting that it can contribute to better outcomes (King's Fund, 2011). Stakeholders have raised concerns around integration of care. Specifically, that UHL has a Case Loading team which tries to ensure care is led by one midwife for the whole pregnancy, end to end.

Stakeholders also raised concerns around the potential for disruption to pathways and links, for example with the Local Authority, GPs, mental-health and community services for Lewisham residents who previously would have delivered at UHL. This is a particular concern in Lewisham and certain clinicians have identified the vulnerability of some Lewisham women in pregnancy due to mental health problems, substance abuse and domestic violence. As a result, the Lewisham Safeguarding Children Board identified the management of these vulnerable pregnancies as a major focus for improvement. Since then, a safeguarding midwife lead has been appointed and actions have been taken to ensure better integration and co-ordination of care. Given the importance of safeguarding in Lewisham, there is a potentially negative impact on integrated care for pregnant women under Option 1.

# 7.1.5 Patient experience

Stakeholders raised concerns about capacity at the various maternity units at south east London and the potential impact on patient experience. Particularly, stakeholders voiced concerns over patients moving from UHL to KCH and STH which they believe are already stretched and this would have a negative impact on patient experience. The capacity modelling by the TSA assumes that some economies of scale would be achieved through the rationalisation of services with 10% overall reduction in staffing (TSA 2012c), albeit that the new clinical standards also demand additional staff. This suggests the majority of the maternity staff at UHL will continue to provide services across the four centres.

In relation to the space available for maternity services, the TSA has identified some capital expenditure that will be required. For example, in Appendix K of the draft recommendations £5.5m of expenditure is identified for maternity and A&E capital works at PRUH.

### Figure 23: Pregnancy & Maternity, stakeholder views

Some clinicians have suggested that concentration of obstetrics-led care onto four sites may be the only way to ensure that clinical standards and staffing requirements are met. They have also suggested that meeting these standards is most likely to deliver improved health outcomes to pregnant women across south east London, with particular potential benefits identified for high-risk women requiring obstetrics-led care.

However, stakeholders in Lewisham have expressed concerns around Option 1, particularly with respect to the health outcomes on pregnant women in the UHL catchment area. Stakeholders also raised concerns about the impact of transformation on minority groups, including economically deprived, refugees and asylum seekers.

# 7.1.6 Mitigations and enhancements

### Mitigation 21

Ensure that midwife led birthing units are co-located at all obstetric led maternity centres in south east London, particularly at QEH and KCH. There are currently plans to introduce a co-located midwife led birthing unit at QEH but it is understood that formal plans have not been developed for KCH. This could have benefits for a wider population than just those affected by the proposed changes.

**Enhancement 9** Robust capacity estimates are required and these must be made transparent so that the public feels confident and secure in the new changes and is reassured that there will be a safe place for births to occur after the transformation.

### Mitigation 22

Careful planning of births will be required to ensure that the impact on the integration of care is minimised where women receive ante-natal and post-natal care at UHL and then give birth at a different hospital. Further, planning will need to account for local authority services such as social services.

### Mitigation 23

Ensure that the TSA considers the potential disruption to pathways and links for Lewisham residents. Particularly, it is will be important to ensure that the various groups (for example Local Authorities, GPs, mental health providers) have plans in place to ensure safeguarding of services and that they collaborate with the providers of obstetricled maternity services to achieve this goal. Public Health stakeholders have emphasised the importance of joint care planning of births across teams, localities, providers to ensure that the negative impact on integration of care is minimised.

# 7.2 Age

### 7.2.1 Health outcomes

Age is a particularly important protected characteristic to consider when assessing the impact of reconfiguring maternity services. This is largely due to the high rates of teenage pregnancies and young mothers in south east London. Table 30 presents the number of births at south east London hospitals, according to the mother's age. UHL delivers the highest proportion of births to mothers aged under 19 and 19 to 24, across south east London. Almost 4% of all births at UHL in 2009 were to the under 19 age group. Despite these high rates at UHL, other hospitals in the area also have experience of delivering births to mothers in this age group and thus no significant health impacts are identified as a result of the proposed service transformation. Additionally, stakeholders have not specifically identified differences in the quality of care for young mothers across providers.

Table 30: Births at south east London hospitals, by mother's age

Trust / Maternity Unit	Under 19	19 to 24	25 to 34	35 to 39	40 and over	Total count
STH	2%	15%	56%	22%	5%	6,278
KCH	3%	16%	53%	22%	6%	5,269
UHL	4%	20%	52%	19%	6%	3,376
SLHT	3%	17%	57%	19%	4%	10,652

Source: HES (2011)

# 7.2.2 Physical and geographical barriers

This full HEIA assessment has used underlying TSA transport analysis to understand the impact on physical and geographical barriers more generally for all women who would be unable to give birth at UHL after the proposed transformation. It is important to note that the analysis presented below is driven by the assumptions provided by the TSA, and is high-level in nature.

Table 31 demonstrates the change in private travel time relating to maternity service transformation at UHL for women aged 16 to 44 noting the limitations identified earlier. This group of women is assumed to be indicative of potential mothers in the relevant health economy. This analysis looks at the potential impact in terms of increased travel time for women who might fall into the 'pregnancy and maternity' group.

The table shows that potential travel time impacts lie in Lewisham and Bromley with potentially 37,500 women impacted. There is a considerably smaller impact in Southwark and Greenwich. The table shows that the vast majority of people impacted are those closest to UHL.

Table 31: Change in travel time, 16 to 44 year old women, maternity transformation

Travel impact (mins)	Bexley	Bromley	Greenwich	Lambeth	Lewisham	Southwark	Total
<1	0	1,269	0	0	960	743	2,971
1 to 5	0	3,584	0	0	4,510	1,149	9,244
5 to 10	0	2,248	1,383	0	3,049	0	6,680
10 to 15	0	145	499	0	6,520	0	7,164
15 to 20	0	633	0	0	7,567	0	8,200
20 to 25	0	0	0	0	1,239	0	1,239
>25	0	0	0	0	1,999	0	1,999
Total	0	7,879	1,882	0	25,844	1,892	37,497

Source: Deloitte analysis based on private travel time information provided by TSA, ONS (2010b). This does not account for women who may have choose to not have further or any children

There could be a greater travel impact on younger mothers as they may be more reliant on public transport or relatives and parents to take them for hospital-based appointments. Additionally, there could be a disproportionate impact on this group due to the large number of teenage mothers in the catchment area of UHL.

### 7.2.3 Patient experience

Research shows that teenage mothers have diverse health needs and the transformation of maternity services must take account of this diversity (NHS Commissioning Support for London, 2011). A review of evidence by the National Collaborating Centre for Women's and Children's Health found that young, pregnant women may feel uncomfortable using antenatal care services where the majority of service users are in older age groups' (NHS Commissioning Support for London, 2011). This view is also supported by feedback received at a London Maternity Service Liaison Committee, as illustrated by the following quote: 'this group did not want to enter traditional maternity services and were appalled at the idea that they would have to sit in the same surgery or antenatal clinic with the pregnant friends of their mothers. They were acutely self conscious of their situation and that they were being judged by older women and healthcare professionals'. Given that ante-natal services will continue to be provided at UHL after the proposed transformation, no substantial impacts around patient experience are identified around these services.

# 7.2.4 Mitigations and enhancements

**Enhancement 10** There should be midwives dedicated to the care of teenage mothers, in order to provide a bespoke service, sensitive to the specific needs of this group.

### 7.3 Race

### 7.3.1 Health outcomes

There is evidence to suggest that women from BAME groups are associated with higher risk pregnancies and deliveries. Mothers of black Caribbean and black African origin are more than three times more likely to die in pregnancy or in the year after birth than white women (Centre for Maternal and Child Enquiries 2011).

- There is also evidence to suggest higher levels of infant mortality (ONS 2009) and lower birth weight for babies born to mothers of BAME origin (IFS 2005).
- Women from minority ethnic communities are more likely than white women to contact maternity services late in pregnancy and to miss routine antenatal appointments (House of Commons Health Committee 2003).
- Women from BAME groups are more likely to give birth through caesarean section (Paranjothy, Frost and Thomas 2005). This has been supported by stakeholder engagement.

Given the higher potentially higher risk nature of this group, there are potential benefits to health outcomes arising from Option 1. This is because under Option 1 there would be a full obstetrics service across four units; this could enable the delivery of London clinical standards and necessary staffing requirements. The ability to access 24/7 obstetric led care, co-located with critical and emergency services could therefore benefit high risk mothers. Further, if complications arise during pregnancy, then there will be appropriate critical care support to these women.

It is also noted that all providers have experience of delivering BAME births.

# 7.3.2 Physical and geographical barriers

This full HEIA assessment has used underlying TSA transport analysis to understand the impact on physical and geographical barriers more generally for all women who would be unable to give birth at UHL after the proposed transformation. It is important to note that the analysis presented below is driven by the assumptions provided by the TSA, and is high-level in nature.

Table 32 shows the change in private travel time relating to maternity service transformation at UHL for births in BAME groups. The table shows that the major

impacts lie in Lewisham, with approximately 1,400 BAME births impacted in this area. There are more limited impacts in Bromley, Greenwich and Southwark. There appears to be no impact on travel time for births to BAME mothers based in Bexley and Lambeth. The impact of increased travel time is particularly relevant for women from BAME groups, given the high concentration of the BAME population in the catchment area of UHL.

Table 32: Change in travel time, BAME groups, maternity transformation

Travel impact (mins)	Bexley	Bromley	Greenwich	Lambeth	Lewisham	Southwark	Total
<1	0	21	0	0	58	17	95
1 to 5	0	48	0	0	248	22	319
5 to 10	0	22	56	0	129	0	207
10 to 15	0	1	21	0	262	0	284
15 to 20	0	6	0	0	355	0	361
20 to 25	0	0	0	0	56	0	56
>25	0	0	0	0	102	0	102
Total	0	99	77	0	1,210	39	1,425

Source: Deloitte analysis based on private travel time information provided by TSA, ONS (2009)

#### 7.3.3 Other barriers

Stakeholder engagement and a review of relevant literature have identified both linguistic and cultural barriers to service access for people from BAME groups (Szczepura 2004). Stakeholders have told us that people from BAME groups find it harder to obtain necessary information around key areas of service provision. There may be confusion around where they should go to access maternity services after the change. First generation immigrants with low level of English knowledge might find it harder to understand changes and they may have a lack of trust in the new services. Stakeholders have voiced concerns that the lack of trust or understanding in the new services may lead to people not accessing the appropriate health services which could have an adverse impact on health outcomes. This is particularly important for maternity services, given the role of ante-natal appointments throughout the duration of the pregnancy.

Figure 24: Race, stakeholder views

Stakeholders raised concerns that the proposed transformation could have a disproportionate impact on ethnic minority groups, given lower literacy rates and lower proficiency in English. Stakeholders felt people could still try to access delivery services at UHL unaware that the hospital might no longer provide these services.

# 7.3.4 Mitigations and enhancements

Mitigation 19 presented in Section 6.3.4 is also applicable to Option 1 of the maternity service transformation.

### Mitigation 24

There should be particular emphasis on antenatal appointments for people from BAME backgrounds; given the low attendance rates of this group and the potential confusion around service changes and eligibility for NHS services for new migrants, it is important to clearly communicate information about ante-natal services to people from this group.

# 7.4 Economic and social deprivation

### 7.4.1 Health outcomes

Stakeholders, including clinicians have indicated that women from economically and socially deprived backgrounds are associated with higher risk pregnancies. There could therefore be additional benefits in terms of health outcomes for this group under Option 1 if this option leads to London clinical standards and staffing requirements being met.

# 7.4.2 Patient experience

Recent research into the impact of economic and social deprivation and maternity suggests that 'additional resources and skills may be needed to support challenged communities' (The Department of Health 2007). The movement of deliveries from UHL to other hospitals may have an adverse impact on the experience of patients if the hospitals are not familiar with particular needs presented by this group. This is particularly important given the high concentration of economically and socially deprived people in the catchment area of UHL.

Considering KCH and QEH, where the TSA estimates 66% of deliveries will move, suggests this impact is likely to be limited given both hospitals have immediate

populations with similar levels of deprivation.<sup>53</sup> For staff at the PRUH their experience of working with this group maybe more limited. However, although Bromley is not as deprived, there are pockets of high deprivation such as in Penge and the Crays. This could mean that the PRUH will be experienced in dealing with this group.

#### 7.4.3 Other barriers

Travel times and costs for women who would have given birth in UHL are likely to increase, particularly in Lewisham, as a result of the change to four centralised obstetrics-led delivery units. For the economically and socially deprived the cost change is particularly relevant given public and private transport is used to access the birth services. Some cost changes for private and public transport are outlined in Section 6.1.3. This is particularly relevant given the high concentration of economically and socially deprived population in the catchment area of UHL.

In Section 6.1.3 it is also noted that this group will also potentially have lower literacy rates. In common with BAME groups, this may also lead to women still trying to access UHL for maternity services from a lower awareness or understanding of the transformation.

### 7.4.4 Mitigations and enhancements

**Enhancement 11** Targeted information and engagement with groups to ensure people understand the transformation. It may not be sufficient to rely on this group receiving this information from GPs and antenatal care.

# 7.5 Disability

### 7.5.1 Health outcomes

There could be an impact on disabled women giving birth away from UHL should the obstetric led centres be more or less able to provide the appropriate care than UHL. For disabled women the appropriate care can often be specific to the particular impairment. The Royal College of Nursing defines some general practice points relating to the birth (Royal College of Nursing 2007):

- A home birth in their own environment may suit some women better than hospital birth: many impairments pose no increased risk;
- A bed, settee or similar are needed for partners or other carers who sleep overnight during hospital admissions;

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<sup>&</sup>lt;sup>53</sup> The initial assessment, for example, shows that at a borough level Greenwich is more deprived whilst Southwark is similarly deprived to Lewisham.

- Discuss the possibility of admission the night before a planned hospital delivery this can worry some but provide reassurance and security for others; and
- Identify appropriate sources of equipment, aids and other support for both parents and professionals.

Maternity and stakeholder groups for people with impairment did not identify any differences across the hospitals in the treatment of disabled births.

### 7.5.2 Physical & geographical barriers

The increased travel time to give birth, identified in Section 7.1.2, is likely to be more challenging for people with physical and mental impairments. It will therefore be particularly important that antenatal services provided in south east London help to signpost the transport options available.

# 7.5.3 Integrated care

Issues around the integration of care in the context of maternity transformation are established in Section 7.1.4. Stakeholders raised particular concerns around integration of care for disabled deliveries. Specifically, a single midwife pathway for women may be more important for women with physical or mental impairments, to ensure effective planning for deliveries and specific requirements.

Stakeholder engagement also identified that the potential disruption to integrated care under Option 1 may be particularly important to those people living near UHL with long-term conditions.

# 7.5.4 Mitigations and enhancements

Mitigation 25 Signposting of transport options and accessibility of hospitals in south east London during antenatal care.

Mitigation 26 It will be particularly important in cases where a woman is receiving ante-natal care at UHL, but delivering at another hospital, that any specific requirements are identified and communicated to the hospital where the birth will take place. There is the possibility of establishing outreach clinics at the UHL site for those giving birth elsewhere.

# 7.6 Other protected characteristics

# 7.6.1 Religion

Stakeholder engagement and a review of the literature suggests that Muslim women may have specific maternity service requirements. A study on Muslim women's perspectives on maternity services found that there were a number of issues Muslim women face, including:

- Discomfort and embarrassment amongst Muslim parents due to a lack of privacy in hospitals and too few female staff;
- Poor communication between health professionals and Muslim parents; and
- An over-reliance on English speaking family members and friends to act as translators, affecting the quality of maternity care (The Maternity Alliance 2004).

Option 1 could have a disproportionate impact on Muslim women if UHL is more sensitive to the requirements of Muslim women than the other four obstetrics-led maternity centres (KCH, PRUH, QEH and STH). However, stakeholder engagement has not identified this as a concern and thus a disproportionate impact of transformation on Muslim women is not considered likely.

# 7.6.2 Mitigations and enhancements

# Mitigation 27

Ensure that there are sufficient female and Muslim medical and nonmedical staff across the four obstetrics-led maternity units in order to ensure the sensitivity of maternity services.

## 7.6.3 Sexual orientation

Guidance from the Royal College of Midwives emphasises the need for midwives and staff to treat this group sensitively. Specifically, it notes that midwives should carefully review the information they routinely collect from clients, assess whether the way they ask for it is both specific enough to gain the facts they require, and be sensitive enough to avoid making implied assumptions or value judgements (Royal College of Midwives 2000). There could be a disproportionate impact on lesbian mothers currently giving birth at UHL if the other four obstetrics-led maternity units in south east London are not as sensitive with this group as UHL. However, differences in the treatment of lesbian mothers across hospitals in south east London have not been noted by stakeholders. Additionally, a recent qualitative study found that lesbian co-mothers felt predominantly included and accepted by maternity services (Cherqut, et al. 2012). On the basis of this evidence, a disproportionate impact of maternity service transformation on this group is considered to be unlikely.

# 7.6.4 Other

No additional issues have been identified with regards to the other protected groups including gender, gender reassignment, marriage and civil partnerships.

# Option 2

# 7.7 Pregnancy/maternity

### 7.7.1 Health outcomes

Under Option 2 of the TSA's proposed transformation of maternity services, obstetric-led care would continue to be provided at UHL. This would not be supported by the emergency critical care unit, and so would not be suitable for the highest risk deliveries. Instead, UHL would have a surgical high dependency unit (HDU) with obstetric anaesthetists present to provide support. This service would focus on delivering low risk births, whilst more complicated deliveries such as triplets, would be delivered at specialist centres. The four specialist obstetrics led centres with full support in south east London would be KCH, PRUH, QEH and STH.

The impact of this service change on health outcomes for those that start their delivery at UHL is likely to be largely driven by the additional time that could be incurred if complications at UHL occur and transportation to a specialist centre is required. The literature review did not find evidence on the relationship between maternity outcomes and travel time, although this was a concern raised by some stakeholders. Specifically, stakeholders felt that an increase in last minute redirections from UHL to one of the other four obstetrics-led maternity units could increase the risk of babies born in transit. However, some research evidence suggests that there are no adverse impacts from transfers from a midwifery led unit (MLU) (Birthplace in England Collaborative Group 2011).

Based on discussions with clinical experts at the TSA, the sustainability of a stand-alone unit with less than 5,000 births per year will also need to be considered as part of the implementation. Furthermore, this option reduces the ability of the other units in south east London to achieve the expert staffing levels 24/7 needed to deliver London wide standards. Certain stakeholders felt that spreading expert staff too thinly across five organisations may mean the clinical standards cannot be met at any of the five obstetricled centres. This could then have a more general negative impact on health outcomes for pregnant women across south east London.

# 7.7.2 Physical and geographical barriers

At the time of writing this report the TSA has not completed an analysis of the number of births that would shift from under Option 2 UHL to other hospitals. Moreover, it is not possible to determine the geographic location of women who will have complicated deliveries. For 'high risk' women (and their visitors) previously delivering at UHL, there will be an increase in travel time and cost under Option 2, as these women move to other hospitals. It is anticipated, however, that the majority of births would remain at UHL limiting the travel time implications. Further, where complications occur and deliveries

are moved to a specialist centre during labour it is anticipated that these patients would be transported by ambulance. The visitors of high risk women will experience an increase in travel time and cost.

## 7.7.3 Patient choice

Under the proposed maternity transformation, there is no impact on patient choice for low risk pregnancies. For high risk pregnancies, patients currently attending UHL will attend one of the four obstetric-led maternity units co-located with emergency and critical care (KCH, PRUH, QEH, STH). These patients will therefore experience a small reduction in patient choice. Stakeholders have also told us that patient choice would be broadly maintained after the proposed transformation.

# 7.7.4 Integrated care

Integration of care will broadly not be impacted from the current position. The diversion of higher risk deliveries to the specialist maternity units (KCH, PRUH, QEH, STH) could also see integration of care also maintained, if pregnant women choose to receive antenatal and post-natal services also from the specialist centres. There could be a small impact on integration from complications requiring a move to specialist centre. In common with patient choice, stakeholders appeared less concerned by this impact.

# 7.7.5 Patient experience

Patient experience could be enhanced if the movement of complex and specialist deliveries allows UHL to focus on providing a strong service for low risk routine deliveries. In discussions with maternity groups this was supported.

Figure 25: Pregnancy and maternity, stakeholder views

Stakeholders felt that transformation could bring about benefits in terms of patient experience. They felt this would be delivered by focusing on routine births and ensuring that these are handled appropriately.

Stakeholders did not identify any major impacts of transformation on integration of care and patient choice. Broadly they felt that patient choice would be maintained.

Stakeholders raised some concerns over the support care that would accompany the standalone obstetrics-led unit at UHL. Concerns were raised about the loss of critical care at UHL.

# 7.7.6 Mitigations and enhancements

**Mitigation 28** Ensure that appropriate clinical care is available to support the maternity function. Particularly, the support service should be able to

effectively deal with any unforeseen complications during birth, with a defined set of protocols for transferring mothers and/or babies to be a more appropriate facility. Public Health stakeholders have identified the need for appropriate neonatal intensive care, 24/7 access to critical care beds, consultant anaesthetists, and surgical and physician support.

## Mitigation 29

Ensure careful monitoring of mother and child outcomes to ensure standards are being met, especially in the light of clinical doubts about the sustainability of this option.

# 7.8 Age

# 7.8.1 Patient experience

For low risk births, no material impacts on patient experience are identified for particular age groups. Under Option 2, high risk births will take place at one of the four obstetrics-led maternity units with co-located emergency and critical care (KCH, PRUH, QEH, STH). The impact on patient experience identified under Option 1 will apply to these births, as described in Section 7.2.

# 7.9 Race

## 7.9.1 Health outcomes

Section 7.3.1 identifies specific pregnancy and maternity issues relating to women from BAME backgrounds. Specifically, it notes that women from BAME groups may be associated with higher risk pregnancies. Under Option 2, high risk deliveries will be diverted from UHL to one of the other four obstetric-led maternity centres with full emergency support (KCH, PRUH, QEH, STH). There could therefore be a disproportionate impact on mothers from BAME groups.

Additionally, if Option 2 leads to expert staff being spread too thinly across the five organisations (KCH, PRUH, QEH, STH, UHL), there could be an adverse impact on health outcomes for all pregnant women. This could have a disproportionate impact on women from BAME groups given the potentially high risk nature of their pregnancies and the high concentration of women from BAME groups in south east London.

#### 7.9.2 Other barriers

Section 7.3.3 identifies linguistic and cultural barriers to service access for people from BAME groups. The impacts identified in 7.3.3 will apply to high risk births under Option 2; that is those births no longer taking place at UHL. There may be a disproportionate impact of Option 2 on service access for women from BAME groups, given this group is more likely to have higher risk births.

# 7.9.3 Mitigations and enhancements

Mitigations presented in Section 7.3.4 are also applicable under Option 2.

#### 7.9.4 Health outcomes

Section 7.7.1 discusses the concerns raised by certain stakeholders around the viability of staffing arrangements under Option 2, with a resultant impact on health outcomes for pregnant women. There could be a disproportionate impact on women from economically and socially deprived groups given the high risk nature of their pregnancies and the high concentration of economic and social deprivation in the UHL catchment area.

# 7.9.5 Patient experience

Under Option 2, no material impacts on patient experience are identified for low risk births, as these births will continue to take place at UHL.

Section 7.4.2 outlines the impact on patient experience for women from economically and socially deprived groups that are diverted from UHL to one of the four obstetric-led maternity units with co-located emergency care. This impact applies to high risk births under Option 2. Option 2 could have a disproportionate impact on women from economically and socially deprived groups given that this group is associated with high risk pregnancies and the high concentration of economic and social deprivation in the UHL catchment area.

# 7.10 Disability

## 7.10.1 Health outcomes

The impact of births being moved from UHL on disabled women during delivery will be significant should the obstetric led centres be more or less able to provide the appropriate care than UHL. This is discussed in Section 7.5.1 and the same arguments apply to high risk births under Option 2.

No additional health impacts are identified for people with disabilities under Option 2.

# 7.10.2 Physical & geographical barriers

Any increases in transport time to access delivery services, are likely to be more challenging for people with physical and mental impairments. However, if a specialist centre is required where the delivery previously would have occurred at UHL, it may well be likely to require ambulance or other specially arranged transportation.

## 7.10.3 Other barriers

As well as the increased transport time it is important that ante-natal services also set out the accessibility of the hospitals and identifies particular requirements that will need to be put in place to support any particular impairment.

# 7.10.4 Mitigations and enhancements

Enhancement 12 Signposting of transport options and accessibility of hospitals in South East London during antenatal care. It will be particularly important that where a women is receiving ante-natal care at UHL but delivering at a specialist centre that any specific requirements are identified and communicated to the hospital where the birth will take place.

# 7.11 Other protected characteristics

# 7.11.1 Religion

Stakeholder engagement and a review of literature suggest that Muslim women may have specific maternity service requirements. This is discussed in Section 7.6.1. No additional impacts are identified under Option 2.

# 7.11.2 Mitigations and enhancements

Mitigation 27 presented in Section 7.6.2 is also applicable to Option 2 of the maternity service transformation.

## 7.11.3 Sexual orientation

Section 7.6.3 discusses the specific maternity requirements of lesbian mothers. No additional impacts on this group are identified under Option 2.

#### 7.11.4 Other

No additional issues have been identified with regards to the other protected groups (gender, gender reassignment, marriage & civil partnerships).

# **Option 3**

This section considers the impact of the TSA's Option 3 for maternity service transformation. However, it is important to note that details of this option were provided at a later stage in the process and this has limited the assessment undertaken.

Discussions with the TSA indicate under Option 3, 21% of births currently taking place at UHL could take place at the stand-alone midwife-led unit at UHL. For modelling purposes, the TSA has assumed that 50% of these births would actually take place at the stand-alone unit, accounting for patient choice and strict selection criteria. It is therefore estimated that the unit would deliver approximately 450 births per year, with 24/7 senior midwife cover. In particular, it is noted that all births under Option 3 must be low risk as there will be no obstetrician present at the stand-alone midwifery-led unit. Under Option 2, slightly higher risk births might take place at UHL, however, the highest risk births will take place at one of the four maternity units co-located with emergency and critical care (KCH, PRUH, QEH, STH).

# 7.12 Pregnancy/maternity

## 7.12.1 Health outcomes

The impact of Option 3 on health outcomes of pregnant women is likely to depend on their risk profile. There is evidence to suggest that midwifery-led maternity units lead to positive health outcomes for low risk deliveries. In particular, the birth-place study found that women planning birth in a midwifery unit and multiparous women planning birth at home experience fewer interventions than those planning birth in an obstetric unit, with no impact on perinatal outcomes (Birthplace in England Collaborative Group 2011). Other research found that women receiving midwife-led care may be less likely to experience antenatal hospitalisation, regional analgesia, episiotomy and instrumental birth and they are more likely to experience spontaneous vaginal birth (Hatem, Sandall, Devane, Soltani, & Gates, 2008). By using the stand-alone midwifery-led unit at UHL, women with low risk deliveries could benefit from improved health outcomes.

Certain stakeholders have raised concerns around the size and efficiency of the standalone midwifery-led unit at UHL and the extent to which it would inhibit other units from meeting their midwife staffing requirement. If this is the case, there could be a potentially negative impact on pregnant women across south east London as a result of suboptimal service at other maternity units, due to a lack of senior midwife expertise. The TSA were investigating the sustainability of staffing under this option at the time of writing this report.

Under Option 3, high risk pregnancies would take place at one of the four obstetric-led centres in south east London (KCH, PRUH, QEH, STH), as per Option 1. The impacts of Option 1 (discussed in Section 7.1.1) are therefore applicable to high risk pregnancies under Option 3 and are not repeated below.

# 7.12.2 Patient experience

For low risk births taking place at the stand-alone midwifery led unit at UHL, there could be benefits to patient experience from midwife-led deliveries. However, the potential impact of mothers starting in the stand-alone midwife-led unit and then transferring in labour represents a potential negative impact on patient experience. The birth place study found that a substantial number of women having their first baby in a non-obstetric led unit setting are transferred to an obstetric unit (Birthplace in England Collaborative Group 2011). Additionally, early evidence from Edgware birth centre shows that 20% of women had to transfer from stand-alone midwife-led units during labour itself. The same study also concludes that approximately half of the women deemed at low risk require transfer to consultant obstetrics at some stage (Rogers, et al. 2010). This finding represents a potential challenge to patient experience and this is a view that stakeholders have corroborated.

For high risk births, is the potential impacts are as discussed under Option 1.

## 7.12.3 Physical and geographical barriers

For low risk births in midwife-led settings, there is no impact on physical/geographical barriers from Option 3. These deliveries will continue to take place at UHL.

The impact on physical/geographical barriers for births taking place in obstetrics-led units is discussed under Option 1. No new impacts arise for these births under this option.

## 7.13 Race

## 7.13.1 Health outcomes

Stakeholders have suggested that women from BAME groups are less likely to choose a stand-alone midwife-run unit. Given that most of these women will choose to deliver at hospitals with obstetrician led care (KCH, PRUH, QEH, STH), the discussion of health impacts relating to Option 1 potentially applies to this group.

However, an additional potential impact on pregnant women from BAME backgrounds has been identified. Women from BAME groups are less likely to attend ante-natal appointments, as discussed in Section 7.3.1. Certain stakeholders have suggested that there is a possible risk associated with BAME women presenting at the stand-alone midwife-led birth centre at UHL during labour. Given that women from BAME groups may be higher risk, they may need to be re-directed from UHL to other units, potentially increasing the number of babies born in transit (BBAs). The role of effective communication and patient engagement will be particularly important in mitigating this impact.

# 7.13.2 Other impacts

No additional impacts are identified for BAME groups under Option 3.

# 7.14 Age

No additional impacts are identified for particular age groups under Option 3 across the impact areas.

# 7.15 Economic and Social Deprivation

No additional impacts are identified for people from economically and socially deprived backgrounds, across the impact areas.

# 7.16 Disability

No additional impacts are identified for people with disabilities under Option 3, across the impact areas.

# 7.16.1 Enhancements/mitigations

## Mitigation 30

Ensure that appropriate clinical care is available to support the maternity function. Particularly, the support service should be able to effectively deal with any unforeseen complications during birth, with a defined set of protocols for transferring mothers and/or babies to a more appropriate facility.

# Enhancement 13 Stakeholders have suggested the establishment of a networked model for the stand-alone midwife-led unit at UHL. In particular, through this model, women from all over south east London could be encouraged to attend the facility at UHL, thus alleviating pressure on capacity at other hospitals such as KCH and STH. However, this could raise new issues about travel across SE London.

Figure 26: Option 3, stakeholder views

Certain stakeholders felt that Option 3 would not increase choice for some protected groups, given that many women from these groups would be ineligible for midwife led care due to their high risk. Additionally, stakeholders cited experience showing that many women from BAME groups would not choose a stand-alone midwife unit in any case.

# 8 Impact of elective service transformation

This section considers the impact of changes to elective care in south east London on the groups identified in Section 5. Some groups are considered in greater detail where the initial assessment indicates that there could be a higher impact on the group. However, it is worth noting that whilst elective service transformation impacts particular protected groups, it is more likely to have 'global', population wide impacts than other service changes. Stakeholder views presented in this section are drawn from the stakeholder engagement that was undertaken as part of the HEIA process, unless otherwise stated. For a detailed analysis of the responses to the TSA's public consultation reference should be made to IPSOS MORI's report.

Under the proposed transformation, UHL would become an elective centre for non-complex inpatient procedures in south east London. The proposed elective centre would be the largest in the country, serving around 44,000 patients a year if established by 2015/2016 (TSA 2012). Non-complex inpatient procedures would no longer be provided at KCH, PRUH, QEH and QMS, these services would be retained at GH. Additionally, complex inpatient procedures would no longer be provided at UHL. The TSA recommendations do not impact the provision of specialist elective services.

The TSA notes that there are currently issues surrounding the provision of elective services in south east London (TSA 2012a). There are high cancellation rates and delays for elective procedures due to non-clinical reasons associated with the insufficient separation of planned and unplanned care. The TSA notes that in 2011/12, 1,250 elective procedures were cancelled at the last minute for non-clinical reasons. Additionally, waiting times for elective procedures did not consistently meet the NHS constitution in 2011/12 in all but one hospital.

# 8.1 Age

## 8.1.1 Health outcomes

Academic research suggests that older patients are 'higher risk' patients; they remain more likely to 'fail' pre-assessments and have higher rates of post-operative complications than younger people (Dhesi 2010). Additionally, clinical experts suggest that older people may face greater physiological issues which are seen with ageing and/or co-morbidity (Dhesi 2010). As a result, it is particularly important to consider the impact of elective service transformation on this protected group.

A recent study finds that absolute risk differences between volume groups are clinically negligible for patients with average risk, but significant for patients with higher risk. Moreover, the relative risk of death is lower in high volume centres, and although absolute risk differences between volume groups are significant for older patients and patients with co-morbidity, they are found to be clinically negligible for those at average

risk (BMJ 2012). Based on this, the establishment of a non-complex inpatient centre could benefit higher risk, older people, potentially leading to an improvement in health outcomes. Additionally, higher risk older patients are likely to benefit from the community based care strategy for south east London. This strategy states that patients will have an assessment before they enter hospital to determine their needs on discharge (TSA 2012).

Whilst there are potential positive impacts on older people, the volume-outcome relationship is far from agreed (as noted in Section 4.2.3), with the exception of some surgical procedures and individual surgeons. Further, given the high risk nature of elective procedures for older people, there is a potential negative impact on health outcomes for this group if the proposed elective centre at UHL (and existing facilities at GH) is not supported by intensive or critical care back-up services.

# 8.1.2 Physical and geographical barriers

Journey travel times and cost will increase for patients previously attending UHL for complex elective inpatient procedures and for patients previously attending GST, KCH, PRUH, QEH and QMS for non-complex elective inpatient procedures. Given that older people may rely on their relatives and carers to transport them to hospital, there may be an adverse impact on these individuals. Given that pre and post surgery appointments will take place closer to the home, the increased journey time is only likely to be for the operation itself. Additionally, for non-complex elective inpatient admissions at UHL, patients, their relatives and carers may benefit from the proposed development of a new car park. The car park will potentially reduce journey complexity and accessibility and could enhance patient experience by encouraging the involvement of the patient's family and friends.

# 8.1.3 Mitigations and enhancements

#### **Enhancement 14**

Ensure that appropriate travel services are provided for the older people who are travelling out of their area for the surgical procedure. Particularly, if older people cannot transport themselves or be transported by relatives/carers, there must be provision of suitable transport facilities for this group. It is important to communicate eligibility criteria for the NHS non-emergency Patient Transport Service to the older group along with details of how patients can access this service. Additionally, the TSA should consider potential sources of funding for additional hospital transportation facilities that may be required for older people.

#### **Enhancement 15**

Ensure that community based care strategy helps to assess the risk factors relevant to the older population; particularly, it should encourage pre-operative risk assessment. This will need to be complemented by the risk assessment in secondary care.

#### **Enhancement 16**

Ensure that older people would have recourse to critical care and acute facilities, should complications develop during the non-complex inpatient procedure. This could be achieved through rapid transfer to a fully-equipped and staffed hospital with a range of critical care and acute services. Alternatively, the TSA could consider the clinical and financial feasibility of providing critical back up services along with the proposed non-complex elective inpatient centre.

#### **Enhancement 17**

The idea of increased travel time for non-complex elective surgery will need to be communicated well to all patients, carers, surgeons and staff. Additionally, the TSA should seek to ensure that patients fully understand the benefits of an elective inpatient procedure and the extent to which this can offset their reduction in choice and increase in travel time.

## 8.2 Race

## 8.2.1 Health outcomes

As mentioned in Section 5.4, there is a higher prevalence of diabetes amongst people from BAME backgrounds. There is research showing that diabetic people are 'higher risk' patients in elective surgery. Specifically, there is evidence of diabetes leading to increased morbidity and length of stay, whatever the admission specialty (NHS 2011). Research also suggests that doctors often fail to identify high risk patients before surgery and do not ensure that appropriate peri-operative interventions are provided (NHS 2011). Given this evidence, people from BAME groups may be disproportionately impacted by the elective surgery transformations. However, there is evidence to suggest clinically significant differences in health outcomes for higher risk patients in high volume hospitals (BMJ 2012). Therefore, the establishment of a non-complex elective inpatient centre at UHL could have a positive impact on health outcomes for people from BAME groups. An important consideration for this group, as well as any other with higher risk treated at the elective centre, is that there will need to be a rapid transfer to a fully-equipped and staffed more acute hospital were complications to develop.

Additionally, higher risk patients from BAME backgrounds could benefit from the community based care strategy for south east London. This strategy states that patients will have an assessment before they enter hospital of what their needs will be on discharge so that the appropriate health and social care services are ready (TSA 2012). This assessment process should help to identify any BAME risks, whilst helping to ensure that risks are appropriately mitigated.

## 8.2.2 Other barriers

As noted in Section 5, there may be particular barriers to service access which have a greater impact on people from BAME groups. Specifically, there are cultural and linguistic barriers which may prevent people from BAME groups accessing services (Szczepura 2004). As such, it may be more difficult for some people from BAME groups to understand the changes in service provision and where they need to go to access a particular service. This is important given that patients may be travelling to different locations at different stages in the elective care pathway.

Additionally, stakeholders have mentioned differences between hospitals in south east London in terms of cultural sensitivity. As noted in Section 6, UHL is perceived to be better at accommodating the cultural diversity of its patients than QEH; therefore the establishment of a non-complex elective inpatient centre at UHL could benefit people from BAME backgrounds that previously attended QEH. If there are differences in cultural sensitivity at other hospitals in south east London then this could have an impact on people from BAME backgrounds for complex inpatient elective services (which will be provided at KCH, PRUH, QEH and STH); however, stakeholders have not raised specific concerns about other hospitals.

# 8.2.3 Mitigations and enhancements

#### **Enhancement 18**

Clear communication of the information about service changes to people from BAME groups. This may involve translating information campaigns into different languages and reaching out to these groups through particular organisations. For example, faith groups in Lambeth and Southwark have been identified as important groups which should be engaged with.

#### **Enhancement 19**

There should be an emphasis on assessing pre-operation risk factors among people from the BAME population, particularly given the higher prevalence of diabetes within this group.

# 8.3 Economic social deprivation

# 8.3.1 Physical and geographical barriers

Journey travel times and cost will increase for patients previously attending UHL for complex elective inpatient procedures and for patients previously attending GST, KCH, PRUH, QEH and QMS for non-complex elective inpatient procedures. For the economically and socially deprived, the cost change is particularly relevant given that private and public transport is used to access elective services. The impact of increased cost is likely to have a disproportionate impact on the economically and socially deprived. It is important to note that there is a higher concentration of economically and socially deprived people in Lewisham and the surrounding areas, as shown in Figure 6.

As such, this group in Lewisham could benefit from a reduction in travel time and cost for non-complex inpatient elective procedures.

## 8.3.2 Other barriers

In Section 6.1.3 it is noted that the economically and socially deprived are likely to have lower literacy rates. This may drive a lower awareness and understanding of the elective service transformation.

# 8.4 Disability

# 8.4.1 Physical and geographical barriers

As outlined in Section 8.3.1, there could be an impact on travel time and cost for certain groups with respect to elective care. For people with disabilities, the change in travel time and distance is particularly relevant and may act as a barrier to access for elective services. Depending on the nature of the impairment, people with disabilities may rely on family and carers to transport them to the hospital where the procedure will be performed. However, pre- and post-operative care could be provided in locations close to the home and this should entail a reduction in travel time and cost. As described for race and age, patients, carers and relatives of people with disabilities may benefit from the development of a car park at UHL.

# 8.4.2 Mitigations and enhancements.

## **Enhancement 20**

Ensure that people with disabilities have access to suitable transport facilities and arrangements for the elective surgical procedure, given the increased travel. This could include suitable sites for the disabled to be dropped off close to the elective centre entrance and reserved parking for them, as appropriate.

Figure 27: Stakeholder feedback on elective service changes

- Stakeholder views on this proposed transformation have been positive.
- Stakeholders have told us that the support of carers can be critical to the recovery of patients from elective procedures.

Health and Equalities Impact Assessment – Full Report

# Appendix A Glossary

Acronym	Description
A&E	Accident and Emergency
BAME	Black, Asian and Minority Ethnic
ВНТ	Bromley Hospitals NHS Trust
CCGs	Clinical Commissioning Groups
CIPs	Cost Improvement Plans
CTPLD	Community Team for Adults with Learning Disabilities
EDI	Economic Deprivation Index
FTE	Full Time Equivalent
GAD	Government Actuary's Department
GH	Guy's Hospital
GIRES	Gender Identity Research and Education Society
GST	Guy's and St Thomas' NHS Foundation Trust
HASU	Hyper Acute Stroke Unit
HDI	Health Deprivation Index
HDU	High Dependency Unit
HEIA	Health and Equality Impact Assessment
HSMRs	Hospital Standardised Mortality Ratios
HTCS	Hospital Travel Cost Scheme
IAPT	Improving Access to Psychological Therapies
KCH	King's College Hospital
KCH (DH)	King's College Hospital (Denmark Hill)
JSNAs	Joint Strategic Needs Assessments
LGB	Lesbian Gay Bisexual
LINks	Local Involvement Networks
LSOA	Lower Layer Super Output Area
MLU	Midwifery Led Unit
MSOA	Middle Super Output Area
ONS	Office for National Statistics

Acronym	Description
PTALs	Public Transport Accessibility Levels
QEH	Queen Elizabeth Hospital NHS Trust
QMS	Queen Mary's Sidcup NHS Trust
PFI	Private Finance Initiative
PRUH	Princess Royal University Hospital
SAPE	Small Area Population Estimates
SDRC	Social Disadvantage Research Centre
SLD	Straight Line Distance
SLHT	South London Healthcare NHS Trust
ST&T	Scientific, Therapeutic and Technical
STH	St. Thomas' Hospital
SWLEOC	South West London Elective Orthopaedic Centre
TfL	Transport for London
TSA	Trust Special Administrator
UCC	Urgent Care Centre
UHL	University Hospital Lewisham
UPR	Unsustainable Providers

# Appendix B Econometric analysis

This appendix summarises the statistical analysis undertaken to understand the correlation of different characteristics, at the LSOA level, to the changes in travel time estimated. This analysis has been conducted with the statistical software Stata. The summary statistical analysis is presented in Table 33.

**Table 33: Summary statistical analysis** 

Indicator	UHL Blue Light	UHL Public Transport	Source
Economic Deprivation Index	Insign.	Insign.	Most recent EDI score available for the year 2005. EDI scores sourced from "Tracking Neighbourhoods: The Economic Deprivation Index", Social Disadvantage Research Centre (SDRC), University of Oxford (2009).
Health Deprivation Index	-ve**	-ve**	Indices of Deprivation 2010 Underlying Indicators: Health Deprivation and Disability, ONS (2010)
Age 0 to15	-ve*	Insign.	Super Output Area mid-year population estimates for England and Wales, ONS (2010).
Age over 65	+ve**	Insign.	Super Output Area mid-year population estimates for England and Wales , ONS (2010).
Live Births	-ve*	-ve*	Live Births by MSOA level, ONS (2010),
BAME	-ve**	-ve**	UK Census (2001), uplifted to 2010 using GAD/ONS projections (2008).
Disability Living Allowance	-ve*	-ve*	Number of Disability Living Allowance Claimants by LSOA, ONS (2010)
Comparative Illness and Disability Ratio	-ve**	-ve*	Indices of Deprivation 2010 Underlying Indicators: Health Deprivation and Disability, ONS (2010)
Mood and anxiety disorders indicator	-ve*	-ve*	Indices of Deprivation 2010 Underlying Indicators: Health Deprivation and Disability, ONS (2010)

Source: Deloitte Analysis. \*\* 1% level of statistical significance \* 5% level of statistical significance.

The analysis was undertaken based on a cross-section of all LSOAs estimating a linear model using ordinary leased squares approaches. Standard errors were estimated based on the White procedure (White 1980).

The models were tested for:

- Non-linear specifications; and
- Weighting by the size of LSOA, more relevant for the index variables.

Models were estimated based on undertaking an ordinary least squares approach with the dependent variable being the characteristic of interest. The explanatory variable is the change in travel time to the next quickest alternative hospital with an A&E based on blue light travel time or public transportation. The underlying transportation analysis was provided by the TSA.

# Appendix C Impact on attendances

# C.1 Accident & Emergency

# C.1.1 Economic and social deprivation

The travel time impact on A&E attendances is estimated based on five steps.

- Based on blue light ambulance travel time analysis, provided by the TSA, the
  TSA has identified which LSOAs have the lowest travel time to reach UHL. These
  LSOAs are therefore assumed to be impacted if emergency and urgent care is
  required which cannot be provided by the recommended UCC at UHL.
- 2. The number of LSOAs identified is then further refined to those which are defined as economically and socially deprived. An LSOA is defined to be economically and socially deprived if the LSOA falls in the top quintile of LSOAs. Economic and social deprivation is measured based on the Economic Deprivation Index (EDI) based on 2005 data. EDI scores are sourced from Social Disadvantaged Research Centre (Social Disadvantage Research Centre 2009).
- 3. Based on the refining of the impacted LSOAs, the population of economically and socially deprived people can be estimated. Population numbers for the LSOAs have been taken from the ONS (ONS 2010c).
- 4. To identify the number of impacted attendances from the identified economically and socially deprived population an appropriate attendance rate is required. To estimate an attendance rate, the overall attendance rate at Lewisham is firstly estimated to be 28%, based on provider level returns for 2010/11 (HES January 2012) for attendances and defining a catchment population. The catchment population is estimated based on the TSAs identification of which LSOAs are impacted by the changes to services at UHL.
- 5. The attendance rate is then adjusted for two factors.
  - a. The majority of emergency and urgent activity being retained at the UHL UCC, so not impacted. UHL has estimated that 77% of attendances will be retained at the UCC (TSA 2012). A 23% adjustment factor is therefore applied, this is considered in a sensitivity analysis presented in the Appendix C.3.
  - Evidence suggests that there is increased attendance of economically and socially deprived at A&Es. Blatchford et al. provides increases to emergency medical admissions across different deprivation levels (Blatchford, et al. 1999). Based on this analysis, a movement from a deprivation score of 5 to 7 or 6 to 7 leads to increases in admission rates

by 28% or 36% respectively. In this analysis 7 represents the most deprived populations. Based on the overall UHL attendance rate, estimated in step 4, being based on the total population and hence already incorporating the Lewisham wide impacts of economic and social deprivation, it is conservatively assumed that the economically and socially deprived could see a 36% increase in attendance.

- c. Applying the adjustment factor of 23% and uplifting by 36% the adjusted attendance rate is estimated to be 8.8%.
- 6. The adjusted attendance rate is then applied to the total economically and socially deprived population impacted.

It is acknowledged that this approach is high level given:

- The TSAs analysis identifies LSOAs as being impacted based on travel time, in reality more patient choice may be observed;
- Ideally the difference in attendance rate would be estimated on actual data on the
  differential rate between economically and socially deprived and the rest of the
  population attending UHL. Information on patients actually attending UHL was
  available, but only at a 4 patient code level making a mapping to the economic
  and social deprivation information at the LSOA impractical.

# C.1.2 Elderly (over 65 years old)

The travel impact on A&E attendances for the older people is estimated in the following manner:

- LSOAs impacted by transformation of A&E services at UHL are identified by considering all LSOAs which have a positive blue light travel time change.
- 2. The total count of older people in the impacted LSOA is then considered. Source of the population numbers have been discussed in Appendix B.
- To identify the number of impacted attendances from the affected LSOAs an appropriate attendance rate needs to be calculated, which subsequently needs to be adjusted to represent the propensity of the older people to access these services.
- 4. The unadjusted or overall attendance rate was estimated to be 28%, based on provider level returns for 2010/11 (HES January 2012) for attendances and defining a catchment population. This catchment or target population is the total population count of all the impacted LSOAs as identified in Step 1.
- 5. The attendance rate is then adjusted for two factors.

- a. A majority of the emergency and urgent activity which is dealt with at the UHL UCC is not impacted since the UCC is retained post transformation.
   UHL has estimated that 77% of A&E is dealt with at the UCC (TSA 2012).
   A 23% adjustment factor is therefore applied.
- b. There is evidence to suggest that the older people have a higher than average rate of A&E attendances (Blatchford, et al. 1999). Given this, the attendance rates need to be adjusted to account for the higher propensity of the older people to access services. An uplift factor is estimated using patient level data provided by UHL upon request for the years 2011 and 2012. Comparing the percentage of older people in the borough of Lewisham to the percentage of A&E admission of older people at UHL, provides an uplift factor of 370%. This finding is sense checked using an analysis conducted by Blatchford et al (Blatchford, et al. 1999) which has similar findings.
- c. Applying the adjustment factor of 23% and uplifting by 370%, the adjusted attendance rate is estimated to be 24%.

## C.1.3 BAME

Travel time impact on A&E attendances is estimated as follows:

- The catchment population is first determined, identifying all the LSOAs which
  have a positive change in blue light travel time. Change in blue light travel time,
  as explained previously, is assumed to be an indicator of the LSOAs which are
  impacted by A&E service transformation at UHL.
- To identify the number of impacted attendances from the LSOAs identified in Step 1, an appropriate attendance rate needs to be calculated, which subsequently needs to be adjusted to represent the propensity of the BAME population to access these services.
- 3. The unadjusted or overall attendance rate was estimated to be 28%, based on provider level returns for 2010/11 (HES January 2012) for attendances and defining a catchment population. This catchment or target population is the total population count of all the impacted LSOAs as identified in Step 1.
- 4. The attendance rate is then adjusted for two factors.
  - a. A majority of the emergency and urgent activity which is dealt with at the UHL UCC is not impacted since the UCC is retained post transformation.
     UHL has estimated that 77% of A&E is dealt with at the UCC (TSA 2012).
     A 23% adjustment factor is therefore applied.

- b. To account for the propensity of the BAME population using A&E services, patient level ethnicity data as provided by UHL upon request for the years 2011 and 2012 is used. An uplift factor is estimated comparing the proportion of BAME groups in the total catchment population to the proportion of BAME A&E admissions. The uplift factor is estimated to be 100%, i.e. no uplift is necessary to account for BAME groups.
- c. Given this, applying the adjustment factor of 23% on the unadjusted attendance rate of 28%, an adjusted attendance rate is estimated to be 6%.

# C.2 Maternity

The travel time impact for delivery could only be estimated based on a high level procedure, given the information available from the TSA. The estimation is conducted as follows:

- 1. The impacted LSOAs are identified as those which see a positive change in private travel time post transformation.
- 2. The number of pregnant women in the impacted LSOAs is estimated, using data on live births as a proxy, as discussed in Appendix F
- 3. Alongside objective travel time considerations, utilisation of maternity services is also driven by patient choice and preference. This has been accounted for by applying an adjustment factor. This has been estimated using the number of births in UHL as a proportion of the total number of pregnant women in the impacted LSOAs. The adjustment factor for patient choice is estimated to be 43%.
- 4. Females between 16 and 44 years of age in the impacted LSOAs are counted as the unadjusted target population for maternity services in UHL. This number adjusted by the patient choice factor as defined in Step 3 is used to determine the travel impact on attendances for the impacted population.
- 5. The impact of the transformation on attendances for the BAME population is estimated in the same manner, using information on BAME live births as a proxy for the number of pregnant BAME women, as discussed in Appendix B.

# C.3 Accident & Emergency sensitivity

The analysis of emergency and urgent care activity presented in this report is based on the assumption that 77% of people currently attending A&E and urgent care services at UHL could continue to be treated by the UCC at UHL. This assumption was proposed in the TSA's draft recommendations. It is understood, however, that this assumption may be revised downwards based on new information.

As the revised assumption was not available at the time of writing this report; a sensitivity analysis around the A&E impacts is conducted based on an assumption that 50% of activity is retained at the UCC. This analysis is conducted based on the same methodology established in Appendix C.1, with a single change in assumption.

Table 34: Change in travel time, deprived population attendances, A&E UHL transformation

Travel impact (mins)	Bexley	Bromley	Greenwich	Lambeth	Lewisham	Southwark	Total	% of total UHL A&E attendances
<1	0	594	0	0	283	0	877	1%
1 to 5	0	823	288	0	4,861	277	6,250	6%
5 to 10	0	269	282	0	4,214	0	4,765	4%
10 to 15	0	0	0	0	5,721	0	5,721	5%
15 to 20	0	0	0	0	0	0	0	0%
20 to 25	0	0	0	0	0	0	0	0%
>25	0	0	0	0	0	0	0	0%
Total	0	1,687	570	0	15,079	277	17,613	16%

Source: Deloitte analysis based on information from TSA, SDRC (2008)

Table 35: Change in travel time, 0 to 15 years old attendances, A&E UHL transformation

Travel impact (mins)	Bexley	Bromley	Greenwich	Lambeth	Lewisham	Southwark	Total	% of total UHL A&E attendances
<1	0	349	0	0	103	132	584	1%
1 to 5	0	1,223	335	0	2,040	153	3,752	3%
5 to 10	0	588	86	0	2,404	0	3,078	3%
10 to 15	0	61	0	0	2,565	0	2,626	2%
15 to 20	0	0	0	0	0	0	0	0%
20 to 25	0	0	0	0	0	0	0	0%
>25	0	0	0	0	0	0	0	0%
Total	0	2,221	421	0	7,112	286	10,039	9%

Source: Deloitte analysis based on blue light travel time information from TSA, ONS (2010c), HES (2011)

Table 36: Change in travel time, over 65 years old attendances, A&E UHL transformation

Travel impact (mins)	Bexley	Bromley	Greenwich	Lambeth	Lewisham	Southwark	Total	% of total UHL A&E attendances
<1	0	607	0	0	113	338	1,058	1%
1 to 5	0	3,336	934	0	4,067	219	8,555	8%
5 to 10	0	2,077	196	0	4,345	0	6,618	6%
10 to 15	0	106	0	0	5,106	0	5,212	5%
15 to 20	0	0	0	0	0	0	0	0%
20 to 25	0	0	0	0	0	0	0	0%
>25	0	0	0	0	0	0	0	0%
Total	0	6,125	1,130	0	13,631	557	21,443	19%

Source: Deloitte analysis based on blue light travel time information from TSA, ONS (2010c)

Figure 28: Change in travel time, BAME attendances, A&E UHL transformation

Travel impact (mins)	Bexley	Bromley	Greenwich	Lambeth	Lewisham	Southwark	Total	% of total UHL A&E attendances
<1	0	398	0	0	288	164	850	1%
1 to 5	0	986	451	0	4,140	324	5,902	5%
5 to 10	0	444	162	0	4,702	0	5,308	5%
10 to 15	0	56	0	0	4,973	0	5,029	4%
15 to 20	0	0	0	0	0	0	0	0%
20 to 25	0	0	0	0	0	0	0	0%
>25	0	0	0	0	0	0	0	0%
Total	0	1,885	613	0	14,103	488	17,089	15%

Source: Deloitte analysis based on blue light travel time information from TSA, ONS (2011)

Table 37: Change in travel time, disabled attendances, A&E UHL transformation

Travel impact (mins)	Bexley	Bromley	Greenwich	Lambeth	Lewisham	Southwark	Total	% of total UHL A&E attendances
<1	0	75	0	0	23	28	126	0%
1 to 5	0	223	74	0	466	42	805	1%
5 to 10	0	102	20	0	560	0	682	1%
10 to 15	0	11	0	0	666	0	678	1%
15 to 20	0	0	0	0	0	0	0	0%
20 to 25	0	0	0	0	0	0	0	0%
>25	0	0	0	0	0	0	0	0%
Total	0	410	95	0	1,715	71	2,290	2%

Source: Deloitte analysis based on blue light travel time information from TSA, ONS (2010b) and SDRC(2008)

# Appendix D Access facilities

This appendix provides a more detailed breakdown of the access facilities present in the south east London's hospitals.

	UHL	PRUH	QMS	QEH	KCH (DH)	GH	STH
Braille translation service	Yes	Unknown	Unknown	Unknown	Yes	Unknown	Unknown
Disabled parking	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Disabled WC	Yes	Unknown	Unknown	Unknown	Yes	Unknown	Unknown
Induction loop	Yes	Yes	No	No	Yes	Yes	Yes
RNID typetalk	No	Unknown	Unknown	Unknown	Yes	Unknown	Unknown
Signing service available	Yes	Yes	No	Yes	Yes	Yes	Yes
Wheelchair access	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Step free access	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

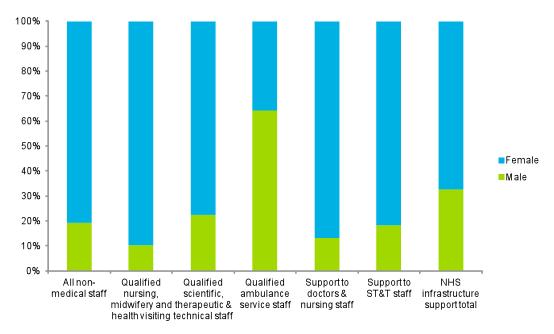
Source: NHS Choices facilities analysis, accessed 15/11/2012

# Appendix E Demographic profile of staffing

# E.1 Overall NHS

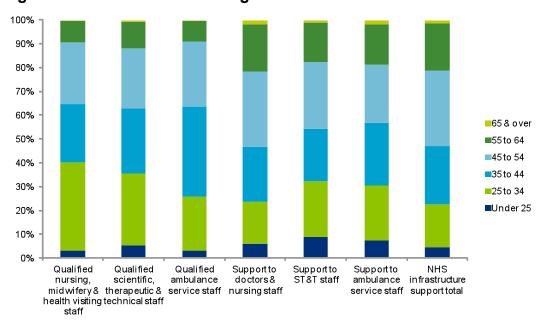
## E.1.1 Non-medical staff

Figure 29: Non-medical staff: Gender



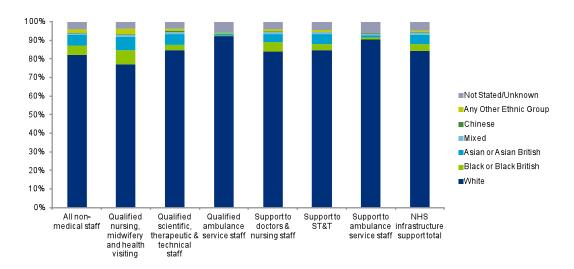
Source: (NHS Information Centre 2011)

Figure 30: Non-medical staff: Age band



Source: (NHS Information Centre 2011)

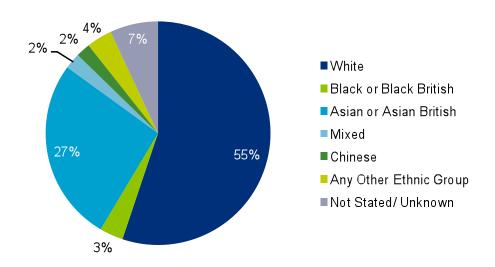
Figure 31: Non medical staff: Ethnic groups



Source: (NHS Information Centre 2011)

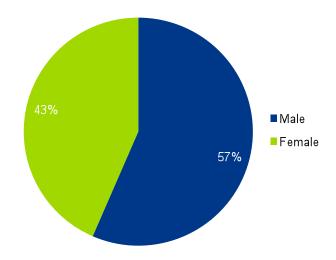
# E.1.2 Medical workforce

Figure 32: Medical staff: Ethnic groups



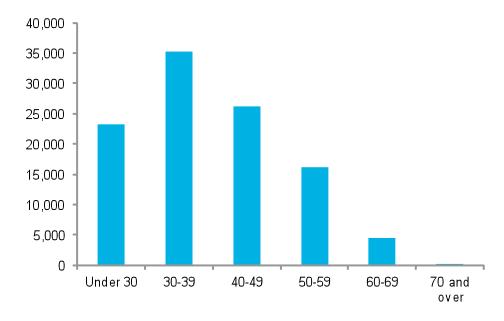
Source: (NHS Information Centre 2011)

Figure 33: Medical staff: Gender



Source: (NHS Information Centre 2011)

Figure 34: Medical staff: Age band



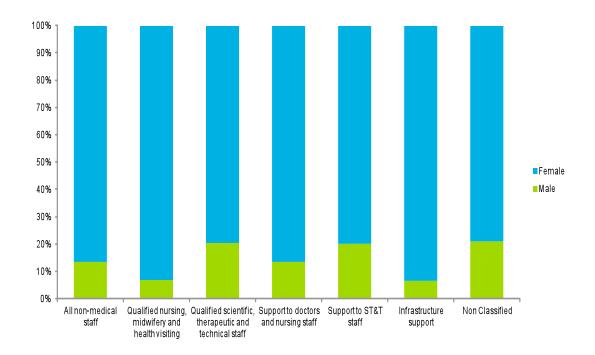
Source: (NHS Information Centre 2011)

# E.2 UHL staff

This section provides further information on the demographic profile of UHL staff. This information was provided by the information centre at UHL.

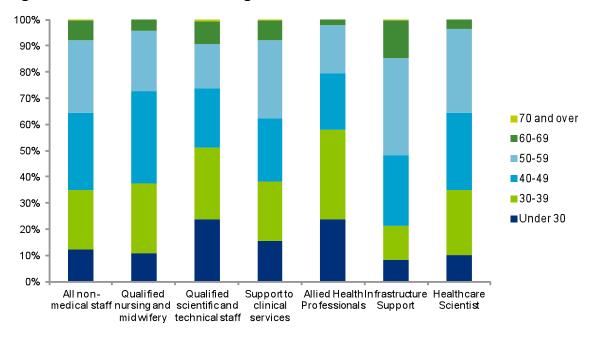
## E.2.1 Non-medical workforce

Figure 35: Non-medical staff: Gender



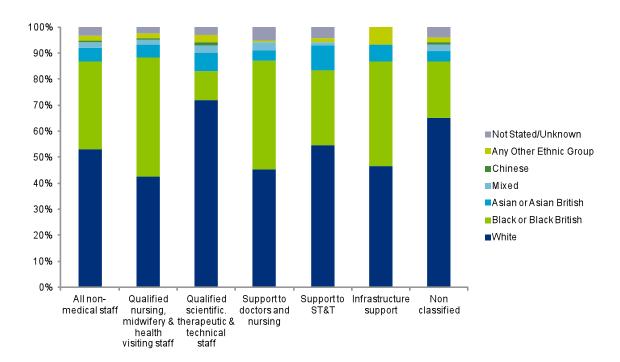
Source: Data provided by UHL

Figure 36: Non-medical staff: Age band



Source: Data provided by UHL

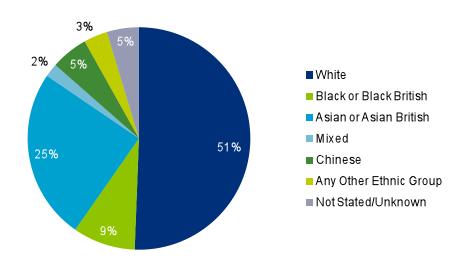
Figure 37: Non-medical staff: Ethnic groups



Source: Data provided by UHL

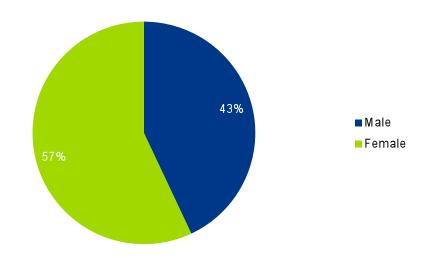
# E.2.2 Medical workforce

Figure 38: Medical staff: Ethnic groups



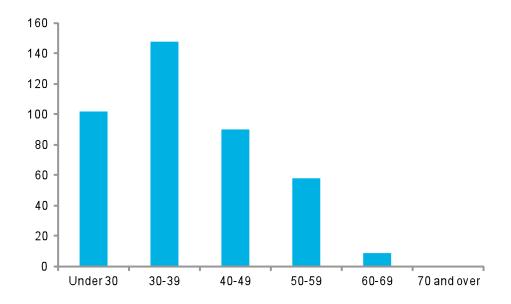
Source: Data provided by UHL

Figure 39: Medical staff: Gender



Source: Data provided by UHL

Figure 40: Medical staff: Age band

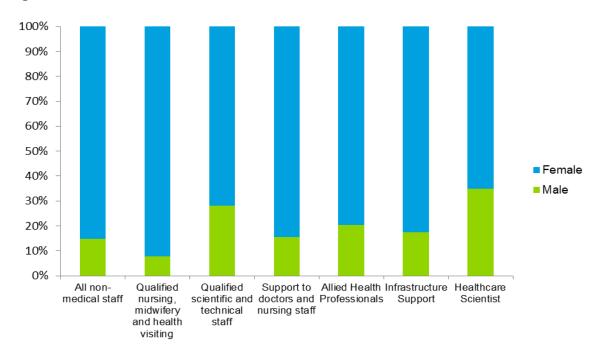


Source: Data provided by UHL

# E.3 SLHT staff

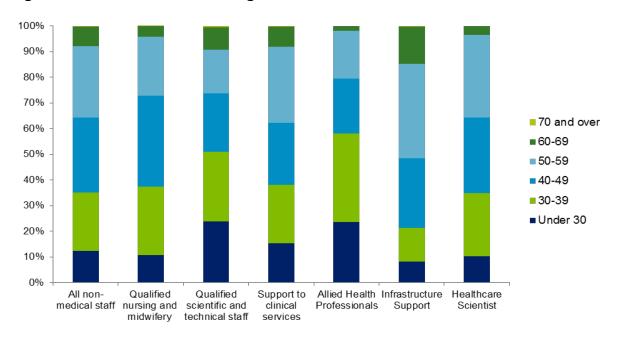
## E.3.1 Non-medical workforce

Figure 41: Non-medical staff: Gender



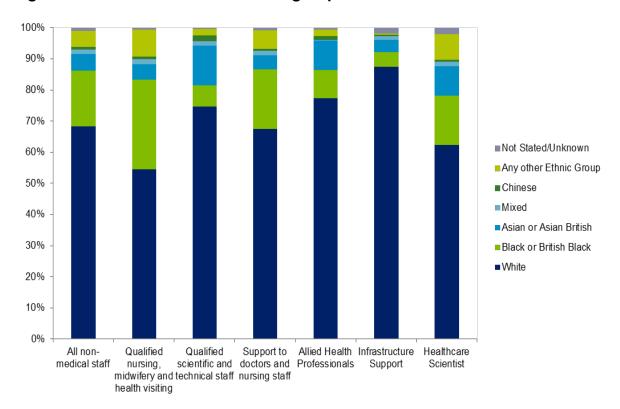
Source: Data provided by South London Healthcare NHS Trust

Figure 42: Non-medical staff: Age band



Source: Data provided by South London Healthcare NHS Trust

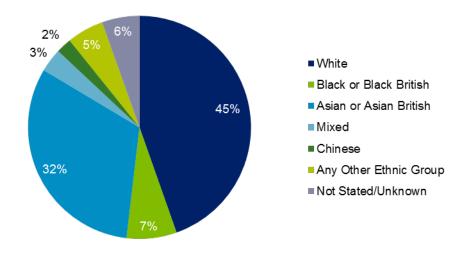
Figure 43: Non-medical staff: Ethnic groups



Source: Data provided by South London Healthcare NHS Trust

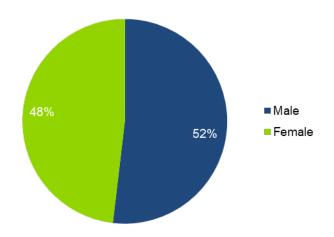
# E.3.2 Medical workforce

Figure 44: Medical staff: Ethnic groups



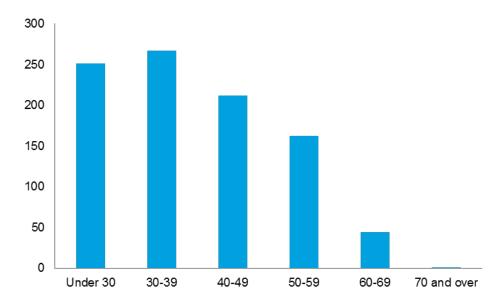
Source: Data provided by South London Healthcare NHS Trust

Figure 45: Medical staff: Ethnic groups



Source: Data provided by South London Healthcare NHS Trust

Figure 46: Medical staff: Age band



Source: Data provided by South London Healthcare NHS Trust

## Appendix F Discussion of analysis

This appendix provides a detailed overview of the methodology underlying the analysis that has been conducted to inform the HEIA.

## F.1 Patient Level analysis

Patient level analysis has been conducted to determine the impact of the TSA recommendations on particular groups within the population. Analysis has been conducted at the LSOA level, unless stated otherwise. Population groups have been identified along several dimensions on the basis of their propensity to use different services and guidelines set out by the Equality Act. The analysis is conducted using publicly available data and information provided by the TSA. Table 38 lists out the source of the datasets for the variables considered and the necessary adjustments made.

In addition, information on patient geography, ethnicity, faith, gender, condition for all A&E admissions over the period 2009 to 2012 was provided by UHL upon request. This dataset was used to estimate attendance rates in Lewisham by demographic groups. This has been discussed further in Appendix B.

Table 38: Variables used for patient level analysis

	Variable	Year	Description	
Total	Total population	2010	Part of the Small Area Population Estimates (SAPE), as estimated by the ONS using factors such as net natural change, net internal migration, net international migration, changes in static population, etc. (ONS 2010e).	
Age	Elderly (over 65)		static population, etc. (ONO 2010c).	
	Young (under 15)			
Race	BAME groups (as specified in 2001 UK Census)	2001*	The most recent BAME population count at the LSOA level is from the 2001 census. This was uplifted to 2010 using rates specified by the Government Actuary's Department and the ONS based on estimated fertility rates, mortality rates and net migration (ONS 2009).	
Health	HDI	2010	Published in the dataset - 'Indices of deprivation 2010 Underlying Indicators: Health Deprivation and Disability (2010)', HDI score corresponds to the time period 2004-2008.	
Disabled	DLA claimants	2010	Data on the total number of disability claimants in all LSOAs in 2010, sourced from the ONS.	
Economic deprivation	EDI	2008	Economic deprivation scores have been constructed by the Social Disadvantage Research Centre (2008) at the University of Oxford at the LSOA level for each year from 1999 to 2005. The EDI is based on two component domains - income deprivation and employment deprivation. The scores from 2005 have been used in the analysis.  LSOAs which fall within the top quintile of the most economically deprived in England are identified and are labelled as the most deprived LSOAs. All inhabitants of these LSOAs have been counted as economically deprived. The analysis recognises that not all individuals within a deprived LSOA are disadvantaged. However, in the absence of individual level data on deprivation, this can be treated as a reasonable proxy.	
Pregnant women	Live births	2010	There were no statistics available for the number of pregnant women in any geographical level and live births have been used as a proxy for the same. Statistics for live births were only available at the Middle Super Output Area (MSOA) level and have been estimated by dividing this figure by the count of LSOAs in each MSOA. This is a reasonable proxy since population count across LSOAs is fairly homogeneous.	
BAME pregnant women	BAME live births	2010*	Statistics were not available for the number of pregnant women by ethnicity at the LSOA level .This was estimated using the following methodology.  h = CountiLSOA x TFRi (i refers to each BAME group i.e Black, Asian, Mixed, Chinese and other ethnicities)  The methodology outlined above, estimates the number of BAME live births for each LSOA by applying fertility rate by ethnicity on the projected ethnic group population. Fertility rates have been sourced from ONS (ONS, 2008).	

<sup>\*</sup> Uplifted

## F.2 Provider Level Analysis

Clinical quality indicators for each service type for each of the providers have been analysed to understand current quality of care and patient experience. The following table lists the indicators used.

Table 39: Clinical quality indicators by service type

Service Type	Indicators	Source
Pregnancy and Maternity	Ratio of births to midwives in posts Staff vacancy rates	Maternity services provider level analysis 2009/10 (HES 2011a).
	Maternity services survey	Care Quality Commission (2010)
Accident and Emergency	Left department before being seen for treatment Re-attendance rate Time to initial assessment Time to treatment Total time in A&E	A&E services, provider level analysis 2010/11 (HES 2012).
Elective	Median time weighted	HES Provider level analysis for admitted patient care 2011-12 (HES 2012b)

## F.3 Travel analysis

Travel time analysis has been conducted, drawing on the work of the TSA at the LSOA level, as requested by the TSA in our agreed scope of work.

## F.3.1 Travel time (data obtained from TSA)

Travel times between locations have been provided by the TSA. This travel time analysis is conducted at the LSOA level. In this report the following have been considered using the TSA's data:

- Emergency and urgent care. Based on blue light transportation times. Hospital choice is based
  on the minimum time to an alternative hospital providing this care, drawing on the TSA's analysis.
  It is understood from the TSA that their blue light travel time analysis is estimated based on peak
  morning travel times. It is noted that using proximity as the driver of choice can lead to some
  simplifications where patients exercise choice based on other factors, such as reputation, advice
  from their general practitioners, quality and legacy referral patterns.
- Maternity care. Private transportation times are focussed on. It is understood from the TSA that
  these travel time are estimated also using peak morning travel times. A high level adjustment was
  made to account for observed choice in maternity providers. This assumption was based on
  considering the current number of births at UHL and comparing this to the number of births
  occurring and have UHL as their closest delivery centre.
- Elective care. Both private and public transportation modes are considered, using the TSA information from peak morning travel times. Hospital choice is based on the minimum time to an alternative hospital providing this care (UHL or GH), drawing on the TSA's analysis. At the time of

writing this report it was not possible to consider which elective services would or would not be provided at UHL and GH.

### F.3.2 Travel complexity (data obtained from TSA/TfL)

An assessment is undertaken of the change in complexity of travel following the transformation. One measure for complexity considered was to look at the number of journey changes on public transport. However, no simple method was available for the getting hold of this information for all the LSOAs considered.

Given this, a proxy was constructed following discussions with TfL using speeds calculated by dividing straight line distances between each LSOA and the hospitals by the actual travel times as estimated using HSTAT. Straight line distances (SLDs) were provided by the TfL upon request.

LSOAs that had a positive weighted travel time change post configuration were analysed and the complexity of travel ante and post transformation were considered to provide a measure of the change in complexity.

A measure of accessibility considered in this report is the PTAL score of the hospitals, which are a measure of public transportation accessibility by postcode, developed by TfL. Higher PTAL scores imply improved accessibility to public transportation.

#### F.3.3 Travel cost

Change in cost of travel for the LSOAs most affected, in terms of change in travel time has been estimated for both private and public transportation. For private transport, the costs were based on estimated black cab fares between a randomly selected postcode within the LSOA and the hospitals. For public transport, the TfL fare finder was used to provide an appropriate estimate.

## F.4 Activity analysis

Activity analysis considers the impact of the recommendations on patient activity in the hospitals. Activity flows to hospitals were modelled by the TSA, assuming that any population affected by the service transformation would shift to the closest hospital in terms of travel time. However, for Lewisham residents, following discussions with local clinicians, it was agreed upon that patient preference would mean a higher proportion of the patients would choose to travel to central London hospitals, than suggested by objective travel times. This was also taken into account by the TSA in modelling activity flows.

## Appendix G Steering Group

This annexe provides details of the Steering Group that was established during the HEIA. Specifically, the membership of the HEIA Steering Group includes:

- Independent Lay Chair (1);
- Patient, Carer and Public representatives (6);
- Public Health representatives (1);
- Local Authorities' representatives (1);
- Department of Health or NHS SE London Equalities Leads (2);
- CCGs in SE London (3); and
- Nursing representative (1).

Table 40: The membership of the Steering Group

Name	Member	
Peter Gluckman	Chair of Patient & Public Advisory Group and Chair of the HEIA steering group	
Angela Bhan	Chief Officer, proposed NHS Bromley CCG	
Aileen Buckton	Executive Director for Community Services, Lewisham	
Mark Charters	Director of Education and Social Care, Bexley	
Mary Clarke	CCG Registered Nurse	
Catherine Davies	Policy Partner (Equalities & Inclusion), Department of Health	
Rosemary Glanville	Lambeth LINk	
Angela Harris	Bromley LINk	
Richard Hills	Strategy Manager, Commissioning, Bexley	
John King	Southwark Engagement & Patient Sub Group	
Agnes Marossy	Consultant in Public Health, London Borough of Bromley	
John Nawrockyi	Director of Adult and Older people's services, Greenwich	
Valerie Richards	Equalities and Diversity lead for NHS South East London and South London Commissioning Support Unit	
Diana Robbins	Lewisham CCG Lay Member	
Danny Ruta	Director of Public Health for Lewisham	
Judy Smith	South Greenwich Forum	
Greg Ussher	Greenwich CCG Lay Member	
Lyn Wheeler	PPAG member and Patient representative on South London Cardiac and Stroke Network	
Onur Yelekci	Department of Health representative	
Mark Charters	Director of Adult Social Care, Bexley	

Name	Member	
OTSA Team		
Shaun Danielli	Director of the Office of TSA	
Dom Harris	Strategy Advisor, OTSA	
Louise Hutchinson	PPIU Advisor to the OTSA	
Bashir Arif	Health Impact Advisor to the OTSA	
Hilary Pickles	Independent Public Health Advisor to Bashir Arif	
Rochelle Payne	Project Administrator to the OTSA	

The following individuals were also invited to join the Steering Group but were unable to join:

### The Directors of Public Health (DPH):

- 1. Ruth Wallis for Lambeth and Southwark
- 2. Hilary Guite for Royal Greenwich (separate discussion were held with Deloitte)
- 3. Nada Lemic for Bromley (Agnes Marossy provided support in her absence)
- 4. Bexley does not have a DPH

#### The Directors of Adult Social Care<sup>54</sup>:

- 1. Jo Clearly for Lambeth
- 2. David Roberts for Bromley (Richard Hills provided support in his absence)

There were four separate meetings of the Steering Group through the course of the HEIA, with details of these meetings presented below:

- First Steering Group Meeting 1 November
- Second Steering Group Meeting 13 November
- Third Steering Group Meeting 26 November
- Fourth Steering Group Meeting 17 December

 $<sup>^{\</sup>rm 54}$  To note that roles and titles are slightly different for these individuals.

# Appendix H Response from public consultation

In this appendix the closed responses from the overall TSA consultation process are considered across selected groups, closely aligning to some of the protected characteristics where possible. The results presented in this document are drawn from Ipsos MORI's analysis of the TSA consultation responses. Results are presented across questions 11, 13, 15 and 17. The results compare the mean responses across different groups (age, ethnicity, gender, whether the respondent is pregnant, have children or care for children and whether the respondent is disabled or not) to the overall mean. For a further breakdown of the questions see the Ipsos MORI survey results.

For the questions 11, 12 and 17, respondents were asked about the extent of their support of opposition to plans and service changes: strongly support (scored by Ipsos MORI as +2), tend to support (+1), no views either way (0), tend to oppose (-1) and strongly oppose (-2). In question 15, respondent were asked about their preferences regarding different obstetric-led services options (only at four major hospitals, standalone obstetrician unit also at UHL, neither of them).

There are some themes across the questions analysed.

- For question 11, 13 and 17, a consistent pattern response is observed regarding the age of the respondents. Older respondents tend to oppose to a lesser extent the plans than younger ones. This is particularly relevant for the age ranges 55 to 64 and 65 or over. For these ranges, mean responses are above the overall average, less opposed to the recommendation.
- Female respondents tend to be more opposed to the recommendations than male respondents. This pattern is observed across all questions where female responses are below the overall average, more opposed to the plans.
- Disabled respondents also show less opposed views to the plans than the nondisabled respondents. This is consistent across all the questions. Despite this, the impact of the recommendations has still been considered substantially for disabled groups.
- To a greater extent than the mean, pregnant respondents do not support the proposed options surrounding the transformation of maternity care.
- People of mixed ethnicity have stronger opposition to the plans. BME groups are also consistently more opposed, than the mean, to the plans across the questions considered.

The scale on the axes has been presented excluding categories strongly support (+2) and tend to support (+1) to allow a clearer identification of differences in responses. It

should be noted that for some of the sub groups analysed, the number of responses is restricted in places; which may influence the representativeness. For example, there are only 28 responses from young people under 18 years old out of a total sample of 7211 respondents. Similarly, only 185 pregnant women responses are included in the analysis.

#### Question 11 H<sub>.</sub>1

How far do you support or opposed the recommendation to implement the community based care strategy as outlined in Chapter 8 of the consultation document?

Under 18 18 to 24 25 to 34 35 to 44 45 to 54 55 to 64 65 or over Noviews 0 either way -0.2 -0.4 -0.6 -0.8 Me an Tend to -1 oppose -1.2-1.4 -1.6 -1.8 Strongly

Figure 47: Responses to Q11: Age band

Source: Ipsos MORI, consultation responses.

-2

oppose

Figure 48: Responses to Q11: Ethnicity

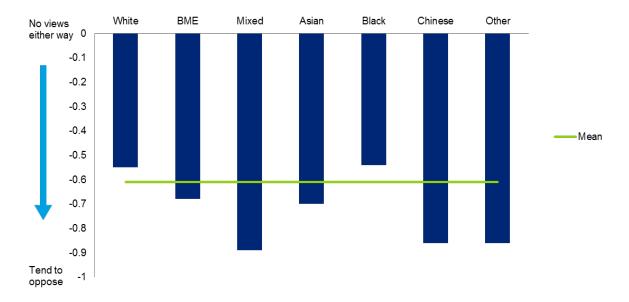
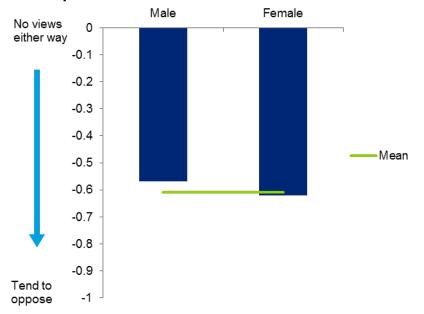


Figure 49: Responses to Q11: Gender

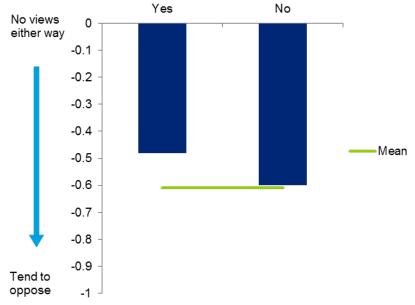


Source: Ipsos MORI, consultation responses.

Care for children under the age of No views 16 Have children Is pregnant either way 0 -0.1 -0.2 -0.3 -0.4 Mean -0.5 -0.6 -0.7 -0.8 -0.9 Tend to -1 oppose

Figure 50: Response to Q11: Children and Pregnancy





Source: Ipsos MORI, consultation responses.

### H.2 Question 13

How far do you support or oppose the proposed plans for delivering urgent and emergency care in south east London?

<sup>&</sup>lt;sup>55</sup> It should be noted that the mean is larger than any of the mean scores. This is likely to be driven by a proportion of the respondents not stating whether they are disabled or not. The overall mean is estimated using the total number of respondents which is not the same number as the population for this analysis (smaller).

Figure 52: Responses to Q13: Age Band

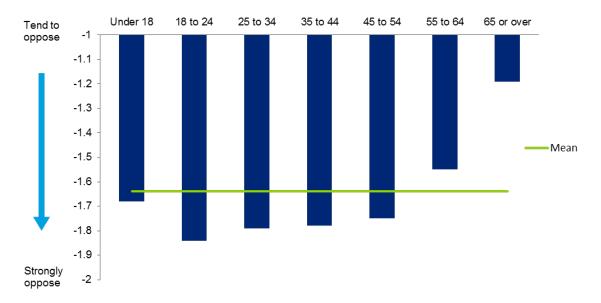
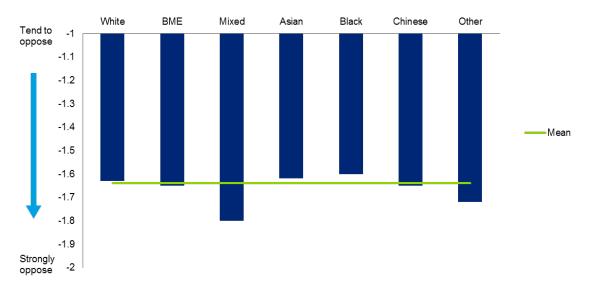


Figure 53: Responses to Q13: Ethnicity



Source: Ipsos MORI, consultation responses.

Figure 54: Responses to Q13: Gender

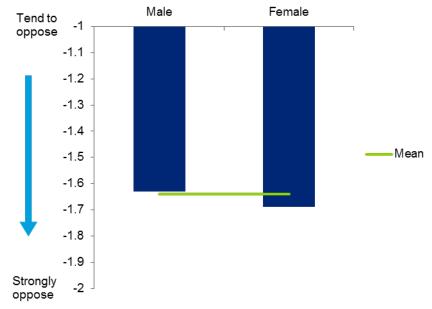
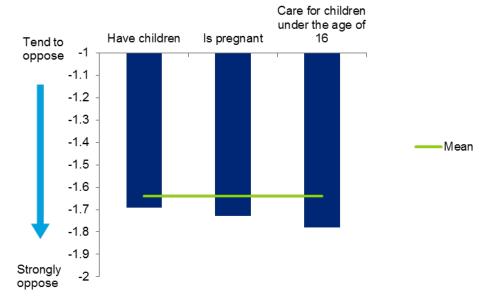


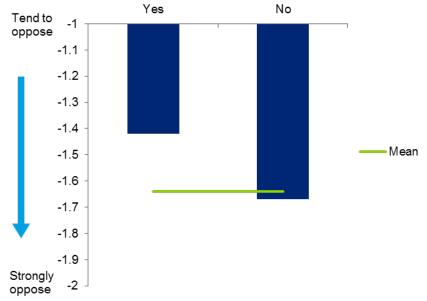
Figure 55: Responses to Q13: Children and Pregnancy<sup>56</sup>



Source: Ipsos MORI, consultation responses.

<sup>&</sup>lt;sup>56</sup> The overall mean is smaller than any of the mean scores. This is likely to be driven by the fact that the respondents without children are not included in this analysis but are part of the overall sample.

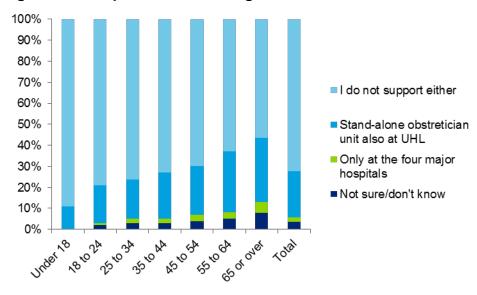
Figure 56: Responses to Q13: Disability



### H.3 Question 15

Which of the following options would you prefer, if any, for providing obstetric-led services? The possible responses are: a) Obstetric-led services should only be provided at the four major hospitals that will offer care for those who are most ill (King's College, Queen Elizabeth, Princess Royal University, St Thomas'); b)A stand-alone obstetric-led unit should also be provided at University Hospital Lewisham, in addition to the four above; c) I do not support either of these options; d) Not sure/don't know.

Figure 57: Responses to Q15: Age band



Source: Ipsos MORI, consultation responses.

Figure 58: Responses to Q15: Ethnicity

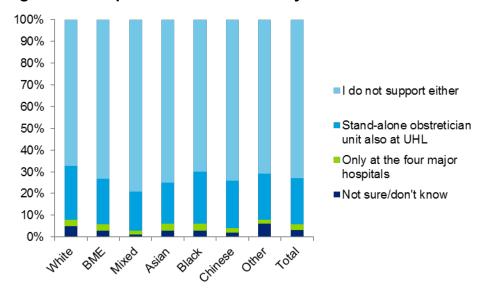
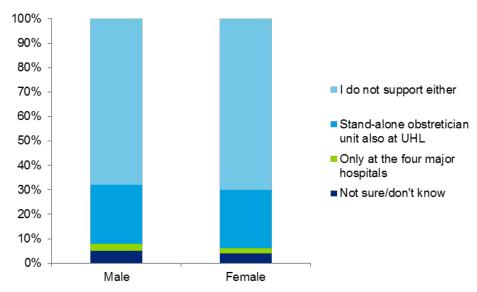


Figure 59: Responses to Q15: Gender



Source: Ipsos MORI, consultation responses.

Figure 60: Responses to Q15: Children and Pregnancy

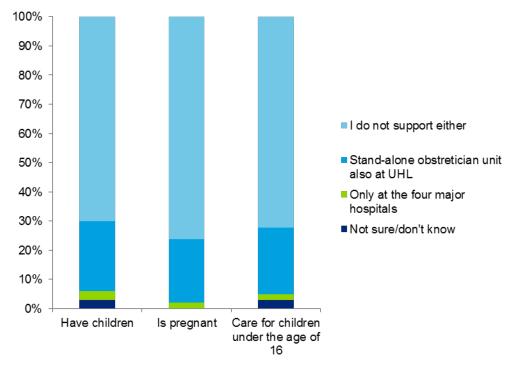
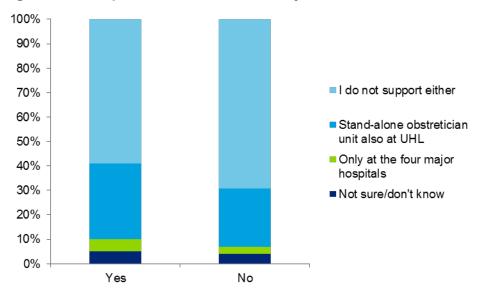


Figure 61: Responses to Q15: Disability



Source: Ipsos MORI, consultation responses.

## H.4 Question 17

How far do you support or oppose the proposed plans for providing planned care services in South East London?

Figure 62: Responses to Q17: Age band

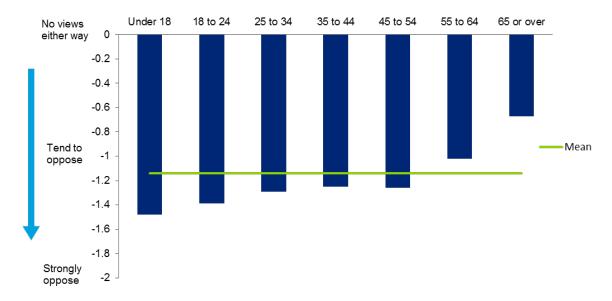
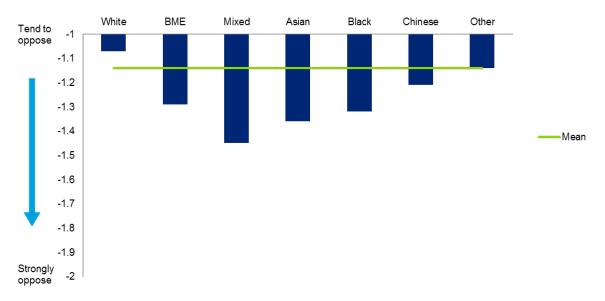


Figure 63: Reponses to Q17: Ethnicity



Source: Ipsos MORI, consultation responses.

Figure 64: Responses to Q17: Gender

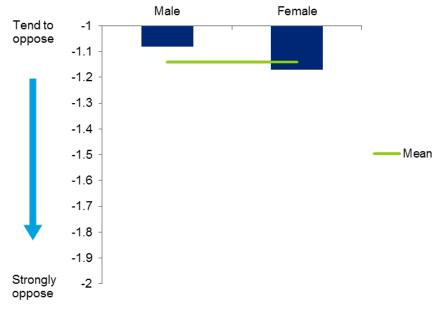
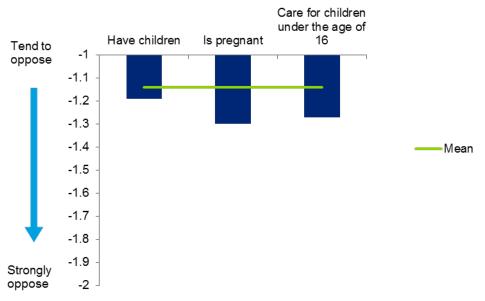
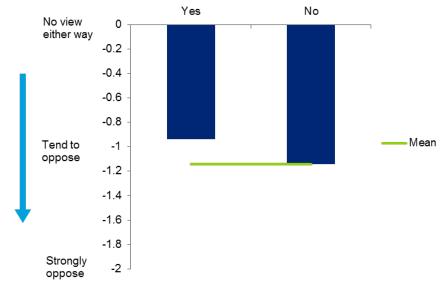


Figure 65: Responses to Q17: Children and Pregnancy



Source: Ipsos MORI, consultation responses.

Figure 66: Responses to Q17: Disability



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