The Shrewsbury and Telford Hospital NHS
NHS Trust

The Future Configuration of Hospital Services

Securing High Quality, Safe and Sustainable Hospital Services in Shrewsbury and Telford

Outline Business Case
Volume 1 – Main Body

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1.0 Foreword

This document represents the Outline Business Case for the reconfiguration of local hospital services to address some significant challenges to the safety and sustainability of patient services in Shrewsbury and Telford. It responds to the outcome of the public consultation 'Keeping It In The County'.

The business case includes the development of a new Women's and Children's Centre and the re-location of our Head and Neck inpatient services at the Princess Royal Hospital in Telford. It also includes plans for the consolidation of inpatient general surgery at the Royal Shrewsbury Hospital as well as the re-provision of the midwifery-led unit, the children's assessment unit and clinics for the women's and children's services that will continue to be provided in Shrewsbury.

It is important to stress that the majority of people will continue to go to the same hospital as they do now for the majority of their care. In particular, both hospitals will continue to provide an A&E service, outpatients, day case surgery, paediatric assessment, midwife-led maternity, therapies, orthopaedics and medicine.

Proposals to change hospital services will understandably rouse strong opinions, and we also recognise that these changes do raise concerns for some of our patients and communities that we must continue to address. In response to these concerns we are working closely with our partners in Shropshire, Telford and Wrekin and mid-Wales, and in particular with our ambulance services, to reduce any risks that may be introduced through the proposed service change.

As the Trust and its partners move forward over the next few years to deliver the new facility and services, we must remain focused on the vision at the heart of these proposals – *to keep services in the county and secure high quality, safe and sustainable services in Shrewsbury and Telford for the people of Shropshire, Telford and Wrekin and mid-Wales.*

On behalf of the Trust we commend this Outline Business Case to you.

Dr John Davies

Chairman

Adam Cairns

Chief Executive

2.0 Introduction

Chapter Summary

- **Introduction to the business case and it's structure**
- **The challenge of providing safe and sustainable local hospital services**
- **The development of the options and the proposed service change**
- **An introduction to care pathway development, the assurance process and the public consultation**
- **The scope of the business case and how it has been produced**
- **Stakeholder commitment and the engagement of the Joint Health Overview and Scrutiny Committee**

2.1 Purpose

The investment set out within this Outline Business Case (OBC) will support the implementation of a programme to deliver the future configuration of hospital services in Shrewsbury and Telford in 2014.

This Outline Business Case focuses on the capital investment required to provide accommodation to support the future configuration of services at the Royal Shrewsbury Hospital (RSH) in Shrewsbury and the Princess Royal Hospital (PRH) in Telford. It also describes the 'journey' that has been taken by clinicians, staff and managers in partnership with patients and the public to get to this stage of development.

The OBC builds on the proposal for reconfiguration that was approved by the Trust and local Primary Care Trusts (PCT) Boards in December 2010; this set out the various service proposals for reconfiguring services across both sites and formed the basis of the public consultation. The public consultation was concluded in March 2011. The outcome of the consultation was considered as part of the proposal to move to the business case development phase of the programme which was presented to the Trust Board and Boards of NHS Telford and Wrekin and Shropshire County PCT on 24 March 2011. The Board paper is included in appendix A. The reconfiguration programme has and continues to be subject to a robust assurance process. This is described in section 5 of this document.

The overarching objective for the reconfiguration of hospital services is to secure high quality, safe and sustainable hospital services in Shrewsbury and Telford. With this in mind and in the development of this OBC the Trust has reviewed the different options for where services could be located on each site with particular consideration to delivering a clinically safe model of care i.e. maintaining key clinical adjacencies, minimising disruption to existing services, supporting longer term strategic service developments, providing value for money whilst ensuring affordability in the immediate and longer term.

2.2 Structure of this Document

There are eighteen sections to this document. It follows the agreed standards and format for NHS business cases in line with Department of Health and Treasury guidance and follows the Five Case Model (see section 2.8). In summary:

- **Section 1** – provides the foreword to the business case and the commendation from the Trusts Chairman and Chief Executive

- **Section 2** (this section) – introduces the business case, the journey taken in its development and the commitment and engagement of stakeholders and partners
- **Section 3 –** offers a background to the Trust, it's vision and the range of services it provides. It also details the Trust's performance, financial position and current estate
- **Section 4** – describes the clinical discussions and their outcome in responding to the challenges detailed in sections 2 and 3 and the concerns raised by patients and the public during the consultation phase
- **Section 5 –** highlights the scrutiny and assurance process that the proposed service changes have been developed within. The ongoing process is also described
- **Section 6 –** relates the detail and outcome of the public consultation where the proposed changes were discussed and debated. The ongoing communication and engagement plans are also described
- **Section 7 –** provides the strategic case: it draws together the national and local context and strategies; the needs and demography of the population served by the Trust; the case of change; and the objectives and benefits this programme of change must deliver
- **Section 8 –** supplies a description of what the future services will look like and how these 'service briefs' will resolve the challenges described in sections 2 to 7
- **Section 9** – pulls together the capacity required to provide the reconfigured services, the wider Trust capacity and the impact of demographic change and efficiencies on the future number of beds within the organisation
- **Section 10** – takes the models of care described in the service briefs (section 8) and the capacity needed to deliver this care and explains the facilities and space required
- **Section 11** – converts the models of care into a robust workforce plan, within the environment described in section 10
- **Section 12** – describes the various estate options that will enable the delivery of the reconfigured services within the context and the workforce explored in earlier sections. It also explains the methodology used the to judge and compare these estate options
- **Section 13** – considers the economic case, the options described in section 12, from two perspectives: the non-financial benefits; and financial impact. It details the scoring mechanism used to test these options and supplies the basis of sensitivity analysis that has been applied to the scoring process. It finally draws together the two appraisal strands and identifies the preferred options
- **Section 14** – states the preferred options for delivery at PRH and RSH and reconciles the scaling of these developments with the known demographic change (sections 7 and 9)
- **Section 15 –** outlines the commercial case: the proposed 'commercial arrangement' for using Procure 21+ process to identify a partner for the design and construction of the preferred options identified in section 14, advocated by the Department of Health
- **Section 16 –** sets out the financial case. It shows the forecast financial implications of the preferred options (sections 13 and 14). This section also reconciles this development with the Trust's Cost Improvement Programme
- **Section 17 –** describes the management case, the wider programme management structure required to deliver the Future Configuration of Hospital Services programme and the Trusts capability in delivering the proposed service and capital solutions
- **Section 18 –** concludes the outline business case and recommends the progression to the development of a full business case.

2.3 Proposals for the Future Configuration of Hospital Services (FCHS)

The Future Configuration of Hospital Services (FCHS) programme was established in the summer of 2010 with the overarching objective described above. The first stage of this work (phase 1a – Discussion and

Design, July to November 2010) launched a renewed clinically-led debate on proposals for the future configuration of hospital services and the modelling of options.

This debate focused on three dilemmas facing hospital services:

- Making sure the Trust continues to provide 24 hour acute surgery in the county
- Making sure the range of inpatient children's services are maintained within the county
- Planning to move out of the deteriorating maternity and children's services building at the RSH site before this building fails for clinical care.

Plans for resolving these issues were underpinned by two essential requirements:

- Making services safer now and in the future
- Making services sustainable now and in the future.

These challenges needed to be considered in the context of a wide range of current and future issues and challenges:

- **Clinical safety and sustainability** – there are safety and sustainability risks facing hospital local services, and the very real risk that some services will become unsafe or not sustainable
- **Demographic changes** – the needs and demographic changes of the different communities served by the Trust across Shropshire, Telford and Wrekin and mid Wales
- **Clinical linkages** – maintaining important clinical linkages between hospital services (e.g. the clinical links between obstetrics and neonates, and the medical cover arrangements between neonates and paediatrics)
- **Drift of services out of county** – a drift of services out of county. For example, patients with ST elevation myocardial infarction are already driven past both RSH and PRH to specialist units in Stoke and Wolverhampton for primary angioplasty (PCI) as this is not performed in county. In recent years treatment for different types of cancer surgery has also left the Trust because compliance with Improving Outcomes Guidance has not been demonstrated
- **Medical workforce** – issues such as restrictions in working hours for junior doctors, reduced opportunities for international recruitment and a medical training programme resulting in earlier specialisation and a narrower expertise set and in some specialties smaller numbers of available staff
- **External scrutiny** – an environment of increasing external scrutiny of health services, including from Monitor and the Care Quality Commission and the implications of the Health and Social Care Bill currently being re-considered by Parliament
- **Capital funding** – the availability of capital funding for building and equipment, and the revenue implications from capital loans
- **Socio-political environment** – the prolonged debate on the future shape of hospital services without resolution: the current risks are getting harder to manage and the opportunities for solving them are reducing.

In addition, the development of the options for addressing these dilemmas and meeting these essential requirements was framed by three reconfiguration principles set out by NHS Telford and Wrekin and Shropshire County PCT:

- **Two hospitals** – keeping two vibrant, well balanced successful hospitals in the county
- **Accident and Emergency** – a commitment to having an Accident and Emergency Department on both sites
- **Acute surgery** – access to acute surgery from both sites.

Central to the FCHS programme has been the commitment to clinically-led development of proposals for addressing the challenges faced by the Trust, and testing these with patient and public representatives. The process between August and November 2011 included:

- A Clinical Problem Solving Workshop in August, involving hospital consultants and local GPs to review the emerging patient safety issues facing local hospital services and suggest ways in which these might be addressed
- Clinical debate within the Trust to consider the emerging ideas and develop these further
- A second Clinical Problem Solving Workshop in November to review the work to date, propose a way forward and identify any new risks that may emerge from a reconfigured service.

In addition to clinical discussions and debate, the emerging reconfiguration ideas were shared with the public and patient representatives at workshops in November 2011.

2.4 Development of the options

Based on this work, the Trust identified four initial strategic options for appraisal:

Do nothing and maintain all services as they are

(Consultation Option 1)

It was felt that this option would neither address the clinical challenges faced by local hospital services nor extricate services from the deteriorating women and children's building at the RSH. This would result in risks that services would decline and possibly reach crisis point, in which case emergency changes would need to be made to services. Other implications could include:

- Further services drifting out of the county and no longer provided in either Shrewsbury or Telford
- Options for addressing current challenges continue to reduce
- If services decline then the Trust would be at risk of losing its "licence" to operate certain services and the decisions about them will be taken out of the hands of local NHS organisations working with patients and communities.

Move some services from PRH to RSH and some services from RSH to PRH

(Consultation Option 2)

Given that the other options would either not address the risks faced by hospital services, or would not be feasible or affordable, the development of a safe and sustainable model of care focused on:

- Using existing resources as best as possible
- Achieving the highest possible standards of clinical safety and sustainability
- Feasible delivery within the human, financial and other resources available
- Maximising acceptability to patients and communities, including continuing to provide services where they are now where this is clinically safe, feasible and appropriate.

Moving some services from PRH to RSH and some services from RSH to PRH was therefore presented to the Trust and PCTs Boards on 2 December 2010 as the preferred option on which to consult with the public.

Concentrate all services on one site – either a new single site or one of the existing hospitals

(Consultation Option 3)

There was strong clinical support for concentration of services onto a single site. However, the capital costs and revenue implications of this option were not considered affordable in the current economic climate. This was tested in a feasibility study in 2009[1].

Major and emergency work on one site and planned activity on the other

(Consultation Option 4)

This model also had strong clinical support. However, the Trust undertakes much more urgent and emergency activity than elective planned activity, and this also represents the majority of patient bed days in hospital. Given that one site would handle much reduced levels of activity and the other would require significant expansion (both in terms of beds, and in related services such as A&E, Critical Care and

[1] 2020 Vision Feasibility Report

Diagnostics), this would require significant capital investment which was considered neither feasible nor affordable.

2.5 Preferred strategic option

As described above, the Trust Board received the proposal to move some services from PRH to RSH and from RSH to PRH at its meeting in December 2010 and approved the following more detailed proposals for consultation with regards to Surgery (including Head and Neck), Maternity, Gynaecology, Neonatology and Children's services.

2.5.1 Surgery

- All inpatient general surgery, both planned and emergency, for vascular, colorectal and upper gastro-intestinal surgery including bariatric surgery, would be carried out at RSH
- Establishment of an Abdominal Aortic Aneurysm service
- Breast, gynaecological and head and neck surgery would be carried out at PRH
- All trauma surgery would continue to be carried out at RSH as now
- Orthopaedic surgery would continue to be carried out at both sites as now
- Head and neck services would be transferred from RSH to PRH due to the high level of paediatric activity
- Most outpatient appointments would continue to take place at the same hospital as they do now
- Most day case surgery will also continue to take place at the same hospital as now.

2.5.2 Maternity/Gynaecology/Neonatology

- The consultant-led maternity unit currently on the RSH site would move to the PRH site. Both sites would continue to provide midwifery-led units (MLU). The MLU accommodation at the RSH would be improved
- The neonatal intensive care unit currently provided at the RSH site would move to the PRH site so that it is on the same site as the consultant-led maternity unit and inpatient services
- All pregnant women assessed as likely to have a low risk of complications in the later stages of pregnancy and during delivery would still have the opportunity to have their baby in an MLU or at home
- All pregnant women assessed as likely to have a high risk of complications would have their baby in the consultant-led unit at PRH
- Gynaecology inpatient services for women would be concentrated within the women's and children's centre at the PRH. Most outpatient care would continue to be at the same hospital as now
- Fertility services to continue to be provided on the RSH site in their current location.

2.5.3 Children's Services

- Concentrating inpatient services for children on the PRH site including the Children's Cancer Unit
- Paediatric Assessment Units (PAU) on both sites
- Children attending hospital as an outpatient continuing to go to the same hospital as they do now
- Head and neck services transferred from RSH to PRH due to the high level of paediatric activity.

At this time, the Trust also took the opportunity to consult with the public on their views regarding stroke services and urology. This has resulted in the following:

- The provision of hyper-acute stroke services at both the PRH and the RSH through the establishment of a 24/7 thrombolysis service at both sites according to national guidance and sustainable through a network telemedicine approach in partnership with University Hospital of North Staffordshire Foundation Trust and Burton Hospitals NHS Foundation Trust

- The plan to consolidate inpatient urology services onto the RSH site alongside all inpatient general surgery.

2.6 Clinical Pathways, Assurance and Consultation

2.6.1 Clinical Pathways

It was acknowledged in December 2010, that there was a need to understand in detail how these service changes would work in practice. A process of developing detailed care pathways was established. Three clinical working groups were established, attended by over 50 different clinicians to develop these pathways. The clinicians lead and directly participated in the discussions centred on care pathways, estate implications, travel needs and the issues and risks associated with the proposal for the future configuration of services. Alongside the clinical working groups and their sub groups there has been wider clinical and staff engagement through specialty-based meetings and discussions, consultant and team meetings and staff briefings.

One of the key outputs of these clinical working groups has been the development of 23 care pathways which have been agreed and signed off internally by the clinical groups. These have been developed to address the risks to clinical safety and sustainability. The pathways have also been shared within a wider network of clinicians and staff for their input and comment as well as through on-going patient and public involvement. The pathways formed an important aspect of the Local Assurance Panel process and presentations and discussions with the Joint Health Overview and Scrutiny Committee. The 23 clinical care developed pathways are discussed in more detail in section 4 and are included in appendix D.

2.6.2 Assurance

The development and review of the reconfiguration proposals were undertaken within a comprehensive framework of assurance and consultation. This involved local and national bodies in testing the proposals against the Government's four key tests for service configuration and for their clinical safety, sustainability and feasibility. The four tests[2] (known as the Lansley tests) were set out in the revised Operating Framework for 2010-11 and require existing and future reconfiguration proposals to demonstrate:

- support from GP commissioners
- strengthened public and patient engagement
- clarity on the clinical evidence base
- consistency with current and prospective patient choice.

The main aspects of this assurance are included in section 5 and included:

- Robust programme management arrangements in the Trust (see also section 17)
- Office for Government Commerce Review
- Local Assurance Panel (also see below)
- National Clinical Advisory Team
- Equality Impact Assessment
- Scrutiny by the Telford and Wrekin and Shropshire Joint Health Overview and Scrutiny Committee (also see section 2.4 below).

The establishment of a local assurance process was agreed by the Boards of NHS Telford and Wrekin, Shropshire County PCT and The Shrewsbury and Telford Hospital NHS Trust in order to enable the PCTs, advised by independent experts, to test the clinical proposals put forward for acute hospital reconfiguration by local clinicians. In particular the Local Assurance Panel was convened to assure the two PCT Boards for Shropshire County and NHS Telford and Wrekin and key stakeholders, that the proposals put forward by the Trust, to reconfigure acute services across two hospital sites, addressed the Government's four key tests for service configuration based on a 'test of reasonableness'.

[2] Gateway reference 14543, Department of Health, 29 July 2010

In addition the Panel was tasked with providing assurance that three local criteria, agreed by the Boards of Shropshire County PCT and NHS Telford and Wrekin were also met:

- The proposals need to be clinically safe
- The proposals need to be robust and sustainable
- The proposals need to be financially viable and affordable.

The outcome and recommendations of the Local Assurance Panel and the reviews and assessments detailed above are included in section 5.

2.6.3 Consultation

Alongside extensive clinical pathway development work, Trust clinicians and staff were also heavily involved in robust and widespread engagement with staff, partner organisations, patients and the public through the "Keeping It In The County" consultation.

The consultation report is provided in the 24 March 2011 Board paper (appendix A).

A summary analysis of how the issues raised through public consultation influenced the development and review of the proposals is set out in section 5.

The plans for ongoing communication and engagement are described in section 6.

2.7 Scope of the Business Case

2.7.1 PRH

The main purpose of this OBC is to secure a capital loan to fund the costs of the reconfiguration of services on to the PRH site. However, there are a number of associated capital requirements relating to the reconfiguration that will also need to be funded. These are:

- The relocation of the midwifery-led unit, antenatal clinic, early pregnancy assessment service and the paediatric assessment unit out of the maternity building
- The provision of additional car parking at the PRH site.

These detailed costs can be found in section 16.

The outcome of the consultation and assurance process has formed the basis of this OBC: as such the OBC has developed and evaluated the different options for development at PRH as:

- A consultant-led maternity and neonatology unit, co-located with gynaecology and paediatric inpatient services (including head and neck), and a Paediatric Assessment Unit
- Enhancing the current antenatal service through relocation of gynaecology outpatients to the main outpatients department (OPD), releasing additional accommodation for the antenatal clinics
- Establishing a Women's Service to include inpatient gynaecology and breast surgery; gynaecology assessment/fit to sit service; an Early Pregnancy Assessment Service (EPAS) located on one ward; relocation of gynaecology outpatients to the main OPD with new provision of a colposcopy suite. (Fertility services will be retained at RSH in their current location)
- Adult inpatient head and neck services being co-located near theatres and critical care. The relocated head and neck outpatient facility with audiology both being within children's outpatients and a dedicated head and neck treatment room in the A&E department
- Relocated and improved accommodation for paediatric outpatients and paediatric assessment and re-provision of the gardens for oncology patients (currently provided at RSH) and improved day case facilities to provide a child friendly environment within the existing day surgery unit.

The above requirements are based on service specific visions and the models of care that have been developed by the Clinical Working Groups[3]/teams. A number of service and facility planning assumptions have underpinned the requirements for future capacity and the development of physical options.

[3] Multi-disciplinary and cross specialty Clinical Working Groups were established in January 2011 to lead the development of new pathways, risk mitigation, models of care, workforce development etc. The groups continue to meet.

The short listed physical options for the PRH have been financially and economically appraised within the OBC to demonstrate a preferred option which is affordable and also provides value for money. The preferred option has been developed and is provided in section 14 of this OBC.

2.7.2 RSH

At RSH, the OBC has assessed the different options for:

- All inpatient general surgery, both planned and emergency for vascular, colorectal, bariatric surgery, urology and upper gastro-intestinal being co-located near theatres and critical care
- Relocating and improving accommodation for paediatric outpatients and Paediatric Assessment Unit (PAU) with the PAU being co-located with A&E
- Relocating and improving accommodation for the antenatal services, Pre Antenatal Day Assessment unit (PANDA) and Midwifery-Led Unit (MLU). This will be enabled through the release of medical space through improved models of care and new ways of working in medicine and urgent care at RSH
- The relocation of surgery to RSH requires the staffing of two additional intensive care unit (ITU) beds.

The options for locating these services at RSH reflect the Trust's refreshed Estate Strategy (see appendix B).

As with PRH, the above requirements are based on service specific visions and the models of care that have been developed by the Clinical Working Groups and teams. A number of service and facility planning assumptions have underpinned the requirements for future capacity and the development of physical options.

The service specific visions and the models of care for surgery, maternity and paediatrics have been completed and are detailed in section 8. On this basis a number of service planning assumptions have underpinned the future capacity projections and the high level options for potentially configuring the above services on this site.

The short listed physical options for RSH have been financially and economically appraised within the OBC to demonstrate a preferred option which is affordable and provides value for money. The OBC will consider this option within the wider strategic service planning agenda required to deliver the Trust Vision and Strategy over the next 5 years. This is considered in the context of capital and site planning.

The analysis of the impact these changes have on theatres and the outpatient department shows no additional capital requirement. A balance of services across both sites, new ways of working in terms of long days/three session days and appropriate scheduling across the week will be required to accommodate the changes at both sites.

The workforce impact is described in more detail in section 11.

2.8 The Five Case Model

This OBC has been prepared in accordance with the agreed standards and format for business cases in line with Department of Health and Treasury guidance and follows the approved format of the Five Case Model which allows the scheme to be explored from five perspectives:

- The **strategic case** explores the case for change, whether the proposal is necessary and how it fits in with the overall local and national strategy
- The **economic case** asks whether the solution offered meets future service requirements and provides the best value for money – it requires alternative options to be considered and evaluated
- The **commercial case** tests the likely attractiveness of the proposal to developers – whether it is likely that a commercially beneficial deal can be struck
- The **financial case** asks whether the financial implication of the proposed investment is affordable and confirms funding arrangements
- The **management case** highlights implementation issues and demonstrates that the Trust is capable of delivering the proposed solution.

2.9 How This Document has been Produced

This document has arisen from:

- Proposals approved by the Trust Board in December 2010 which set out the preferred option for reconfiguration and formed the basis of the public consultation "Keeping It In The County"
- The outcome of the Consultation and Assurance Process (Phase 1b which concluded in March 2011)
- Capacity validation exercise undertaken by Strategic Healthcare Planning to inform the future capacity requirements for the services listed in section 8. This has been validated by the clinicians and the Trust's Future Configuration of Hospital Services Steering Group
- The outcome of a series of workshops with the Clinical Working Groups to further explore and develop the models of care for each of the services (listed in section 8), and to agree the facility requirements and where appropriate schedules of accommodation
- The outcome of option appraisal workshops with the Trust FCHS Steering Group, Trust Centre Chiefs[4], Value Stream Leads, Clinical Working Group Leads and senior nursing and midwifery representatives
- Fortnightly attendance at the FCHS Steering Group meeting to ensure review and assurance of the outline business case during development
- Fortnightly attendance at the Finance and Estates Sub Group to provide relevant interim products and advice to support the Trust in developing the Financial and Economic section of the business case
- Regular liaison with the Head of Estates in particular to confirm site constraints and opportunities and to inform the development of physical options
- Workforce plans led by and developed by the Trust
- Financial and economic appraisals led by and developed by the Trust
- Ongoing clinical discussion and development of pathways and risk mitigation plans (section 4)
- The outcome of ongoing patient, public and stakeholder engagement and ongoing assurance processes (sections 5 and 6).

2.10 Stakeholder Commitment

Involvement of stakeholders in the reconfiguration programme is essential. Earlier plans to tackle the challenges now faced within the county (Strategic Services Review; Developing Health and Health Care 2009) were attempted through local health economy joint working. There is a history within and between the organisations in the county of wanting to address the acute services challenge and so engagement and involvement is as high a priority now as it has been in the past. The FCHS programme has arguably extended the involvement of partners and organisations in Powys and North Wales that has not been seen in earlier programmes of work.

2.10.1 Strategic Engagement and Partnership

Wider strategic engagement and partnership working has therefore been integral to the phases of the FCHS programme thus far. It has included meetings and workshops with key stakeholders and partner organisations about the proposed reconfiguration and some specific examples include:

- Discussions with the Welsh Ambulance Service NHS Trust, Montgomeryshire Community Health Council and Powys County Council to discuss specific issues relating to the impact of the proposal on the people of mid Wales
- Discussions with the West Midlands Ambulance Service NSH Trust regarding their strategy for improvement and development and how this aligns with the Trust proposal

[4] The roles of Centre Chiefs and Value Stream Leads have been established to enable comprehensive clinical leadership within the Trusts new structure - Devolution and Cooperation (see section 3)

- Discussions with local Councillors, GPs and PCT Commissioners, West Midlands Ambulance Service NSH Trust and Welsh Ambulance Service NHS Trust regarding opportunities for cross-border collaboration and ambulance response times
- Discussions between Chief Executives and Executive Directors from West Midlands Ambulance Service NSH Trust, Welsh Ambulance Service NHS Trust, Shropshire County PCT, NHS Telford and Wrekin, Powys Teaching Health Board and Cadwaladr University Health Board regarding the changes within each organisation and the impact on the overall health system.

There is a commitment to continue to work in partnership to improve health services and discussions and significant elements of the programme will involve joint working and development with the Trusts key NHS and Local Authority partners.

Further details are provided in section 6.

2.10.2 Strategic Health Authority

The Strategic Health Authority is supportive in principle of the Trust's proposal for the Future Configuration of Hospital Services. The Trust provides a formal reconfiguration update to the Strategic Health Authority via the local PCTs and West Mercia Cluster every other month. The Trust has also shared early drafts of this OBC with the SHA capital advisors and worked with them on iterations of the document.

2.10.3 Commissioner Support

PCT and GP Commissioners are supportive in principle of the Trust's proposals for the Future Configuration of Hospital Services. Regular meetings, discussions and updates have been held in the development of this OBC with the joint executive team of Shropshire, Telford and Wrekin PCTs and GP Commissioners are members of the programmes Clinical Assurance Group. Subject to the outcome of the PCTs Board meetings in September 2011, the Commissioners statement of support will be included in appendix C.

2.10.4 Joint Health Overview and Scrutiny Committee

Section 244 of the National Health Service Act 2006 sets out the requirement for local health organisations to request Local Authority Health Overview and Scrutiny Committees (HOSCs) to review and scrutinise proposals for reconfiguration of health services. HOSCs have an important statutory role in relation to the reconfiguration of health services provided by NHS organisations in England. This includes the power to refer contested decisions to the Secretary of State for Health.

Telford and Wrekin Council and Shropshire Council have established a joint Health Overview and Scrutiny Committee to scrutinise the 'Keeping It In The County' proposals. This has included:

- Presentations to the Joint Health Overview and Scrutiny Committee on 8 October 2010, 13 December 2010, 11 February 2011, 11 March 2011, and 16 June 2011
- Visits by representatives on behalf of the Joint Health Overview and Scrutiny Committee to women's and children's services at the Princess Royal Hospital and the Royal Shrewsbury Hospital
- Observers at the Local Assurance Process on 22/23 November 2010 and 28 February 2011
- Attendance by Joint Health Overview and Scrutiny Committee members at public question time events.

In preparation for the final meeting of the Joint Health Overview and Scrutiny Committee during the consultation period on 11 March 2011, the Committee set out a series of questions and assurances for the Trust and local Primary Care Trusts.

The Trust provided responses on these questions and assurances through:

- A detailed written submission to the Health Overview and Scrutiny Committee
- A presentation and Question and Answer session with the Chief Executive of the Trust.

The response from the Joint Health Overview and Scrutiny Committee is provided in 24 March Board paper (appendix A). The Committee indicated that they were supportive of the proposals for children's services, maternity services and surgery subject to the assurances identified in their response. This is described in more detail in section 5.

3.0 Background

Chapter Summary

- **The Trust's vision and objectives**
- **It's current services, activity and performance**
- **A high-level description of the organisations financial position**
- **A description of the clinical services relating to this OBC**
- **A detailed look at the Trusts estate – the PRH and the RSH**

3.1 Trust Vision and Objectives

The Shrewsbury and Telford Hospital NHS Trust was formed in October 2003, through the merger of The Royal Shrewsbury Hospital NHS Trust and the Princess Royal Hospital NHS Trust and is the main provider of district general hospital services for half a million people in Shropshire, Telford and Wrekin and Mid Wales.

The Trust is currently re-organising its leadership structure to devolve accountability and establish Centres of Excellence in line with their 5 year strategic planning framework (appendix E1). The Executive Team has been re-shaped over the last few months to deliver the challenging agenda ahead and clinical leadership is in place via the Centre Chiefs[5]. This will ensure the Trust has the skills and capabilities to deliver its strategy for the local population and its key stakeholders. As part of the re-organisation, the Trust has also established four value streams which will focus on Cancer Care, Scheduled Care, Unscheduled Care and Telehealthcare, each with a clinical leader.

The Trust has recently reviewed its long term strategic planning framework and has developed a pyramid to clearly and simply articulate its priorities. This is shown below.

[5] There are 11 Centre Chiefs within the Trust who are senior clinicians and hold full clinical and managerial responsibility for their clinical centre

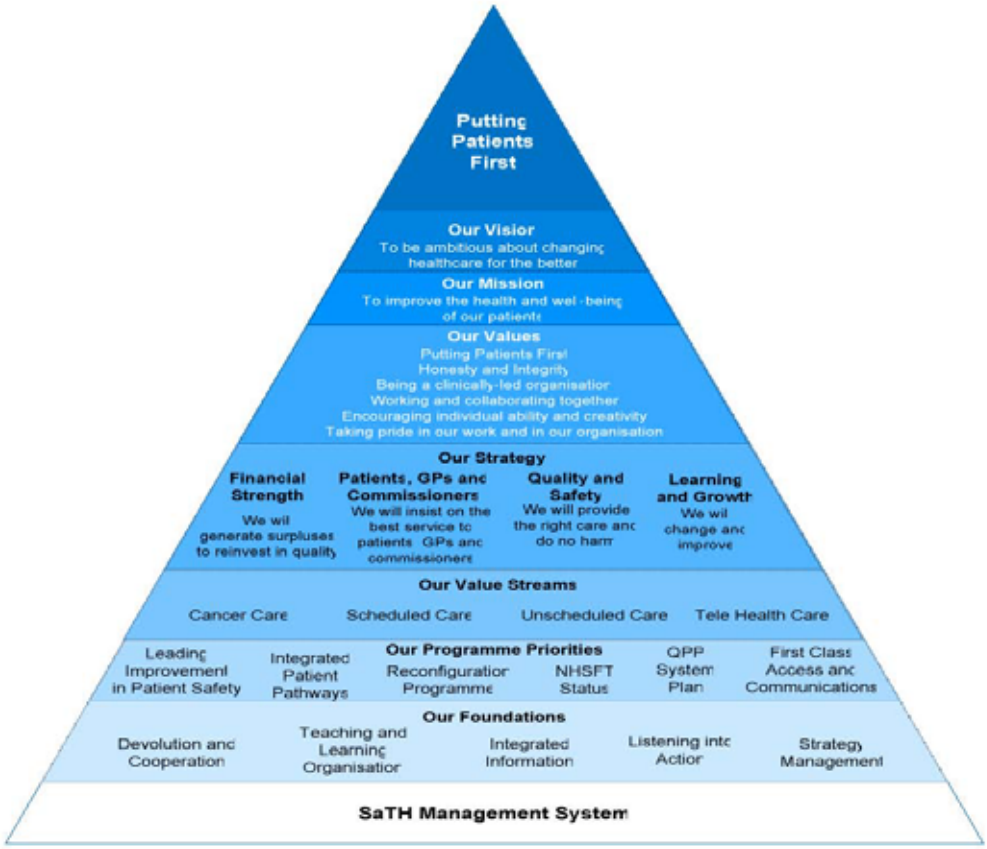


Figure 1: SaTH Management System Pyramid

The Trust vision '**is to be ambitious about changing healthcare for the better**'

'We will create better ways of meeting patient need that will become widespread in the NHS…We will be the first UK health care provider to offer an at scale deployment of telehealth technology to help patients stay well and recover in their own homes…We will succeed with innovative models and programmes of care that revolutionise the way that our services are perceived by the public…Our every day standards will be the benchmarks that other Foundation Trusts aspire to…'

The Trust Mission **'is to improve the health and well-being of our patients'**

'At SaTH we all believe that our role as individuals and as an organisation is to provide the safest possible care at the highest level of quality we can afford using the best evidence of what provides the greatest benefit to patients. We all want to put patients first. This is the organising principle behind our new arrangements. We believe '**putting patients first'** is a simple and clear way to remember what we are all here to do.'

The Trust values are at the heart of the organisation's strategic thinking.

- Putting patients first – service to the patient above all else
- Honesty and integrity – dealing with the facts
- Being a clinically led organisation
- Working and collaborating together
- Encouraging individuality ability and creativity
- Taking pride in our work and in our organisation.

The strategic objectives have been developed in 2010/11 through a process of stakeholder needs analysis and an understanding of the gap of where the Trust is and where it wants to be. Twenty eight long term strategic objectives have been established, divided across our four domains. This is referred to as our 'Plan on a Page' and embraces a balanced scorecard approach.

Developing a strategy that is balanced between the four strategic domains will ensure that the organisation:

- Focuses on what it will take to create the financial strength to enable investment in the quality of services
- Focuses on what has to be done to meet the needs of patients and GPs
- Focuses on the internal processes in which the Trust must excel if the quality and safety of care is to be improved
- Focuses on the learning and growth that will prepare the Trust for the future through developing staff, the technology used and the innovation created.

The Trust's strategic 'plan on a page' can be found below:

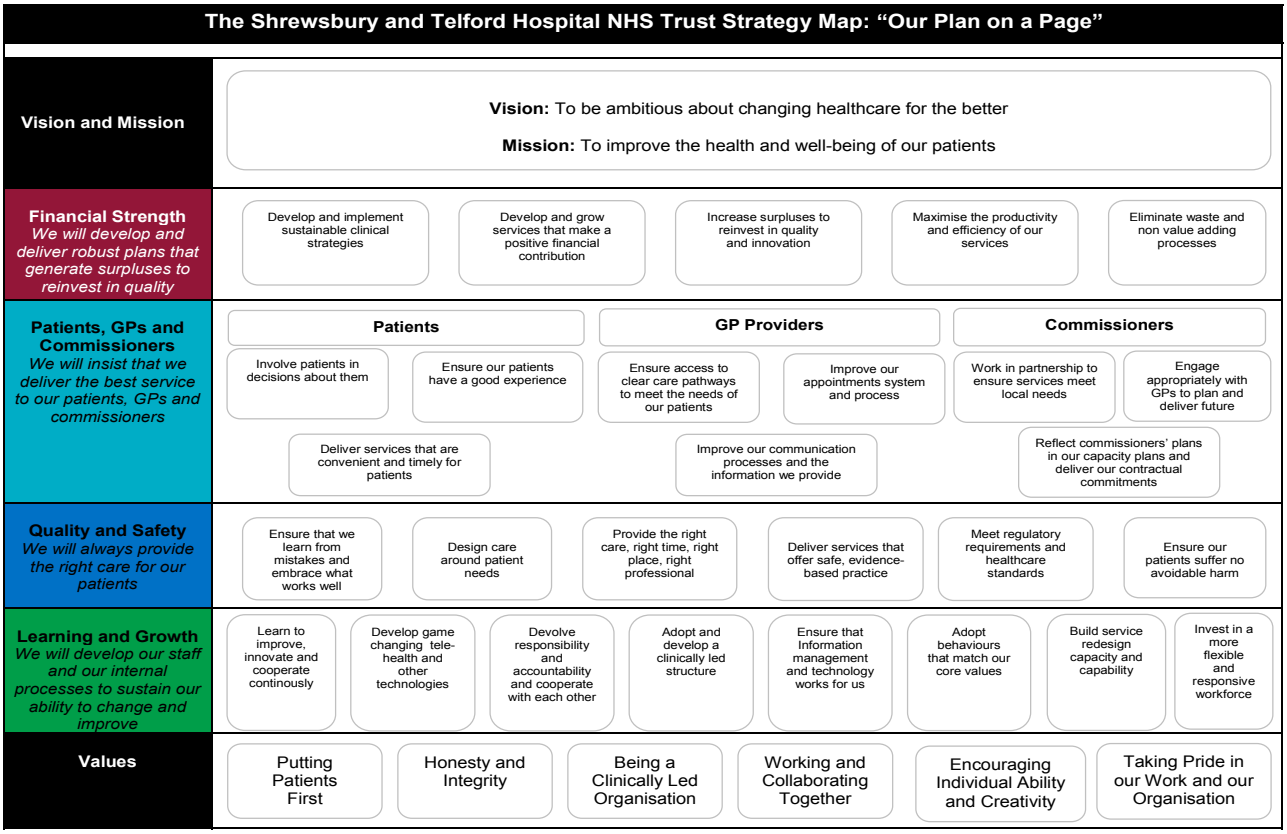


Figure 2: Strategic Plan on a Page

The Trust's new Strategic Framework therefore details the key elements that drive future planning and reinforces the commitment to putting patients first. This new framework identifies the Trust's approach to developing a balanced strategy across the four domains of Financial Strength, Patients, GPs and Commissioners, Quality and Safety and Learning and Growth. One of the key enablers necessary to the delivery of the long term strategy is the reconfiguration of the existing hospital services.

The Trust has introduced this new approach to strategic planning based on the Balanced Scorecard and is developing a new Trust Wide Performance Framework to support this. The framework and reporting process will measure performance in relation to the delivery of long term Organisational Objectives and progress against key programmes priorities. Robust programme management arrangements including a Programme Management Office (PMO) and Programme Board will provide further assurance and will assess progress within each programme in relation to the delivery of key milestones.

3.2 Current Services

The Trust is the main provider of district general hospital services for over half a million people. Both hospital sites treat a similar number of patients each year. The Trust currently provides the services shown in Table 1 across Shropshire, Telford and Wrekin, and the north eastern parts of Powys. (N.B. - Activity at other sites is a combination of Trust activity and PCT Community Services activity, delivered by SaTH clinicians through an SLA.)

Description	*PRH*	*RSH*	*RJAH*	*LUD*	*BRID*	*WHIT*	*POW*
A&E	Y	Y					
General and Acute Medicine IP	Y	Y					
Cardiology IP	Y	Y					
General and Acute Surgery IP	Y	Y					
Urology IP	Y	Y					
Head and Neck Adult IP		Y					
Head and Neck Children IP		Y					
Trauma and Orthopaedics IP	Y	Y					
Paediatrics IP	Y	Y					
Gynaecology IP		Y					
Oncology		Y					
ITU/HDU	Y	Y					
Day case Treatments	Y[6]	Y[7]					
Chemotherapy		Y					
Renal dialysis		Y					
Outpatients	Y	Y	Y	Y	Y	Y	Y
Midwife-led beds	Y	Y	Y	Y	Y		
Obstetrics		Y					
Neonatal/special care		Y					
Fertility Services		Y					

Note: Midwife-led beds are all provided by the Trust's Women's and Children's Service

(LUD: Ludlow Community Hospital, BRID: Bridgnorth Community Hospital, WHIT: Whitchurch Community Hospital and POW: Powys either Newton or Welshpool Community Hospital).

Table 1: Current service provision and location

The Trust's current bed profile is provided below.[8] It shows the current total NHS beds, trolleys, day case beds and chemotherapy and renal dialysis stations at PRH and RSH equates to 962.

The total inpatient bed/trolley base, excluding critical care, cohort and discharge beds, day-cases and chemotherapy and dialysis stations is 821.

The total inpatient bed/trolley base including critical care and the cohort and discharge beds is 887.

[6] PRH day case treatments are provided for ENT, oral surgery, general surgery, ophthalmology, gynaecology, paediatrics, haematology and oncology.

[7] RSH Day case treatment for ENT, oral surgery, gynaecology, general surgery, oncology, haematology, and ophthalmology

[8] Source: 27 June 2011 bed census

Description	*Beds/Trolleys*
Acute Medical and all other specialties (excluding cohort ward and discharge lounge)	387
General Surgery	110
Trauma and Orthopaedics	94
Head and Neck Adults	20
Urology	18
Oncology and Haematology	28
Paediatrics	50
Gynaecology	18
Obstetric and Midwifery-led beds[9]	74
Neonatal/special care	22
Sub-total	**821**
Critical Care	21
Cohort	25
Discharge Ward	20
Sub-total	**887**
Chemotherapy stations	1
Renal dialysis stations	20
Day Surgery	54
Grand total	**962**

Table 2: Current bed provision

The activity levels for PRH and RSH site are provided below[10].

	Activity 2009/10		Activity 2010/11	
Activity 2009/10	**PRH**	**RSH**	**PRH**	**RSH**
Outpatient attendances	235,248	341,026	233,885	346,757
Day case procedures	14,745	33,880	15,315	34,219
Elective inpatients	3,081	5,438	3,145	5,258
Emergency inpatients	17,111	22,679	18,073	22,771
Consultant-led maternity deliveries	n/a	3861	n/a	3,797
Midwifery-led births*	454	496	436	525
Emergency surgery cases	3,330	4,107	3,334	3,899
Paediatrics outpatient attendances	9,203	7,900	9,142	7,875
Paediatrics day case procedures	81	111	114	172
A&E attendances	50,257	52,851	51,433	54,896

Table 3: Activity levels at PRH and RSH site

[9] The Trust also provides 17 MLU beds in the community (Oswestry; Ludlow; and Brignorth)

[10] Source: Contracts and Performance Team July 2011

3.3 Trust Current Performance

3.3.1 Current Performance

The Trust is currently underperforming in a number of key areas:

- Financial position
- Clinical quality and safety
- Delivery of national performance indicators.

3.3.1.1 Financial balance

The organisation has an internal recovery plan in place to deliver a sustainable financial position. This reflects the local health economy's long term financial plans. It is described in more detail in section 3.4 below.

3.3.1.2 Clinical quality and safety

The OBC describes in detail the clinical quality and safety challenges within Surgery, Paediatrics, Maternity, Gynaecology and Neonatology. In addition, there are some additional issues that face the organisation that include capacity and demand, unscheduled care pathways, responding to the acutely ill patient, safe and timely discharge and basic nursing care.

The actions to improve quality and safety within the Trust were brought together in June 2011 where the Trust launched its Leading Improvements in Patient Safety (LIPS) programme. This national programme, supported by the NHS Institute for Innovation and Improvement, has worked with the Royal Colleges and others to support building an NHS where every member of staff has the passion, confidence and skills to eliminate harm to patients. Over 100 members of staff have been trained in these patient safety improvement techniques and are now working in 13 teams on the following areas:

- Abolishing falls
- Abolishing pressure ulcers
- Improving hydration, nutrition and fluid balance
- Reducing infections
- Improving management of significant abnormal results
- Improving communication with patients and GPs
- Improving communication with staff
- Improving the response to the Early Warning Score
- Improving the management of the septic patient
- Improving medicines management
- Reducing drug errors
- Improving scheduled care
- Improving unscheduled care.

3.3.1.3 Delivery of national performance indicators

The Trusts current performance against national performance indicators is shown below.

DH Acute Trust National Performance Indicator	*Performing Threshold*	*Under-performing*	*June 2011*
Four hour maximum wait in A&E from arrival to admission, transfer or discharge	95%	94%	93.81%
Unplanned re-attendance rate – unplanned re-attendance at A&E within 7 days of original attendance	Data completeness/ Data Quality		TBC
Left department without being seen rate			TBC
Time to initial assessment – 95th centile			TBC
Time to treatment - median			TBC
Cancelled ops – breaches of 28 days readmission guarantee as % of cancelled ops	5.0%	15.0%	0
MRSA – variation from plan	0	>1 standard deviation	0
C Diff – variation from plan	0	>1 standard deviation	3
RTT – admitted – 95th percentile (weeks)	<=23	>27.7	51.41
RTT – non-admitted – 95th percentile (weeks)	<=18.3		31.15
RTT – incomplete – 95th percentile (weeks)	<=28	>36	35.16
RTT – admitted – 90% in 18 weeks	90%	85%	67.02%
RTT – non-admitted – 95% in 18 weeks	95%	90%	85.79%
Cancer – 2 week GP referral to 1st outpatient	93%	88%	90.59%
Cancer – 2 week GP referral to 1st outpatient – breast symptoms	93%	88%	93.42%
Cancer – 31 day second or subsequent treatment - surgery	94%	89%	100.00%
Cancer – 31 day second or subsequent treatment - drug	98%	93%	100.00%
Cancer – 31 day diagnosis to treatment for all cancers	96%	91%	92.50%
Cancer – proportion of patients waiting no more than 31 days for second or subsequent cancer treatments (radiotherapy)	94%	89%	94.81%
Cancer – 62 day referral to treatment from screening	90%	85%	83.87%
Cancer – 62 day referral to treatment from hospital specialist	85%	80%	81.19%
Cancer – 62 day urgent GP referral to treatment of all cancers	85%	80%	71.08%
Patients that have spent more than 90% of their stay in hospital on a stroke unit	80%	60%	87.30%
Delayed transfers of care (based on submitted March 2001 data as per DH/SHA definition)	3.5%	5.0%	5.60%

Table 4: Trust performance June 2011

The reconfiguration of services will support the organisations ability to improve on this position by:

- Consolidating acute surgery on one site thus enabling quicker assessment and improved patient flow and sustained achievement of the 18 weeks referral to treatment (RTT) standard
- Supporting the delivery of the 18 week RTT standard through the need to review job plans, outpatient and theatre scheduling and new ways of working (long/3 session days for example)

- Triaging children through the PAUs or straight to the ward and so reduce pressure on A&E
- Enabling patients to access the right service, consultant and bed first time, every time thus reducing 'outliers' and supporting the delivery of the RTT and the reduction of DTOCs.

3.3.2 Trust Improvement Plan

In order to improve performance against key targets and the delivery of identified priority areas, the Trust is developing an Improvement Programme and supporting structured Programme Management Office (PMO). This will ensure that sufficient and timely progress is made in delivering the business critical changes and improvements required by March 2012.

The Improvement Programme has been informed through consideration of performance in four main areas for change that includes:

- Achievement against the national and local targets
- A review to support further development of the 2011/12 Cost Improvement Programme led by Price Waterhouse Coopers. This has included a benchmarking and qualitative exercise to identify areas of potential opportunity where SaTH differs from a similar group of hospitals, aligned with aspects where staff feel there is scope for improvement
- Improvement of operational and safety standards
- A need to achieve financial sustainability.

Additional to these shorter term aims, there is a need for the PMO approach to support delivery of the medium term objectives relating to the reconfiguration of services delivered by the OBC and Full Business Case and also attaining Foundation Trust status by 2013.

To ensure coordination of effort and delivery of improvement across the health economy, a Local Health Economy Improvement Board has been established. This Board will coordinate and oversee the delivery of the QIPP programme and associated change programmes required to deliver sustainable safe and high quality services in the county. An action plan has been developed and the objectives are to:

- Deliver a sustainable Demand and Capacity model
  - Delivering treatment within 18weeks, 62 days or 14 days as appropriate
  - Ensuring whole system engagement in demand modeling, including referral processes into and out of secondary care
- Ensure that emergency care is delivered within expected timescales
- Ensure patient experience is maintained and improved
- Ensure patient safety issues are addressed
- Support communication with NHS employees that supports new ways of working and builds new behaviour patterns
- Deliver improvements in as short a time as possible.

3.4 Trust's Financial Position

A summary of the Trust's financial position for the last three years is shown below:

Trust Financial Position	*2008/09 £000's*	*2009/10 £000's*	*2010/11 £000's (unaudited)*
Income from Activities	226,880	242,156	257,070
Other operating income	20,353	20,726	20,910
Operating Expenses*	(237,534)	(256,635)	(272,806)
Profit on Disposal of Assets	276	(51)	131
Surplus before interest*	**9,975**	**6,196**	**5,043**
Interest receivable	209	14	21
Interest payable	(385)	(160)	-
Other finance costs – unwinding of discount	(28)	(38)	(20)
Surplus for the financial year*	**9,771**	**6,012**	5,044
Public dividend capital dividends payable	(5,644)	(5,300)	(5,018)
Retained surplus for the year*	**4,127**	**712**	**26**

*Amounts stated before fixed asset impairments

Table 5: Trust financial position

The Trusts Long Term Financial Model (LTFM) is detailed in section 16. This describes the Trust's plans for a sustainable financial position and addresses the issue of affordability of the preferred option introduced in section 13.

3.5 Current Clinical Services relating to the OBC

The primary responsibility of The Shrewsbury and Telford Hospital Trust is to ensure the quality and safety of services that are provided for patients and communities across Shropshire, Telford and Wrekin and mid Wales. This includes striving for continued improvement in patient safety, clinical effectiveness and patient experience.

There are three main risks identified within the current configuration of clinical services:

- Sustaining acute surgery on two sites, with prompt access to senior clinical input to ensure the best possible outcomes of care
- Sustaining inpatient paediatric services on two sites, providing 24-hour senior paediatric input and maintaining accreditation for doctors in training
- The unacceptable physical environment in the women and children's department at the Royal Shrewsbury Hospital, as well as the need to provide additional obstetric theatre capacity to support the number of births in the county.

Other significant service risks include:

- The future sustainability of a local vascular surgery service if we are not accredited as a centre for Abdominal Aortic Aneurysm (AAA) screening. Accreditation is dependant on becoming a single site for vascular surgery. The national screening committee have agreed the PCTs Business Case and the AAA screening programme is being planned to start in April 2012
- Changes in working practices, such as the European Working Time Directive, mean that we now need more doctors than in the past to sustain a 24-hour rota
- Prolonged period of debate on the future shape of hospital services without resolving these issues.

The challenges and risks to the safety and sustainability of hospital services in Shrewsbury and Telford have been debated over many years without resolution. The focus has been on a range of services particularly, acute surgery and children's services. It is acknowledged that if these challenges are not addressed there

are risks both to the on-going quality and safety of patient services and to the sustainability of these services within the county.

3.6 Current Estate

The Trust estate comprises 2 acute hospital sites:

- The Royal Shrewsbury Hospital site in Mytton Oak Road, Shrewsbury
- The Princess Royal Hospital in Grainger Drive, Apley Castle, Telford.

Both sites are accessible from main trunk roads.

Description	*RSH*	*PRH*	*Units*
Gross internal site floor area	59,500	39,986	m²
Occupied floor area	58,000	39,986	m²
NHS Occupied Floor Area	100	100	%
Site Heated Volume	140,000	146,693	m³
Site Building footprint	36,300	24,104	m²
Site land area	18.3	11.7	Ha
Patient occupied floor area	30,035	24,603	m²
Non- patient occupied floor area	27,965	12,666	m²
Unoccupied floor area	0	0	m²
Main circulation area	4,600	2,716	m²
Leased in floor area	10,000	0	m²
Leased out floor area	2,000	0	m²
Temporary buildings and portacabins	2,500	0	m²

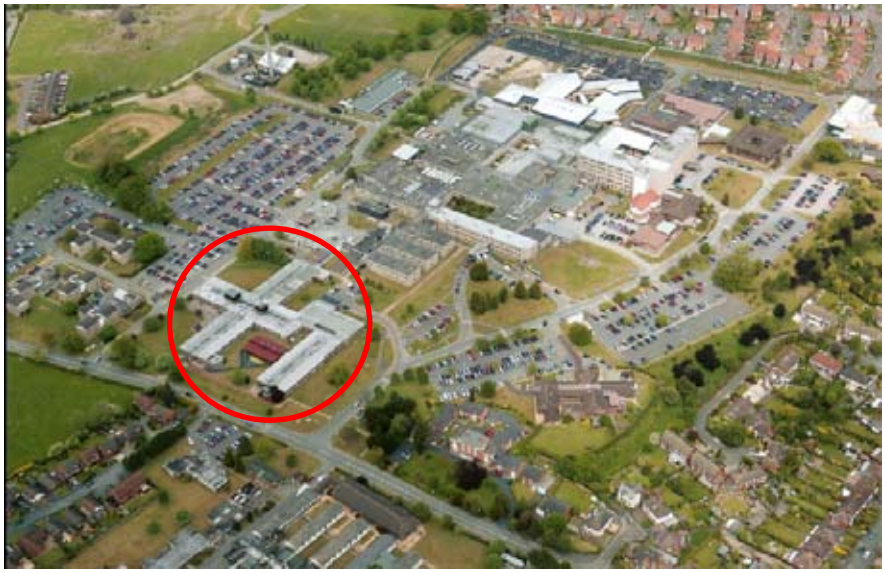
Table 6: Estate utilisation

3.6.1 Royal Shrewsbury Hospital site

The buildings on the RSH site comprise several developments:

- The Maternity and Paediatric development at the south of the site adjacent to the main entrance roadway; this was built in the 1967
- The central development of Wards, Outpatients, A and E, Imaging and Support services, which forms the main spine of the site. This came into use between 1976 to 1978
- The cobalt unit that includes Linear accelerators and Oncology services. This was built in 1982
- The Renal Unit at the north of the site, which was built in 1991and extended in 2003
- The Treatment Centre opened in 2005, also at the north end of the site
- Medical and nursing educational facilities in the north east corner of the site; built in 2002
- Residential accommodation in the south west corner of the site, built in 1974 and extended in 1982. A proportion of this zone was re-provided in 2010 through a third party agreement with a Housing Association
- Boiler house and Estates department in the North west corner of the site, built in 1966 and 1977 respectively.

An aerial photograph of the site is shown below with the maternity building is circled.



Picture 1: Aerial photograph of RSH

- The PCT continues to occupy buildings within its ownership on the eastern side of the RSH south site, some of which are occupied by Trust departments. The Trust is required to vacate these buildings and this forms a component of the estates strategy.

3.6.1.1 RSH Age Profile

The profile shows that the oldest areas of the site were built in the 1975 to 1984 age band and this represents 55% of the total site. Further building programmes in the 1985 to 1994 and 1995 to 2004 periods represent 5% and 3% of the site respectively. 37% of the site was built between 2005 and the current day.

The figure below shows the current overall age profile of buildings, classified by age bands from pre 1948 to present day.

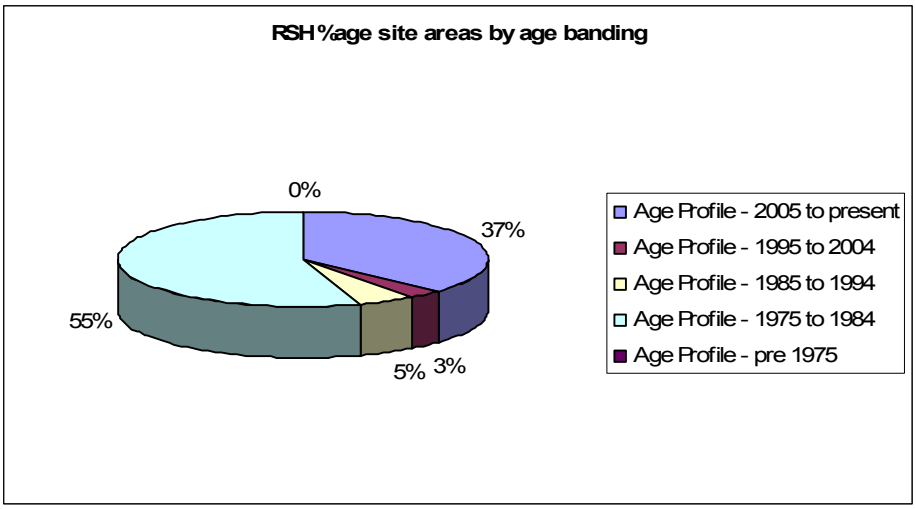


Figure 3: RSH age profile

3.6.1.2 Maternity building

The Maternity building at RSH is the Trust's oldest building, being constructed in 1969, and in the worst condition. The space and construction standards are inadequate and far from what would be expected in a modern facility and would not readily support changes to models of care. The building is not connected

adequately with the rest of the hospital and this presents significant operational difficulties and risks that are being mitigated by a series of operational protocols.

A fully independent report on the condition of the main elements of the building was conducted in 2007. It emphasised the need to address high and significant risk items as a priority as part of the Trust's estate investment planning process. In addition to identifying a number of operationally unsound elements it also concluded that:

- for Functional Suitability: all of the Wards, the Special Care Baby Unit and the Delivery Suite all achieved "unsatisfactory with major change needed" scores
- for Quality: the Ante-natal clinic achieved an "unacceptable for patient and staff" score
- Over the last 3 years a number of schemes have therefore been worked up all of which were limited to resolving specific issues associated with privacy and dignity in Antenatal, and the potential provision of a second theatre. None of the options explored (other than the complete rebuild option) resolved the building's main deficiencies or extended the life of the existing facility beyond 5-10 years
- Major refurbishment of the magnitude required would also require resolution of other inherent structural issues such as dealing with flat roofs by over roofing with a pitched roof and repairs to the concrete structure. This approach whilst resolving potential risks associated with the structure would not provide the functional suitability requirements that a new build permits
- The extent and scale of works needed to refurbish this building extensively would mean significant interruption of services or the need for temporary accommodation to be provided. The condition report undertaken in 2008 identified a refurbishment cost in the order of £13.8 million using the Needleman formula. In addition to this cost the extent of works is such that temporary accommodation to permit decanting would be necessary to support a number of phases of refurbishment.

3.6.2 Princess Royal Hospital Site

The Princess Royal Hospital essentially comprises a 2 storey nucleus hospital opened in 1988.

The building was extended in 1999 to provide a purpose designed rehabilitation unit. The site also contains a cluster of staff residential blocks and a small private outpatient clinic in the south east corner of the site built in 1989. An aerial photograph of the site is shown below:

Picture 2: Aerial photograph of PRH

3.6.2.1 PRH Age Profile

The figure below shows the current overall age profile of buildings, classified by age bands from pre 1975 to present day.

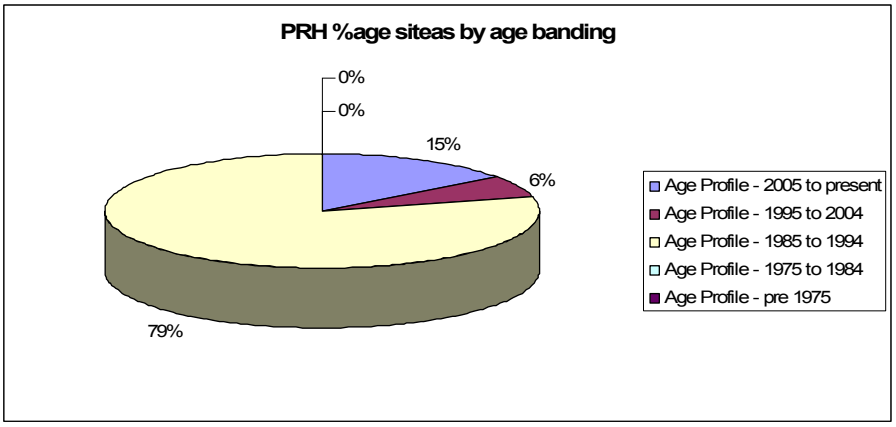


Figure 4: PRH age profile

3.6.3 Engineering strategy at PRH

The engineering infrastructure at the Princess Royal Hospital is consistent with the Nucleus design in that services are distributed from centrally generated sources and then run within the service floor to local roof space plant rooms. The infrastructure is generally sound and has been the subject of a number of upgrades that include:

- Works to replace the main water storage tanks
- Electrical upgrades to the main distribution points
- Upgrades to the HV distribution network and ring main units
- Programme of upgrade and refurbishment of air handling units
- Replacement of the building management system
- Installation of a new tri-generation combined heat and power system and associated chilled water distribution network. This has provided surplus capacity within the primary heating and hot water systems and physical space within the boiler house should there be a requirement for an additional boiler.

The additional capacity required for all primary services will be developed as an integrated component of the preferred reconfiguration option.

3.6.4 BREEAM

A BREEAM allowance is included within all options and the Trust is committed to achieving the rating of excellent for all new build elements. An interim BREEAM assessment has been undertaken by Capita Symonds, see appendix X.

The timeline has resulted in BREEAM Healthcare 2008 being used for refurbished areas and BREEAM Healthcare 2011 for new build.

3.6.4.1 The current options

The options currently include a large proportion of refurbishment and currently this potentially places those elements of the scheme on the borderline of very good/good. The lower end of this rating is primarily a consequence of the minimal physical work required at RSH to deliver planned service reconfiguration. However as the scheme develops every effort will be made to ensure that building and engineering solutions are adopted that place this development well within the higher rating and promote excellence in a sustainable PRH.

3.6.5 Backlog Maintenance

The Trust commissioned this survey from Faithful + Gould in January 2007. The method involved assessing and recording the present condition of blocks and portions of blocks including:

- Recommendations for required remedial works, with an indication of the scope, urgency (condition grade, priority category and year the need arises) and cost of the works needed, including the need to meet legislative requirements
- Details of specific defects due to the poor performance of materials
- Details of any potential defects or breaches of regulations or legislation which could only be verified through further tests or surveys which go beyond the scope of condition surveys carried out in accordance with the specific requirements of this specification.

The assessment involved the scoring of building elements into the following condition categories:

A – As new i.e. built within the past 2 years

B – Sound, operationally safe and exhibits only minor deterioration

C – Operational but major repair or replacement will be needed within three years for building elements and one year for engineering elements

D – Runs a serious risk of imminent breakdown

Dx – Supplementary to D adding that a rebuild or relocation would be necessary.

In addition to grading elements and sub-elements the survey identified the work necessary to bring buildings and grounds up to a serviceable state of repair and as far as possible, to rectify breaches of legislation. In addition predictable long-term work outside of the 5-year period was identified where it would prevent deterioration of the fabric of the building.

The survey work also included budget estimates for works identified as being necessary to comply with current requirements and to bring the particular element up to Estate Code Grade B condition. These costs and impending backlog maintenance costs have been assessed in accordance with the published guidance "A risk-based methodology for establishing and managing backlog".

The results of the survey for RSH and PRH are shown in summary form in the charts below:

3.6.5.1 Royal Shrewsbury Hospital

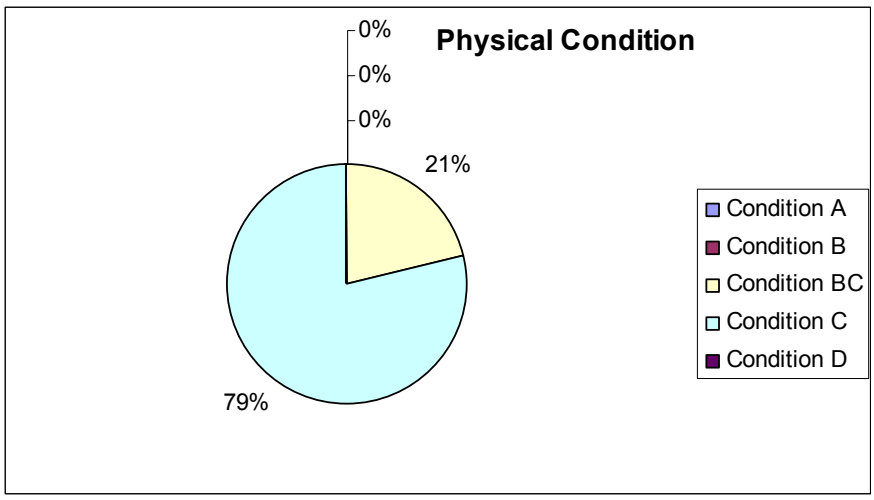


Figure 5: %age of physical condition of RSH by category

The above chart shows that 79% of the Trust estate (as a proportion of total floor area) is graded as Category C, with 21% graded as Category BC. This indicates that all buildings have some shortfall in relation to the Category B Standard for physical condition.

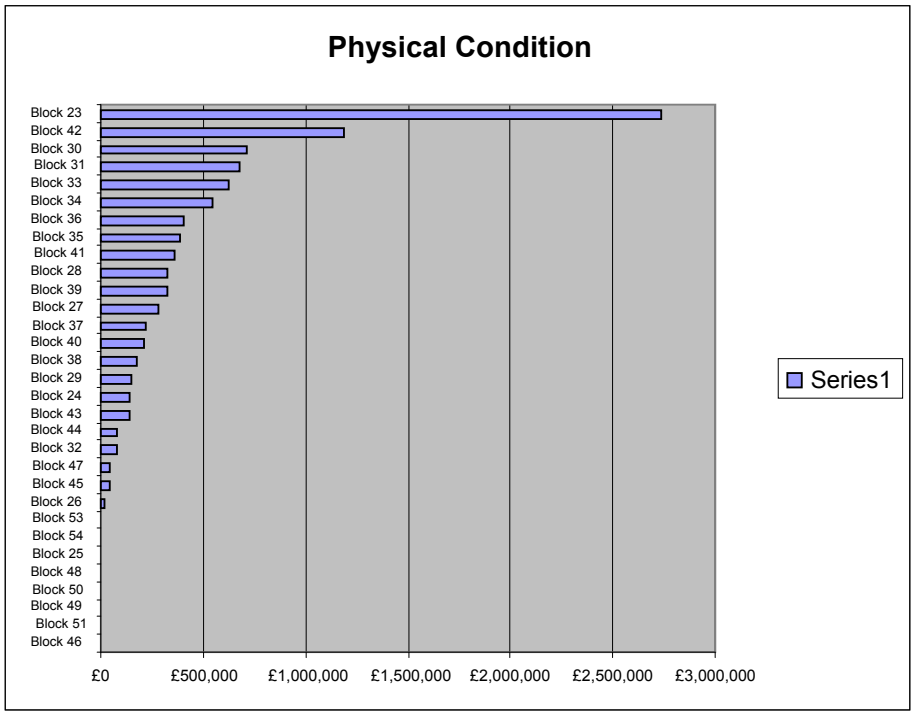


Figure 6: Physical condition of RSH by block

The above histogram shows the cost of upgrading each of the blocks on the RSH site to condition B. The top 5 blocks are listed in the table below:

Block Number	*Description*
23	Maternity Block
42	Main Ward Block
30	Outpatients Department
31	Administration Area
33	Physical Medicine

Table 7: Top 5 blocks on the RSH site

3.6.5.2 Princess Royal Hospital

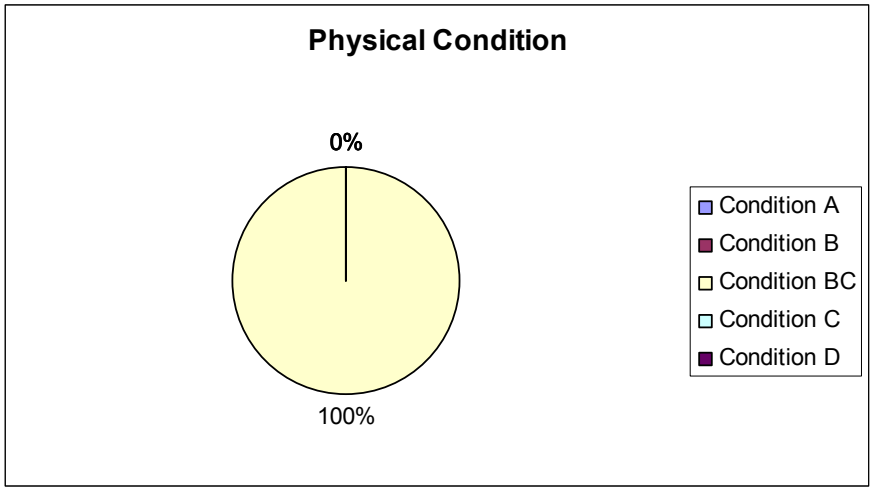


Figure 7: %age of physical condition of PRH by category

The above chart shows that 100% of the Trust estate is graded as Category BC. This indicates that all of the blocks have some shortfall in relation to the Category B standard for physical condition.

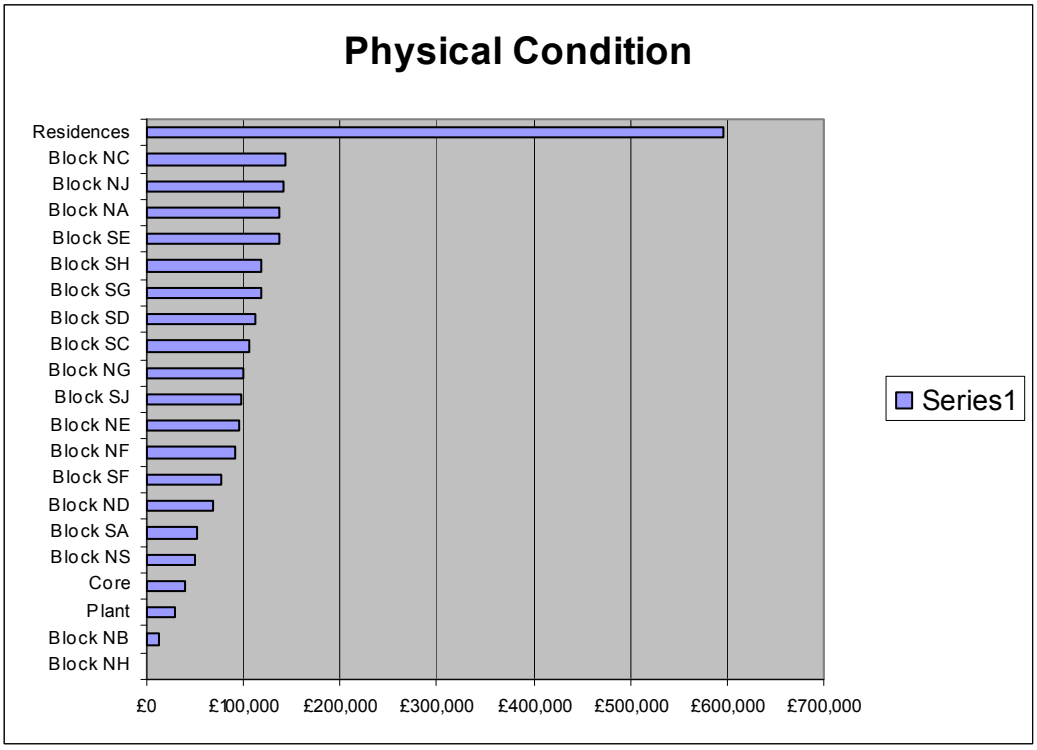


Figure 8: Physical condition of PRH by block

The above histogram shows the cost of upgrading each of the blocks on the PRH site to condition B. The top 5 blocks are listed in the table below:

Block Number	*Description*
Residence	Residences
NC	EBME, Medical Records, Estates, Supplies, Kitchen and Dining, Bed Store
NJ	GP X-Ray Unit and Orthopaedic Clinic
NA	Maternity Outpatients and ward. Endoscopy, Staff Gymnasium
SE	Ophthalmology, Hearing Aid, GU, Outpatients

Table 8: Top 5 blocks on the PRH site

4.0 Clinical Pathway Development

Chapter Summary

- **The Clinical Working Group structure and their role in the development of new care pathways**
- **An analysis and synthesis of the concerns raised by the public and the areas of further assurance required through the assurance process alongside the Clinical Working Groups response**

4.1 Clinical Working Groups

Since January 2011, meetings of the three[11] clinical working groups have taken place (Maternity, Gynaecology and Neonatology, Children's' Services, and Surgery, including Urology and Head and Neck). Each of these meeting have been well attended and over 50 different clinicians have participated directly in the discussions on the care pathways, estates implications, travel needs and the issues, risks and concerns of the proposed reconfiguration. This has included clinicians who bring a wide range of views and opinions on the proposed changes, including clinicians who have spoken publicly both in support and with concerns about the impact the changes may bring for some patients.

Alongside the clinical working groups and sub-groups there has been wider clinical and staff engagement through specialty-based meetings and discussions, consultant and team meetings, staff briefings and other mechanisms.

A total of 23 pathways have been agreed and signed off by the clinical groups. The clinical pathways have all been developed to address the risks to clinical safety and sustainability that drive the FCHS Future programme, and also to minimise ongoing risks to safety and sustainability. The pathways have been shared with a wider network of clinicians and staff for their input and comment.

The pathways are included in appendix D.

The work of the Clinical Working Groups continues. This is moving from planning pathways to working through the implementation and practicalities of working in a different environment and site. The Joint HOSC continues to be updated regarding the development of this work in light of the concerns raised by the public and has submitted a work plan to the Trust for its ongoing assurance. This is described in more detail in section 5.

4.2 Analysis and Synthesis of Clinical Proposals

As detailed in the following sections, the development and review of the Trust's proposals was undertaken within a comprehensive framework of assurance and consultation.

A number of key issues were raised through the assurance and consultation in relation to each of the clinical pathways. The key messages that were being raised were fed back on an ongoing basis to the clinical working groups for consideration as the pathways were constructed. As the groups included GPs, paramedics, consultants and clinicians from many specialties including radiologists, intensivists and therapists this enabled broad-ranging discussion and input into the solutions proposed. This supported the Trust to develop the submission to the Local Assurance Panel on the clinical care pathways and related

[11] Since April 2011 Head and Neck has been established as a separate Clinical Working Group to facilitate in-depth and specific discussion and modelling

concerns on 28 February 2011, and subsequently to the Joint Health Overview and Scrutiny Committee on 11 March 20119 (see section 5).

4.2.1 Surgery

During the consultation and assurance phase, two main issues regarding the plans for surgery were raised.

What we heard	*What we did*
Concerns about the supporting infrastructure at RSH to enable the changes to surgery e.g. ITU, theatres, beds	Development of the ITU at RSH is already in the Trust's capital programme as it is acknowledged that improvements to this facility need to be made irrespective of reconfiguration. A high-level options paper was developed to support further discussion on the immediate and longer term requirements for ITU at RSH. Discussion took place within the Surgery Clinical Working Group regarding theatres, beds, staffing and assessment and this continued into the OBC planning phase. There are a number of productivity initiatives already underway within the organisation to improve patient flow, capacity and scheduling which would be a vital element in the required infrastructure plans.
Concerns about the availability of surgical opinion at the PRH if the acute surgeons are at RSH	This issue was discussed in all the Clinical Working Groups, acknowledging the close working relationships between the specialties for a number of patients. The Surgical Team at the Trust proposes the provision of a dedicated surgical middle grade doctor, available 24/7 to assess, review and operate if necessary, with the support of the on-call vascular and general surgery consultants. In hours, there will be consultants at PRH as outpatients and day cases will continue to be provided as now. Out of hours, the consultant support will be from RSH. The unplanned emergency surgery pathway has been agreed. The implementation of the Surgical Triage Tool currently used in both sites for the surgical assessment of patients will be rolled out across the Trust. This assesses patients according to a risk criteria which then dictates the time frame in which the patient must be seen e.g. within 30 minutes. Where joint operating is required, for example in some gynaecological cases, job planning and theatre scheduling will enable this to be managed effectively. In the rare circumstances when additional clinical input is required in theatre due to an emergency complication, the relevant consultant on call will travel to the patient.

Table 9: Surgery pathway concerns and plans

4.2.2 Maternity, Gynaecology and Neonatology

During the consultation and assurance phase a number of concerns were raised regarding the proposed changes to these services, many of which were focused on the move of the neonatology service to Telford.

What we heard	What we did
Concerns about the safety and impact of additional travel time in an emergency for mother and baby	The midwifery pathways have all been agreed by the Maternity/Gynaecology/Neonatology Clinical Working Group. These pathways currently exist now for women and babies at the Telford, Oswestry, Ludlow and Bridgnorth, Newtown and Welshpool MLUs. Further training in advanced life support for midwives in the MLUs is already planned irrespective of reconfiguration. WMAS[12] have been part of all the clinical pathway working groups and support the proposed pathways. Discussion with both WMAS and WAS have started to understand the current and future challenges around delivering better ambulance response times with the aim of reducing the overall pre-hospital transfer time. A postcode analysis of current consultant-led births identified that moving the obstetric unit to PRH will significantly increase the number of women who are able to access this service within 20 minutes. However, it is recognised that for some women, their travel time will be longer. In discussions with clinical colleagues in Powys, it has been agreed that further training may be required for the midwives with regards to anxieties over increased travel times. Colleagues advised that women are already safely transferred longer distances within Wales than those introduced by the Trust's proposals. Trust officers are in contact with their colleagues in Wales to understand the linkages and interdependencies as this work develops. All these discussions regarding the maternity service in Wales would need to reflect current reviews led by the Welsh Assembly for maternity and neonatology care. A literature review was undertaken. Published research and data on the impact of travel time on neonates is extremely limited. However recent research from Holland has been reviewed and was analysed with regards to the proposed local configuration of services.
The extra distance and transport needs for some patients and their families will be difficult, especially for those from Wales and north and west Shropshire	Low risk pregnant women will still be able to have their babies at home or in their nearest MLU and the pathway remains unchanged in terms of what would happen if complications arose and there was a need to safely transfer a mother to the consultant-led obstetric unit. Women who deliver at the consultant unit (due to choice, being high risk or transferring in) will still be able to return to their nearest MLU for their postnatal care, as soon as it is thought clinically appropriate as they do now. The new Women's and Children's Unit at PRH would have improved, fit for purpose accommodation and facilities for fathers and families should this be required.
Worries about which hospital women with abdominal pain should attend i.e. RSH for surgery or PRH for gynaecology	The GPs in the Maternity/Gynaecology/Neonatology Clinical Working Group helped steer the solution to this concern. All the clinicians in the group agreed that a number of investigations should be undertaken by the GP prior to referral into the Trust. If the problem was clearly gynaecological, patients should be directed/ taken to the PRH and if it is non-gynaecological, they should go to the RSH. If the GP is uncertain, then the patient

[12] WMAS – West Midlands Ambulance service; WAS – Welsh Ambulance Service

What we heard	What we did
	should go to their nearest hospital for a set sequence of investigation which would determine their treatment path.

Table 10: Maternity, Gynaecology and Neonatology concerns and plans

4.2.3 Children's Services

In line with concerns raised about pregnant mothers and newborns, there were many concerns raised about the plans to consolidate the inpatient children's ward at the PRH site.

What we heard	What we did
Concerns about the safety and outcome for children in an emergency due to additional travel time	The pathways for critical illness and trauma have been agreed by the Children's Services Working Group and WMAS have been part of all of these pathway discussions. Those children with serious illness or injury would continue to be safely transferred out of county for the specialist care and treatment they require as they are now to Birmingham Children's Hospital or to Alder Hey Hospital. The transport specification for the small number of children who would stay in county and be transferred from RSH to PRH has been further defined and work will continued on this within the specific Children's Triage and Transport Group (as a sub-group of the clinical working group).
Anger about the transfer of the Rainbow Unit from RSH to PRH	The Trust has acknowledged that this is a real and difficult issue for the parents, friends, families and members of the public who raised a huge amount of money for this unit to be built. However, because it is attached to the maternity building it would need to be part of the plan to transfer this service from its current location. In addition, the oncology unit must be in the same location as the other inpatient children's services and so the move to PRH has been proposed. The new oncology unit would be provided to at least the same standards as now with the addition of a much needed filtration system. Parents and families joined clinicians and lead officers of the Trust to discuss their concerns and highlight opportunities from moving the service to Telford and parents and families will be involved in the design of the new care environment and the legacy that will remain at the RSH site.
Worries about a lack of specific care and support for children out of hours at RSH	The vast majority of children access hospital care in-hours and into the early evening with activity within the Trust significantly reducing at around 22.00 hrs. For children who do access the RSH out of hours via the A&E department, staff have the necessary skills and competencies in caring for children and their families. The majority of children attending A&E are currently seen, treated and discharged by A&E consultants and do not clinically need a referral to a paediatrician. An on-call paediatrician would only be contacted for advice or to attend for a minority of cases. The Trust has explored the service model of the PAU at the RSH, the capacity and demands on this service particularly out of hours and as part of that process has concluded the need for a 13 hour opening. The work will continue with GPs, Shropdoc, WMAS and WAS to

What we heard	What we did
	ensure patients are taken directly to the right hospital to be cared for by appropriate medical and nursing teams.
Concerns about the distance and transport from Wales and north and west Shropshire for patients and their families and the added stress for parents if their child has to be admitted, especially if they have other children	The majority of children accessing the Trust do not need to stay in hospital overnight. When they do need to stay in, about 40% do so for less than 24 hours. The added stress and pressure of travelling an additional 17 miles on top of their current journey for some parents is acknowledged and all attempts will be made to make this as straightforward and as short a stay as clinically appropriate. The support parents and families coming from outside of Shrewsbury and Telford receive now from the children's services teams would continue. The Trust is also looking at a range of opportunities to improve transport, including an inter-site shuttle bus.

Table 11: Children's Services concerns and plans

Addressing the issues and implementing the solutions described above will continue to be discussed within the Clinical Working Groups and the Focus Groups (described in section 6) as the programme progresses. It also forms the basis of the ongoing assurances required by the Joint Health Overview and Scrutiny Committee and the PCTs detailed in section 5 below.

5.0 Assurance

Chapter Summary

- **The Local Assurance Process and Panel**
- **An outline of the role and outcome of reviews from national experts – the Office of Government Commerce and the National Clinical Advisory Team**
- **The outcome of the Equality Impact Assessment**
- **Engagement of the Joint Health Overview Scrutiny Committee**
- **The programmes Clinical Assurance Group**
- **Rationale and plans for ongoing assurance and the Trust's internal mechanisms**

As introduced in section 2, the FCHS programme has been developed within a robust assurance framework and this will continue throughout each phase. During Phase 1b – Assurance and Consultation, there were six formal key aspects to the assurance element. These were:

- Local Assurance Panel
- Office of Government Commerce
- National Clinical Advisory Team
- Equality Impact Assessment
- Joint Health Overview and Scrutiny Committee
- Clinical Assurance Group.

5.1 Local Assurance Panel

To summarise, the local assurance process was established to enable the PCTs, advised by independent experts, to test the clinical proposals put forward for acute hospital reconfiguration by local clinicians. In particular the Local Assurance Panel was convened to assure the two PCT Boards and key stakeholders that the proposals put forward by the Trust, to reconfigure acute services across the two hospital sites, addressed the Government's four key tests for service configuration based on a 'test of reasonableness'.

In addition the Panel was tasked with providing assurance that three local criteria, agreed by the Boards of Shropshire County PCT and NHS Telford and Wrekin were also met:

- The proposals need to be clinically safe
- The proposals need to be robust and sustainable
- The proposals need to be financially viable and affordable.

A two-day local assurance process took place in November 2010 to review the initial proposals before these were presented to the Trust and PCT Boards in December 2010. The Panel supported the proposals in principle, and found all of the Lansley tests were met except for part of one test, which reflected the Panel's

wish to have further information about clinical pathways and risks. A presentation of the Panel's findings from the 22/23 November 2010 event was made to the Trust Board on 2 December 2010.

A second local assurance process took place on 28 February 2011 to consider further information with a view to providing full assurance to the Boards and to local stakeholders. In advance of this event, the local PCTs set out a range of specific areas on which the Panel required further assurance. The Trust provided responses on these assurances through:

- A detailed written submission to the Local Assurance Panel
- Presentations and Question and Answer sessions with Trust clinicians (representing paediatrics, A&E, surgery, obstetrics, gynaecology, midwifery and neonatology) and managers (representing finance, workforce and estates)
- A presentation from clinicians from Calderdale and Huddersfield NHS Foundation Trust.

The outcome of the Local Assurance Panel is included in the 24 March Board paper (appendix A).

The conclusions and assurance of the Panel against the "Lansley Tests" was as follows:

The Panel agreed that all the 'Lansley Tests' had been met:

- Engagement with and support from GP commissioners
- Strengthened public and patient engagement
- Clarity on the clinical evidence base
- Consistency with current and prospective patient choice.

The Local Assurance Panel will not meet again. The responsibility for ensuring the Trust delivers the Panel's recommendations will sit with the NHS Telford and Wrekin and Shropshire County PCT.

5.2 The Office of Government Commerce (OGC) – Gateway Review 0

NHS organisations are required to undertake an independent review of programme management arrangements by the Office for Government Commerce (OGC) before proceeding to consultation.

Review 0 investigated the direction and planned outcomes of the reconfiguration programme from 22 to 26 November 2010. This formed the first part of a six level process that examines programmes and projects at key decision points in their lifecycle. This review looked ahead to provide assurance that the programme can progress successfully to the next stage and ultimately to completion.

Gateway Review 1 which took place from 8 to 10 June 2011 is described below.

5.3 The National Clinical Advisory Team (NCAT)

The National Clinical Advisory Team (NCAT) provides an independent pool of clinical experts to support, advise and guide the local NHS through independent assessment of local service reconfiguration proposals. All reconfiguration proposals going to public consultation are subject to clinical assurance provided by NCAT members.

Representatives from NCAT visited the Trust on 8 December 2010. A summary of the report of their review is included in the 24 March Board paper (appendix A) and is summarised below:

- Clinical Safety and Sustainability - 'the single proposed option seems logical and we believe could deliver safer and more sustainable service across the county and beyond. The model for maternity care is an excellent example of this. An opportunity to achieve much needed capital investment for the people served seems to be available. The option appears to be widely supported by stakeholders in primary and secondary care. However, it is critical that the clinical leaders and senior managers continue to work together to:
  - Define all the pathways affected
  - Identify risks that currently exist and those that are potentially increased by the option

- Develop solutions with fellow clinicians, other stakeholders and patients and the public that meet and exceed current levels of quality and safety
- Ensure that transport and travel plans and systems are robust
- Develop a comprehensive governance system with training simulations and testing that keep the staff and procedures at high levels of readiness'

- Lansley Tests - NCAT stated that they felt that the "Lansley tests" had been met, subject to ongoing work.

Representatives from NCAT will not formally visit the Trust again, but will provide on going clinical advice upon request from the Trust.

5.4 Equality Impact Assessment

NHS Telford and Wrekin and Shropshire County PCT commissioned Step Up Consulting (UK) Ltd. to carry out an Equality Impact Assessment (EqIA) on the "Keeping It In The County" proposals.

The key aim of this assessment was to identify and explore the potential adverse impact and issues in relation to equality (for patients and communities across the six equality strands of Age, Disability, Gender, Race, Religion/Belief, Sexual Orientation), and considering the opportunities to promote equality through the proposed development and make recommendations to mitigate the identified adverse impact.

A summary of the Equality Impact Assessment is included within the 24 March Board paper (appendix A). The responsibility for ensuring the Trust delivers the recommendations within the EqIA will sit with the NHS Telford and Wrekin and Shropshire County PCT.

5.5 Joint Health Overview and Scrutiny Committee

As detailed in section 2, Telford and Wrekin Council and Shropshire Council established a joint Health Overview and Scrutiny Committee to scrutinise the 'Keeping It In The County' proposals. This included:

- Presentations
- Visits to Women and Children's Services at the Princess Royal Hospital and the Royal Shrewsbury Hospital
- Observers at both Local Assurance Panels
- Attendance by Joint Health Overview and Scrutiny Committee members at public question time events
- A detailed written submission to the Health Overview and Scrutiny Committee in response to their questions and requests for further assurance (March 2010)
- A presentation and Question and Answer session with the Chief Executive of the Trust.

The Committee indicated that they were supportive of the proposals for children's services, maternity services and surgery subject to the assurances identified in their response. The ongoing scrutiny of the Joint HOSC is described below.

5.6 Clinical Assurance Group

As part of the Trust's FCHS programme structure a Clinical Assurance Group has been established. This group involves[13] Trust clinicians (medical, nursing/midwifery and therapies), GPs (from Shropshire County PCT, NHS Telford and Wrekin and Powys Teaching Health Board), ambulance service representatives from West Midlands and Wales, PCT Directors of Public Health and Trust executives.

This group is responsible for:

- the overarching clinical advice and assurance of the proposed pathways
- understanding and checking the development of existing and new clinical interfaces and co-dependencies

[13] Following the implementation of Devolution and Cooperation, the membership of this group has been revised

- working with and feeding back to the clinical working groups to identify and mitigate future risks.

Discussions have also taken place with all relevant Royal Colleges. The Royal College of Obstetricians and Gynaecologists nominated a representative to join the Local Assurance Panel. The Royal College of Surgeons have commented on the proposals for surgery and have identified the support and advice available from the Royal College for ongoing development. The Royal College of Paediatrics and Child Health participated in a workshop with the paediatricians and neonatologists with an independent facilitator on 7 March 2011 and visited the Trust for a second workshop on 5 May 2011.

5.7 On-going Assurance

The Trust proposed a process within its Board paper of 24 March 2011 for the on-going assurance within the FCHS programme. This included delivery of the recommendations and areas for further assurance from the Local Assurance Panel, National Clinical Advisory Team, Office for Government Commerce and Joint Health Overview and Scrutiny Committee. These have all been combined into the programme's Assurance Grid (included within the Board paper at appendix A).

The issues raised by the Local Assurance Panel and the HOSC also incorporate many of the key issues and concerns raised by the public during the consultation phase. The Assurance Grid continues to be updated in terms of the current position and next steps. This live document is reviewed by the FCHS Steering Group to monitor progress and agree actions to ensure these recommendations are delivered.

5.7.1 Office of Government Commerce – Gateway Review 1

The OGC visited the Trust for Gateway Review 1: Business Justification from 8-10 June 2011. They reported sound progress of the reconfiguration programme since Gateway 0 in October 2010 and the Trust received a delivery confidence rating of AMBER – "successful delivery appears feasible but issues require management attention. The issues appear resolvable at this stage of the programme/project if addressed promptly". A number of recommendations were also made.

Ref Number	*Recommendation*	*Timing*
1	Complete the OBC ensuring that the key drivers of quality and safety come across more strongly and that there is a rigorous appraisal of workforce and other affordability implications	Do now
2	Ensure that the OBC addresses the feedback of the requirements of stakeholders such as commissioners and HOSCs	Do now
3	Review the population of the risk register and the arrangements for its active management and rigorous scrutiny	Do by September 2011
4	Prepare an integrated programme plan in detail for the next 6-9 months, including dependencies with other key initiatives and workforce transition	Do by September 2011
5	Produce a detailed resource plan to support the next phase of activities	Do by September 2011
6	Review the governance arrangements for the subsequent phases of the reconfiguration in light of the development of the PMO	Do by December 2011
7	Produce "a day in the life of..." scenarios to illustrate how the reconfiguration will work in practice	Do by December 2011

Table 12: Gateway Review 1 recommendations

The review team have recommended that Gateways 2 and 3 take place prior to submission of the Full Business Case.

5.7.2 Joint Health Overview and Scrutiny Committee

The robust involvement and updating of the HOSCs continues. The Joint HOSC has developed a work programme for the Trust to support its own monitoring of progress against recommendations and requests

for further information/assurance. This has been updated and discussed at the meeting on 16 June 2011 and will continue to be the basis for the discussion and update throughout the programme.

5.7.3 Clinical Assurance Group

The Clinical Assurance Group will continue to meet. The membership of this group has been revised to reflect the changing clinical leaders through the implementation of Cooperation and Devolution and GP commissioning. The membership of this group now includes:

- Medical Director, SaTH (Chair)
- Chief Nurse, SaTH (Deputy Chair)
- GP commissioners from Shropshire and Telford and Wrekin
- GP representatives from Powys
- Centre Chiefs, SaTH
- Value Stream Leads, SaTH
- Chairs of each Clinical Working Group if not a Centre Chief
- Lead Paediatrician (RSH and PRH), SaTH
- Lead Neonatologist, SaTH
- Head of Midwifery, SaTH
- Senior Nurses, SaTH
- Medical Directors from Shropdoc, Powys Health Board, Shropshire Community Trust
- Nurse Directors from Shropdoc, Powys Health Board, Shropshire Community Trust
- Operational Director, Welsh Ambulance Service
- Locality Manager, West Midlands Ambulance Service
- Directors of Public Health from Shropshire and Telford and Wrekin
- Chief Executive, SaTH
- Director of Compliance and Risk Management, SaTH
- Director of Strategy and FCHS Programme Director, SaTH
- FCHS Programme Manager, SaTH.

This group will play a key role in the ongoing clinical challenge and oversight of the service changes and improvements and the required work plans and developments.

5.7.4 Reconfiguration Update to the PCT Cluster

The Trust will continue to report bi-monthly on behalf of the PCTs to the West Mercia Cluster regarding the progress and development of the FCHS programme.

5.7.5 Hospital Executive and Trust Board

The FCHS Steering Group reports to the Trust's Hospital Executive Committee and Trust Board each month. These formal updates provide the latest position to the Trust's lead clinicians, Board and Executive in terms of progress, challenges, key milestones and any risks associated with delivery.

In addition, the newly established Programme Management Office receives a weekly work-plan update for inclusion in the Trust's monitoring of key service improvement priorities.

6.0 Consultation and Engagement

Chapter Summary
▪ **The importance of robust and meaningful consultation and engagement** ▪ **Example of public, staff and stakeholder engagement during the consultation phase** ▪ **Headline likes and dislikes for the Trusts proposals to reconfigure hospital services** ▪ **Objectives and plans for ongoing communication and engagement**

Consultation and engagement is a vital element of the FCHS programme with the public consultation, 'Keeping It In The County' accounting for one key aspect. This 14 week period of extensive sharing of information, debate and media reporting enabled lead clinicians and officers of the Trust and health economy to hear, first hand, the views and opinions of the population who use SaTH's services. Much of the discussion focused on the changes to maternity and paediatrics (including neonatology).

6.1 Public Consultation and Staff and Stakeholder Engagement

Examples of public, stakeholder and staff engagement are shown below. The full list of engagement and opportunities for discussion and involvement are described within the 24 March Board paper (appendix A).

Week beginning 2011	*Description*
10 January	Meeting between Chief Executive, Clinical Director for Women and Children's Services, Heather Kidd and Wyn Williams Maternity/Gynaecology/Neonatology Working Group Meeting between Head of Communications and Business Development and Montgomeryshire CHC representatives Presentation to Montgomeryshire Committee of Powys County Council Chief Executive and Clinical Director of Women and Children's Services on the panel for Shrewsbury Public Question Time Event
24 January	Chief Executive Radio Shropshire Phone-In Chief Executive meeting with Ron Jones Chief Executive meeting with the Trustees of Lingen Davies Chief Executive presentation to Shrewsbury Town Council Children's Working Group meeting Women and Children's Staff Briefing at RSH Head of Communications and Business Development presentation to Voluntary and Community Services Assembly Trust Board Maternity/Gynaecology/Neonatology Working Group Director of Strategy meeting with West Midlands Ambulance Service representative
7 February	Medical Director and Head of Communications and Business Development presentation to RSH League of Friends Committee Members and Fundraising Committee Members Director of Strategy teleconference with Welsh Ambulance Service NHS Trust Surgery Working Group meeting Clinical Assurance Group Women and Children's Staff Briefing at PRH Chief Executive Staff Briefing on 9 February

Week beginning 2011	Description
	Chief Executive and Clinical Director of Women and Children's Services on the panel for Public Question Time Event in Craven Arms Chief Executive meeting with Shrewsbury and Atcham GPs Chief Executive Presentation to Joint Health Overview and Scrutiny Committee Public Question Time Event in Shrewsbury on 11 February
21 February	Public members of the Local Assurance Panel visit to women and children's services at the RSH Chief Executive discussion with NHS Telford and Wrekin Professional Executive Committee Chief Executive, Medical Director and Chief Nurse on the panel for Public Question Time Event in Welshpool Trust Board Meeting Chief Executive, Clinical Director for Women and Children's Services and Chief Nurse on the panel for Public Question Time Event in Newtown Cross-border strategic forum event on Chief Executive and Chairman meeting with Chief Executive and Chairman of Powys Local Health Board on
7 March	Chief Nurse Staff Briefing Workshop with Royal College of Paediatricians and Child Health Visit by Health Overview and Scrutiny Committee representatives to PRH Women and Children's Department on 8 March (for those unable to attend in February) Chief Operating Officer Staff Briefing Chief Nurse attending Telford and Wrekin Local Involvement Network meeting Head of Communications and Business Development attending Broseley Town Council AGM Director of Strategy attending Shropshire Council Cabinet Head of Communications and Business Development meeting with Powys County Councillors Joint Health Overview and Scrutiny Committee meeting

Table 13: Examples of engagement during the Keeping It In The County public consultation

Key features of the consultation during Phase 1b included:

- Publication of a consultation document, consultation summary and Welsh language and Easy Read – printed copies and available from the consultation website
- A variety of mechanisms for people and organisations to provide their feedback – including a feedback form in the consultation document and summary, an online questionnaire, email, letter and via public and stakeholder meetings
- Public question time events in Shropshire, Telford and Wrekin and mid Wales
- Offering speakers to attend meetings of community and voluntary organisations and other partners
- Local newspaper, radio and TV press releases and interviews
- Information available via the consultation website including a set of Frequently Asked Questions responding to the main issues raised in letters and public meetings.

6.2 Consultation Findings

The detailed report from the 'Keeping It In The County' consultation is detailed in the 24 March Board paper. The responses to the consultation were analysed and reported on by an external Communications Company, Merida Associates. The key findings can be broken down into the main factors that people liked and the main concerns they raised.

What People Liked	*The Main Concerns and Areas for Further Assurance*
Better buildings and facilities	Travel time, distance and transport
Proposed location of services reflects population trends	Location of services
Best use of limited resources	See section 5 for specific concerns by specialty
The retention of day time assessment at both hospital sites	Public transport and shuttle bus
Improved quality of service and better care	Reassurance on travel times, transfer between sites and emergency transport
Improved access to services – older people and stroke	Clear clinical pathways and arrangements in place to mitigate risk
Centres of excellence and specialist services would be created	Reassurance that clinicians support the proposals
Keep skills and services in the county	That there will be sufficient trained and qualified staff to ensure that the proposals are sustainable
The potential to modernise hospital sites	
Consultants and other medical staff have been involved in drawing up the proposals and that there is a clinical evidence base	

Table 14: Consultation findings – likes and concerns

The response to the concerns raised within the Assurance and Consultation Phase were submitted to both the Local Assurance Panel on 28 February 2011 and the Joint HOSC on 11 March 2011[14].

6.3 Phase Two Communication and Engagement

A Communications and Engagement Plan for Phase Two of the FCHS programme has been developed. This is included in appendix E. A detailed action plan has also been created. This enables weekly tracking of the delivery of the plan.

The main objectives for this phase of the programme are:

- To raise awareness of the outcome of the consultation and what it will mean for patients
- To encourage and provide opportunities for people to get involved in planning the detail of hospital services
- To provide regular communication to all patients, public and other stakeholders on the ongoing plans for the future configuration of hospital services.

These objectives will be delivered through:

- **Programme bulletin:** A regular bulletin, 'Looking Forward' has been developed to send to interested parties and local stakeholders to keep them informed of progress and seek their views. It also details the ways in which people can get involved as the programme develops. 'Looking Forward' will also be available on the website and at both hospital sites
- **Visiting established groups and networks:** Contact has been made with a number of established groups who were either visited during the assurance and consultation phase or who have expressed an interest in being involved as the programme develops. These update sessions started in July 2011 and will include discussions with:
  - Parents and Carers Councils in both Shropshire and Telford
  - New mothers at the Midwifery-Led Units

[14] The full submissions, including details of the pathways and risk mitigation plans are available on the Trusts website

- Parents of children with insulin dependent diabetes
- Parents and families at various Surestart Centres

It is hoped that people attending these discussions will be interested in joining the specific focus groups described below.

- **Revisiting communities:** As part of the commitment to work with communities visited during the consultation, a series of meetings will be held with lead officers and clinicians from the Trust and groups across the county and Powys. In discussion with these groups and working to their existing meeting schedules, these meetings will start in September 2011
- **Patient and community focus groups:** Patient and community focus groups are in the process of being established. Members will be drawn from those who expressed an interest in being involved during the consultation phase, members of public who have raised concerns and representatives from established patient groups and networks. The remit of the focus groups will be to work with the Trust's clinicians and wider staff to help shape the services, for example through pathway work, involvement in the planning and design of new buildings and refurbishment, and developing and refining transport and access arrangements
- **Staff discussions:** A process for updating and listening to staff directly affected by the reconfiguration is currently being developed. This will be a mixture of drop-in sessions within specific units, FCHS programme team members attending team meetings, and specific sessions/workshops as requested by teams and managers. This format will be in addition to the specific Human Resource-led change management process that will be introduced in due course
- **Website:** The consultation website will continue to provide a web channel to share updates on progress and ask for views.

7.0 The Strategic Case

Chapter Summary

- **The local and national context and drivers for change**
- **A reminder of the Trust's reconfiguration principles and the initial strategic options for their delivery**
- **The Trust and local health economies service strategies that impact upon and effect the reconfiguration**
- **A summary of the demography of the populations served by the Trust**
- **The case for change, including: the viability of clinical services; the clinical workforce challenges; and the current maternity building**
- **Objectives and benefits that must be achieved through the reconfiguration of hospital services**

7.1 Introduction

The strategic case for this OBC focuses on the proposal for future configuration of services for Shropshire, Telford and Wrekin. This section sets out:

- The local and national strategic context
- The case for change and business need
- The main factors that will influence the eventual service solution. These include:
  - The investment objectives
  - The expected outcomes and benefits
  - The constraints and interdependencies
  - The risks.

7.2 Strategic and Local Context

The strategic and local context for service reconfiguration is summarised in the diagram below. This demonstrates that there are national and local strategies and key policy drivers influencing the Trust Future Service Configuration Strategy and the reconfiguration principles which underpin the programme. The high level benefits of the reconfiguration programme are also provided in more detail in section 7.2.4.

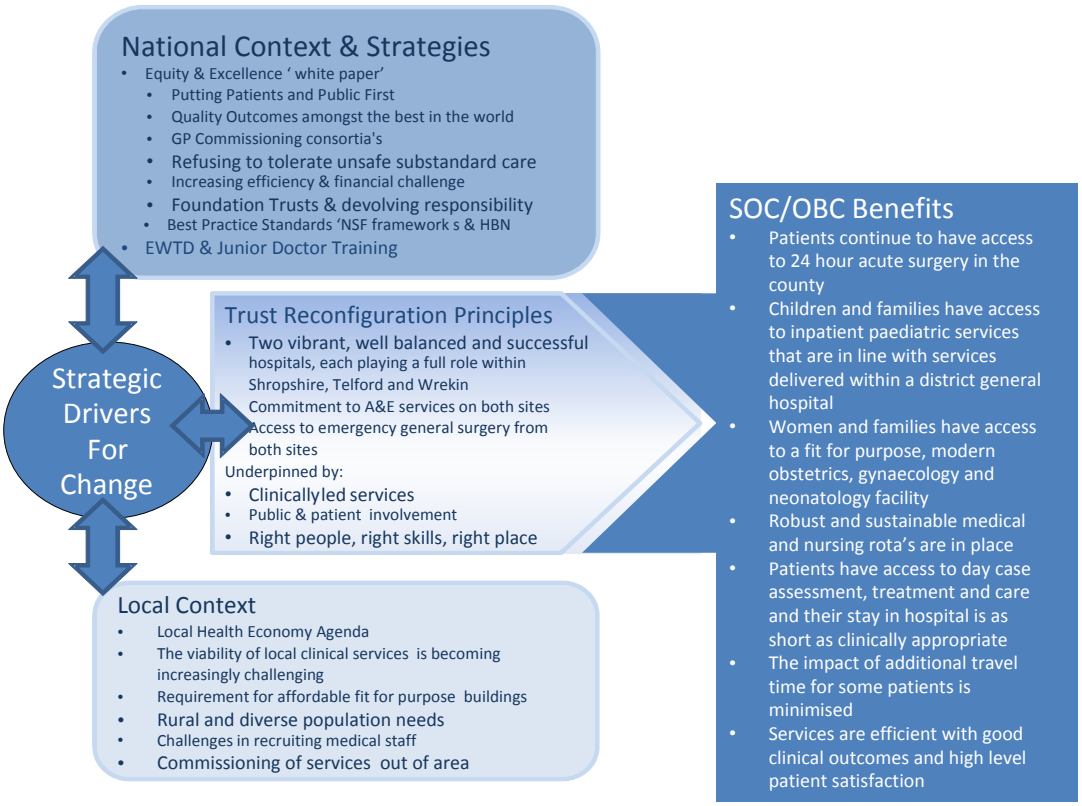


Figure 9: Strategic drivers for change

7.2.1 National Context and Strategies

7.2.1.1 Putting Patients and the Public First

Decisions about the shape of NHS services must be made through an open and transparent process that engages patients and patient representatives, clinicians, local authorities and other key partners. The government has set four tests that must be met as part of reconfiguration of services:

- Support from GP Commissioners
- Strengthened public and patient engagement
- Clarity of the clinical evidence base
- Consistency with current and prospective patient choice.

The Trust has added a local dimension to this which includes:

- Clinical safety
- Robustness and sustainability
- Financial viability.

The Trust is committed to developing clinically-led proposals for addressing these challenges and testing these with patient and public representatives. Following the formulation of options and a preferred proposal, the Trust undertook a robust consultation and assurance process (sections 5 and 6).

7.2.1.2 Quality Outcomes amongst the best in the world

Whilst many people receive a truly excellent service from the local NHS, consideration needs to be given to where, when and how services are provided – so that the right person provides the right care in the right place at the right time, to high quality standards that give the best outcomes. The ultimate objective for the reconfiguration of services is to ''secure high quality, safe and sustainable in Shrewsbury and Telford''. The development of service reconfiguration options and the subsequent physical options for capital investment set out within this OBC have both been assessed against the Trust's ultimate objective and the benefit criteria expected to be delivered by the Trust FCHS Steering Group.

7.2.1.3 Clinical Commissioning Groups

At present, commissioning functions are split between PCTs and Practice-Based Commissioning (PBC). The government plans to devolve commissioning responsibility to GP Commissioning Consortia is being replaced with plans for GP-led Clinical Commissioning Groups, building directly on the current function of PBC. Shifting the commissioning function to these groups is planned to ensure that clinical decisions are aligned with the financial consequences of those decisions. GPs are well placed to design care packages for patients and it is expected that this will lead to improved health outcomes and tighter financial control.

Commissioning GPs and GPs not directly involved in commissioning have been involved in the reconfiguration programme since its launch in August 2010. GPs were instrumental in the shaping of the initial options, have been part of the Clinical Working Groups, Clinical Assurance Group and on the local assurance panels. GP Commissioners are supportive of this proposal and the OBC will be formally shared with lead GP Commissioners prior to submission to the Strategic Health Authority in September 2011.

Alongside the plans for devolving commissioning responsibility to GPs and Clinical Commissioning Groups (CCG) some commissioning decisions, for example those around specialised commissioning, will not be appropriate to be performed at CCG level, as the numbers of cases commissioned from any one consortia will be low, neonatology for example. These functions will be undertaken by the NHS Commissioning Board who will be accountable to the Secretary of State.

7.2.1.4 Refusing to tolerate unsafe and substandard care

24 hour health services need enough specialists to keep them running round the clock. The challenge of being able to achieve this in paediatrics across two sites is one of the key drivers behind the need to reconfigure hospital services. The legal limits imposed by the European Working Time Directive have resulted in a reduction of working hours for NHS staff. Doctors in training provide a vital part of the workforce to support 24-hour care; however, in order for the Trust to maintain its accreditation, junior doctors must see sufficient numbers of patients.

Similarly, the changes in the way junior doctors are trained has resulted in the sub-specialisation of surgery (section 7.2.1.7). This means that out of hours, surgeons may be required to perform surgical procedures that they do not routinely undertake, thus increasing the risks for patients in their care.

The Trust is committed to implementing best practice from elsewhere in the NHS, and internationally. This is unlikely to happen if services remain in their current configuration.

7.2.1.5 Increasing efficiency within a financially challenged environment

The current and future economic climate means that significant capital funding is not available as it has been in the past to support major building or renovation programmes. The Trust has looked at options which optimise the use of existing accommodation to minimise capital investment to deliver an affordable scheme. The models of care that have been developed within the FCHS programme include opportunities to improve efficiency and achieve best practice. The Trust has reviewed benchmark performance for other similar acute hospitals and this has been used to inform the future capacity plans for the services affected by the reconfiguration proposal. The outcome of the capacity modelling is provided in section 9.

7.2.1.6 Devolving responsibility and Foundation Trust status

NHS Foundation Trusts are a new type of NHS Trust in England. They are part of the Government's plan for creating a patient-led NHS. The aim of these reforms is to provide high quality care, shaped by the needs and wishes of today's patients, in the most efficient way. NHS Foundation Trusts have been created to devolve decision-making from central Government to local organisations and communities so they are more

responsive to the needs and wishes of their local people. They are also at the leading edge of many of the other reforms and improvements that are creating a patient-led NHS.

NHS Foundation Trusts are no longer subject to direction from the Secretary of State for Health. Instead, NHS Foundation Trusts establish stronger connections between themselves and their local communities. The membership community of each NHS Foundation Trust is made up of local people and staff, with patients and carers also having the option to become a member.

The Trust is currently scheduled to present to Monitor during the latter part of 2013. When the Trust makes its application, an external firm of accountants will undertake a historical due diligence, which will provide an account of the Trust's financial health and liabilities. The Women and Children's building at RSH is one of the Trust's biggest liabilities. Monitor will require the Trust to demonstrate that a plan is in place which is affordable and deliverable to deal with these liabilities before the Trust can be authorised.

7.2.1.7 European Working Time Directive (EWTD), Recruitment and Training

The introduction of the European Working Time Directive (EWTD) is a key national driver in delivering the proposed future configuration of services for Shropshire, Telford and Wrekin. The EWTD brought about a reduction in working hours and changes to training of medical staff, which has resulted in conflicts between the service and training needs.

The training programme for doctors is significantly different now from what it used to be. In the past, a general surgeon would have probably carried out large volumes of abdominal, breast and vascular surgery whilst in training. Now, consultants will have specialised in one of these branches of surgery much sooner. Therefore, they will not have the necessary skills to perform techniques they have not been trained to deliver. Locally, this had led to a situation whereby a surgeon who does not operate on the abdomen in the day time may have to perform such surgery at night. Due to the changes in medical training, the traditional 'middle grade' doctors are a disappearing workforce. Locally the Trust will have to rely on Consultants to fill this gap.

These factors have resulted in the following issues:

- Subspecialisation which has made it increasingly more difficult for doctors and nurses to train in smaller hospitals given the limited case mix of patients
- Ability to provide cover for emergency care as there are fewer general doctors to provide 24 hour cover for emergency care.

The proposed future configuration of services for Shropshire, Telford and Wrekin will address these issues and will support the Trust in securing high quality, safe and sustainable services for the local population.

7.2.1.8 National Frameworks and Best Practice Guidance

The national frameworks and best practice guidance required to support the proposed future configuration of services and investment into services includes:

- Health Building Notes:
  - HBN 09-02 Maternity Care (replaces HBN 21 – 'Maternity department' 1996)
  - HBN 21 Designing a Neonatology Unit
  - HBN 23 Children and Young People
  - HBN 00-03 Clinical Spaces
  - HBN 04-01 Adult Inpatients
- Latest Consumerism Guidance to include single sex accommodation
- National Service Frameworks:
  - Standard 7 of the NSF for Children, Young People and Maternity Services states that children and young people receive high quality, evidence-based hospital care, developed through clinical governance and delivered in appropriate settings. In summary, children and young people should receive care that is integrated and co-ordinated around their particular needs and those of their family and play should be an essential part of the service. Care should be provided in an appropriate location and in an environment that is safe and well-suited to the age and stage of development of the child and young person. Arrangements should be in place for providing

emergency and non-urgent surgical services for children and young people and should be reflective of their particular needs
- Standard 11 NSF for Children, Young People and Maternity Services states women should have easy access to supportive, high quality maternity services, designed around their individual needs and those of their babies. In summary, women should be able to choose the most appropriate place to give birth from a range of local options including home birth and delivery in midwife-led units, with the facility for women delivering in the community to be transferred to hospital rapidly if complications arise. Care pathways and managed care networks should link maternity and neonatal services with a range of services and professionals to ensure all women and their babies have equal access to high quality care

- Royal College Guidance:
  - Royal College for Paediatrics and Child Health guidance – 10 standards for the provision of children's services
  - Intercollegiate guidance regarding paediatric surgery in a District General Hospital

These documents have been used as the guiding principles for discussion and development of the paediatric services for the future and will, in time, form the basis of accreditation.

7.2.2 Local Context

7.2.2.1 Local Health Economy Agenda

In 2008 the Clinical Leaders Forum (CLF) was established to develop a healthcare strategy for Shropshire, Telford and Wrekin. This was based on the national review undertaken by Lord Darzi, Our NHS, Our Future, which focused on three themes: Quality and Safety, Access and Reducing Inequalities. This was underpinned by the development of a number of care pathways for planned care, acute care, maternity and newborn care, long term conditions, end of life care, mental health, and getting healthy, staying healthy. In response to the Our NHS, Our Future, each Strategic Health Authority produced a strategic framework. The West Midlands Strategic Health Authority developed 'Investing for Health' which provided a regional plan setting the direction for Primary Care Trusts to determine their local plans for local circumstances. Seven 'big challenges' were identified at this time that had to be addressed through the framework. These are shown below:

Focus Areas	*Challenges*
Outcomes and Quality	1. Inequalities Widening
	2. Variable Quality and Safety
Patient Focus	3. Complex Services Difficult to Navigate
	4. Lack of Public Confidence in Services
Investment and Cost Focus	5. Lack of Upstream Investment
	6. Buying things that don't work
	7. Costs Increasing Faster than Income

Table 15: Clinical Leaders Forum focus areas

As well as these 'big challenges', the framework also highlighted five themes or strategic priorities that must guide health services in the future:

- Full Engagement
- Improving Quality and Safety
- Care Closer to Home
- Sustainability
- Organisations Fit for Purpose.

The Clinical Leaders Forum agreed the vision for health and healthcare services in Shropshire, Telford and Wrekin should have 3 main objectives:

1	The **prevention of disease and the promotion of healthy lifestyles** and independent living
2	Provision of **services at home or as close to home** as possible
3	Provision of **sustainable and accessible acute hospital services**

Table 16: Clinical Leaders Forum objectives

The last objective was particularly relevant to the clinical viability of hospital services provided at the RSH site and PRH site. The review concluded:

- Accident and Emergency services should be maintained at both the PRH and RSH
- Acute medicine should be developed to underpin emergency medicine
- Surgical services should be reshaped to provide a service for the seriously ill and injured at one site with planned care (elective in patients and day cases) on both sites
- Urgent care centres should be developed[15]
- Assessment services should be strengthened at both site for children and adults
- Hospital at home services should be developed for children and the smaller children's inpatient service should be concentrated onto one site.

The work undertaken by the local health economy under the Next Stage Review was developed into a formal change programme, 'Developing Health and Health Care' (DH&HC). Much work had been undertaken on the development of options for reconfiguring local services. This included an interim solution for implementation in 2012/13 to address the issues within the 'challenged services[16]' and a 2020 solution that would see the development of a single site for the seriously ill and injured. Despite high levels of clinical leadership and commitment from all local NHS organisations, the options were only ever debated and a preferred way forward was never identified. As such, the DH&HC programme was formally closed in the autumn of 2009.

The issues within the challenged services, however, continued and there was no immediate plan for resolution until August 2010 when the first Clinical Problem Solving Workshop was held, driven and led by clinicians from both primary and secondary care. This workshop led to the establishment of the Future Configuration of Hospital Services programme and a focused timeline for change.

The ongoing clinical leadership and engagement within the FCHS programme is included in sections 6 and 17.

Commissioner plans to invest in services to provide care closer to home involves a planned shift of some activity from hospital to a community settings. The main aspects of the services directly affected by the proposed reconfiguration of services are largely those which need to be based at acute hospital sites and will therefore not be affected if more patients are treated in the community.

The planned shift and any demographic changes are already taken into account within the local health economy plans (co-ordinated by the PCTs). This was taken forward and supported by the DH&HC programme, led by the Clinical Leaders Forum. For very specific areas, i.e. children's services, the Trust is keen to develop an integrated pathway with community nursing teams to provide care at home for more dependent children. The hospital model for paediatric services has been based on this assumption.

The future configuration of hospital services aims to improve safety and sustainability and does not directly aim to reduce admissions to hospital for those patients who can be managed at home or in an alternative setting. However, the development of care pathways has provided opportunities for hospital and primary care clinicians to work together to re-design services for the benefits of the patient. There are a number of areas whereby by clinicians have agreed that there are opportunities to undertake more work in the

[15] The plans for urgent care centres were later modified and replaced with models of care based on rapid assessment and involvement or primary care in A&E
[16] The challenged services included Acute Surgery, Paediatrics; Obstetrics and Neonatology; and Urology

community prior to referral into the acute setting, gynaecology for example. The GP members of the Clinical Working Group[17] endorsed the development of a series of investigations requested and managed within primary care with advice and support from clinicians within the hospital. New technologies will also be explored to provide telemedicine within the community for specialist advice in the community.

On-going work will continue to enable to clinical teams to work through the detail and operational requirements of pathways. This will continue to involve GPs, Commissioners and other community partners to ensure alignment with the local health economy plans.

7.2.2.2 Viability of Clinical Services

There are currently a number of challenges in delivering safe and timely hospital care. The 3 main risks associated with the future viability of clinical services are:

- Sustaining acute surgery on two sites, with prompt access to senior clinical input to ensure the best possible outcomes of care. Across the country vascular surgery is being focused into bigger centres as part of a nationwide drive to improve survival rates for major surgery. Holding onto services in Shropshire would only be achievable if the teams who provide these services are brought together onto a single site
- Sustaining inpatient paediatric services on two sites, providing 24-hour senior paediatric input and maintaining accreditation for doctors in training
- The physical environment in the women and children's department at the Royal Shrewsbury Hospital, as well as the need to provide additional obstetric theatre capacity to support the number of births in the county. There are increasing concerns about the maternity building at the Royal Shrewsbury Hospital. This unit was built in 1969, is in a very poor condition and the services have outgrown all the space available. The neonatal intensive care unit is also extremely cramped.

7.2.2.3 Trust Estate

The investment into future configuration of services at Shrewsbury and Telford will need to ensure that there are appropriate facilities in place to provide the required services to the catchment population. 'Appropriate' means that investment in any future facilities must:

- Facilitate the development of new models of care
- Be generic and flexible to accommodate potential changes in service or clinical practice
- Be conveniently located and provide easy access for the local population
- Be capable of meeting the future demand for services for the next 5 and 5 to 10 years[18]
- Ensure consistency with the Trust's Estate Strategy in respect of migration from the use of older inappropriate buildings
- Meet health and safety, infection control, privacy and dignity, Disability Discrimination Act and work towards deliver best practice HBN standards.

The current and future financial challenges facing the public sector mean the Trust cannot expect significant capital funding to be available as it has been in the past to support major building or renovation programmes. The future configuration of services will need to be affordable and based on a physical solution which provides best value for money.

7.2.2.4 Rural, Diverse and Aging Population

There is considerable diversity in the communities across Shropshire, Telford and Wrekin and mid Wales. For example, Telford and Wrekin has a younger and growing population, areas with high levels of income deprivation and low levels of car ownership. Shropshire and mid Wales both face the challenges of rural access and deprivation for an ageing population.

Across the area, more people are living longer with long term conditions such as diabetes, dementia and cancer. People need to be supported to live with long term conditions by providing more services close to

[17] Maternity, Gynaecology and Neonatology

[18] Details of the wider bed capacity modelling undertaken in July 2011 are included in section 9

people's homes to help them remain independent. The Trust has undertaken a detailed piece of work into the demographic 'time-bomb' within Shropshire and Telford and Wrekin. This is described in more detail in section 7.3. The impact this will have on the Trust is detailed in section 9. In summary, the projected population changes will mean that:

- Compared to now, by 2016, there will be a 18% increase in the number of 65-79 year olds, taking their numbers from around 65,500 to 77,000
- In 2021, the numbers will have increased further to around 83,000 (a 27% increase when compared to 2011)
- The numbers of people aged 80+ living in Shropshire and Telford will increase from around 24,000 now to 28,000 in 2016 (an 18% increase) and to around 35,500 in 2021 (an increase of 44% when compared to 2011)

This is in the context of reducing numbers of 15-44 year olds and only marginal increases (3%) in 45-64 year olds and the knowledge that the frail and elderly are generally larger users of hospital (and community) services with complex and health and social care needs.

The future configuration of hospital services therefore needs to reflect the local requirements of the population on the Trust as a whole and contribute to the response of managing this demographic change.

7.2.2.5 Challenges in Recruiting Medical Staff

The number of doctors whom the Trust can recruit to work in the Trust fluctuates a great deal. This leads to occasions when there is not enough medical staff to cover all the departments. This is happening for two reasons. First, doctors can choose where to work and some are deciding not to come to the Trust. Second, nationally there is a reduction in the availability of doctors from overseas.

7.2.2.6 Commissioning of Services Out of Area

The Trust has already seen a shift in the number of services which are no longer provided in the county. Recent examples of services that have been lost include gynaecological cancer surgery and upper gastro-intestinal surgery and patients with ST elevation myocardial infarction are taken to Wolverhampton or Stoke for primary angioplasty PCI as this is not performed at the Trust. Without some urgent changes it may not be possible to provide a comprehensive range of services within the county. This trend could continue if the Trust cannot demonstrate safe and timely access to services which meet clinical accreditation standards. The Future Configuration of Services will address these issues and will enable services to be retained and provided locally for the population, providing care closer to home.

7.2.3 Trust Reconfiguration Principles

7.2.3.1 Background

As described in sections 2, 4 and 5, the Future Configuration of Hospital Services programme was established in summer 2010 to secure high quality, safe, sustainable hospital services in Shrewsbury and Telford. In summary:

This clinically-led debate focuses on three dilemmas facing hospital services:

- Making sure that the Trust can continue to provide 24 hour acute surgery in the county
- Making sure that the Trust can keep our range of inpatient children's services in the county
- Planning to move out of the deteriorating maternity and children's services building at RSH.

The plans for resolving these issues are underpinned by two essential requirements:

- Making services safer now and in the future
- Making services sustainable now and in the future.

These dilemmas and issues must be resolved according to three reconfiguration principles set out by NHS Telford and Wrekin and Shropshire County PCT:

- Keeping two vibrant, well balanced, successful hospitals in the county
- A commitment to having an Accident and Emergency Department on both sites

- Access to acute surgery from both sites.

These commitments will, amongst other challenges, have to be provided in the context of:

- Ensuring the right people with the right skills are always in the right place to meet the needs of patients
- A medical training programme that results in the earlier specialisation of medical staff who ultimately become consultants
- Fluctuating numbers of junior doctors covering all the departments across two sites, due to them choosing to work elsewhere and a reduction in overseas doctors who have covered service gaps on the past.

The solution must also be able to demonstrate:

- support from GP commissioners
- strengthened public and patient engagement
- clarity on the clinical evidence base
- consistency with current and prospective patient choice.

whilst also demonstrating alignment with the three local criteria set by the PCTs that:

- The proposals need to be clinically safe
- The proposals need to be robust and sustainable
- The proposals need to be financially viable and affordable.

This programme will continue to be led and developed in partnership by local secondary and primary care clinicians. It builds on the foundations of the work undertaken in the past which included the development of care pathways as part of the Darzi Next Stage Review.

The programme will also support the principles of QIPP and Care Closer to Home, and will acknowledge the financial challenges facing the NHS now and in the future.

7.2.3.2 Options for Reconfiguring Services

As described in section 2, the Trust identified four strategic options for appraisal. An initial appraisal was conducted at the outset of public consultation and was updated afterwards. This is detailed below.

Consultation Option 1	***Do nothing and maintain all services as they are***
	It was felt that this option would neither address the clinical challenges faced by local hospital services nor extricate services from the deteriorating women and children's building at the Royal Shrewsbury Hospital. This would result in risks that services would decline and possibly reach crisis point, in which case emergency changes would need to be made to services. Other implications could include further services drifting out of the county and no longer provided in either Shrewsbury or Telford. If services decline then the Trusts "licence" to operate certain services and the decisions about them will be taken out of the hands of local NHS organisations working with patients and communities. *Post consultation* *During assurance and consultation, many patients and members of the public said they would like services to stay where they are and/or for services to continue to be provided close to where they live. However, this does not address the dilemmas faced and no material alternative options have been identified that would enable services to stay as they are. Specifically, no feasible and alternative options for re-providing women and children's services from the deteriorating building at the Royal Shrewsbury Hospital have been identified. The National Clinical Advisory Team, Local Assurance Panel and Joint Health Overview and Scrutiny Committee have concluded that the status quo is not an option.*

	Do nothing and maintain all services as they are
	The updated assessment following assurance and consultation is that Option 1 is not feasible.

Consultation Option 2	***Move some services from PRH to RSH and some from RSH to PRH***
	The do nothing and maintain services as they are option above will not address the risks faced by hospital services and the option for developing a single site has been concluded by a previous working group in 2009 as unaffordable. The development of a safe and sustainable model of care is focused on: ▪ Using our existing resources as best as possible. ▪ Achieving the highest possible standards of clinical safety and sustainability. ▪ Feasible delivery within the human, financial and other resources available to us. ▪ Maximising acceptability to patients and communities, including continuing to provide services where they are now where this is clinically safe, feasible and appropriate. *Post consultation* *During assurance and consultation, concerns have been raised about proposals to move services between the two sites. However, this remains the main practicable solution to address the challenges to the safety and sustainability of the services we provide for patients and communities in Shropshire, Telford and Wrekin and mid Wales.* *The updated assessment following assurance and consultation is that Option 2 remains the preferred option.*

Consultation Option 3	***Concentrate all services on one site – either a new single site or one of the existing hospitals***
	There was strong clinical support for concentration of services onto a single site. However, the capital costs, and revenue implications of this option were not considered affordable in the current economic climate. *Post consultation* *During assurance and consultation, representations proposing a new acute hospital site for Shropshire and Telford and Wrekin were received. However, whilst there is strong clinical support for this model, the review of the capital borrowing requirements and revenue implications indicate that this is not affordable.* *The updated assessment following assurance and consultation is that Option 3 is not feasible.*

Consultation Option 4	***Major and emergency work on one site and planned activity on the other***
	This model also had strong clinical support, but the reality is that the Trust undertakes much more urgent and emergency activity than elective planned activity, and that this also represents the majority of patient bed days in hospital. Given that one of the sites would handle much reduced levels of activity and the other would require significant expansion (both in terms of beds, and in related services such as A&E, Critical Care and Diagnostics), this would require significant capital investment which was also considered neither feasible nor affordable. *Post consultation* *During assurance and consultation, representations were received proposing a major/minor model of care between the two hospitals. However, whilst there is also clinical support for this model the review of the operational impact (e.g. beds and support services) indicated that the capital borrowing requirements and revenue implications are not affordable.* *The updated assessment following assurance and consultation is that Option 4 is not feasible.*

Figure 10: Reconfiguration options

The preferred option agreed by the Trust and PCT Boards on 2 December 2010 to form the basis of the "Keeping It In The County" public consultation was:

Option 2: *Move some services from PRH to RSH and some from RSH to PRH*.

This option remains the main practicable solution to address the challenges to the safety and sustainability of the services the Trust provide for patients and communities in Shropshire, Telford and Wrekin and mid Wales.

The following table demonstrates how the preferred option will mitigate the risks highlighted in previous sections of this OBC.

Current Risk	***Anticipated Benefit from Service Reconfiguration***
Sustainability of acute surgery on two sites including: delays of transfer into appropriate units/beds; delays in access to specialised senior clinical input; and a lack of confidence to manage patients out of own surgical expertise.	A single inpatient site for emergency and elective surgery would enable patients to be managed in the right sub specialty by appropriately trained and experienced medical staff via separate rotas for vascular and general surgery. Training places for junior doctors will be more attractive and locum dependency would be is reduced.
Sustainability of inpatient paediatric services on two sites including: challenge of providing 24-hour senior paediatric input; maintaining the accreditation for doctors in training; a reliance on staff/middle grades; and an inability to develop services such as high dependency care.	A single inpatient site would enable a sustainable medical rota to be implemented. The unit would be run at optimum efficiency with space allocated for high dependency care. The majority of children would continue to be seen in-hours and in the PAUs as now. Children requiring inpatient care who attend RSH would be stabilised and transferred.

Current Risk	*Anticipated Benefit from Service Reconfiguration*
Poor physical environment in the women and children's department at the Royal Shrewsbury Hospital, as well as the need to provide additional obstetric theatre capacity to support the number of births in the county.	A new, fit for purpose women's and children's centre is created. An additional obstetric theatre mitigates the current risks associated with single theatre provision. Low risk, midwifery-led care would continue to be provided at both sites along with antenatal and outpatient clinics. Improved accommodation would be provided for the midwifery-led unit at the RSH site.
Future sustainability of a local vascular surgery service if the Trust is not accredited as a centre for AAA screening.	A single rota for vascular surgery, with enhanced training provision would help towards safe guarding a local AAA screening service.
Ensuring access to 24-hour thrombolysis for hyperacute stroke services.	Establishment of a 24/7 thrombolysis service at both sites will resolve service risk.
Changing training programme for doctors resulting in earlier specialisation, a lack of skills in techniques doctors have not been trained to deliver and a disappearing middle grade workforce.	The consolidation of services onto a single site would enable single specialty rotas and enhanced senior clinician cover.
Medical staff recruitment challenges and the implications of the EWTD are exacerbated through difficult working environments, on-call commitments and numbers of patients to be managed.	Single site provision is more attractive than split site services for training, working and development.

Table 17: Preferred service configuration option and mitigation of key service risks

7.2.4 Other Clinical Service Strategies

There are a number of other clinical service development plans which are being developed by the Trust that have to be reflected in the plans for the reconfigured services. These are aligned with commissioning intentions and have been considered by the FCHS programme, particularly when assessing the opportunities for developing the physical options for each site.

7.2.4.1 Re-provision of Ophthalmology Services

In response to NHS Telford and Wrekin's commissioning of an ICAT (Integrated Clinical Assessment Team) in 2010, the Trust relocated aspects of the ophthalmology service from the PRH into a community base (Euston House) in Telford. The Trust's Ophthalmology Clinical Centre plans to run the service out of two main sites, RSH and Euston House, and therefore will no longer require facilities at PRH.

7.2.4.2 Re-provision of Orthodontic Services

Although far less advanced than changes within Ophthalmology, the commissioning intention of both PCTs is to shift elements of orthodontics into the community. The Head and Neck Clinical Centre has therefore reflected this shift in their future model of care in terms of outpatients and procedure room capacity.

7.2.4.3 Model of Care for Rehabilitation

The strategy for rehabilitation in the county has been developed and agreed by the local health economy. This would see a shift of post-acute rehabilitation into the community/patients homes. As such, the release of space where this service is currently provided at PRH has provided opportunities for re-use of that space to facilitate the move of services to the PRH site. This is described in more detail in section 14.

7.2.4.4 Development of Critical Care Services

Discussions are underway between relevant Clinical Centres regarding the future provision of critical care within RSH and PRH. These acknowledge the need to re-provide the service at the RSH in the longer term

and respond to an increasing demand for critical care as the service responds to an aging demographic. As highlighted in section 2, changes within Critical Care are required to enable the consolidation of general surgery on the RSH site. The longer term solution is out of scope of this OBC and requires more work in developing and finalising an agreed solution.

7.2.5 Wider Estates Strategy

A summary of the Trust's Estates Strategy is included in appendix B. This details the service priorities' critical path and the interdependencies to enable service change to be implemented.

7.3 Summary of Demographic Profile

Within the local population area served by the Trust, there are significant variations in demographics and health status. This includes the predominantly rural Shropshire, the mainly urban area of Telford and Wrekin and the sparsely populated northern Powys.

7.3.1 Shropshire

- Population of the county is 290,900
- Comprises one large town Shrewsbury, a large proportion of smaller towns (e.g. Bridgnorth, Oswestry, Market Drayton and Ludlow) and large rural areas
- The population base is growing with growth prediction between 10% and 15% over the next twenty years. The absolute population growth will be of a similar scale to the smaller authority. Relative growth is not expected to be as high as neighbouring Telford and Wrekin
- The population of Shropshire is comparatively older than the English average, with a quarter of the population aged 65 and over. This is expected to rise to a third of the population over the next two decades
- The 16 to 29 year olds account for 14% of the population, compared to 19% nationally
- The borough is significantly less deprived than other boroughs within the West Midlands and England. A fiftieth of the population live in communities in the most deprived quintile, whilst 13% are in the least deprived quintile
- Life expectancy is high compared to England as a whole. Smoking prevalence is lower than England averages but remains one of the highest causes of premature death in the county. Levels of obesity are also lower than regional averages, as are alcohol-related admissions to hospital. The number of people living with long term conditions continues to increase, rising from 12% of the population in 1991 to 18% in 2001 – faster than national averages. This is reflected in the prevalence of individual long term conditions which are generally higher than national averages. For example, hypertension, chronic obstructive pulmonary disease (COPD)/asthma, stroke/transient ischaemic attack (TIA) and cardio vascular disease (CVD) are all significantly higher than national prevalence. Levels of chronic kidney disease are currently comparable with national prevalence (2.6%) but are expected to increase given the ageing population.

7.3.2 Telford and Wrekin

- Population is 161,700
- The main population centre is the large new town of Telford, with the remaining population living in the market town of Newport and the remaining rural areas
- The population of Telford and Wrekin is growing relatively quickly and is expected to increase to nearly 200,000 by 2026. In common with the rest of the country, the population is ageing. Currently 14% of the population is over 65 and this is expected to increase to 18% (an additional 14,000 people over 65) by 2026. The proportion of young people is projected to remain about the same, although this means that the absolute numbers will increase
- The borough is more deprived than England and regional averages. A fifth of the population live in communities in the most deprived quintile
- Around 6,300 people are living with diabetes (based on QOF data), which is in line with modelled prevalence levels, and this figure is expected to increase in line with national trends. Although early

deaths from circulatory diseases are estimated to have reduced by 44% between 1996 and 2006, over 6,000 people are estimated to be living with CVD, and a further 2,500 people are living with stroke, Nearly 37,000 are estimated to have hypertension, which is higher than modelled prevalence. Over 1,300 people over 65 are estimated to be living with dementia, and again this expected to increase in line with national trends and an ageing population

- Smoking-related deaths are higher than England averages, and rates of smoking during pregnancy are not declining. Obesity is higher than national averages, as are alcohol-related admissions to hospital.

7.3.3 Powys

- Population of the county is 131,000
- Population density is significantly lower than neighbouring Shropshire and in fact it is the most sparsely populated county in England and Wales. This is exacerbated by poor transport links to other parts of Wales or to England which can result in significant access difficulties for people without access to car transport, especially in the more rural parts of the county
- Patients from Powys accessing the Trust's services tend to live in the northern part of the county, which includes a population of about 62,000 people
- Between the 1991 and the 2001 census the population increased by 6%. This was due to net in-migration, although there was net out-migration of younger adults. If the migration trends of the last decade continue, the child population of Powys will continue to fall, the working age population will peak within 5 years then start to decline, and the retirement age population will continue to increase. Whilst the county experiences income deprivation compounded by extreme rurality and difficulties in access to services, health status is generally good compared with Welsh averages.

7.3.4 Birth Projections

- The number of births in Shropshire, Telford and Wrekin is projected to increase by 7% between 2011 and 2020

Year	*Shropshire County Projected Births*	*T and W Projected Births*	*Combined*	*Index*
2011	2966	2,288	5,254	0%
2012	2990	2,302	5,292	+1%
2013	3015	2,315	5,330	+2%
2014	3039	2,315	5,354	+2%
2015	3064	2,322	5,386	+3%
2016	3088	2,315	5,403	+3%
2017	3113	2,329	5,442	+4%
2018	3137	2,349	5,486	+5%
2019	3162	2,376	5,538	+5%
2020	3186	2,416	5,602	+7%

Table 18: Projected births 2011 to 2020

Based on these projections, it was agreed to plan on the basis of up to 5,500 births per year across the health economy, with a sensitivity analysis to explore the potential impact of possible additional activity in the future. The impact of this for RSH and PRH is discussed further in sections 8.1 and 9.2.2.

7.4 Case for Change

To summarise, the case for change is fundamentally based on 3 drivers for change:

- Safety and viability of current clinical services

- Workforce challenges of providing the right skills in the right place at the right time
- The condition of the facilities for Women's and Children's services on the RSH site.

Within the context of increasing financial pressures and an aging population.

The diagram below summarises these key drivers:

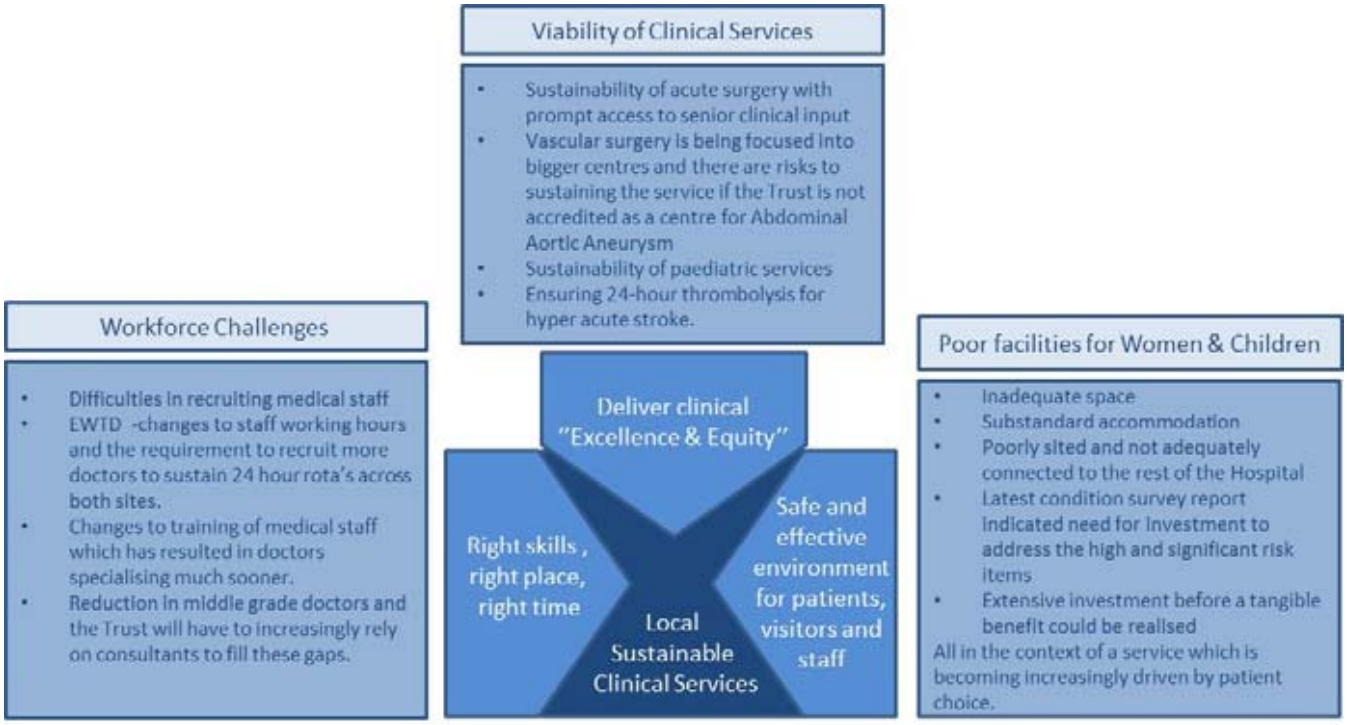


Figure 11: Case for change

7.4.1 Viability of Clinical Services

Changes in service models and clinical practice as a result of policy reform, new technologies and new treatment regimes have resulted in an increase in services being provided in primary and community care settings and closer to where people live, and to the delivery of some specialist services being concentrated in fewer major centres. This has had an impact on the activity and case mix of patients at the Trust and along with other factors presents the following risks:

- Sustainability of acute surgery on two sites including delays of transfer into appropriate units/beds, delays in access to specialised senior clinical input, and a lack of confidence to manage patients out of own surgical expertise
- Sustainability of inpatient paediatric services on two sites including challenge of providing 24-hour senior paediatric input, maintaining the accreditation for doctors in training, a reliance on staff/middle grades and an inability to develop services such as high dependency care
- The future sustainability of a local vascular surgery service if the Trust is not accredited as a centre for Abdominal Aortic Aneurysm (AAA) screening
- Ensuring access to 24-hour thrombolysis for hyper-acute stroke services.

7.4.2 Clinical Workforce Challenges

The current workforce has seen a number of changes, which impact on the ability to provide 24 hour emergency services on both sites. These are described in detail in section 7.2 and include:

- Changes to the training of medical staff
- Reduction in middle grade doctors

- Changes to staff working hour introduced by the European Working Time Directive
- Challenges in recruiting medical staff

7.4.3 Women's and Children's Facilities on the RSH site

The physical environment in the women and children's department at the Royal Shrewsbury Hospital and the need to provide additional obstetric theatre capacity to support the number of births in the county are both risks which the Trust is currently managing, and must both be considered in the future configuration of services.

The current maternity building on the RSH site is over forty years old; it is the Trust's oldest building and does not provide an appropriate environment for patients, who are increasingly choosing where to give birth.

- There is inadequate and substandard space built to now out-dated construction standards providing poor clinical functionality
- It is poorly sited and is not connected adequately to the rest of the hospital
- A condition report in 2007 emphasised the need to address high and significant risk items as a priority as part of the Trust's estate investment planning process (appendix G).

It is estimated that extensive work (in the order of approximately £14million) would need to be undertaken just to provide an adequate solution that would resolve the building deficiencies and provide decant facilities. This is before any tangible benefit can be realised and a long term solution for the maternity building is found. On this basis the Trust broadly appraised two options:

- Option 1: New build on the RSH site - Alternative provision at RSH has been examined but buildings and land opportunities are severely limited. A new build on the car park adjacent to the Treatment Centre is a potential solution but this has a likely cost approximately £50 million
- Option 2: New build on the PRH site - At PRH there are no inherent building deficiencies meaning that investment would go immediately into productive facilities. The site also offers more flexibility in terms of where new facilities could be built and there are greater opportunities to resolve space and quality standards with a cost of under £30 million.

The outcome of this work concluded that the preferred option from a financial and economic point of view would be to provide a new build solution on the PRH site.

7.5 Investment Objectives and Benefit Criteria

The ultimate objective for the Future Configuration of Hospital Services Programme is to:

"secure high-quality, safe and sustainable services in Shrewsbury and Telford".

The key deliverables (as set out in the PID) are to reconfigure acute hospital services so that:

- Services are safe and sustainable
- Care is of the highest quality and that patient outcomes are maximised
- Medical workforce issues are addressed and EWTD compliance is maintained.

These have been translated into the following investment objectives and benefit criteria provided in the table below, which have been agreed by the FCHS Steering Group and Executive Team.

Factor	Objective	Benefit Criteria
Quality	Objective 1: Improve quality of services	▪ Provide the best opportunity to enhance the quality of care. ▪ Provide improved health outcomes for patients. ▪ Facilitate modernisation, improvement and innovation in clinical practice and teaching. ▪ Addresses existing clinical risks.
	Objective 2: Develop existing services and enable provision of new services	▪ Supports development of new services in line with Trust Strategy i.e. high dependency care for paediatrics. ▪ Provides a sustainable vascular service by safeguarding AAA screening service. ▪ Ensures sufficient capacity to meet future demand. ▪ Provides services in line with GP and commissioner requirements.
	Objective 3: Improve environment and patient experience	▪ High quality facilities which meet patient and staff expectations to ensure effective clinical care. ▪ Improves functional suitability. ▪ Provide a high quality, modern, consumer friendly setting, with the necessary proximities to other relevant clinical services. ▪ Positive shift towards delivering HBN and consumerism standards for example in relation to number of single rooms, meeting space standards, etc. ▪ Meets statutory standards (including fire, hygiene, health and safety), infection control and prevention requirements and privacy and dignity requirements. ▪ Provides social and cultural facilities for staff. ▪ Minimises the environmental impact of the solution (including energy, water and waste efficient solutions).
Safety	Objective 4: Improve safety of patients, visitors and staff	▪ Right people, right skills, right place for all patients. ▪ Provides necessary clinical adjacencies with other key services to deliver safe and effective models of care.
Sustainability	Objective 5: Ensure viability of and sustainability of clinical services	▪ Provides a more sustainable workforce by attracting appropriately trained staff and improving recruitment and retention. ▪ Provides sustainable on call rotas for each specialty and enhanced senior clinician cover. ▪ Has the potential to reduce locum dependency by increasing training places for junior doctors. ▪ Delivers more efficient models of care for those centralised services making more effective use of resources including use of the Trust's estate. ▪ Develops services in line with national policy, the strategic aims of the Trust and the local health community. ▪ Stronger financial position.
	Objective 6: Create flexibility for the future	▪ Supports future expansion or retraction opportunities to cope with changes in demand and changes in the way services are delivered. ▪ Supports potential adaption of facilities for alternative uses.
	Objective 7: Practicality and ease of implementation	▪ Minimises disruption to existing service provision and avoids unnecessary decant or temporary provision of existing services. ▪ Facilities to be fully operational by end of 2014. ▪ Minimises impact on the local community during construction.

Table 19: Investment objectives and benefit criteria

The investment into future configuration of services is crucial to secure high quality, safe and sustainable services in Shrewsbury and Telford. As part of the overall programme management and implementation control plan a full benefits management strategy has been developed

7.5.1 Benefits Management Strategy

The benefits management strategy is attached at appendix F. This describes a clinically-led process and is based on identification, prioritisation and ownership of the benefits developed by the Clinical Working

Groups for delivery within their specialty. The benefits plan for each reconfigured specialty area is attached at appendix F1.

The high level, overarching benefits from which these benefits have been drawn are shown in table 18 below.

Desired Benefit	*Proposed Measurement*
Patients continue to have access to 24 hour acute surgery in county	Standard Mortality Ratio Length of stay (elective and pre op) 18 week RTT Numbers of transfers in and out of county Occupancy Pre op LOS for non elective surgery
Children and families have access to inpatient paediatric services that are in line with services delivered within a district general hospital	Transfers from PAU to Inpatient Unit Transfers out of county A&E activity by site HDU activity Length of stay Clinical outcomes Occupancy
Women and families have access to a fit for purpose, modern obstetrics, gynaecology and neonatology facility	Length of stay Clinical outcomes Consultant v Midwifery-led births Day case rates (gynaecology) Occupancy Caesarean Section rates
Robust and sustainable medical and nursing rotas are in place	EWTD compliance Use of locums and agency Outcome of recruitment Levels of retention Staff satisfaction survey
Patients have access to day case assessment, treatment and care and their stay in hospital is as short as clinically appropriate	Day case rates Length of stay Theatre capacity Occupancy – surgery inpatients
The impact of additional travel time for some patients is minimised	Analysis to be agreed with WMAS and WAS but to include: ▪ turnaround times ▪ door to needle times (paediatric oncology) ▪ transfers from MLUs
Services are efficient with good clinical outcomes and high levels of patient satisfaction	Standard Mortality Rate West Midlands Quality Reviews Patient satisfaction surveys Complaints

Table 20: High level benefits

7.6 Critical Success Factors

In addition to the Investment Objective set out in 7.5 number of critical success factors have been developed and are used for judging the relative desirability of options. The Critical Success Factors are shown below.

Critical Success Factor	*Extent to which the option can:*
Business Need	Meet the agreed investment objectives and provides the Trust with a service which meet its future business need.
Clinical Safety	Ensure services are safe for patients, visitors and staff, and delivered in accordance with best practice, minimising risk and ensuring services meet the Trust's standards, pass external inspections and meet universally accepted norms of safety, including statutory standards for health and safety. Deliver efficient patient, staff and goods flows.
Strategic Fit	Develop services in line with national policy and the strategic aims of the Trust and the local health community.
Achievability	Be delivered by the Trust with the necessary resources and availability of the skills required for successful delivery.
Capacity	Provide the required level of capacity to meet Commissioner expectations and the Trust's requirements.

Table 21: Critical success factors

7.7 Constraints

7.7.1 Financial

The Trust is currently negotiating with the NHS West Midlands with regards to the level of capital support which can be provided from the Department of Health to support the capital elements of the scheme.

There are pressures on revenue spend, which if anything will become more pronounced in light of the economic downturn and pressure on health funding.

7.7.2 Service

The Trust has identified the following service constraints:

- Maintaining services across the two sites during transition
- Managing complex change programmes during internal and external re-organisations
- Significant NHS re-organisation as Transforming Community Services and Liberating the NHS are implemented.

7.7.3 Timescales

The service reconfiguration proposal needs to be implemented from April 2014 to ensure high quality, safe and sustainable services in Shrewsbury and Telford.

7.8 Programme Interfaces

The Future Configuration of Hospital Services Programme is not developing in isolation. There are a number of significant projects and programmes within and across local organisations that will impact on its development. These key interfaces are:

Ref	Interface	Organisation	Description
1	Transforming Community Services – development of a Community Foundation Trust	NHS T and W and SCPCT	Separation of commissioning and provision within the PCTs. Delivery of care closer to home and high quality, appropriate out of hospital care.
2	Liberating the NHS – White Paper implementation	SaTH, NHS T and W and SCPCT	Delivering a patient-led NHS, shifting resources to promote better healthcare outcomes, revolutionise NHS accountability, promote better public health and reform social care.
3	Devolution and Cooperation – process and management reorganisation	SaTH	Internal reorganisation to devolve power to the front line and promote and enable cooperation to help all elements of the Trust succeed.
4	Integrated Business Plan – FT application	SaTH	Development of a five year strategy for the Trust and Foundation Trust application.
5	Financial recovery plan	SaTH	Delivery of the Trust's plans to address the current financial issues and ensure a sustainable financial position.
6	Wider bed capacity modelling	SaTH (in partnership with NHS T and W and SCPCT)	Greater understanding of the size of the acute Trust in the future acknowledging demography, epidemiology, best practice productivity and efficiency.
7	Trust Estates Strategy	SaTH	Delivery of the Trust's Estates Strategy and acknowledgment of clinical priorities and dependencies in terms of not prohibiting long term estate options, especially at RSH.
8	QIPP Programme	SaTH, NHS T and W and SCPCT	Delivery of care closer to home and appropriate out of hospital care. Timely and effective evidence and pathway-based treatment and intervention across the health economy.
9	Commissioning – transfer of commissioning from PCTs to GPs	NHS T and W and SCPCT	Establishment of GP Commissioning via Clinical Commissioning Groups in shadow format from April 2011. PCTs to cease April 2013.

Table 22: Future Configuration of Hospital Services programme interfaces

7.9 Risks

There are a number of risks associated with the reconfiguration programme. Risks are identified by the clinical working group leads and programme team. The risks and mitigation and action plans are reviewed at the FCHS Steering Group at each meeting. In addition, the risks are also reported through the Trust's Programme Management Office. The latest version of the programme risk register is included in appendix T.

Risks have been identified in a number of areas but are being migrated through the programme's governance arrangements. Areas of risks include:

- Wider staff engagement and support for proposals
- Sufficient patient and public engagement
- Addressing additional assurances from different stakeholders
- Aligning the Trust's proposals with neighbouring organisation's reconfiguration proposals
- Political support
- Availability and affordability of capital.

The highest risks currently being reported are:

- Capacity within SaTH to deliver a significant change programme alongside the challenges of delivering improvement of performance and financial recovery
- Affordability within the context of a financially challenged health economy
- The implications for making clinical services safe and sustainable in the more immediate term if the programme is significantly delayed.

8.0 Service Brief

Chapter Summary

For each service area:

- **The outcome of the public consultation**
- **The proposed service solution**
- **The physical solutions**
- **The service planning assumptions or the 'service briefs'**
- **An analysis of the implications of these service changes for other clinical and non-clinical services**

The following section sets out the high level service brief and capacity requirements agreed at the FCHS Steering Group meeting on the 12 May 2011.

8.1 Maternity, Gynaecology and Neonatology

The outcome of the public consultation and proposed service solution is:

- The consultant-led maternity unit currently on the RSH site would move to the PRH site. Both sites would continue to provide midwifery-led units (MLU). The MLU accommodation at RSH will be improved
- The neonatal intensive care unit currently provided at the RSH site would move to the PRH site so that it is on the same site as the consultant led maternity unit and inpatient services
- All pregnant women assessed as likely to have a low risk of complications in the later stages of pregnancy and during delivery would still have the opportunity to have their baby in an MLU or at home
- All pregnant women assessed as likely to have a high risk of complications would have their baby in the consultant-led unit at PRH
- Gynaecology inpatient services for women would be concentrated within the Women's and Children's Centre at the PRH. Most outpatient care would continue to be at the same hospital as now
- Fertility services will continue to be provided on the RSH site in their current location.

The physical solution at the PRH site will provide:

- A consultant-led maternity and neonatology unit, which is co-located with gynaecology and paediatric inpatient services (including children's head and neck), and a Paediatric Assessment Unit
- Enhancements to the current antenatal services through relocation of gynaecology outpatients to the main outpatient department releasing additional accommodation for the antenatal clinics
- Establishment of a Women's Service to include inpatient gynaecology and breast surgery, gynaecology assessment/fit to sit service, and an Early Pregnancy Assessment Unit (EPAU), located on one ward. Relocation of gynaecology outpatients to the main outpatient department with new provision of a colposcopy suite.

The physical solution at the RSH site will:

- Provide a Paediatric Assessment Unit (adjacent to A&E)
- Relocate and improve accommodation for the Midwifery Led Unit, PANDA and Antenatal services.

The following service planning assumptions have been agreed:

Service	Service Planning Assumptions
Consultant Obstetric Unit	▪ Assume 5,500 deliveries across the health economy. ▪ Sensitivity analysis re increase to 6,500 suggested this could be accommodated through length of stay and model of care changes. ▪ 25% midwife led deliveries. ▪ LDR model of care.
Antenatal Clinic and MLU	▪ Antenatal clinics to continue on both sites, though some increase at PRH. ▪ MLU at PRH needs to be physically distinct from obstetric unit. ▪ MLU, PANDA and antenatal clinic to be improved / relocated on the RSH site.
Neonatology	▪ No change in total cots; proportion of ITU/HDU may vary in the future. ▪ Transitional care is part of postnatal bed complement, located close to SCBU.
Gynaecology Inpatients and EPAU	▪ New models of care, reduced length of stay leading to significant reduction in elective bed requirement. ▪ 2010/11 activity baseline, 10% shift to median length of stay, 90% occupancy. ▪ Sensitivity analysis suggests that over 5 years, increases in demand driven by population change could be accommodated by length of stay and model of care changes. ▪ EPAU co-located on the ward.
Breast Surgery Inpatients	▪ Suggested co-location with gynaecology to form a women's ward.
Day case and Outpatients	▪ Day cases to remain where they are. ▪ All day case to go through the Day Surgery Unit's on both sites. ▪ Fertility service subject to separate consideration and not part of OBC service brief. ▪ Outpatients to take place in main outpatient department on both sites, therefore the gynaecology clinics currently in antenatal will relocate to main OPD at PRH. 2 colposcopy rooms required at PRH.

Table 23: Service planning assumptions for Obstetrics, Women's and Neonatology

8.2 Children's Services

The outcome of the public consultation and proposed service solution is:

- Concentrating inpatient services for children at the PRH site including the children's cancer unit
- Paediatric Short Stay Assessment Units (SSPAU) on the PRH site
- Paediatric Assessment Unit (PAU) at the RSH site
- Children attending hospital as an outpatient continuing to go to the same hospital as they do now
- Head and neck services transferred from RSH to PRH due to the high level of paediatric activity.

The physical solution at the PRH site will provide a:

- Consolidated Paediatric service including Inpatients, Head and neck, Paediatric Assessment Unit and Oncology Unit, co-located with the Consultant-Led Maternity and Neonatology
- Re-provision of the charitable garden feature for oncology paediatric inpatients
- Additional Audiology Booth within Outpatients
- A child friendly environment for children's day case activity.

The physical solution at the RSH site will provide:

- Relocated and improved accommodation for Paediatric Outpatients and Paediatric Assessment unit
- A Paediatric Assessment Unit adjacent to A&E.

The following service planning assumptions have been agreed:

Service	Service Planning Assumptions
Paediatric Assessment	▪ Investigation and assessment – notional max stay 4 hours. ▪ 24/7 SSPAU at PRH – short stay over midnight if required. ▪ PAU at RSH open 13 hours per day.
Children's Inpatients	▪ 2010/11 activity baseline. ▪ 10% shift to median length of stay, 80% occupancy (due to peaks in demand). ▪ Advice from RCPCH: Introduction of SSPAU can reduce demand on inpatient beds. ▪ Children's day case surgery to be undertaken and recovered in day case unit at PRH unless ward care specifically indicated.
Children's Outpatients	▪ Outpatients continue on both sites. ▪ Paediatric oncology outpatients require separate access and waiting, and dedicated use of 3 consulting rooms and 1 day case (chemo room 1 session per week). ▪ Paediatric OPD to be improved / relocated at RSH site. ▪ Paediatric OPD on PRH site may need to relocate depending on design solution. ▪ Hearing assessment service requires 1 audiology booth in children's OPD on PRH site. ▪ Design options to be explored to accommodate paediatric oncology requirement on PRH site.

Table 24: Service planning assumptions for Children's Services

8.3 Surgery

The outcome of the public consultation and proposed service solution is:

- All inpatient general surgery, both planned and emergency, for vascular, colorectal and upper gastro-intestinal surgery would be carried out at the RSH
- Establishment of an Abdominal Aortic Aneurysm screening centre
- Breast surgery would continue to be carried out at PRH
- All trauma surgery would continue to be carried out at RSH as now
- Orthopaedic surgery would continue to be carried out at both sites as now
- Most outpatient appointments would continue to take place at the same hospital as they do now
- Most day case surgery will also continue to take place at the same hospital as now.

The physical solution at the RSH site will provide:

- All inpatient general surgery, both planned and emergency, for vascular, colorectal, bariatric surgery, urology and upper gastro-intestinal surgery co-located near theatres and critical care
- Emergency assessment integrated with medicine and co-located with PAU and A&E.

The following service planning assumptions have been agreed:

Service	Service Planning Assumptions
Adult General Surgery Inpatients	▪ 2010/11 activity baseline, 10% shift to median length of stay, 90% occupancy. ▪ Sensitivity analysis suggests that over 5 years increases in demand driven by population change could be accommodated by length of stay and model of care changes. ▪ Vision is for single portal integrated assessment unit for surgery and medicine with paediatric assessment close by.
Urology Inpatients	▪ New models of care, reduced length of stay leading to significant reduction in elective bed requirement.
Surgery and Urology Day cases	▪ To continue on both sites. ▪ Ability to admit 23 hour day cases is part of service model of care for future. ▪ At PRH there will be sessional use of day surgery unit. Children's day surgery will need to be provided in "child-friendly" theatre and day case unit, with facility for some cases to recover on children's ward if clinically indicated. ▪ At RSH there will be sessional use of day surgery unit.

Table 25: Service planning assumptions for Surgery

8.4 Head and Neck

The outcome of the public consultation and proposed service solution is:

- Head and neck services transferred from RSH to PRH due to the high level of paediatric activity

The physical solution at the PRH site will provide a:

- Adult inpatient and day case head and neck services co-located near theatres and critical care
- Relocated head and neck outpatient facility with new audiology booth within children's outpatients
- H and N treatment room in A&E.

The following service planning assumptions have been agreed:

Service	Service Planning Assumptions
Head and Neck Inpatients	▪ 2010/11 activity baseline, 10% shift to median length of stay, 90% occupancy. ▪ Sensitivity analysis suggests that over 5 years increases in demand driven by population change could be accommodated by LoS and model of care changes.
Head and Neck Daycases	▪ To continue on both sites, though probably shift from 90% at RSH to 70% at PRH. ▪ At PRH there will be sessional use of day surgery unit. Children's day surgery will need to be provided in "child-friendly" theatre and day case unit, with facility for some cases to recover on children's ward if clinically indicated. ▪ At RSH there will be sessional use of day surgery unit.
Head and Neck Outpatients	▪ Most outpatients remain where they are now, but some shift from RSH to PRH. ▪ Hearing assessment clinics on both sites. ▪ Orthodontics to relocate off-site in 2-3 year time horizon. ▪ At PRH OPD requires significant improvement to waiting area and increase in consulting rooms. ▪ Audiology booth required in children's OPD for hearing assessment. ▪ H and N treatment room required in A&E.

Table 26: Service planning assumptions for Head and Neck

8.5 A&E and Emergency Assessment

One of the key principles of the service reconfiguration proposals is to maintain A&E services on both sites. The proposal to reconfigure services needs to be aligned to the Trust's long term strategy to develop an integrated emergency assessment unit. The physical options on the RSH site work towards achieving this service model to varying degrees. The surgical and paediatric bed component is included within this OBC; the medical bed component is excluded and is subject to further development as part of a separate business case.

Based on the reconfiguration of services and the Trust's strategic vision to develop an Integrated Emergency Assessment Unit, the following service planning assumptions have been agreed:

- A&E services will be maintained in current form across both sites
- Integrated Emergency Assessment Unit will be developed at RSH to support both medical and surgical beds with an adjacent PAU
- Head and neck treatment room is required in the A&E department at PRH.

8.6 Stroke

The outcome of the public consultation and proposed service solution is:

- The provision of hyper-acute stroke services at both PRH and RSH through the establishment of a 24/7 thrombolysis service at both sites

It has been confirmed via the FCHS Steering Group that there is no requirement for capital investment into Stroke Services to provide 24/7 thrombolysis service on both sites.

Based on joint work undertaken with local commissioners over the last two years, the Trust is working on the basis that the rehabilitation element of stroke services currently provided in ward 15 at PRH will be transferred to the community within the planning timescales of the service reconfiguration proposal and will therefore release space to enable the transfer of services and development of new models of care.

8.7 Implications for other Clinical and Non Clinical Services

8.7.1 Critical Care

As discussed in sections 2 and 7, improvement of the critical care service and facilities to support short and longer term expansion of services at RSH is required. This is outside the scope of this business case, but has been considered in the context of the reconfiguration of services in terms of future space requirements.

8.7.2 Theatres

It has been agreed by the FCHS Steering Group that there will be no net increase in theatre capacity: inpatient and day case theatre activity will need to be re-balanced between sites and co-ordinated with other specialties to ensure maximum utilisation.

8.7.3 Anaesthetics

There are no net increases in anaesthetic support. There are implications for clinicians and staff in terms of updating skills and internal rotation to support the management of a different patient case mix, for example, anaesthetists at PRH supporting the obstetric and neonatal units.

8.7.4 Outpatients

Unless specifically stated within the facility requirements, the Trust will manage any changes in outpatients as a result of the reconfiguration of services by effective scheduling of clinics and ongoing review of Consultant job plans. There are no additional estate implications, other than those identified within the service brief and facility planning section of this OBC.

8.7.5 Day Case

Unless specifically stated within the facility requirements, the Trust will manage any changes to day case activity, effective scheduling of clinics and ongoing review of Consultant job plans. There are no additional estate implications, other than those identified within the service brief and facility planning section of this OBC.

8.7.6 Diagnostics

There is no net increase in diagnostic support. There are implications for clinicians and staff in terms of updating skills and internal rotation to support the management of a different patient case mix, for example, radiologists at PRH supporting the inpatient paediatric unit. Changes in the balance of activity will be managed through appropriate scheduling and job planning. For example, internal discussions regarding the need for additional CT scan capacity at RSH will continue in terms of balancing demand and capacity between the two sites.

8.7.7 Clinical Office Accommodation

For effective functioning of the services essential office provision within the new build elements has been included. Provision for Consultants and Secretaries will be in line with Trust Policy.

8.7.8 Pharmacy

There are no estate implications for the delivery of pharmacy due to the reconfiguration of services. The implications for staffing are detailed in section 11.

8.7.9 Therapies

There are no estate implications for the delivery of therapies due to the reconfiguration of services. There is however, a need to explore the relocation of physiotherapy from the old RSH South site as part of the Trusts Estates Strategy, but this is outside the scope of this business case and is not on the critical path.

8.7.10 Soft FM and other support services

Services such as portering, catering, linen supplies, telecommunications and waste disposal may be affected by the change in use of the sites from a specialty/case mix perspective, e.g. consultant-led maternity care at PRH rather than RSH and some staff may be consulted as part of the change management process. Initial review at this stage shows a minor change in terms of activity and therefore no revenue consequences have been identified. However estate and facilities management approaches and strategies will be developed to support the changing service provision e.g. catering strategy will demand a much more responsive provision as the length of stay of the majority of patients in hospital is longer. This may mean the move to improve choice by changing menus and providing an a la carte offering via new production means such as cook chill.

9.0 Capacity Modelling

Chapter Summary

- **The approach to the wider-bed capacity modelling exercise**
- **Capacity needs of the reconfigured services**
- **The conversion of the service briefs into capacity and high-level facility requirements for each service area**

9.1 Introduction

The Trust has undertaken a detailed assessment of the strategic bed capacity requirements to inform the service and estate planning agenda for the next 5-10 and 10+ years. This builds on the work undertaken across the health economy during 2008 and 2009, "Developing Health and Healthcare, 2020 Vision".

The study was sponsored by the Trust Chief Operating Officer, and overseen by a working group consisting of key stakeholders including:

- Director of Strategy, SaTH
- Director of Commissioning Intelligence, NHS Telford and Wrekin (also on behalf of SCPCT)
- Interim Associate Director of Operational Performance, SaTH
- Medical Director, SaTH
- Value Stream Lead, Unscheduled Care, SaTH
- Head of Continuous Improvement, SaTH
- Contracts and Performance Manager, SaTH
- Associate Director of Estates and Facilities Management, SaTH
- FCHS Programme Manager, SaTH.

This group oversaw the development of a comprehensive activity and capacity model to quantify the Trust's strategic bed capacity requirements. The group met three times during the development of the model.

The wider bed capacity modelling work has been used to validate the OBC bed requirements. The OBC concentrates on the service changes that need to happen in the short term (0-2 years), and was originally informed by an initial capacity modelling exercise concentrating on the services and specialties concerned:

- Surgery / Urology / Head and Neck
- Maternity / Gynaecology / Neonatology
- Children's Services.

The bed capacity requirements for the OBC were worked up and agreed through a series of clinical workshops which gave detailed consideration to proposed future models of care. This process resulted in a service and capacity brief for each specialty. These are summarised in section 9.5 below.

9.2 Modelling Approach

The bed capacity model used a sequential process to project future requirements, the starting point for which was the Trust's current activity profile at a detailed level. An assessment of various factors affecting future demand was then made, followed by consideration of appropriate models of care and performance

benchmarks. Finally, relevant throughput and utilisation rates were agreed in order to derive future capacity requirements.

9.2.1 Overview of Modelling Approach

The modelling approach is summarised below:

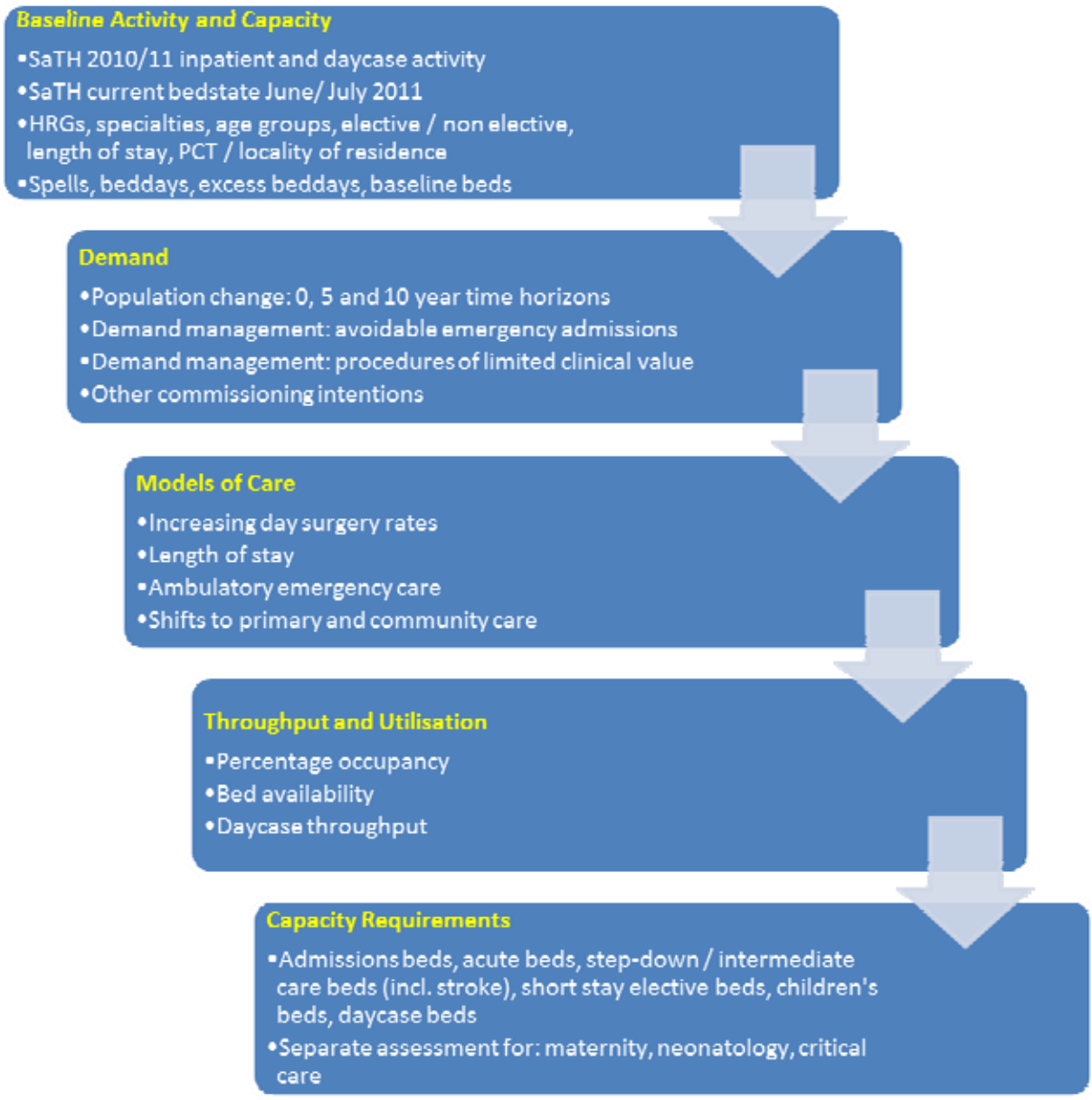


Figure 12: Bed Capacity Modelling Methodology

9.2.2 Key Modelling Assumptions

The assumptions used within the wider bed capacity modelling included:

- Projected demographic change for Shropshire County and for Telford and Wrekin, based on appropriate national and local projections and assumptions
- PCT commissioning plans, where these impact on the requirement for inpatient beds, including:
  - PCT commissioning policies concerning procedures of limited clinical value
  - Avoidable non-elective admissions
  - Other condition-specific protocols and pathways
- Planned changes to models of care, including:

- British Association of Day Surgery (BADs) guidance on potential delivery options for elective and day case activity
- NHS Institute for Innovation and Improvement guidance on ambulatory emergency care for adults

- A range of case mix level length of stay benchmarks intended to inform different scenarios
- Consideration of various factors which could contribute to reduced lengths of stay:
  - reducing excess bed days
  - protocol-driven care pathways such as stroke
  - end of life care requirements
  - reducing pre-operative bed days
- Percentage occupancy rates which strike the balance between being challenging while allowing for day-to-day and seasonal peaks and troughs in demand.

The projected demographic change, summarised below, shows a very significant increase in the number of elderly people. The significance of this is that these age groups account for much of the demand for inpatient beds, and make up a high proportion of the patients who need to stay in hospital for lengthy periods.

	% change 2011 to 2016	*% change 2011 to 2021*
0-14	0%	+3%
15-44	-4%	-5%
45-64	+3%	+3%
65-79	+18%	+27%
80+	+18%	+44%
Total	+3%	+6%

Table 27: Projected % demographic changes to 2016 and 2021

9.2.3 Notional Impact on Bed Requirements

A high-level analysis of the overall impact of the assumptions directly affecting the requirement for inpatient beds was undertaken which showed:

	Inpatient Beds
Calculated Baseline Beds: Adult	756
Calculated Baseline Beds: Child	80
5 Year Demography	+91
10 Year Demography	+186
Avoidable Admissions	-14
Procedures of Limited Clinical Value	-1
BADS Shift to Daycase	-8
25% to Median LoS	-114
20% to Upper Quartile LoS	-125
25% to Upper Quartile LoS	-156
35% to Upper Quartile LoS	-218
50% to Median LoS	-228

Table 28: Notional impact of assumptions on future bed requirements

The net impact of the projected demographic changes suggest that, without any change to ways of working and models of care, an additional 186 beds would be required to meet the increase in demand by 2021. This has a particular impact on the general medical specialties, and on general surgery, urology and orthopaedics.

Analysis of the various demand management initiatives and other measures to reduce lengths of stay suggest that there is great scope to offset some or all of the projected demand increases.

Other targeted model of care initiatives which may contribute towards reducing lengths of stay include:

- Reducing DTOCs
- The continuing development of proactive care pathways for a range of specific conditions with clearly-defined evidence-based guidelines, such as stroke, fractured neck of femur, elective hip and knee replacements
- Proactive management of other patients who stay a long time in hospital, with regular multidisciplinary review on a case-by-case basis
- Ensuring that wherever possible patients whose need is for palliative and end of life care are able to be cared for in an appropriate setting closer to home rather than in an acute hospital bed
- Minimising the need for overnight stays for a range of conditions as defined in the guidance on Ambulatory Emergency Care for Adults
- Minimising pre-operative lengths of stay.

9.3 Scenario planning

In order to develop a way forward for the future, a range of scenarios was developed based on the principle that the Trust needs to work through a progressive series of changes over a number of years. The scenarios were defined in terms of the factors with a direct bearing on the inpatient bed requirement. Scenario A was defined to reflect the position relative to the current *Better Care, Better Value* target of 25% reduction in bed days above median length of stay. The other scenarios were defined to reflect the Trust's desire to aim for realistic but challenging length of stay targets based on moving progressively towards the national upper quartile benchmark.

The agreed scenarios are summarised as follows:

	Indicative Net Bed Impact (95% occupancy)	***Scenarios***		
		A	***B***	***C***
Sum of 5 Year Demography All Beds	91	Demography included in each scenario		
Sum of 10 Year Demography All Beds	186			
Sum of Avoidable Admissions Beds	-14	A	B	C
Sum of PLCV Beds	-1	A	B	C
Sum of BADS Shift to DC Beds	-8	A	B	C
Sum of 25% to Median LoS Beds	-114	A		
Sum of 20% to UQ LoS Beds	-125		B	
Sum of 25% to UQ LoS Beds	-156			
Sum of 35% to UQ LoS Beds	-218			C
Sum of 50% to Median LoS Beds	-228			

Table 29: Definition of scenarios

Taking into account avoidable admissions, procedures of limited clinical value and shifts to day case in each scenario and varying length of stay trajectories across the scenarios, the summary of the net notional impact on the requirement for inpatient beds is as follows:

	Scenario A	Scenario B	Scenario C
i) No Demography	-137	-147	-241
ii) 5 Year Demography	-46	-57	-150
iii) 10 Year Demography	49	38	-55

Table 30: Notional net impact of scenarios on inpatient beds

Bearing in mind the Trust's current bed occupancy rates of 97%, the notional bed impact shown above is based on a very challenging 95% bed occupancy target for most specialties. A more usual planning target is 90% occupancy. Each scenario has been calculated using both of these occupancy rates for the general acute specialties (with maternity and paediatrics at 80%).

The Trust's objective is to be able to make immediate improvements to allow current activity levels to be managed as efficiently and effectively as possible, and then to absorb future population-driven demand increases through a continuous programme of service improvement.

This strategy can be summarised as follows:

		Inpatient Activity (Spells)	Inpatient Beds Required (95% occupancy)	Inpatient Beds Required (90% occupancy)
Current		56,032	842	842
Short term (0-2 years)	Scenario Ai: 25% shift towards median length of stay	56,032	688	721
Short term (0-2 years)	Scenario Bi: 20% shift towards upper quartile length of stay	56,032	678	709
5 years +	Scenario Cii: 35% shift towards upper quartile length of stay	59,710	675	707

Table 31: Summary of inpatient activity and bed requirements

Achievement of these improvements will enable the Trust to manage more clinical activity with fewer inpatient beds.

In practical terms, the Trust's aim is to reduce the requirement for inpatient beds during 2011/12 and 2012/13, following which continuous improvement will allow further demand pressures to be managed within the resulting bed base together with a flexible cohort ward.

9.4 Calculation of Capacity Requirements for the OBC Specialties

9.4.1 Calculation and Agreement of Capacity Requirements

The capacity requirements for the OBC specialties were derived as follows:

- A high level capacity modelling exercise undertaken between December 2010 and March 2011 using 2010/11 data
- Discussed and agreed in the context of future models of care in a series of clinical workshops for each specialty.

Adult and children's activity were separately assessed and discussed to allow correct allocation of all children's activity. For planning purposes, children were defined as those aged 16 and below.

The impact of the target length of stay reductions outlined above on the relevant specialties is as follows:

Specialty Group	Specialty Name	25% to Median LoS Beds	20% to UQ LoS Beds	35% to UQ LoS Beds
Surgery	General Surgery	-12	-13	-23
	Urology	-2	-3	-4
Surgery Total		-14	-16	-27
Head and Neck	ENT	-1	-1	-2
	Oral Surgery	-0	-0	-0
Head and Neck Total		-1	-1	-2
Women and Children	Gynaecology	-1	-2	-3
	Neonatology	-2	-3	-4
	Obstetrics	-7	-6	-11
	Paediatrics	-8	-8	-14
Women and Children Total		-18	-19	-33

Table 32: Impact of Target Length of Stay Reductions on FCHS OBC Specialties

The overall proposed bed capacity requirements for the specialties that are the subject of this OBC are broadly in line with the short term scenarios set out above for implementation in the 0 to 2 year timeframe. In summary they are:

Service	Current Inpatient Beds	OBC Proposed Inpatient Beds	OBC Net Change	Scenario Ai Inpatient Beds (95%/90% occupancy)	Scenario Bi Inpatient Beds (95%/90% occupancy)
General Surgery	105	91	-14	77/81	76/80
Urology	26	15	-11	15/16	15/16
Head and Neck (adult)	20	10	-10	8/8	8/8
Gynaecology	18	16	-2	11/12	11/12
Paediatrics*	50	34	-16	54/54	54/54
Neonatology**	22	22	-		
Obstetrics***	73	57	-16	49/49	50/50
			-69		

Table 33: FCHS OBC Proposed bed Capacities compared with Wider bed Capacity Model Scenarios

** includes paediatric surgery, HDU and oncology beds; ** includes NICU and HDU cots; *** includes MLU and transitional care beds*

These figures were discussed in the sequential series of clinical meetings held for each service area and the following key points were noted:

- The surgeons and urologists are keen to further develop new models of care involving proactive emergency assessment and treatment and ring-fenced elective care facilities. The allocation of beds in the new integrated surgical service at RSH needs to reflect the relative balance of these different components

- The proposed head and neck bed allocations reflect the aim to ensure appropriate care pathways for adults / children on the one hand, and inpatients / day cases on the other
- As with surgery, there is significant scope to manage more gynaecology patients in an ambulatory / short stay setting through the provision of appropriate assessment and EPAS facilities
- The bed requirement for children includes medical and surgical paediatrics, to which was added the need for paediatric oncology and HDU beds
- Paediatric beds are subject to very significant periodic peaks in activity associated with infectious outbreaks; the bed requirement is also affected by the proposed model of care concerning the establishment of a 24/7 PAU at PRH and a 13 hour PAU at RSH.

9.4.2 Maternity

Bearing in mind the particular models of care and service dynamics affecting maternity services, a further validation was undertaken based on the following activity and throughput assumptions:

- 5,500 deliveries per year across the health economy
- Obstetric length of stay 2.4 days, non-delivery length of stay 1.5 days, and MLU length of stay 1.3 days
- 25% midwife-led deliveries (this includes deliveries in the 5 MLUs and at home)
- An LDR model of care for both the obstetric unit and the MLUs – i.e. postnatal care will take place on the ward[19].

An additional sensitivity analysis was undertaken to test the impact of possible increased demand related to the relocation of the services eastwards and the as yet unknown effect of significant service changes in other local providers. Against this, the potential to reduce lengths of stay was also factored in. The key assumptions for the sensitivity analysis were:

- 6,500 deliveries across the health economy
- Obstetric length of stay reduced from 2.4 to 2.0 days
- Non-delivery admissions length of stay reduced from 1.5 to 1.3 days
- MLU length of stay reduced from 1.3 to 1.1 days.

This analysis suggested that any significant increase in activity could be accommodated within the planned level of facilities through challenging but achievable length of stay reductions.

	Base-case (5,500 deliveries)		*Sensitivity analysis (6,500 deliveries and shorter lengths of stay)*	
	PRH	*RSH*	*PRH*	*RSH*
Obstetric antenatal / postnatal beds	41		41	
Obstetric delivery rooms	11		13	
MLU antenatal / postnatal beds	8	7	8	6
MLU delivery rooms	3	2	3	2

Table 34: Maternity sensitivity analysis

The sensitivity analysis for maternity services indicated that there is scope to accommodate a higher number of deliveries within the projected bed base, but that additional obstetric delivery rooms would be required.

[19] The number of single rooms (as a space planning issue) is included in section 10. The number of single rooms varies across the options depending on whether the maternity component is to be new build or part refurbishment

9.4.3 Neonatology

For planning purposes, no change in the total number of cots has been assumed, though it is acknowledged that the balance of NICU and HDU cots may change in the future to reflect wider sub-regional requirements. The strategy discussed and agreed in the clinical meetings was based on the fact that the neonatal network was unlikely to commission more cots overall for SaTH, but that there may be a change in the balance between NICU, HDU and SCBU. Any changes in activity overtime would therefore be subject to further discussions regarding capacity across the network.

9.5 Summary of Capacity and Facility Requirements

The tables below refine and supplement the calculated capacity requirements with additional information required to inform the range and type of facilities needed to deliver the service brief. These were discussed and agreed in the sequential clinical meetings held for each service area.

9.5.1 Maternity and Neonatology Capacity Requirements[20]

	Current Capacity	PRH Capacity and Facility Requirements	RSH Capacity and Facility Requirements
Consultant Obstetric Unit	• 41 antenatal / postnatal beds • 11 delivery rooms	• 41 antenatal / postnatal beds – flexible design and use, incl. 4 transitional care • Option to use vacant MLU beds as postnatal overspill at times of peak demand • 11 delivery rooms, incl. 1 high dependency room • 2 maternity theatres • Bereavement room separate from main obstetric area	
Antenatal Clinic and MLU	• 24 antenatal / postnatal beds • 8 MLU delivery rooms • PANDA and WANDA • Antenatal clinic	• Antenatal Clinic • 4 bed WANDA unit • 8 MLU A/N & P/N beds • 3 MLU delivery rooms	• Antenatal clinic • PANDA • 8 MLU A/N & P/N beds • 3 MLU delivery rooms • MLU, PANDA and antenatal clinic to be improved / relocated
Neonatology	• 3 level 3 cots • 3 level 2 cots • 16 SCBU cots	• 3 level 3 cots • 3 level 2 cots • 16 SCBU cots	

Table 35: Maternity and Neonatology capacity requirements

[20] The Trust currently functions as a level 2+ unit. However the network has agreed that the Trust will be funded at level 2. This will not impact on capacity for neonatal cots as it is the level of clinical input that will alter, not the number of cots

9.5.2 Gynaecology and Breast Surgery

	Current Capacity	PRH Capacity and Facility Requirements	RSH Capacity and Facility Requirements
Gynaecology Inpatients	• 18 beds	• 12 inpatient beds, including 2 singles • 6 beds / trolleys for assessment / fit-to-sit • EPAU counselling rooms, scan room • Access to treatment room	• EPAU
Breast Surgery Inpatients	• Part of surgery bed complement	• 4 beds	
Daycases and Outpatients	• Sessional use of daycase unit • Sessional use of outpatients	• Daycases in daycase unit • Gynae outpatients to move from antenatal clinic to main OPD • 2 colposcopy rooms required in OPD at PRH	• Daycases in daycase unit • Gynae outpatients in main OPD

Table 36: Gynaecology and Breast Surgery capacity requirements

9.5.3 Paediatrics

	Current Capacity (both sites)	PRH Capacity and Facility Requirements	RSH Capacity and Facility Requirements
Paediatric Assessment	• Part of ward bed complement	• 8 bed Short Stay Paediatric Assessment Unit (SSPAU)	• 8 PAU beds (assessment, minor treatments (eg wrist pulls), day recovery

Children's Inpatients	• 47 paediatric beds, incl. assessment
	• 3 paediatric oncology beds
	• Daycases recover on inpatient paediatric wards
		• 36 ward beds, made up of:
		  • 28 paediatric and children's surgery beds – incl. 2-4 beds for adolescents
		  • 3 children's general HDU beds
		  • 3 paediatric oncology bedrooms (incl. 1 HDU) + daycase chemo room – must have dedicated external landscaped garden area
		  • 2 beds for daycases needing ward care
		• 6 children's daycase beds as part of day surgery unit	

Children's Outpatients	• Children's outpatient sessions on both sites	• Depending on design solution, may need to relocate • Hearing assessment service requires 1 or 2 audiology booths in children's OPD • Design options to be explored to accommodate paediatric oncology requirement	• Paediatric OPD to be improved / relocated

Table 37: Children's Services capacity requirements

9.5.4 Surgery

	Current Capacity (both sites)	PRH Capacity and Facility Requirements	RSH Capacity and Facility Requirements
Adult General Surgery Inpatients	• 30 admissions beds • 60 inpatient surgery beds • 15 elective surgery beds (also used for urology – see below)	• 4 breast surgery beds (co-located with Gynaecology)	Notional allocation: • SAU with 30 beds, treatment room and consulting room • 20 short stay surgery beds (incl. 4 bariatric beds) • 37 acute surgery beds (incl. 4 ICA beds)
Urology Inpatients	• 18 beds at RSH • 8 elective beds at PRH used 2-3 days per week		• 12 elective beds • 3 acute beds
Surgery and Urology Daycases	• Sessional use of daycase units at RSH and PRH	• Sessional use of day surgery unit • Children's day surgery in "child-friendly" theatre in daycase unit, with facility for some cases to recover on Children's ward if clinically indicated	• Sessional use of day surgery unit
Theatre capacity	• No net increase in theatre capacity justified: inpatient and daycase theatre activity to be re-balanced between sites and co-ordinated with other specialties to ensure maximum utilisation		

Table 38: Surgery and Urology capacity requirements

9.5.5 Head and Neck

	Current capacity	PRH Capacity and Facility Requirements	RSH Capacity and Facility Requirements
Head & Neck Inpatients	• 20 beds (used for inpatients and daycases)	• 10 inpatient beds, incl. 4-bed cancer area near to nurses station, and 2-bed area capable of HDU level care • 4 daycase beds on ward • Treatment room on ward	
Head & Neck Daycases	• Some daycases recovered on H&N ward, some on daycase unit	• Sessional use of day surgery unit; need ability to recover patients on H&N ward • Children's day surgery in "child-friendly" theatre in daycase unit, with facility for some cases to recover on Children's ward if clinically indicated	• Sessional use of day surgery unit
Head & Neck Outpatients	• Sessional use of outpatient departments at RSH and PRH	• Requires significant improvement: waiting area + 4 consulting rooms • Audiology booths required in children's OPD for hearing assessment • H&N treatment room required in A&E	
Theatre capacity	• No net increase in theatre capacity justified: inpatient and daycase theatre activity to be re-balanced between sites and co-ordinated with other specialties to ensure maximum utilisation		

Table 39: Head and Neck capacity requirements

10.0 Facility Requirements

Chapter Summary

- **Spatial and planning assumptions**
- **Converting the service briefs into the facilities required**

10.1 Spatial and Service Planning Assumptions

The following assumptions form the basis for the development of physical options at OBC stage. Some areas will need to be further developed or tested at FBC stage.

10.1.1 Spatial Assumptions

- New build options will be informed by current recommended HBN space standards, unless otherwise stated
- Refurbishment solutions are based on original contemporaneous standards, unless otherwise stated
- Bed space standards remain as original contemporaneous standards unless provided as new build or otherwise stated
- Shared use of generic support space and existing staff facilities e.g. staff change
- Re-provision of core clinical services
- Consultant and Secretarial office re-provision will be in line with Trust existing policy
- The future design to respect the current style of nucleus planning on PRH site
- The adjoining land at PRH, currently under ownership of the Secretary of State could be transferred to the Trust if necessary[21]
- A requirement for 200 - 250 new car parking spaces has been identified at PRH. These are to be constructed at grade[22] within existing boundaries at ground level. The requirement is based upon the output of a comprehensive cross site staff transfer evaluation and transport planning exercise (appendix H). This quantum is therefore expected to be worse case scenario and subject to the views of the local Planning Authority. A series of measures have been identified that mitigate against this number and this forms the basis of an transport action plan that can also be seen in appendix H, (Proposals for Change – Strategic Issues and Tactical Issues) . This has been applied uniformly to all options and assumes a location on the north side of the site.

10.1.2 General Service Planning Assumptions

- Two wards will be freed up within the next twelve months which will accommodate the base case option (see also section 16 with regards to the Trust's Cost Improvement Programme)
- MLU/antenatal clinic and paediatric outpatients at RSH need to move out of their current location in a 2-5 year time horizon
- Emergency assessment for non-elective surgical patients at PRH will take place in the A&E department, where patients will be stabilised and transferred to RSH

[21] This is not required for the preferred option

[22] At grade means at it's current level i.e. no decking is required

- All inpatient Paediatric services (aged 16 years and under) for both elective and non elective including Trauma and Orthopaedics and Oncology will be based at the PRH site
- As part of the implementation of the Trust's redesign of Ophthalmology, the service will relocate off site and this space can be utilised
- Elements of Orthodontics will relocate off site and this space can be utilised by 2014[23]
- Rehabilitation services currently provided in the ward 15 at PRH will be transferred to the community within the planning timescales of the service reconfiguration proposal and will therefore release space to enable the transfer of services and development of new models of care. This is subject to on-going service improvement, in partnership with the local PCTs
- All day case surgery and children's head and neck surgery will take place at PRH except a few orthopaedics, so a notional capital sum is included to create a "child friendly" zone in the day surgery unit at PRH
- The Medical Records and Patient Line service located in the footprint between GP X-ray Unit and Paediatrics at PRH could be re-provided off site if required
- HSDU at PRH is vacant and can be utilised
- The Helipad could be re-provided on PRH site
- All adult Medical and Oncology services will be retained in their current location.

10.1.3 Town Planning Assumptions

The Trust has engaged with the Local Authority, specifically in connection with Development Control and Highways, and they are broadly supportive of the proposals (appendix I). On this basis the OBC assumption is that a Full Town Planning Application would be approved, subject to making a complete and accurate submission and undertaking the recommended level of detail consultation.

10.2 Facility Requirements

The Trust has undertaken a capacity modelling exercise and has used this as a basis for agreeing the facility requirements with the clinical work stream groups. This was presented to the FCHS Steering Group meeting on 12 May and was agreed. Further information is provided in (appendix J).

The table below indicates what future facilities are required at PRH. Where there is no change anticipated, it is assumed the current arrangements and facilities are retained and are therefore not listed within the table. The target gross departmental floor allowances are based on HBN standards, a like for like replacement or enhanced provision. Schedules of accommodation have been developed for the new build elements of the scheme and HBN standards have been adopted at this stage (appendix K).

Services	*Facility Requirements at PRH Site*	*Target Gross Departmental Allowance m²*
Consultant Obstetric Unit	Entrance	70
	41 antenatal / postnatal beds – flexible design and use, incl. 4 Transitional care beds Option to use vacant MLU beds as postnatal overspill at times of peak demand	1579
	11 delivery rooms, incl. 1 high dependency room Bereavement room separate from main obstetric area	740
	2 obstetric theatres	372
	Relative Overnight Stay	90

[23] Discussions with commissioners have commenced. A change is service model is to be assumed by 2014.

Services	*Facility Requirements at PRH Site*	*Target Gross Departmental Allowance m²*
	Support Accommodation	348
Antenatal Clinic and MLU	Retain existing accommodation to provide 4 delivery rooms and 12 beds to support MLU and WANDA	N/A
Neonatology	3 level 3 cots	670
	3 level 2 cots	
	16 SCBU cots	
Women's Services	12 inpatient beds – Gynaecology inc. 2 single rooms with access to treatment room	525
	6 assessment / EPAU inc. counselling room and scanning / "fit-to-sit" area	
	4 inpatient beds (retained) for Breast Surgery	
	2 room Colposcopy suite = 83m Relocate Gynaecology outpatients to main OPD	83[24]
Paediatric Assessment	8 bed Short Stay Paediatric Assessment Unit (SSPAU)	300
Children's Inpatients 36 ward bed	28 paediatric and children's surgery beds – incl. flexible provision for adolescent care	1050
	3 children's general HDU beds	
	2 beds for day cases needing ward care	
	1 treatment room	
	3 paediatric oncology bedrooms (incl. 1 HDU) + day case chemo room – must have dedicated external landscaped garden area	250
	6 children's day case beds as part of day surgery unit	N/A
Children's Outpatients	Paediatric Outpatients excluding Oncology	410
	Hearing assessment service requires 1 audiology booth in children's OPD	
	Paediatric Outpatients Oncology	85
	Design options to be explored to accommodate paediatric oncology requirement	N/A
Head and Neck Inpatients	10 inpatient beds, incl. 4-bed cancer area near to nurse station, and 2-bed area capable of HDU level care	525
	4 day case beds on ward	
	Treatment room on ward	
Head and Neck Outpatients	Requires significant improvement: waiting area + 4 consulting rooms	135[25]
	Audiology booths required in children's OPD for hearing assessment	Inc above
A&E	Head and neck treatment room	16
Surgery, Head and Neck and Urology Day cases	Sessional use of day surgery unit	N/A
	Children's day surgery in "child-friendly" theatre in day case unit, with facility for some cases to recover on children's ward if clinically indicated	Notional allowance included

[24] Based on conversion of vacated Ophthalmology suite

[25] Based on conversion of part of the vacated Orthodontic Outpatient Suite

Services	Facility Requirements at PRH Site	Target Gross Departmental Allowance m²
MAU	Re-provision under option 1 only, based on slightly enhanced re-provision of existing space but not based on HBN standards	1050

Table 40: Facility requirements and target Gross Departmental Area at PRH

The table below indicates what future facilities are required at RSH. Where there is no change anticipated, it is assumed the current arrangements and facilities are retained and are therefore not listed within the table. The target gross departmental floor allowances are based on HBN standards, a like for like replacement or enhanced provision. Schedules of accommodation have been developed for the new build elements of the scheme and HBN standards have been adopted at this stage.

Services	Facility Requirements at RSH Site	Target Gross Departmental Allowance m²
Antenatal Clinic and MLU	Facilities to be relocated and improved to provide Antenatal clinic, PANDA, 8 MLU A/N and P/N beds and 3 MLU delivery rooms	1070
Gynaecology	EPAU	
Paediatric Assessment	8 PAU beds (assessment, minor day procedures, day recovery (e.g. wrist pulls)	300
Children's Outpatients	Paediatric OPD to be improved / relocated	410
Adult General Surgery Inpatients Notional allocation	20 short stay surgery beds (incl. 4 bariatric beds) 37 acute surgery beds	N/A[26]
Integrated Emergency Assessment 70 beds	SAU with 30 beds MAU with 40 beds Treatment and consulting suite	2400
Urology Inpatients	12 elective beds 3 acute beds	N/A[27]
Critical Care	14 single beds and support	1600
A&E	Enhanced re-provision based on R3 only includes re-provision of existing functionality with integrated Shropdoc	1500

Table 41: Facility requirements and target Gross Departmental Area at RSH

[26] Assumes surgical transfer can be absorbed within existing accommodation

[27] Assumes urology transfer can be absorbed within existing accommodation

11.0 Workforce Plans

Chapter Summary

- **The workforce context**
- **A plan for each service area**
- **The workforce transformation programme including individual engagement and involvement, training and new ways of working**
- **Working with the Trade Unions and Professional Associations**
- **A plan for implementation**

11.1 Strategic Context

A service-based, costed workforce plan has been developed for the three directly affected services (Women's Services, Children's Services and General Surgery) and is included in appendix M. This has been developed using the Trust's Strategic Workforce Planning Framework using the six-step methodology for workforce planning. The Trust's overall strategic workforce plans will include reference to this and all Trust programmes and set them in the context of the LTFM and overall strategic business direction. A high level summary of the anticipated changes is set out below:

Reference to	*2012/13*		*2013/14*	
	Wte	£000	Wte	£000
Paediatrics				
Consultants			0.4	45
Reduction in junior doctor banding supplement		(25)		(25)
Reduction in Associate Specialist PA requirements			(0.6)	(45)
SHOs			(2.0)	(88)
APNP	4.0	258		
Qualified nurses			4.19	263
Unqualified staff			1.8	15
Neonates	-	-	-	-
Women's Services	-	-	-	-
Surgery				
Qualified nurses			(4.12)	(160)
Unqualified staff			(1.14)	(24)
Head and Neck				
Qualified nurses			(0.88)	(36)
Unqualified staff			0.5	9
Total	4.00	233	-1.85	(46)

Table 42: High level summary of workforce changes

The workforce baseline used is the budgeted establishment for each service for 2011/12 and plans have been based on the clinical service assumptions detailed in this OBC. The plan has taken account of clinical adjacencies and the efficiencies that this will promote.

11.2 Workforce Plan

A service-based, costed workforce plan for the three directly affected services is included in appendix M. However the broader scope of the workforce project also includes Theatres, Anaesthetics and Critical Care. The following section provides narrative for each of the following services:

- Women's Services (including maternity, gynaecology, neonatology and in terms of staffing, breast surgery)
- Children's Services
- General Surgery (including urology, vascular, colorectal and head and neck surgery)
- Theatres
- Anaesthetics
- Critical Care

Although the Estates solution co-locates Neonatology with Women's Services, the workforce for Neonatology is managed from within the overall Children's Service and is therefore included within the Children's workforce.

The reconfiguration of these services has a direct impact on a large number of staff working within those specialties; however it is acknowledged that the impact of these changes is far wider than those individuals and teams directly involved in the delivery of care. Staff working within associated and support services (such as A&E, diagnostics, therapies, pharmacy, domestics and portering) are often involved in the pathways of care throughout the Trust's clinical services, and so the reconfiguration of the core services also impacts upon them. Additionally the Trust continues to restructure and focus on the delivery of a quality service to patients, which in itself leads to service improvement. The FCHS programme has to be considered within a broader context of wider service change and improvement. Work has been undertaken to identify, map and assess the impact of the FCHS programme on the associated and support services.

11.2.1 Women's Services

There will be no change in numbers within the consultant, non-consultant, allied health professional, healthcare scientist or infrastructure support workforce as a direct result of the FCHS programme.

However, should the birth rate rise to 6,500 births a year (as included in the sensitivity analysis) it is anticipated that there will be a requirement to review the workforce establishment to increase the numbers of midwives, scanning midwives, healthcare support workers and clinical staff category.

This scenario would only occur if there was a significant reconfiguration of obstetric services across other West Midlands providers. Birth rate projections forecast 5,600 births by 2020 for the Shropshire, Telford and Wrekin population and workforce projections to accommodate this activity have been considered within this OBC.

11.2.2 Paediatrics and Neonatology

Although the Paediatrics and Neonatology services operate independently with their own specialist workforces, they do provide cover for each other, especially out of hours. Work continues within both specialties to refine workforce numbers directly attributable to reconfiguration.

11.2.2.1 Paediatrics

During the development of the Outline Business Case much of the emphasis of the workforce part of this programme has been on the Paediatric service. There has been a great deal of work to agree the model of care to be adopted in the new setting involving substantial changes in thinking about service provision by all

clinical staff, as well as exploration of the possibilities of sharing staff and facilities with co-located clinical services. It has also been important to consider the recent recommendations from the Royal College of Paediatrics and Child Health (RCPCH) concerning consultant presence at times of peak activity, as well as the risks identified during the public consultation relating to availability and sustainability of middle grade medical rotas. It has become clear that detailed work on Consultant job plans and new ways of working will be required as the FCHS Programme progresses.

Medical Workforce
A diagrammatic representation of the current proposals for the deployment of the Paediatric medical workforce is included at appendix M.

Consultants
Consultant numbers must be considered within the context of the need to provide a stand-alone and geographically separate PAU at RSH, as well as the recommendations of the RCPCH regarding consultant presence on the inpatient ward at times of peak activity.

Within this context, a small increase in consultant PAs as directly attributable to the FCHS programme has been identified. In detail, this reflects the **net** effect of a requirement for increased Consultant availability (to support the RSH PAU and larger inpatient facility at PRH) and changes to current Consultant working patterns (reduction in Consultant availability at the PRH inpatient facility during day time hours and a change in the allocation of out-of-hours work). Further detailed work to assess and change job plans, including the potential to reallocate PAs amongst the Consultant body, will be carried out as the FCHS programme progresses.

Middle Grades
The paediatric middle grades (Associate Specialists and Specialty Registrars at ST4-8) currently operate a combined rota to provide medical cover to all Children's Services. Detailed rota modelling has been carried out internally and also using external consultancy from Zircadian. This work has demonstrated the requirement to split the Associate Specialist and Specialty Registrar teams in order to deliver the service requirements of the FCHS programme. This means that the decision-making doctor present within the RSH PAU will be an Associate Specialist, with Consultant opinion available through an on-call mechanism. The detailed rota modelling carried out with Zircadian has demonstrated that these changes will not only enable the Trust to provide a high quality RSH PAU service, but will also reduce the total number of Associate Specialist PAs by 6. It should be noted, however, that the proposed model does represent quite a substantial change in role for the current Associate Specialist post holders.

The requirement for training grades to have Consultant presence at all times means that the Specialty Registrar team must be rostered to cover all of the other parts of the Children's Service, where Consultants will be present during normal day time hours. Detailed rota modelling has again demonstrated that this is possible, and the medical workforce model has been created using this assumption. However, the model does rely on the Trust's ability to successfully fill all 10 SpR training places. For August 2011, the Trust has been successful in filling all slots, but this has not always been the case. One advantage of the reconfiguration of children's services is the expectation that training places will be easier to fill as the unit will be relatively large, with a consolidated paediatrician workforce and be able to provide robust and wide-spread training opportunities.

Advanced Paediatric Nurse Practitioners
As part of the long term FCHS-related workforce plan within Children's Services it is intended to introduce a new role of Advanced Paediatric Nurse Practitioner (APNP) which will ultimately (once competent) form part of the middle grade medical rota. These posts will address the risks around the sustainability of middle grade rotas and also provide an additional career step for the paediatric nursing team. They will also provide longer-term workforce flexibilities in enabling the RSH PAU to be a completely nurse-led service, should this be an acceptable model of care in the future.

Whilst the APNP role is new to the Trust, it does exist in the wider NHS and a similar model is already in use within the Trust's Neonatal Unit. Advanced Neonatal Nurse Practitioners (ANNPs) already form part of the junior and middle grade medical rotas and this works extremely well. Work has begun on job design and an appropriate training course has been identified.

Consequently the workforce plan for Children's Services includes provision for the training of 4.00 wte APNPs from September 2011 in order that they can be available for service delivery from June 2014.

Junior Doctors
Detailed rota modelling and discussion with the Consultant body has demonstrated that the current levels of service and adequate training opportunities can be provided whilst reducing the numbers of junior doctors (Foundation Years 1 and 2 and Specialty Registrars at ST1-3) by 2.00 wte. Additionally, it is possible to produce a rota which will produce a reduction in rota banding from **a 2b (50% supplement) to a 1b (40% supplement).** The addition of the APNP posts to the SHO rota as they begin to practise will not reduce the rota banding any further but it will make the SHO jobs within Children's Services more attractive to SHOs as there will be more time available within the week for training purposes.

Use of GPs
RCPCH guidance has introduced the concept of using GPs in PAUs. In terms of the use of GPs or GPs with a Special Interest (GPwSI) as the decision-making doctor within the RSH PAU, such practitioners would be required to have RCPHC ST4+ competencies as a minimum. Internal consultant opinion is that it is highly unlikely that this level of skill exists within the GP population. This opinion has not been objectively tested.

In terms of using GP trainees (GPVTS) within the RSH PAU the Trust does already have several of this type of trainee within its numbers of SHOs. Increasing the proportion of GPVTS trainees does not assist in staffing the PAU; all SHO-level trainees require the same level of supervision from a middle grade or consultant. That level of supervision is already built into the medical workforce numbers for Paediatrics as it remains the same as the requirement for a lesser proportion of GPVTS posts. Increasing numbers of GPVTS or other training posts (should Deanery approval be forthcoming) increases the need for Consultant or middle grade presence for the purpose of supervision.

Nursing Workforce
Following a skill-mix review the paediatric nursing establishment has been identified for the current service model. This level of establishment has been used as the baseline from which to develop the nursing workforce numbers for the FCHS programme.

The initial nursing workforce numbers were based solely on the RCN recommendations. After challenge, these numbers have been amended using the same principles used to create the agreed skill mix. This has delivered a reduction in nursing numbers as well as an adjustment to the skill mix, from the initial work. A further reduction from those initial numbers has been delivered by making the assumption that the PAU at PRH will form a part of the ward, and therefore does not need to be staffed completely independently. The most recent developments in the nursing workforce have been agreed with the development of much closer collaboration between the RSH PAU and A&E, which will be co-located and share a single portal of entry for the emergency services.

11.2.2.2 Neonatology

The Neonatology Service is transferring to PRH in its current configuration, so at this stage it is not anticipated that there will be any change in workforce numbers within the service as a direct result of the FCHS programme.

11.2.3 General Surgery, including Head and Neck

Following the appointments of Centre Chiefs to these Clinical Centres, both have initiated work to explore new ways of working which will deliver increases in capacity and more effective theatre utilisation. Subsequent to initial work on establishing the correct nursing workforce, refinements have been made following discussions regarding co-location of services. This has achieved a reduction of 0.88 wte qualified nurses and 1.30 wte unqualified staff within the Head and Neck workforce, and a reduction of 4.12 wte qualified and 1.14 wte unqualified staff within Surgery.

11.2.4 Other Staff Groups

It is anticipated that there will be no change to workforce numbers in all other staff groups. However it is important to note that within the Surgical and Head and Neck Centres, Consultant job plans are under

consideration as the newly appointed Centre Chiefs of both services consider three-session days and modernising long-established working practices.

11.2.5 Theatres

The efficient and effective operation of theatres underpins service delivery for all of the reconfigured services. At this stage it is expected that theatre staff will remain in their present locations and, following a Skills Assessment, be provided with any relevant additional skills required. Although there is much work underway – and much change expected - in identifying and making more effective use of theatre capacity, there are no anticipated changes in workforce numbers as a direct result of the FCHS programme.

11.2.6 Anaesthetics and Critical Care

There will be no net increase in staff within anaesthetics and critical care. The relocation of surgery to RSH requires the staffing of additional intensive care unit (ITU) beds. This will be resourced through the transfer of staff from the PRH ITU to RSH.

11.2.7 Associated and Support Workforce

There are no further associated and support staff workforce needs. The practical interdependencies between the core services and their associated and support services, such as pharmacy, will be explored through the implementation and management of change process.

11.2.8 Implementation Plan

At this stage a detailed implementation plan has not been finalised. However it is possible to give an indicative time scale for the management of change and some suggestions of the key tasks that will require completion prior to that time.

Action	*Length*	*Proposed Date*
Internal consultation on FCHS with stakeholders (staff side, affected staff, all staff)		▪ July 2011 until implementation
Development of iterative plans for implementation and transformation		▪ July 2011 until implementation
Transformational change programme		▪ OBC – December 2012
Line manager briefings and preparation for formal consultation	▪ 1 month	▪ February 2013
Notification of Department of Business, Innovation and Skills		▪ March 2013
Formal TNCC, group and 1:1 consultation	▪ 4 months	▪ March – June 2013
Recruitment process if required	▪ 2 months	▪ July – August 2013
Notice periods	▪ 3 months	▪ September – November 2013
Trial periods if required	▪ 1 month	▪ December 2013
Shadow operation/recruitment to gaps	▪ 3 months	▪ January – March 2014
Go Live		▪ April 2014

Table 43: Proposed workforce implementation plan

11.3 Workforce Transformation Programme

As at 30 April 2011, SaTH employed 1,539 staff (1,338.6 WTE) in the core services affected by the FCHS programme. It is estimated that of these, approximately 575 staff will be directly affected by the programme and required to change work base. The implications of this are that:

- Potentially, under the Employments Rights Act 1996, there is a minimal risk of staff claiming redundancy payments. This means that there is a requirement to officially notify the Department of Business, Innovation and Skills of the numbers affected, and follow their consultation timetable. However, the Trust is confident that through robust staff engagement and the offer of suitable alternative employment, this risk will be mitigated
- The impact of a change of base is difficult to predict until detailed consultation with individual staff takes place to determine their future 'base'. The outcome of the Trust's Transport Review and emerging Strategy is that for those staff changing base, transport between Shrewsbury and Telford will be provided and so it will not be necessary to pay excess mileage reimbursement for staff changing work base
- For staff providing on-call, the Remuneration Committee will review each individual case in order to minimise the need to provide relocation costs.

11.3.1 Transformational Change Programme

In order to successfully implement and sustain the changes identified as part of the FCHS programme, it is essential that the Trust takes all staff, especially those who are directly affected, with it. The transformational change programme will not only include the mechanics of consultation and formal processes but also staff involvement and engagement in the design and delivery of their services in the new setting.

11.3.1.1 Overarching Trust Negotiation and Consultative Committee (TNCC) Engagement

The approved OBC will be shared with the Trust Negotiation and Consultative Committee (TNCC) as soon as possible in order to begin formal consultation and also formally seek the involvement of the Trade Unions and Professional Associations in the process.

11.3.1.2 Service-based TNCC Engagement

Each changing service will be required to develop an individual, service-specific change programme. These will include:

- Identification of what precisely is taking place within that service
- Identification of which functions and departments within the service are affected
- The number of staff affected
- Details of individual consultation meetings
- EQIA assessments
- Plans for Training Needs Assessments and re-skilling exercises
- Timescales
- Actions to mitigate against redundancy
- Process for implementation of the change.

As well as finalising the shape of the service in the future, the individual service consultations will also provide a precise number of staff affected and in what ways (such as a need for re-skilling and the need to change work base). This will therefore enable further refinement of each service's workforce plan and further accuracy in costing. Once formal consultation is closed for each service, the implementation phase can begin.

11.3.1.3 Individual Employee Engagement and Involvement

Employee engagement in the process of change is critical to the success of the FCHS programme. In addition to the engagement of Trade Union and Professional Association representatives through the TNCC, all staff directly affected by these changes will be involved in identifying the areas for improvement in the current services, visioning the new services, and designing models of delivery within the new locations. In this way the process of transition, including the grieving and loss of the old ways of doing things, can be progressed.

Broader engagement and communication for all Trust employees is also a key part of the transformational change process. A programme of planned communications will be developed to ensure that all employees are kept abreast of progress.

11.3.1.4 Building Capability

Developing the capability of our staff is a fundamental element of the Trust's overall vision. The FCHS programme will play a part in delivering that vision through providing those staff that are directly affected with improvement skills to enable them to process map, analyse and redesign their services, as well as develop appropriate measures of success to enable them to identify their achievements.

11.3.1.5 New Ways of Working, Role Design and Redesign

Once the final iteration of the model of care and the detailed care pathways have been reviewed or developed for the clinical services, it will be possible to identify the competencies required in order to deliver care. This will then lead each core service into a period of role design or redesign. There are tools available to assist in this process, amongst which Skills for Health provide a useful web-based team and role design tool aligned to the KSF. Specific workshops on role design are planned – e.g. the Advanced Paediatric Nurse Practitioner role – and opportunities to consider research and benchmarking information from other organisations (e.g. Centre for Workforce Intelligence and Advisory Board International) are being explored.

11.4 Training Implications

For the core services, there is a change of location, but some staff may not wish to change base. In such cases, it may be possible to provide additional skills to enable an individual to take on a new role within the same work base.

12.0 Development of Options

Chapter Summary

- **Converting the new pathways and service briefs into detailed physical estate options**
- **The pros and cons of each option**
- **Reducing the long-list to the short-list for further analysis and appraisal**

12.1 Development of Options

The proposal for the future configuration of hospital services was approved by the Trust and Local Primary Care Trust Boards in December 2010; this set out the various service proposals for reconfiguring services across both sites and formed the basis of the public consultation which was concluded in March 2011.

The purpose of this section of the OBC is to assess the various options for the physical configuration of services on each of the hospital sites. This is based on the outcome of the public consultation, the service briefs developed with the Clinical Leads (which are based on clinical pathways developed within the Clinical Working Groups) and further engagement with Senior Managers and Clinicians with regards to developing and assessing the various options on each site for how services should be provided to deliver safe and efficient models of care.

To summarise, the following services are to be accommodated on each site:

PRH

- Consultant led maternity and neonatology unit, which is co-located with gynaecology and paediatric inpatient services (including head and neck), and a Paediatric Assessment Unit
- Enhancements to the current antenatal services through relocation of gynaecology outpatients to OPD releasing additional accommodation for the antenatal clinics
- Establishment of a Women's Service to include inpatient gynaecology and breast surgery, gynaecology assessment/fit to sit service, and an Early Pregnancy Assessment (EPAS), located on one ward. Relocation of gynaecology outpatients to the main OPD with new provision of a colposcopy suite
- Adult inpatient head and neck services co-located near theatres and critical care. Relocated head and neck outpatient facility with audiology booth within children's outpatients. Treatment room in A&E department
- Relocated and improved accommodation for paediatric outpatients and paediatric assessment. Re-provision of the charitable garden feature for oncology and improved day case facilities to provide a child friendly environment.

RSH

- All inpatient general surgery, both planned and emergency for vascular, colorectal, bariatric surgery, urology and upper gastro-intestinal surgery co-located near theatres and critical care
- Relocated accommodation for paediatric outpatients and Paediatric Assessment Unit
- Relocated accommodation for MLU, PANDA and antenatal services
- Work towards the Trust's strategic objective to provide an Integrated Assessment Unit (IAU) which involves co-locating medicine, surgery and paediatric assessment near A&E and imaging

- An expansion and improvement of critical care services (out of scope, but included within option development).

12.2 The Long-Listed Options

A long list of options has been generated in accordance with best practice contained in the Capital Investment Manual. An evaluation was undertaken in accordance with how well each option met the investment objectives and the critical success factors. The long list of options was generated using an options framework, which had the following categories:

- Scoping options: driven by business needs and the strategic objectives at both national and local levels. In practice, these may range from business functionality to geographical, customer and organisational coverage. Key considerations at this stage are "what's in?" and "what's out?" and service needs
- Service solution options: the choices for a potential solution in this case are focused on the physical options for re-providing services on each site
- Service delivery options: driven by the availability of service providers, i.e. in-house, outsourcing, or the use of the public sector as opposed to the private sector, or some combination of each category
- Implementation options: in practice, these will range from the big bang to phasing of the solution over time
- Funding options: are by driven by the availability of capital and revenue and potential value for money.

12.2.1 Scoping Options

In accordance with the Treasury Green Book and Capital Investment Manual, the 'do nothing' has been considered as a comparator for the merits of other options.

An infinite number of options and permutations are possible, however within the broad scope the following options have been considered in the context of investment into the development of facilities.

- Do nothing option – 'invest in backlog maintenance'
- Minimum scope option -' invest in existing facilities'
- Intermediate scope option – 'invest in existing and provide new build for some services'
- Maximum scope option – 'provide new build for all services being relocated on site'

Do Minimum	*Intermediate*	*Maximum*
Invest in existing accommodation. Any investment into facilities will deliver existing standards, but any legislative requirements and backlog maintenance requirements will be met.	Provide a mixture of new build solutions and re-use existing accommodation where possible. Any investment into new build will deliver towards the latest HBN and legislative standards. For refurbishment of existing areas, existing space standards will be maintained, but any new legislative requirements will be met.	Provide new build solutions for all relocated services. Any investment into new build will deliver the latest HBN and legislative standards.

Table 44: Long list scope options

The table below assesses each of these scope options in terms of their ability to deliver the investment objectives and critical success factors.

12.2.1.1 Evaluation of the scoping options

The options have been evaluated against the criteria set by the FCHS Steering Group for the investment objectives and the critical success factors, section 7.5

Do nothing

This option involves investing in backlog maintenance costs only and does not meet the Trust investment objectives or critical success factors. It does partially meet the objective for practicality and ease of implementation as it can be implemented by 2014, however it would cause disruption to existing services. This option is carried forward to provide the benchmark for value for money throughout the appraisal process in accordance with the Treasury Green Book.

Minimum scope

This option would involve using existing accommodation to re-provide services on each site. This investment will deliver existing standards and any legislative and backlog maintenance requirements.

This option will:

- Make use of existing accommodation; however some services may need to be relocated to release space for services moving between sites
- Deliver some improvements to the environment and patient experience; however this would probably be limited due to the constraints of the existing accommodation
- Potentially support the development of existing services; however this would probably be limited due to the constraints of the existing accommodation
- Deliver statutory standards (including fire, hygiene, health and safety)
- Potentially be delivered within the timescales, but is dependent upon the requirement to re-locate existing services.

This option has been discounted on the basis that:

- It does not provide the best opportunity to enhance the quality of clinical care
- It does not positively work towards delivering HBN and consumerism standards and is unlikely to provide privacy and dignity requirements
- It is likely to provide some compromises on clinical adjacencies and delivering the desired model of care due to the constraints of the existing building
- It is unlikely to deliver a more efficient model of care
- The opportunities for providing future flexibility are minimal.

Intermediate scope

This option involves maximising opportunities for investing in existing accommodation and providing new build solutions where existing accommodation cannot effectively be reconfigured to accommodate a new service. This investment will deliver existing standards for refurbishment areas and latest standards for all new build components, any legislative and backlog maintenance requirements will be met.

This option is the preferred way forward and will:

- Provide good opportunities for enhancing the quality of care
- Facilitate modernisation of clinical practice and minimise the existing clinical risks
- Support the development of existing services and will ensure sufficient capacity to meet demand
- Is aligned with GP and commissioner requirements
- Provides a positive shift towards delivering latest HBN and consumerism standards and delivers all the statutory standards (including fire, hygiene, health and safety)
- Potentially provides the necessary clinical adjacencies with other key services
- Develop services in line with the national policy, the strategic aims of the Trust and the local health economy
- Support a stronger financial position by reducing capital costs and associated revenue costs

- Deliver a more efficient model of care for those services centralised, making more effective use of resources including use of the Trust estate
- Be delivered within the timescales, but this may be dependent upon the re-location of existing services to release space for re-providing services from the other site.

It is likely, however, that this option will disrupt some of the existing services and may not minimise decanting of services. This option will also only support delivery of latest HBN and consumerism standards for the new build elements of the scheme.

Maximum scope

This option involves providing new build solutions for all relocated services. This investment will deliver the latest standards for all relocated services addressing any legislative, consumerism and backlog maintenance requirements.

This option will:

- Maximises opportunities for enhancing the quality of care
- Fully facilitate modernisation of clinical practice and minimise the existing clinical risks
- Support the development of existing services and will ensure sufficient capacity to meet demand
- Support delivery of the latest HBN and consumerism standards and deliver all statutory standards (including fire, hygiene, health and safety)
- Potentially provide the necessary clinical adjacencies with other key services
- Develop services in line with the national policy, the strategic aims of the Trust and the local health economy
- Deliver a more efficient model of care for those services centralised
- Minimises disruption to existing services.

This option has been discounted on the basis that:

- It is not aligned with GP and commissioner requirements with regards to the level of investment into new build accommodation to reconfigure services across both sites
- It is unlikely to support the Trust is achieving a stronger financial position due to the capital costs and associated revenue implications for the new build accommodation
- It does not fully utilise existing resources i.e. the existing estate
- It is unlikely to be achieved by 2014.

The table below assesses each of these scope options in terms of their ability to deliver the investment objectives and critical success factors.

Reference to	*Do nothing*	*Minimum scope*	*Intermediate scope*	*Maximum scope*
Investment objectives				
1: Improve quality of services	x	x	✓	✓✓
2: Develop existing services and enable provision of new services	x	✓	✓✓	✓
3: Improve environment and patient experience	x	✓	✓✓	✓✓
4: Improve safety for patients, visitors and staff	x	x	✓	✓
5: Ensure viability of and sustainability of clinical services	x	x	✓✓	✓
6: Create flexibility for the future	x	x	✓	✓
7: Practicality and ease of implementation	✓	x	✓	✓
Critical Success Factors				
Business Need	x	x	✓	✓
Clinical Safety	x	x	✓	✓
Strategic Fit	x	x	✓✓	✓
Achievability	✓	x	✓	✓
Capacity	x	x	✓✓	✓
Conclusion	SL	D	SL	D

Table 45: Appraisal of long list scope options

The following key applies:

✓✓ - Fully meets the requirement

✓ - Partially meets the requirement

x - Does not meet the requirement

SL – Short Listed

D – Discounted

12.2.2 Service Solution/Physical Options at the Princess Royal site

The service solution in this case relates to the physical options for re-providing services on the PRH site. Each of the physical options has been evaluated against the criteria set by the FCHS Steering Group for the investment objectives and the critical success factors (see section 7) to provide short-listed options to be taken forward as part of the economic appraisal.

12.2.2.1 Description of the Options at PRH

Option P0	Do essential backlog maintenance only
	■ Undertake essential backlog maintenance work.

Option P1	Concentrates Obstetrics and Neonatology around existing MLU and Antenatal Clinic
	■ Consolidates Maternity services by providing new build accommodation for Obstetrics and Neonatology around the existing MLU and Clinic services at the east of the site. ■ Consolidates Children's services around their existing accommodation utilising existing adjacent space (MAU) to provide PAU and Oncology services and retaining the existing inpatient accommodation. Services within close proximity to A&E and Imaging. ■ Consolidates Women's services (breast, gynaecology and EPAU) into existing ward 12 or 14, with close proximity to Theatres. ■ Locates Head and Neck Inpatient services on existing ward 12 or 14.

Option P2	Maximises Paediatric Adjacency with Obstetrics and Neonatology
	■ Consolidates Obstetrics and Neonatology by providing new build accommodation, next to the existing Paediatric services and retains the existing MLU and Clinic services to the east of the site. ■ Consolidates Children's services around their existing accommodation providing new build accommodation for Outpatients, Oncology and Paediatric Assessment, retaining the existing inpatient accommodation. Services in close proximity to A&E and Imaging. ■ Consolidates Women's services (breast, gynaecology and EPAU) into existing ward 12 or 14, with close proximity to theatres. ■ Locates Head and Neck Inpatient services on existing ward 12 or 14 with close proximity to theatres and critical care.

Option P3	Minimises new build capital investment, co-locating Postnatal Ward with existing MLU
	■ Provides the majority of the Obstetrics and Neonatology in new build accommodation, next to the existing Paediatric services and retains the existing MLU and Clinic services to the east of the site. Utilises converted accommodation (vacant HSDU) for overnight stay and non clinical support and utilises refurbished ward 15 for Postnatal care. ■ General rehabilitation (ward 15) is re-provided in the community. ■ Consolidates Children's services around their existing accommodation providing new build accommodation for Outpatients, Oncology and Paediatric Assessment, retaining the existing inpatient accommodation. Services within close proximity to A&E and Imaging. ■ Consolidates Women's services (breast, gynaecology and EPAU) into existing ward 12 or 14, with close proximity to theatres. ■ Locates Head and Neck Inpatient services on existing ward 12 or 14 with close proximity to theatres and critical care.

Option P4	***Minimises new build capital investment, co-locating Postnatal Ward with Obstetrics and Neonatology***
	■ Provides the majority of the Obstetrics and Neonatology in new build accommodation, next to the existing Paediatric services and retains the existing MLU and Clinic services to the east of the site. Utilises converted accommodation (vacant HSDU) for overnight stay and non clinical support. Respiratory Medicine is re-located to ward 15. Postnatal ward is adjacent to the Obstetric Unit in the vacated surgical ward 12. ■ General rehabilitation (ward 15) is re-provided in the community. ■ Consolidates Children's services around their existing accommodation providing new build accommodation for Outpatients, Oncology and Paediatric Assessment, retaining the existing inpatient accommodation. Services within close proximity to A&E and Imaging. ■ Consolidates Women's services (breast, gynaecology and EPAU) into existing ward 14, with close proximity to theatres. ■ Locates Head and Neck Inpatient services on existing ward 8 with close proximity to theatres and critical care.
Option P5	***Concentrates Obstetrics and Neonatology above and on the west side of the existing GP X-ray Unit***
	■ Provides the majority of the Obstetrics and Neonatology in new build accommodation, next to the existing GP x-ray unit and retains the existing MLU and Clinic services to the east of the site. ■ Consolidates Children's services providing new build accommodation for Outpatients, Oncology and Paediatric Assessment next to and linked with the existing inpatient accommodation on the ground floor. Services within close proximity to A&E and Imaging. ■ Consolidates Women's services (breast, gynaecology and EPAU) into existing ward 12 or 14, with close proximity to theatres. ■ Locates Head and Neck Inpatient services on existing ward 12 or 14 with close proximity to theatres and critical care.
Option P6	***Maximises Paediatric Adjacency with Obstetrics and Neonatology and relocates GP X-ray and fracture clinic***
	■ Provides the majority of the Obstetrics and Neonatology in new build accommodation, next to Paediatric Outpatients and retains existing MLU and Clinic services to the east of the site. ■ Relocates fracture clinic within existing outpatients adjacent to Imaging absorbing additional activity via 3 session working and assuming shift to community of some activity. ■ GP X-ray Unit is provided off site in the community. ■ Consolidates Children's services providing new build accommodation for Outpatients, Oncology and Paediatric Assessment next to and linked with the existing inpatient accommodation on the ground floor. Services within close proximity to A&E and Imaging. ■ Consolidates Women's services (breast, gynaecology and EPAU) into existing ward 12 or 14, with close proximity to theatres. ■ Locates Head and Neck Inpatient services on existing ward 12 or 14 with close proximity to theatres and critical care.

Table 46: PRH options

12.2.2.2 Evaluation of the Service Solution/Physical Options at PRH

Each of the physical options has been evaluated against the criteria set by the FCHS Steering Group for the investment objectives and the critical success factors (see section 7) to provide short listed options to be taken forward as part of the economic appraisal.

12.2.2.3 Option P0

This option has been taken forward for short listing

This option provides investment for backlog maintenance only; it does not deliver the key objectives set out in the service reconfiguration programme and therefore does not improve quality of service or ensure viability of and sustainability of clinical services. It has been short listed to act as the comparator.

12.2.2.4 Option P1

This option has been taken forward for short listing

Pros

- Integrates obstetric inpatients and assessment with existing clinics and retains existing MLU. Provides critical internal adjacencies by locating neonatology, theatres and delivery suite on the first floor
- Consolidates paediatric services around existing children's accommodation, utilising existing adjacent accommodation
- Improves quality of environment for medical emergency assessment
- Maintains flexibility for future site development i.e. extension to main hospital services for example inpatients, emergency services etc
- Maintains MAU links with Imaging and A&E and improves patient drop off arrangements
- Can be delivered within the timescales.

Cons

- MAU would need to be relocated; this will require an extension to the main hospital corridor, blue light access and ambulance drop off
- Major alterations to the road and car park to accommodate obstetrics and neonatology
- Relocation of the helicopter landing site
- Future expansion of obstetrics and neonatology may be constrained due to location on the site
- Does not provide a critical adjacency between neonatology and paediatrics.

12.2.2.5 Option P2

This option has been taken forward for short listing

Pros

- Integrates obstetrics and neonatology with paediatrics and retains existing MLU and clinic services to the east of the site
- Consolidates paediatric services around existing children's accommodation, providing improved facilities for paediatric outpatients, oncology and assessment
- Maintains flexibility for future site development i.e. extension to main hospital services for example inpatients, emergency services
- Can be delivered within the timescales.

Cons

- The Obstetric and Neonatology Unit provides critical internal adjacency between theatres and delivery suite, but not with Neonates

- Temporary decant or re-location of the paediatric modular outpatient department during construction of the new paediatric outpatient building
- Obstetric and Neonatology Unit separate from MLU
- Requires relocation of the medical records and patient line
- Relocation of the helicopter landing site and road re-alignment.

12.2.2.6 Option P3

This option has been taken forward for short listing

Pros

- Positions the majority of Obstetrics and Neonatology close to Paediatrics, retaining existing MLU and clinic services at the east of the site
- Utilises part of the vacant HSDU for relatives' overnight stay and potentially other support services for obstetrics i.e. office accommodation
- Utilises ward 15 for postnatal care and therefore reduces new build requirements
- Consolidates paediatric services around existing children's accommodation, providing improved facilities for paediatric outpatients, oncology and assessment
- Maintains flexibility for future site development i.e. extension to main hospital services for example inpatients, emergency services.

Cons

- The postnatal ward will not be integrated with the obstetric unit, but will be co-located with the existing MLU
- Re-provision of rehabilitation services in ward 15 to the community within the timescales
- Temporary decant or re-location of the paediatric modular outpatient department during construction of the new paediatric outpatient building
- Obstetric and Neonatology Unit separate from MLU
- Requires relocation of the medical records and patient line
- Relocation of the helicopter landing site
- Timescales are dependent upon the GP Commissioning Consortiums re-providing rehabilitation services within a 2 year period.

12.2.2.7 Option P4

This option has been taken forward for short listing

- Positions the majority of obstetrics and neonatology close to paediatrics, retaining existing MLU and clinic services at the east of the site
- Utilises part of the vacant HSDU for relatives overnight stay and potentially other support services for Obstetrics i.e. office accommodation
- Utilises ward 15 for respiratory medicine, releasing space for adult Head & Neck
- Provides postnatal care immediately adjacent to the Obstetric Unit, in particular positions Transitional Care immediately adjacent Neonatal Unit
- Consolidates paediatric services around existing children's accommodation, providing improved facilities for paediatric outpatients, oncology and assessment
- Maintains flexibility for future site development i.e. extension to main hospital services for example inpatients, emergency services etc.

Cons

- Re-provision of rehabilitation services in ward 15 to the community within the timescales.

- The design and physical solution will need to respect the necessary discrete patient pathways separating Gynaecology and Obstetric inpatients occupying the same Nucleus template
- Temporary decant or re-location of the paediatric modular outpatient department during construction of the new paediatric outpatient building
- Obstetric and Neonatology Unit separate from MLU
- Does not minimise disruption to existing services, requires de-canting and relocation of paediatric modular outpatients, respiratory ward, medical records and patient line
- Relocation of the helicopter landing site may need to be considered
- Timescales are dependent upon the GP Commissioning Consortiums re-providing rehabilitation services within a 2 year period.

12.2.2.8 Option P5

This option has been discounted

Pros

- Provides the majority of obstetrics and neonatology in new build accommodation next to the existing GP x-ray Unit and retains existing MLU and clinics to the east of the site
- Consolidates paediatric services around existing children's accommodation, providing improved facilities for paediatric outpatients, oncology and assessment.

Cons

- Obstetric and Neonatology Unit separate from MLU
- This option would require the adjoining land currently under the ownership of the Secretary of State to be released to support the extension to the main hospital building and will require significant alterations to the road and car park
- Temporary decant or re-location of the paediatric modular outpatient department during construction of the new paediatric outpatient building
- Requires relocation of the medical records and patient line
- Relocation of the helicopter landing site
- Timescales are dependent upon acquiring the land and is therefore unlikely to be delivered within the timescales.

12.2.2.9 Option P6

This option has been discounted

Pros

- Provides the majority of obstetrics and neonatology in new build accommodation next to paediatric outpatients (new build) and retains existing MLU and clinics to the east of the site
- Consolidates paediatric services around existing children's accommodation, providing improved facilities for paediatric outpatients, oncology and assessment
- This option utilises existing space and does not require the adjoining land currently under the ownership of the Secretary of State to be released to support the extension to the main hospital building
- Improved fracture clinic adjacency with Imaging department.

Cons

- Obstetric and Neonatology Unit separate from MLU

- Temporary decant or re-location of the paediatric modular outpatient department during construction of the new paediatric outpatient building
- Requires relocation of the medical records and patient line
- Relocation of the helicopter landing site
- Lose support to main imaging department.

Timescales are dependent upon the development of commissioning plans to move GP X-ray services in the community and to release space in the Outpatient Department to re-provide Fracture Clinic. This is not currently in line with the Trust or GP commissioning intentions and is therefore unlikely to be supported and delivered within the timescales. The table below assesses each of these options in terms of their ability to deliver the investment objectives and critical success factors described in section 7.

Reference to	P0	P1	P2	P3	P4	P5	P6
Investment Objectives							
1: Improve quality of services	x	✓	✓✓	✓	✓✓	✓	✓
2: Develop existing services and enable provision of new services	x	✓	✓✓	✓✓	✓✓	✓✓	✓✓
3: Improve environment and patient experience	x	✓✓	✓✓	✓	✓	✓	✓
4: Improve safety for patients, visitors and staff	x	✓✓	✓✓	✓	✓✓	✓✓	✓
5: Ensure viability of and sustainability of clinical services	x	✓✓	✓✓	✓✓	✓✓	✓	✓
6: Create flexibility for the future	x	✓	✓✓	✓	✓✓	✓	✓
7: Practicality and ease of implementation	✓✓	✓✓	✓✓	✓	✓	x	x
Critical Success Factors							
Business Need	x	✓	✓✓	✓	✓✓	✓	✓
Clinical Safety	x	✓	✓✓	✓	✓✓	✓✓	✓
Strategic Fit	x	✓	✓✓	✓✓	✓✓	✓	✓
Achievability	✓✓	✓✓	✓✓	✓✓	✓✓	✓	✓
Capacity	x	✓✓	✓✓	✓✓	✓✓	✓✓	✓
Conclusion	SL	SL	SL	SL	SL	D	D

Table 47: Long list appraisal of physical options at PRH

The following key applies:

✓✓ - Fully meets the requirement

✓ - Partially meets the requirement

x - Does not meet the requirement

SL – short listed

D – Discounted

12.2.3 Service Solution /Physical Options at Royal Shrewsbury Site

The service solution in this case relates to the physical options for re-providing services on the RSH site. Each of the physical options has been evaluated against the criteria set by the FCHS Steering Group for the investment objectives and the critical success factors (see section 7) to provide short-listed options to be taken forward as part of the economic appraisal

There are a number of parallel business case and estate development activities to which the physical options need to consider. These are provided below, but are out of scope and will form part of a separate business case:

- The future need to integrate the currently separate ITU and HDU facilities to create a new Critical Care Unit which would also demonstrate opportunity for increased capacity
- The development of an Integrated Assessment Unit (IAU) that co-locates surgical assessment and paediatric assessment beds (both in scope) with medical beds and A&E (both out of scope). The IAU is a longer term objective for the Trust and the options presented work towards achieving this objective in varying degrees
- Flexibility to respond to developing Delayed Transfer of Care (DTOC) strategy
- Safeguarding and recognising the current oncology expansion project
- Emerging strategies for the provision of catering services
- Alternative procurement of sterile supplies services
- Active contribution towards relieving existing circulation bottlenecks and improved amenity value
- Identification of any potential land disposal opportunities.

12.2.3.1 Description of the Options at RSH

The areas highlighted in bold are in scope of the OBC, while those not highlighted in bold are part of a separate business case but included for capital planning and development of options.

Option R0	***Do nothing – essential backlog maintenance only***
	■ Undertake essential backlog maintenance work.

Option R1	
	■ **Consolidates MLU, Antenatal and EPAS services in new accommodation linked to the existing Treatment Centre** ■ **Brings together both Paediatric Outpatient and Paediatric Assessment services into existing Head and Neck accommodation adjacent to A&E** ■ **Transferred surgical inpatients from PRH to be accommodated largely on Level 4, (final bed configuration subject to emerging DTOC strategy)** ■ **Existing MAU and associated office accommodation converted to 14 bed Critical Care Unit with relative's accommodation and support within existing converted HDU** ■ Safeguarding of Wards 31 and 32 for future DTOC ■ **Majority of existing Maternity building available to assist with temporary decanting of non-clinical functions** ■ Medical offices re-provided in existing Maternity building ■ Catering production and staff dining ceases in its current location, existing dining and refreshment facilities expanded, with potential commercial opportunities ■ Existing Catering and Staff Dining converted to IAU with support accommodation located in converted ITU

Option R2	
	■ **Consolidates MLU, Antenatal and EPAS services in new accommodations linked to the existing Treatment Centre** ■ **Paediatric Outpatients forms part of the existing outpatient facilities, additional clinic space is created by reinstating part**

	of level 2 for consulting / examination ■ **Paediatric Assessment is provided within existing upgraded ITU close to A&E** ■ **Transferred surgical inpatients from PRH to be accommodated largely on Level 4, (final bed configuration subject to emerging DTOC strategy)** ■ **MAU remains as existing with new SAU across the corridor in existing converted Head and Neck** ■ Safeguarding of Wards 31 and 32 for future DTOC ■ **Majority of existing Maternity building available to assist with temporary decanting of non-clinical functions** ■ **Management offices (level 2) re-provided in existing Maternity building** ■ Catering production and staff dining ceases in its current location, existing dining and refreshment facilities expanded, with potential commercial opportunities ■ Existing Catering and Staff Dining converted to 14 bed Critical Care Unit
Option R3	■ **Major new build to provide Integrated Assessment Unit and A&E adjacent to existing Treatment Centre** ■ **Paediatric Outpatients is re-provided in existing reconfigured ITU** ■ **Paediatric Assessment is re-provided in converted Receipt and Distribution zone adjoining new build A&E** ■ **MLU, Antenatal and EPAS consolidated in converted MAU and office support space** ■ **Transferred surgical inpatients from PRH to be accommodated largely on Level 4, (final bed configuration subject to emerging DTOC strategy)** ■ Receipt and Distribution absorbed within existing stores occupying underutilised space ■ Safeguarding of Wards 31 and 32 for future DTOC ■ **Existing Maternity building available throughout to assist with temporary decanting of non-clinical functions** ■ New 14 bed Critical Care Unit created in existing vacated A&E and Head and Neck, along with relocated office support space from existing MAU

Option R4	
	■ **MLU, Antenatal and EPAS consolidated in converted Ward 22 and front-of-house areas of main Ward Block** ■ **Paediatric Outpatients forms part of the existing outpatient facilities, additional clinic space is created by reinstating part of level 2 for consulting / examination** ■ **Paediatric Assessment is provided within existing upgraded ITU close to A&E** ■ **Transferred surgical inpatients from PRH to be accommodated largely on Level 4, final bed configuration assumes a more robust and developed DTOC strategy and reduced medical bed quantum** ■ **MAU remains as existing with new SAU across the corridor in existing converted Head and Neck** ■ Safeguarding of Wards 31 and 32 for future DTOC ■ **Part of existing Maternity building available to assist with temporary decanting of non-clinical functions** ■ **Management offices (level 2) re-provided in existing Maternity building** ■ Catering production and staff dining ceases in its current location, existing dining and refreshment facilities expanded, with potential commercial opportunities ■ Existing Catering and Staff Dining converted to 14 bed Critical Care Unit

Option R5	
	■ **Existing MLU, Antenatal to remain in the short term with light touch refurbishment. EPAS to remain in existing location** ■ **Existing Paediatric Outpatients to remain in the short term with light touch refurbishment** ■ **Paediatric Assessment is provided within existing Paediatric Head and Neck facility with light touch refurbishment** ■ **Transferred surgical inpatients from PRH to be accommodated largely on Level 4, final bed configuration assumes a more robust and developed DTOC strategy and reduced medical bed quantum** ■ **Existing MAU facility to remain with engineering links to facilitate MAU and SAU integration and creation of IAU. Medical office suite converted to 2 four bed bays with ensuites and clinical support to enhance the IAU** ■ **Existing Adult Head and Neck beds to be refurbished (light touch) with engineering linkages to form part of the IAU** ■ Safeguarding of Wards 31 and 32 for future DTOC. **Parts of the existing Maternity building are available to assist with temporary decanting of non-clinical functions** ■ **Existing neonatology facility converted to open plan office accommodation with light touch refurbishment** ■ Catering production and staff dining ceases in its current location, existing dining and refreshment facilities expanded, with potential commercial opportunities ■ Existing Catering and Staff Dining converted to 14 bed Critical Care Unit

Option R6	
	■ **MLU, Antenatal and EPAS consolidated in converted Ward 22 and front-of-house areas of main Ward Block** ■ **Paediatric Outpatients forms part of the existing outpatient facilities, additional clinic space is created by reinstating part of level 2 for consulting / examination** ■ **Paediatric Assessment is provided within existing Paediatric Head and Neck facility with light touch refurbishment** ■ **Transferred surgical inpatients from PRH to be accommodated largely on Level 4, final bed configuration assumes a more robust and developed DTOC strategy and reduced medical bed quantum** ■ **Creation of an Integrated Assessment Unit including engineering links to facilitate existing MAU and existing Head and Neck facility, major refurbishment of current Head and Neck facility for provision of SAU. Medical office suite converted to 2 four bed bays with ensuites and clinical support to enhance the IAU** ■ Safeguarding of Wards 31 and 32 for future DTOC ■ **Existing Maternity building available throughout to assist with temporary decanting of non-clinical functions**

Table 48: RSH options

12.2.3.2 Evaluation of the Service Solution/Physical Options at RSH

Each of the physical options has been evaluated against the criteria set by the FCHS Steering Group for the investment objectives and the critical success factors (section 7) to provide short listed options to be taken forward as part of the economic appraisal.

12.2.3.3 Option R0

This option has been taken forward for short listing

This option provides investment for backlog maintenance only; it does not deliver the key objectives set out in the service reconfiguration programme and therefore does not improve quality of service or ensure viability and sustainability of clinical services. It has been short listed to act as a comparator.

12.2.3.4 Option R1

This option has not been taken forward for short listing

Pros

- Optimises quality of environment for MLU, Antenatal and EPAS via new build
- Provides opportunities to share front-of-house accommodation and imaging suite within existing Treatment Centre
- Brings both elements of paediatric care together with benefits associated with centralised staffing expertise
- Locates PAU close to A&E
- Makes effective use of vacated HSDU
- Improved co-location and travel distances between theatres and Critical Care Unit.

Cons

- Disruption to existing theatres whilst new recovery area is developed

- Dislocates some Critical Care Unit support accommodation
- Dislocates some IAU support accommodation and increases volume of 'hot' traffic through bottleneck circulation routes
- Fails to address site development congestion in and around A&E
- Complex sequencing of refurbishment projects
- Delays date for release of Maternity building for demolition.

12.2.3.5 Option R2

This option has not been taken forward for short listing

Pros

- Optimises quality of environment for MLU, antenatal and EPAS via new build
- Provides opportunities to share front-of-house accommodation and imaging suite within existing Treatment Centre
- Minimises extent of refurbishment and decanting
- Provides all critical care accommodation in one location.

Cons

- PAU is close to, but not immediately, co-located with A&E and is accessed off a bottleneck corridor
- Fails to integrate SAU and MAU
- Requires outpatient activity to be delivered over three floors instead of two
- Delays date for release of Maternity building for demolition.

12.2.3.6 Option R3

This option has been taken forward for short listing

Pros

- Provides paradigm shift in the way 'hot' and 'cold' services are delivered by relocating A&E and blue-light access to the west of the site thereby consolidating ambulatory traffic flows to the east and north
- Resolves physical site constraints between existing A&E and the planned oncology expansion project
- Reduces critical cross traffic flows along key internal circulation routes
- Takes Shropdoc out of temporary accommodation
- Consolidates MLU, antenatal and EPAS services by using refurbished MAU accommodation
- PAU co-located with both A&E and theatres
- Provides opportunities to share front-of-house accommodation and imaging suite within existing Treatment Centre
- Provides all critical care accommodation in one location
- Allows effective clinical use of underutilised non-clinical back-of-house accommodation.

Cons

- Paediatric outpatients is insular without close association with either main OPD or PAU (although a sub-option based on either R2 or R4 paediatric outpatient solution could be considered and the existing ITU demolished to enhance environmental amenity and quality at the core)
- Major new build
- Extensive refurbishment works associated with converting both existing A&E and MAU.

12.2.3.7 Option R4

This option has been taken forward for short listing

Pros

- Requires no new build works
- Consolidates MLU, antenatal and EPAS services by using refurbished existing Ward 22 and some of the main Ward Block front-of-house accommodation
- Provides all critical care accommodation in one location.

Cons

- PAU is close to, but not immediately, co-located with A&E and is accessed off a bottleneck corridor
- Fails to integrate SAU and MAU
- Requires outpatient activity to be delivered over three floors instead of two
- Assumes reduction in overall bed numbers can be achieved within project timeframe
- Delays date for release of Maternity building for demolition.

Option R5

This option has not been taken forward for short listing

Pros

- Requires no new build
- Provides all critical care accommodation in one location
- PAU co-located with A&E
- Moves towards creation of an IAU by providing engineering links to new SAU and adjacency to PAU.

Cons

- Delays date for release of Maternity building for demolition
- Fails to fully integrate SAU and MAU
- Paediatric outpatients is insular without close association with either main OPD or PAU.

Option R6

This option has been taken forward for short listing

Pros

- Requires no new build
- PAU co-located with A&E
- Consolidates MLU, antenatal and EPAS services by using refurbished existing Ward 22 and some of the main Ward Block front-of-house accommodation
- Moves towards creation of an IAU by providing engineering links to new SAU and adjacency to PAU
- Provides offices for staff currently located in leased accommodation off site.

Cons

- Major re-use of maternity, which delays date for release of building for demolition
- Requires outpatient activity to be delivered over three floors instead of two
- Fails to fully integrate SAU and MAU.

The table below assesses each of these options in terms of their ability to deliver the investment objectives and critical success factors (section 7).

Reference to	R0	R1	R2	R3	R4	R5	R6
Investment Objectives							
1: Improve quality of services	X	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓
2: Develop existing services and enable provision of new services	X	✓	✓	✓✓	✓✓	✓✓	✓✓
3: Improve environment and patient experience	✓	✓✓	✓✓	✓✓	✓✓	✓	✓✓
4: Improve safety for patients, visitors and staff	X	✓✓	✓✓	✓✓	✓✓	✓	✓✓
5: Ensure viability of and sustainability of clinical services	✓	✓✓	✓✓	✓✓	✓✓	✓	✓✓
6: Create flexibility for the future	X	✓	✓	✓✓	✓✓	✓	
▪ 7: Practicality and ease of implementation	✓✓	✓	✓	✓	✓✓	✓	✓
Critical Success Factors							
Business Need	X	✓	✓	✓✓	✓✓	✓	✓✓
Clinical Safety	✓✓	✓✓	✓✓	✓✓	✓✓	✓	✓✓
Strategic Fit	X	✓	✓	✓✓	✓✓	✓✓	✓✓
Achievability	✓✓	✓	✓	✓	✓✓	✓	✓✓
Capacity	X	✓	✓	✓✓	✓✓	✓✓	✓✓
Conclusion	SL	D	D	SL	SL	D	SL

Table 49: Long list appraisal of physical options at RSH

The following key applies:

✓✓ - Fully meets the requirement

✓ - Partially meets the requirement

x - Does not meet the requirement

SL – Short listed

D – Discounted

12.2.4 Service Delivery

This range of options considers the options for service delivery in relation to the preferred scope and potential solution. The ranges of options that would normally have been examined are:

- In-House
- Outsource
- Strategic Partnership.

The preferred option is the 'In-House' option. The Trust will continue to deliver acute services within the geographical area as set out in the proposal for future configuration of hospital services.

12.2.5 Implementation Options

This range of options considers the choices for implementation in relation to the preferred scope, service solution and method of service delivery. There are typically two approaches:

- Phased Approach: this involves developing a programme of work which is broken into various phasing to enable stages of works to take place over a different period of time. It is normally a chosen method to limit disruption to existing services
- Big Bang: whilst this option may be described as "big bang" in reality this simply means constructing the whole project as one phase.

Given the nature of the scheme, a phased approach is the preferred option. The implementation of each service change will need to be determined and managed on an individual basis given each potential service reconfiguration option is different i.e. refurbishments or new builds. The overall site development plan required to deliver future configuration of service will have to be phased in order to minimise disruption to existing service provision.

12.2.5.1 Common Considerations at PRH

The move off the PRH site for Ophthalmology is planned ahead of the services changes in 2014. Orthodontics shifts are dependent on the progression of this work by commissioners. However, it is expected that this will be concluded by 2014. If this was delayed then the current geographical site split for clinics would continue until the vacation and conversion works are complete.

Further information is provided on the interdependencies for each of the short listed options in section 12.3

12.2.5.2 Common Considerations at RSH

Due to the more complex circumstances surrounding the RSH site and the interdependencies with other parallel business cases and estates planning, the following summary of considerations has been generated to inform the appraisal.

Typically, the common challenges relate either to infrastructure issues or the fact that the circulation within the site is predominantly single storey. The arrangement of corridors creates the risk of bottle necks, denies the opportunity for many privacy and dignity initiatives, boxes existing departments into a rigid grid and denies access to daylight and amenity for large proportions of the existing 'land-locked' departments.

The concept for creating a DTOC environment is becoming increasingly clear with one ward being transferred to Community Trust management from August 2011 and a second ward from January 2012.

Unscheduled care pathways are being implemented with the development of integrated assessment space at RSH. This is also reflected in the Trust's long term capacity modelling described in section 9 and includes the definition and use of escalation beds and their re-provision across the options.

Further information is provided on the interdependencies for each of the short listed options in section 12.3.

12.2.6 Funding Options

This range of options considers the choices for funding and financing in relation to the preferred scope, solution, method of service delivery and implementation. The options are:

- Private sector funding: under this option, the required services might be provided on a PPP/ Private Finance Initiative (PFI) basis from a single service provider or consortium made up of potential service providers on the private sector side
- Public sector funding: under this option essentially funding is obtained via the exchequer/NHS.

The Trust is looking to NHS Capital funding via the Strategic Health Authority; this is subject to successful approval of the OBC.

12.2.7 Summary of Long List of Options

Options	*Summary Findings*
1.0 Scoping	
1.0 Do nothing	Considered as a benchmark for potential VFM
1.1 Minimum scope	Discounted – Does not meet the investment objectives
1.2 Intermediate scope	Preferred – Partially or fully meets all the investment objectives
1.3 Maximum scope	Discounted – Meets some of the investment objectives This option has been discounted on the basis that: - It is not aligned with GP and commissioner requirements with regards to the level of investment into new build

Options	Summary Findings
	accommodation to reconfigure services across both sites - It is unlikely to support the Trust is achieving a stronger financial position due to the capital costs and associated revenue implications for the new build accommodation - It does not fully utilise existing resources i.e. the existing estate
2.0 Service solution Princess Royal Site	
2.1 Option P0	Do nothing, short listed - considered as a benchmark for potential VFM
2.2 Option P1	Short listed
2.3 Option P2	Short listed
2.4 Option P3	Short listed
2.5 Option P4	Short listed
2.6 Option P5	Discounted
2.7 Option P6	Discounted
3.0 Service solution Royal Shrewsbury Site	
3.1 Option R0	Do nothing, short listed - considered as a benchmark for potential VFM
3.2 Option R1	Discounted
3.2 Option R2	Discounted
3.4 Option R3	Short listed
3.5 Option R4	Short listed
3.6 Option R5	Discounted
3.7 Option R6	Short listed
4.0 Service delivery	
4.1 In house 4.2 Outsource 4.3 Strategic partnership	The preferred option is the 'In-House' option; the Trust will continue to deliver acute services within the geographical area as set out in the proposal for future configuration of hospital services
5.0 Implementation	
5.1 'Big Bang' 5.2 Phased	A 'big bang' approach to implementation is not feasible. The reconfiguration of services has been described to the public as a 'puzzle' that requires phased coordination of service moves Therefore, given the nature of the scheme a phased approach is the preferred option. The implementation of each service change will need to be determined and managed on an individual basis given each potential service reconfiguration option is different i.e. refurbishments or new builds. The overall site development plan required to deliver future configuration of service will have to be phased in order to minimise disruption to existing service provision
6.0 Funding	
6.1 Private funding 6.2 Public funding	The Trust is looking to NHS Capital funding via the Strategic Health Authority; this is subject to successful approval of the OBC.

Table 50: Summary of long list of options

12.3 Short-Listed Options

12.3.1 The short list options at the Princess Royal Site are:

Option P0	
Description	The do nothing option
Interdependencies	There will be a requirement to provide temporary decant accommodation whilst undertaking statutory backlog maintenance
Option P1	
Description	Concentrates Obstetrics and Neonatology around existing MLU and Antenatal clinic
Interdependencies	The complete transfer of Paediatric Services has the longest timeline due to the need to re-provide MAU; transfer those services and then convert the vacated area for children's services It is assumed that all other construction and transfer works can be contained within the same time frame
Option P2	
Description	Maximises Paediatrics adjacency with Obstetrics and Neonatology
Interdependencies	The volume of new build associated with Obstetric and Neonatal Services creates the longest timeline and because the existing Paediatric envelope is being expanded as part of the new build then this service could also be affected As a consequence there may be merit in considering either a phased approach to construction or a partial transfer of Paediatric Services earlier in the process, or a combination of both, depending on whether there are any recognised benefits in the detail of the procurement process worthy of consideration
Option P3	
Description	Minimises new build capital investment co-locating Postnatal Ward and Assessment with existing MLU
Interdependencies	Option 3 has similar issues as option 2; however, the solution is geared towards reducing the volume of new build, primarily for financial reasons but may also benefit by having notionally reduced construction periods This Option is also predicated on the proposal to move at least 50% of Rehabilitation inpatient beds off site and the timeline for achieving this is uncertain
Option P4	
Description	Minimises new build capital investment co-locating Postnatal Ward and Assessment with Obstetrics and Neonatology
Interdependencies	Option 4 is similar to option 3, with the solution again geared towards reducing the volume of new build and reduced construction periods This Option is similarly predicated on the proposal to move at least 50% of Rehabilitation inpatient beds off-site and the timeline for achieving this will influence the procurement programme. However, this option requires an additional decant stage with the transfer of Respiratory Inpatients into the vacated Rehabilitation ward before conversion for Obstetric beds can be commenced

Table 51: Short Listed Options PRH

12.3.2 The short list options at the Royal Shrewsbury Site are:

Option R0	
Description	The do nothing option
Interdependencies	
Option R1	
Description	Minimal new build for MLU, Antenatal and EPAS plus conversion for all Paediatric services co-located together, conversion for IAU and conversion for Critical Care
Interdependencies	The start of the process depends on a new catering strategy being put into effect. Once vacated the creation of an IAU can commence, although a temporary solution for some support accommodation may be needed pending vacation of ITU At the same time work to relocate and enhance Theatre recovery into existing HSDU can be undertaken Once the bulk of the IAU work is complete, two other phases can commence. The first is the upgrade of the existing MAU to accommodate 14 Critical Care beds with some support accommodation in the vacated theatre recovery to provide a direct link between Theatres and Critical Care. It may be possible to enhance this to 20 beds in the future with a new build extension. The second is the creation of a small-integrated Paediatric enclave incorporating Outpatients and Assessment, the latter being immediately adjacent to A&E The new build timeline for MLU and Obstetric Services is not thought to have any significant interdependencies other than impact on car parking
Option R2	
Description	Minimal new build for MLU, Antenatal and EPAS plus conversion for Paediatric Outpatients with Adult Outpatients, conversion for PAU, conversion for SAU (IAU not achieved) and conversion for Critical Care
Interdependencies	The transfer of Critical Care depends on a new catering strategy being put into effect. A planned-for expansion space via a new build extension in the future could increase 14 beds to 20 The creation of PAU cannot be achieved until the Critical Care service transfers The conversion of H and N for SAU is solely dependent upon the transfer of Adult H and N to PRH, although it should be remembered that this option does not meet one objective of the strategic brief in terms of forming an integrated Assessment Unit The new build timeline for MLU and Obstetric Services is not thought to have any significant interdependencies other than impact on car parking Although the transfer of 50% of the Management offices is shown moving into the existing maternity building, because of the likely timeline for transferring Obstetrics to PRH it may be preferable to look at alternative locations with a view to speeding up the conversion of level 2 Outpatients
Option R3	
Description	Conversion for MLU, Antenatal and EPAS, insular conversion for Paediatric Outpatients, PAU co-located with maximum new build A&E and IAU plus conversion for Critical Care
Interdependencies	This option is wholly dependent upon the construction timeline required for creating the new integrated A&E, IAU and PAU The creation of MLU, Obstetrics and Critical Care cannot start until these

	works are complete The final phase is Paediatric Outpatients that relies upon completion of Critical Care
Option R4	
Description	No new build with conversion for MLU, Antenatal and EPAS, conversion for Paediatric Outpatients with Adult Outpatients, conversion for PAU, conversion for SAU (IAU not achieved) and conversion for Critical Care
Interdependencies	This option relies on both a construction timeline and an inpatient bed capacity reduction timeline The transfer of Critical Care depends on a new catering strategy being put into effect. A planned-for expansion space via a new build extension in the future could increase 14 beds to 20 The creation of PAU can follow once Critical Care is complete The conversion of Head and Neck for SAU is solely dependent upon the transfer of Adult Head and Neck to PRH, although it should be remembered that this option does not meet one objective of the strategic brief in terms of forming an integrated Assessment Unit The location indicated for MLU and Obstetrics is dependent upon releasing inpatient bed spaces within the Ward Block and it is assumed that the creation of a DTOC environment may be key element in achieving this Although the transfer of 50% of the Management offices is shown moving into the existing maternity building, because of the likely timeline for transferring Obstetrics to PRH it may be preferable to look at alternative locations with a view to speeding up the conversion of level 2 Outpatients
Option 5	
Description	No new build with conversion for MLU, Antenatal and EPAS, conversion for Paediatric Outpatients with Adult Outpatients, conversion for PAU, conversion for SAU and conversion for Critical Care, refresh of MLU, Antenatal OPD and EPAS without relocation
Interdependencies	This option relies on both a construction timeline and an inpatient bed capacity reduction timeline This option relies upon the transfer of Head and Neck services to PRH. This permits the use of this area for conversion to PAU and SAU with the balance of assessment beds being provided in the current MAU. This option creates an integrated assessment zone This option relies upon alternative strategies to release space within the main hospital building whose timelines are not yet determined and therefore MLU, Antenatal OPD and EPAS remain in the maternity building until such time as space is released. Repatriation of offsite office accommodation to maternity building Although the transfer of 50% of the Management offices is shown moving into the existing maternity building, because of the likely timeline for transferring Obstetrics to PRH it may be preferable to look at alternative locations with a view to speeding up the conversion of level 2 Outpatients Repatriation of offsite services to a refurbished maternity building is dependant both upon the transfer of obstetrics and the alignment of lease terms
Option 6	
Description	No new build with conversion for MLU, Antenatal and EPAS, conversion for

	Paediatric Outpatients with Adult Outpatients, conversion for PAU, conversion for SAU and conversion for Critical Care, repatriation of offsite office accommodation to maternity building
Interdependencies	This option relies on both a construction timeline and an inpatient bed capacity reduction timeline This option relies upon the transfer of Head and Neck services to PRH. This permits the use of this area for conversion to PAU and SAU with the balance of assessment beds being provided in the current MAU. This option creates an integrated assessment zone The location indicated for MLU and Obstetrics is dependent upon releasing inpatient bed spaces within the Ward Block and it is assumed that the creation of a DTOC environment may be key element in achieving this Although the transfer of 50% of the Management offices is shown moving into the existing maternity building, because of the likely timeline for transferring Obstetrics to PRH it may be preferable to look at alternative locations with a view to speeding up the conversion of level 2 Outpatients Repatriation of offsite services to a refurbished maternity building is dependant both upon the transfer of obstetrics and the alignment of lease terms

Table 52: Short listed options RSH

13.0 Economic Case

Chapter Summary
▪ **Appraising the options non-financially and financially** ▪ **The scoring mechanism** ▪ **Sensitivity testing to check the robustness of the scoring** ▪ **Assimilating the non-financial and financial appraisals** ▪ **The preferred option for PRH** ▪ **The preferred option for RSH**

13.1 Introduction

This section of the business case provides evidence to demonstrate that the Trust has selected the most economically advantageous offer, which best meets its future service needs and optimises value for money.

13.2 Benefits Appraisal

A key component of any option appraisal is the assessment of the non-financial benefits that are likely to accrue from the options under consideration. The short listed options were appraised at a workshop with Senior Managers and Clinicians on 20th May 2011 to evaluate the qualitative benefits associated with each option. A full list of participants is included in appendix N.

13.2.1 Methodology

The benefits appraisal process had four main stages:

- Identifying the benefits criteria relating to each of the investment objectives
- Weighting the relative importance (in %s) of each benefit criterion in relation to each investment objective
- Scoring each of the short-listed options against benefits criteria on a scale of 0 to 9 (where 0 does not meet any of the requirements and 9 fully meets the requirements)
- Deriving a weighted benefits score for each option.

13.2.2 Qualitative Benefits Criteria

The role of the benefit criteria is to provide a basis against which each of the options can be evaluated in terms of their potential for meeting the objectives of the proposed capital investment. Individual criteria have differing degrees of importance in determining the preferred solution to emerge from the appraisal, so it is necessary to weight the criteria to reflect the degree to which each will affect the outcome of the scoring exercise. The benefits criteria were weighted as follows:

Factor	*Objective*	*Benefits Criteria*	*Weighting*
Quality	Objective 1: Improve quality of services	▪ Provides the best opportunity to enhance the quality of care ▪ Provides improved health outcomes for patients ▪ Facilitates modernisation, improvement and innovation in clinical practice and teaching ▪ Addresses existing clinical risks	20
	Objective 2: Develop existing	▪ Supports development of new services in line with Trust Strategy i.e. high dependency care for	10

Factor	Objective	Benefits Criteria	Weighting
	services and enable provision of new services	paediatrics ▪ Provides a sustainable vascular service by safeguarding AAA screening service ▪ Ensures sufficient capacity to meet future demand ▪ Provides services in line with GP and commissioner requirements	
	Objective 3: Improve environment and patient experience	▪ High quality facilities which meet patient and staff expectations to ensure effective clinical care ▪ Improves functional suitability ▪ Provide a high quality, modern, consumer-friendly setting, with the necessary proximities to other relevant clinical services ▪ Positive shift towards delivering HBN and consumerism standards for example in relation to number of single rooms, meeting space standards ▪ Meets statutory standards (including fire, hygiene, health and safety), infection control and prevention requirements and privacy and dignity requirements ▪ Provides social and cultural facilities for staff ▪ Minimises the environmental impact of the solution (including energy, water and waste efficient solutions)	12
Safety	Objective 4: Improve safety of patients, visitors and staff	▪ Right people, right skills, right place for all patients ▪ Provides necessary clinical adjacencies with other key services to deliver safe and effective models of care	30
Sustainability	Objective 5: Ensure viability of and sustainability of clinical services	▪ Provides a more sustainable workforce by attracting appropriately trained staff and improving recruitment and retention ▪ Provides sustainable on call rotas for each specialty and enhanced senior clinician cover ▪ Has the potential to reduce locum dependency by increasing training places for junior doctors ▪ Delivers more efficient models of care for those centralised services; making more effective use of resources including use of the Trust estate ▪ Develops services in line with national policy, the strategic aims of the Trust and the local health community	15
	Objective 6: Create flexibility for the future	▪ Supports future expansion or retraction opportunities to cope with changes in demand and changes in the way services are delivered ▪ Supports potential adaption of facilities for alternative uses	5
	Objective 7: Practicality and ease of implementation	▪ Minimises disruption to existing service provision and avoids unnecessary decant or temporary provision of existing services ▪ Facilities to be fully operational by end of 2014 ▪ Minimises impact on the local community during construction	8

Table 53: Qualitative benefits criteria

13.2.3 Qualitative Benefits Scoring

Benefits scores were allocated on a range of 0-9 for each option and agreed by discussion by the workshop participants to confirm that the scores were fair and reasonable.

13.2.4 Analysis of Key Results for PRH site

The results of the benefits appraisal are shown in the following table:

Benefits Criteria		Option P0		Option P1		Option P2		Option P3		Option P4	
Raw (R) and Weighted (W) scores	Weight	R	W	R	W	R	W	R	W	R	W
Improve quality of services	20%	0.4	8	3.9	77	8.5	169	5.4	108	7.1	143
Develop existing services and enable provision of new services	10%	0.7	7	4.2	42	8.3	83	5.5	55	6.7	67
Improve environment and patient experience	12%	0.3	4	4.3	52	8.5	102	5.2	63	6.6	80
Improve safety of patients, visitors and staff	30%	0.5	14	3.0	91	8.9	266	5.3	158	7.4	221
Ensure viability of and sustainability of clinical services	15%	0.6	10	3.8	57	8.3	124	5.5	83	7.2	108
Create flexibility for the future	5%	1.5	7	4.4	22	7.9	39	6.0	30	6.4	32
Practicality and ease of implementation	8%	6.9	55	5.6	45	7.1	57	5.2	42	5.5	44
Total		11	105	29	386	57	841	38	539	47	695
Future Proof Index			0.75		0.70		0.85		1.00		1.00
Revised total			79		270		715		539		695
Rank		**5**	**5**	**4**	**4**	**1**	**1**	**3**	**3**	**2**	**2**
Margin below preferred (%)		**-81**	**-89**	**-49**	**-62**	**0**	**0**	**-33**	**-25**	**-18**	**-3**

Table 54: Benefits appraisal results for PRH

At the time of the identification of the non-financial criteria and application of weightings, the Trusts wider bed capacity analysis had not been concluded. The impact that adopting the strategies for efficiency this modelling work provides was therefore not available. To maintain the integrity of the process, a future proof adjustment index has been applied in light of this wider bed capacity analysis (section 9) and the Trust's strategy to reduce its inpatient bed base in line with moving to upper quartile performance. This future proof index (ensuring flexibility for the future) ranges between 0 and 1.0 with 1.0 being perfect coherence with this strategy.

The table above shows that with both raw and weighted scores, Option P2 was the preferred option. Sensitivity testing was applied to these scores including:

- Reversing the weighting of each criterion i.e. allocating the lowest weight to the most important objective and vice versa
- Equalising the weighting of each criterion so no objective is given greater importance than another.

In both situations, this did not affect the outcome of the benefits appraisal i.e. Option P2 continued to be the preferred option, and Option P4 was always second.

In addition, it would require a 21% increase in the total raw and weighted scores of Option P4 to become level with P2 but when comparing the post future proof index score this reduces to 3%.

13.2.5 Analysis of Key Results for RSH site

The options for RSH were similarly assessed against these criteria and the results of this are shown in the following table:

Benefits Criteria		*Option R0*		*Option R3*		*Option R4*		*Option R6*	
Raw (R) and Weighted (W) scores	*Weight*	*R*	*W*	*R*	*W*	*R*	*W*	*R*	*W*
Improve quality of services	20%	1	20	8	160	8	160	9	180
Develop existing services and enable provision of new services	10%	1	10	7	70	8	80	8	80
Improve environment and patient experience	12%	3	36	8	96	8	96	8	96
Improve safety of patients, visitors and staff	30%	1	30	8	240	7	210	8	240
Ensure viability of and sustainability of clinical services	15%	1	15	8	120	7	105	8	120
Create flexibility for the future	5%	6	30	6	30	7	35	7	35
Practicality and ease of implementation	8%	1	8	7	56	7	56	7	56
Total		14	149	52	772	52	742	55	807
Rank		**7**	**7**	**2**	**2**	**3**	**3**	**1**	**1**
Margin below preferred (%)		**-75**	**-82**	**-5**	**-5**	**-5**	**-8**	**0**	**0**

Table 55: Benefits appraisal results for RSH site

The table above shows that with both raw and weighted scores, Option R6 was the preferred option. Sensitivity testing was applied to these scores including:

- Reversing the weighting of each criterion i.e. allocating the lowest weight to the most important objective and vice versa results in R6 remaining the preferred option with R4 as the second option.
- Equalising the weighting of each criterion so no objective is given greater importance than another results in R6 remaining the preferred option with R3 and R4 equal second.

In addition, it would require a 5% increase in the raw score and a 4% increase in the weighted score of Option R3 to become level with R6.

The results and scoring of the RSH options were received by the relevant Centre Chiefs (Women's and Children's; Surgery; and Head and Neck).

13.3 Economic Appraisal

13.3.1 Capital Cost Estimates

The Trust's quantity surveyors, Holbrow Brooks, have prepared a full set of OB forms for each of the short-listed options. The capital costs for the economic analysis are based on (BIS) PUBSEC for a projected start date of second quarter 2012. As detailed within the Treasury's Green Book, the costs used within the economic analysis exclude the effect of VAT.

The table below details the level of on-costs, the level of optimism bias and the total capital cost (exc VAT). There are no capital cost implications for option P0The table below details the level of on-costs, the level of optimism bias and the total capital cost (exc VAT). There are no capital cost implications for option P0.

Cost Item	Option P0	Option P1	Option P2	Option P3	Option P4	Option R0	Option R3	Option R4	Option R6
On- costs	-	63.17%	58.06%	58.05%	54.93%	20.00%	22.61%	19.91%	17.15%
Optimism bias	-	16.17%	14.63%	14.63%	14.40%	20.79%	20.79%	20.79%	20.79%
Total	-	£31,011,138	£26,451,707	£25,613,387	£25,105,380	£14,000,000	£9,737,963	£6,135,191	£5,474,597

Table 56: PRH capital costs

13.3.2 Revenue Cost Estimates

The following recurrent income and expenditure assumptions have been used within the economic appraisal for the PRH options:

- Option P0 would result in the loss of the vascular surgery service and an associated loss of income of £285,000 has been recognised.
- Options P1, P2, P3 and P4 allow the Trust to retain vascular surgery and as such allow the Trust to become a AAA screening site. An estimated income stream of £200,000 has been recognised.
- Options P1, P2, P3 and P4 allow the Trust to perform certain paediatric elective work that currently goes out of the county to other providers. An estimated income stream of £100,000 has been recognised.
- Option P0 would require additional staff costs to ensure rota compliance, cross site working and additional theatre and support staff. A staff cost amount of £2,443,000 has been recognised.
- Options P1, P2, P3 and P4 allow for staff cost reductions within the Surgical centre. These are driven by the consolidation of services onto the RSH site. The impact is based on the more efficient usage of ward staff and equates to a reduction of 5.64 whole time equivalents (wte) with a cost saving of £211,000 being recognised.
- Options P1, P2, P3 and P4 require staff cost increases within the Women and Children's centre and are driven by changes in the mix of type of staff within the Paediatric team. The recurring increase is 7.79 wte with a cost of £398,000 being recognised.
- Options P1, P2, P3 and P4 increase the overall size of the estate and therefore incur additional running costs of cleaning and heat and light. The additional running costs have been costed from the Trust's ERIC data at rates of £19.95sqm for cleaning and £21.83sqm for heat and light.

The table below details the recurrent amounts with figures in brackets reflecting a reduction in income or an increase in expenditure:

Cost Item	Option P0 (£000s)	Option P1 (£000s)	Option P2 (£000s)	Option P3 (£000s)	Option P4 (£000s)
Total Income	(285)	300	300	300	300
Total Pay Cost Effect	(2,443)	(187)	(187)	(187)	(187)
Total Non-Pay Cost Effect	-	(307)	(300)	(215)	(219)

Table 57: Revenue cost estimates for PRH options

The following recurrent income and expenditure assumptions have been used within the economic appraisal for the RSH options:

- Option R0 results in no additional income and expenditure items.
- Options R3, R4 and R6 allow the Trust to repatriate and relocate it's Finance and HR functions. The rent saving and the opportunity to rent the current HR offices as staff accommodation have been included as a saving of £329,000 and £70,000 respectively.

- Options R3, R4 and R6 increase the overall size of the estate and therefore incur additional running costs of cleaning and heat and light. The additional running costs have been costed from the Trust's ERIC data at rates of £19.95sqm for cleaning and £21.83sqm for heat and light.

The table below details the recurrent amounts with positive figures reflecting an increase in income or a reduction in expenditure:

Cost Item	Option R0 (£000s)	Option R3 (£000s)	Option R4 (£000s)	Option R6 (£000s)
Total Income	-	-	-	-
Total Pay Cost Effect	-	-	-	-
Total Non-Pay Cost Effect	-	334	393	396

Table 58: Revenue cost estimates for RSH options

In addition to the above recurrent costs the following have also been included within the economic appraisal of PRH and RSH options:

- Building lifecycle costs have been taken from the OB forms
- 'One-off' expenditure decanting costs of £500,000 have been included within options P1, P2, P3 and P4. In addition, other decanting costs are also included within the OB forms.

13.3.3 Option Ranking

The capital costs and income and expenditure costs are subject to a net present value/cost (NPV/NPC) calculation under the following criteria:

- All options (excluding option R0) are appraised over 60 years.
- R0 has been appraised over 14 years as that is deemed to be the life of that option. As a further options appraisal would be required at that point in time no further costs and/or development expenditure has been calculated or assumed within the NPC calculation.
- An equivalent annual cost/benefit (EAC/EAB) is calculated to allow the comparison and ranking of schemes that are appraised over a different number of years.
- The detailed calculations are in appendix P.

The results for the PRH site are summarised and shown in the following table:

Description	Ranking	Ranking	
		NPC (£000s)	EAC (£000s)
PO	5	71,266	2,717
P1	4	47,452	1,807
P2	3	40,931	1,559
P3	2	37,703	1,436
P4	1	37,101	1,413

Table 59: Summary of results for the PRH site

The results for the RSH site are summarised and shown in the following table:

Description	Ranking	Ranking	
		NPC / (NPV) (£000s)	EAC / (EAB) (£000s)
R0	4	15,404	1,362
R3	3	5,227	199
R4	2	(1,189)	(45)
R6	1	(2,176)	(83)

Table 60: Summary of results for the RSH site

13.3.4 NPV Appraisal Conclusions at the PRH and RSH site

The key findings are as follows:

Option P4 has the lowest net present cost and R6 has the highest net present value.

13.4 Sensitivity Analysis

The methods used were:

a) 'switching values'

b) scenario planning / analysis ('what if ') by altering the values of the 'uncertain' costs and benefits to observe the effect on the overall ranking of options.

13.4.1 Results of Switching Values

The tables below show the values (in %s) at which the preferred option would change in the overall ranking of options.

Change in Costs (%)	Option P0 (%)	Option P1 (%)	Option P2 (%)	Option P3 (%)	Option P4 (%)
Capital costs (NPC)	-	(23.6)	(5.4)	(2.0)	-
Non-capital costs (NPC)	(2,212.4)	(36.8)	(33.9)	-	(1.7)
Total costs (NPC)	(92.1)	(27.9)	(10.3)	(1.6)	-
EAC	(92.3)	(27.9)	(10.3)	(1.6)	-

Table 61: Changes (%) required to equate with the preferred option for PRH

The results above show that only small percentage changes are required within Option P3 for that option to have an equal net present cost to option P4. In addition, option P3 has the lowest net present cost for non-capital costs and would require a 1.7% change in option P4 to make this option the equal lowest net present cost.

Change in Costs (%)	Option R0 (%)	Option R3 (%)	Option R4 (%)	Option R6 (%)
Capital costs (NPC)	(157.8)	(77.9)	(12.1)	-
Non-capital costs (NPC)	(100.0)	(2066.7)	(100)	-
Total costs (NPC)	(807.8)	(340.2)	(45.4)	-
EAC	(1742.8)	(340.2)	(45.4)	-

Table 62: Changes (%) required to equate with the preferred option for RSH

The results above show that option R4 requires significant percentage changes to have an equal net present value to R6.

13.5 The Preferred Option

When constructing the preferred option the qualitative benefits scoring as detailed in section 14 is merged with the equivalent annual cost / benefit as detailed in section 13.3.3.

The preferred option, and ranking, is generated when comparing the 'Cost per benefit point' and those preferred options are then taken forward for analysis within the financial chapter.

The table below details the ranking of the PRH options:

	Option P0	*Option P1*	*Option P2*	*Option P3*	*Option P4*
Weighted Benefit Score	79	270	715	539	695
Equivalent Annual Cost (£000)	2,717	1,807	1,559	1,436	1,413
Cost per benefit point	34.50	6.69	2.18	2.66	2.03
RANKING	5	4	2	3	1
DIFFERENCE (Marginal change required to make Option P4 not preferred)	(1597.0%)	(229.0%	(7.3%)	(31.0%)	-

Table 63: Summary of overall results for PRH

Conclusion: the preferred option is P4 with a 7.3% change required within P2 to make this an equivalent option.

The table below details the ranking of the RSH options:

	Option R0	*Option R3*	*Option R4*	*Option R6*
Weighted Benefit Score	149	772	742	807
Equivalent Annual Cost/ (Benefit) (£000)	1,362	199	(45)	(83)
Cost/ (Benefit) (£000) per benefit point	9.14	0.26	(0,06)	(0.10)
RANKING	4	3	2	1
DIFFERENCE (Marginal change required to make Option R6 not preferred)	(8,997.7)	(351.1%)	(40.6%)	-

Table 64 Summary of overall results for RSH

Conclusion: the preferred option is R6 with a 40.6% change required within R4 to make this an equivalent option.

14.0 Preferred Option

Chapter Summary

- **Introduction to the business case and it's structure**
- **The preferred option**
- **Reconciling the estate developments with the known demographic challenge and the Trusts improvement plans for financial sustainability**

14.1 Preferred Option – Configuration of Future Services at PRH

14.1.1.1 Obstetric and Neonatal Services

The transfer of obstetric and neonatal services from RSH to PRH requires significant expansion of the existing estate. The Trust is of the view that such investment should concentrate on providing key clinical space within new build accommodation whilst utilising the limited available refurbished accommodation (vacated HSDU) for support accommodation.

The proposed location for obstetrics and neonatology seeks to create clinical adjacencies between the existing paediatric department, imaging and A&E on the ground floor.

At first floor the key adjacencies are with existing theatres, refurbished support accommodation including on-call and relatives' overnight stay plus a converted inpatient ward providing the balance of obstetric beds.

14.1.1.2 Midwife-Led Unit

The Midwife-Led Unit will remain in its current location and will receive a refresh in respect of appearance, lighting and finishes. The same approach applies to both WANDA (Day Assessment) and the antenatal clinic.

14.1.1.3 Children's Services

Children's Services are consolidated around the existing accommodation, providing two elements of new build extension, one to accommodate the longer stay oncology inpatients and the other to accommodate Paediatric Assessment Unit and paediatric outpatients.

Proposals include enhancing elements of the existing Day Case Unit to create a 'child friendly' patient pathway.

The new outpatient facility will make specific provision for discrete scheduling of immuno-compromised patients.

A paediatric audiology facility is included.

The Paediatric facilities are within close proximity to theatres, imaging and A&E.

14.1.1.4 Women's Services

Gynaecology outpatients will transfer to General Outpatients but will be zoned around a new Colposcopy Suite within the vacated and converted ophthalmology area.

At first floor, Women's Services (Breast, Gynaecology and EPAU) are consolidated within existing ward 12-14, with close proximity to Theatres.

14.1.1.5 Head and Neck

Transferred adult head and neck inpatients are located within ward 12-14, with close proximity to theatres and critical care.

Proposals for a head and neck treatment room within the existing A&E is included.

14.1.1.6 Site Works

A section of the existing site access road and part of the car park to the north of the site will require adjustment and replacement of displaced parking spaces are included within the proposals to provide a 200-250 place car park extension - subject to final ratification of the travel and traffic impact assessment commissioned by the Trust in connection with this project.

14.2 Preferred Option – Configuration of Future Services at RSH

14.2.1.1 Midwife-Led Unit

The proposed location for the Midwife Led Unit is at Level 2 of the main ward block, occupying a refurbished ward area. This location offers good vehicular and pedestrian access for patients and visitors, whilst maintaining a level of separation from other hospital activity.

14.2.1.2 Obstetrics

A proportion of the existing 'front-of-house' areas next to the new MLU will be converted to provide antenatal clinic and PANDA (Day Assessment) accommodation with the Early Pregnancy Assessment Service occupying a more discrete, but immediately adjacent suite.

14.2.1.3 Children's Services

The retention of a Paediatric Assessment Unit at RSH, after the majority of service transfers to PRH, requires a new location with immediate adjacencies with A&E. The new PAU is planned to occupy the original paediatric head and neck inpatient accommodation that is co-located with A&E.

Children's outpatient facilities are delivered by re-commissioning outpatient consult / exam accommodation at Level 3 above main Outpatients. It is envisaged that paediatric audiology will be delivered in the same way as currently at RSH via existing facilities and booked children's clinic sessions.

14.2.1.4 Surgical Inpatients

The impact of the surgical inpatient capacity at RSH requires an overall increase of 30 surgical beds. The creation of an Integrated Assessment Unit forms part of a wider Trust-wide strategy, and the preferred option is realistically aligned with that objective as it allows a proportion of the surgical assessment beds to be integrated with the existing Medical Assessment Unit, the balance of SAU beds is located within the original adult head and neck inpatient accommodation that is immediately adjacent.

14.2.1.5 Clinical Support

In order to expand and integrate assessment services, it is proposed to relocate the medical office support zone in this area in order to increase bed capacity. The management offices at Level 3 above main Outpatients will move to a more remote location in order to accommodate the displaced medical offices that require more immediate adjacency to clinical accommodation.

14.2.1.6 Non Clinical Support

It is proposed to centralise a management suite of offices including Finance and Human Resources, within the vacated Maternity Building in order to 'repatriate' divisions that are currently located off-site. These will integrate with those management functions at RSH that are vacating offices at Level 3 above main Outpatients.

14.3 Design Strategy

The PRH site has a very strong development pattern dominated by the original nucleus style development. In addition, the proposed new build site is in fact a gap within the original development control plan and had been earmarked for future development.

There is therefore a strong tendency toward providing new development that respects the cruciform and planning principles of Nucleus design, whilst responding to the modern construction and design drivers such as BREEAM and other current carbon and energy saving initiatives.

The scale of development at RSH is such that it is unlikely that any material external alteration will be required and that any minor works that are required will be in keeping with, and contemporaneous to, the existing estate.

The Trust is committed to a process of engagement and the creation of opportunities that will generate comment and feedback within a time framework that will benefit the design development. This process of engagement recognises various levels of interaction, namely:

- Clinical User Groups with a view to signing off clinical plans and functional brief
- Wider staff consultation via meetings, road-shows, newsletters and e-bulletins
- Patient and public involvement through developing speciality focus groups
- Encouraging design excellence via the formation of a Design Group and undertaking assessments at key stages throughout the project using the NHS Achieving Excellence in Design Toolkit (AEDET Evolution)
- Adding value by peer review, for example via Design Review Panel, when considered appropriate
- Public Consultation including local community representation and key stakeholders as part of the Town Planning process.

In preparation for the Full Planning Application, and as part of the Trust's commitment to design Quality, a Design and Access Statement framework document has been prepared and submitted to the LPA for early agreement, entitled Design Context (appendix U).

The Trust's Design Champion is one of the Non-Executive Directors; Dr Peter Vernon

14.3.1.1 AEDET

The design process has used an AEDET approach to gain the maximum design benefit.

To this end a preliminary AEDET assessment of the project was undertaken where the AEDET headings were discussed in order to establish the Trust's design objectives.

The overarching Trust requirements have been used as a set of parameters against which the analysis has been completed and will act as a guide to the overall design development.

The results of the review indicated a range of scores for each area between 4.4 and 5.3. Each section achieved a valid average score. This is shown below.

The AEDET aspiration will be kept under constant review and a further workshop will be held once the design/planning consultation has been completed.

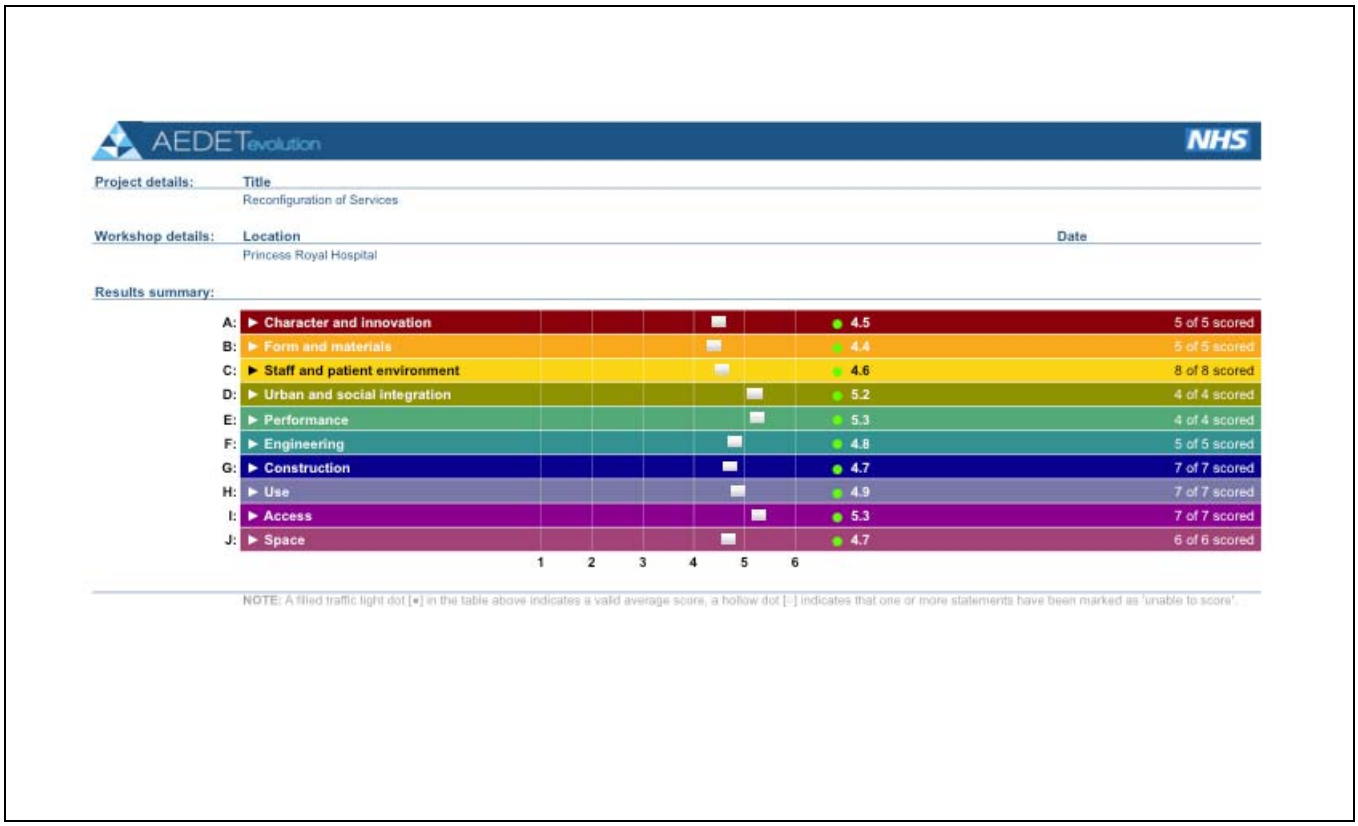


Figure 13 Preliminary AEDET assessment

14.4 Engineering Strategy

Capita Symonds Ltd (CSL), as one of the appointed Trust advisors, has undertaken feasibility studies of both PRH and RSH sites and across all short-listed options, in order to underpin the technical and cost provisions outlined within this business case.

14.4.1.1 Building Services – PRH

The proposed new build development at the Princess Royal Hospital will impose an increase in demand upon the primary plant and distribution networks. There are a number of solutions to enable the development and the detailed appendices set out service by service the requirements, some driven by regulatory needs others by BREEAM requirements.

The engineering plant is located at the opposite end of the site to the proposed development and to route services through the building appears to be impractical. CSL has therefore proposed to use an external service duct from the plant area to the development under the current fire road.

The electrical infrastructure is currently close to the maximum available capacity, regulatory discussion will be required to establish how much of an increase can be accommodated and what impact this will have on the shippers infrastructure network. CSL has advised on a risk item for this possible additional cost. It is proposed to break in to the existing HV ring, provide a new transformer to match the existing across the site, and remake the ring. This coupled with a new dedicated generator will provide sufficient robustness for the development. This will not solve the wider site issue on generating capacity and the way this is connected and configured. Works to this could provide a more robust network and give greater opportunity for future expansion.

Within the development new UPS and IPS systems will be provided to ensure the new electrical systems comply with current HTM's and HBN's.

General changes across the site have over the years reduced the demand upon the heating and water systems. It is proposed to adapt the steam main within the boiler room, convert this to Medium Temperature water and then to run this externally around to the new development. This will then rise to the

roof top plant area before serving the ventilation plant and general building. A number of ventilation systems will be contained within the new development for the various clinical functions.

Water will also be run from the plant area, tanked cold and treated water, externally to the development. Medical gases are located in the general plant area at the opposite end of the hospital to the development. There is sufficient space and capacity in the current plant rooms but the existing internal infrastructure is too small to cope with the increased loads, combined with the revised requirements under the latest HTM's. It is proposed to run a new set of mains for all medical gases from the bottle stores around to the development via the multi service trench/duct under the fire road. The gases will be "cross connected" to help share the demand and allow future flexibility on the systems.

A new IT fibre cable will be run from the plant room to the development and connected to the new hub rooms. This will be cross connected with the existing network and combined with a minor upgrade to the 4 current switches will allow the increased data traffic to be handled, and should provide some robustness and flexibility to the existing data network.

New plant will generally be contained within the foot print of the development generally at roof level. Vertical and horizontal distribution has been identified and is detailed in the appendices.

14.4.1.2 Building Services – Refurbishment Areas at PRH and RSH

At Telford the refurbished areas will be connected to the existing engineering services within the spaces. Based on current outline proposals and knowledge of the current system CSL anticipate that there is sufficient capacity to accommodate this alteration.

14.5 Equipment Strategy

The equipment requirements for the preferred option are being established. These requirements will be assessed and costs are based on departmental ECAGs. Further detailed refinement will be undertaken as part of the Room Data Sheet development.

The Trust will establish an Equipment Responsibility Matrix (ERM) defining which party is responsible for all facets of equipment, e.g. procurement, fixing, maintaining and replacement.

In relation to the transfer of equipment from the existing hospital, the Trust has assumed a reasonable level of transfer for the purposes of establishing a cost of equipment. Currently this is estimated at approximately 80% of the total equipment requirement.

Additionally, the Trust will undertake a survey of existing equipment closer to the time of transfer, using the following criteria:

- Associated downtime during the transfer period is acceptable
- Costs associated with all transfers are tested for value for money against the purchase of a new replacement
- Consumables, durables, spare parts and service will be available for the remaining Life expectancy of the item
- Item complies with infection control requirements
- Item complies with current regulations and is considered safe
- Compatibility with other equipment
- Item can be physically accommodated within the new facilities.

The Trust is committed to maintaining investment in the equipment replacement programme to ensure equipment is available for transfer at the appropriate point.

The Trust is fully aware of the need to ensure access to the new hospital site, prior to practical completion, to enable the completion of Trust commissioning activities in advance of handover of building. Beneficial access rights will need to be considered and will be set out in the contract documentation.

14.6 ICT Strategy

The high-level ICT strategy concentrates on providing solutions to meet the clinical and business requirements of the reconfigured services. The aims of the strategy are to:

- Provide a robust and modern infrastructure
- Prepare the services for moving into their new location
- Support local Centre service plans.

The new building provides a great opportunity and platform upon which to continue to integrate systems within the building fabric increasing reliability, integration and availability. This strategy is included in appendix Y1.

14.7 Phasing and Decanting

At PRH there is a requirement for an enabling phase of works. The existing modular building that accommodates Paediatric Outpatients will need to undergo a 'lift-and' shift' move in order to free up the development site.

The Trust has undertaken a separate feasibility study to establish a cost and programme for these works and it is anticipated that the period of disruption will be limited. During this short period of disruption it is anticipated that outpatient appointments may be managed in a number of ways including flexible working across the two sites, some consultation undertaken within the main paediatric department and collaborative booking of other suitable clinic accommodation.

The Trust is currently reviewing whether it continues to need the small medical records modular building that also occupies the development site.

A third and smaller modular unit, currently occupied by Patientline, could remain in place during development; however, the Trust is to undertake further risk assessments and consultation with the users of this facility to confirm this position.

It is recognised that early completion of the proposed car park extension will help to reduce disruption and assist with the segregation of construction activities (Construction, Design and Management of health and safety).

At RSH the main dependencies relate to achieving the target reduction in overall bed numbers in order to release ward no. 22A/R for conversion to MLU.

The timing of surgical bed transfers to RSH can be adjusted to suit the procurement programme for the converted areas of the MAU, although the additional 8 beds being created within the existing MAU will be dependent upon office moves.

There are no hindrances affecting the relocation of PAU.

The physical alterations to the existing Maternity Building cannot start until Obstetric and Neonatal Services transfer to PRH. However, some existing offices, once vacated, will only require a refresh and therefore it is recommended that the Level 3 management offices transfer first in order to convert vacated areas for Paediatric Outpatients at the earliest opportunity and allow medical office to transfer.

14.8 Alignment and Contribution to Estate Strategy

The key estates objectives identified by the Trust in its Estates Strategy 2007 remain germane and all of the short-listed options for both PRH and RSH have been developed with a view to addressing those stated targets wherever the opportunity presents itself.

The current preferred option proposal for PRH actively works towards resolving a number of the key elements highlighted in the Estates Strategy, namely:

- Improved use of GP x-ray unit
- Capacity opportunities within Day Case Unit
- Car parking pressures are addressed
- HSDU opportunity is being acted upon
- Acknowledges the move towards community based rehabilitation.

At RSH the most significant estates objective that this OBC addresses is the relocation of clinical functions from within the existing maternity building. It is recognised that there is some retention of clinical functionality in the short term; however, the major moves planned to PRH will go a long way towards achieving the overall objective. The timeline for completing the remaining service moves remains embodied within the overall Estates Strategy

At RSH the focus across all of the options is to align the reconfigured service scope with other Trust wide strategies and to ensure that the finally selected option does not prejudice parallel work streams. The key initiatives that have been 'balanced' and taken into consideration include:

- Maximising opportunities to create improved and centralised critical care facilities
- Working towards the development of an Integrated Assessment Unit combining SAU and MAU
- Creation of Delayed Transfer of Care facilities
- Defining solutions that are complementary with current Oncology and Haematology Service proposals.

14.9 Benefits

The benefits management strategy is included at appendix F. This describes a clinically-led process and is based on identification, prioritisation and ownership of the benefits developed by the four clinical working groups for delivery within their specialty. The benefits plan for each reconfigured specialty area is included at appendix F1.

The high level, overarching benefits from which these benefits have been drawn are shown in the table below.

Desired Benefit	*Proposed Measurement*
Patients continue to have access to 24 hour acute surgery in county	Standard Mortality Ratio Length of stay (elective and non-elective) 18 week RTT Numbers of transfers in and out of county Occupancy Pre op LOS for non elective surgery
Children and families have access to inpatient paediatric services that are in line with services delivered within a district general hospital	Transfers from PAU to Inpatient Unit Transfers out of county A&E activity by site HDU activity Length of stay Clinical outcomes Occupancy
Women and families have access to a fit for purpose, modern obstetrics, gynaecology and neonatology facility	Length of stay Clinical outcomes Consultant v Midwifery-led births Day case rates (gynaecology) Occupancy

Desired Benefit	*Proposed Measurement*
	Caesarean Section rates
Robust and sustainable medical and nursing rotas are in place	EWTD compliance Use of locums and agency Outcome of recruitment Levels of retention Staff satisfaction survey
Patients have access to day case assessment, treatment and care and their stay in hospital is as short as clinically appropriate	Day case rates Length of stay Theatre capacity Occupancy – surgery inpatients
The impact of additional travel time for some patients is minimised	Analysis to be agreed with WMAS and WAS but to include: ▪ turnaround times ▪ door to needle times (paediatric oncology) ▪ transfers from MLUs
Services are efficient with good clinical outcomes and high levels of patient satisfaction	Standard Mortality Ratio West Midlands Quality Reviews Patient satisfaction surveys Complaints

Table 65: High level benefits

15.0 Commercial Case

Chapter Summary
▪ **ProCure 21+** ▪ **Choosing a P21+ partner and the associated timescales** ▪ **Charging mechanisms and the transfer of risk**

15.1 Introduction

This section of the OBC outlines the proposed commercial arrangement in respect of the preferred option identified in the economic case.

It is the intention of the Trust to deliver the project using the Department of Health's P21+ Framework working with their preferred P21+ partner.

15.2 Why P21+

The Trust intends to use P21+ as this process reduces many of the risks to the project cost and timetable and removes much of the traditional adversarial nature of the design/construction management process. This procedure is advocated by the Department of Health unless there are reasonable grounds for following a more traditional route. This project will be funded by central government capital and will not be required to test the Private Finance Initiative.

The benefits of P21+ to the client include:

- Best value in terms of capital and revenue costs through improved efficiency and elimination of waste. The Department of Health has published the comparable costs over a range of schemes that demonstrate this efficiency and is shown below

How P21+ out-turn costs are compared with traditional contracting over a range of clinical facility types is shown below[28].

CI/Sfb Building Type	*Procurement Type*	*Cost Range £/m² GIA*	
		Minimum	*Maximum*
Diagnosis excluding radiography	Traditional	1,311	3,733
	P21	1,467	2,258
Surgery including operating theatres	Traditional	1,341	3,173
	P21	1,528	2,556
Cardiac Units	Traditional	1,992	2,204
	P21	1,210	2,399
General Hospitals	Traditional	695	3,234
	P21	1,667	2,213
Outpatients/Casualty Units	Traditional	1,224	2,592

[28] Source : http://www.procure21plus.nhs.uk/performance/

CI/Sfb Building Type	Procurement Type	Cost Range £/m² GIA	
		Minimum	Maximum
Mental, psychiatric hospital facilities	P21	809	2,084
	Traditional	945	2,360
	P21	1,268	3,074

Table 66 Traditional Vs P21 out-turn costs

- Schemes delivered and facilities coming into operation more quickly by:
  - Removing the need for European Union tendering procedures
  - Using established supply chains to work from briefing through design and construction to final commissioning with teams experienced in NHS planning and design philosophy
- Greater certainty on cost and time:
  - Establishing a 'guaranteed maximum price' at design sign off
  - Establishing supply chains reduce the possibility for delay and disruption
  - Familiarity with NHS leads to 'right first time' design solutions
- P21+ adopts best practice helping to ensure that buildings better meet service needs
- Better management and less risk should enable avoidance of some of the problems that have arisen with capital procurement in the past such as time cost over runs, delay and disruption claims from contractors and adaptation cost on completion
- Key features of P21+ include
  - **Tested.** A proven high quality procurement route, supported by the Department of Health, OGC, NAO, HM Treasury and professional bodies such as HEFMA and IHEEM.
  - **Flexible.** ProCure21+ is available to Non-NHS public sector healthcare related clients that are taking schemes forward with their local NHS Trusts.
  - **Required.** NHS Clients are required to agree to the ProCure21+ Client Charter, that informs the client of their basic responsibilities to the scheme by implementation of good project management.
  - **Educated.** All new NHS Clients and Supply-Chain staff taking part in their first P21+ scheme will receive training helping them implement the scheme effectively. Each scheme will have a start-up workshop provided the PSCP.
  - **Assured.** ProCure21+ applies a new suite of assurance and performance management procedure that enhances transparency and assists scheme management.
  - **Accountable.** Each ProCure21+ PSCP will nominate a board member accountable for the successful delivery of all their schemes.
  - **Committed.** ProCure21+ requires a commitment from the NHS client to follow procedures and provide feedback to the Department of Health.
  - **Integrated.** ProCure21+ has a single comprehensive risk management process mandated on all schemes. Risk information will be shared across schemes.
  - **Reviewed.** Each ProCure21+ scheme is required to carry out post project evaluation encouraging lessons and best practice are captured, shared and integrated into subsequent schemes.
  - **Recycled.** Each ProCure21+ PSCP will identify a Best Practice Champion accountable for the recording, implementation and sharing of best practice on all schemes. The provision of a database of architectural information and drawings available for use free under NHS Royal Free Licence.
  - **Transparent.** ProCure21+ further enhances the level of transparency between clients and suppliers by the sharing of scheme data across schemes and supply-chains.

- **Challenging.** ProCure21+ uses the NEC3 form of scheme contract to facilitate a challenging partnership.
- **Innovative.** ProCure21+ supports the delivery of sustainable developments, driving best practice on the use of local labour, skills transfer into local communities and the use of "green" technologies.
- **Scaled.** ProCure21+ offers a small works template that is ideal for maintenance, refurbishments and other small works packages under £1m.
- **Streamlined.** ProCure21+ has streamlined its requirements for collection of data to ensure the most the most important information is collected in a efficient manner.
- **Evaluated.** ProCure21+ will offer the chance to measure value gained against initial criteria.

15.3 Potential for Risk Transfer

Prior to the Trust entering into any commitment in respect of agreeing a Target cost through discussion with their P21+ partner, residual risks will be allocated between the parties to the contract with due consideration to the party best placed to manage the risk.

Risk Category		*Potential Allocation*		
		Trust	*P21+Partner*	*Shared*
1	Design risk			✓
2	Construction and development risk		✓	
3	Transition and implementation risk			✓
4	Availability and performance risk			✓
5	Operating risk	✓		
6	Variability of revenue risks	✓		
7	Termination risks	✓		
8	Technology and obsolescence risks	✓		
9	Control risks			✓
10	Residual value risks	✓		
11	Financing risks	✓		
12	Legislative risks	✓		
13	Other project risks			✓

Table 67 Risk sharing matrix

15.4 Proposed Charging Mechanisms

The organisation intends to make payments in relation to the proposed products and services as follows:

- The project will be delivered in accordance with the controls and gateways defined under the P21+ framework and the New Engineering and Construction (NEC) Contract
- For each stage of the business case the P21+ partner will submit for agreement a priced activity schedule against a defined scope of works and delivery programme
- The priced activity schedule will be calculated upon the Bid Return Documentation included in the Framework and will form the basis for reimbursement
- The phase 4 target cost will be calculated using Bid Return documentation for staff and design consultants. Trade packages will be procured in accordance with a pre-agreed procurement strategy on an open book basis

- Throughout each stage, cost control and change control will be managed through regular reporting and use of the P21+ processes.

15.5 Implementation Timescales

The Trust has appointed an experienced technical advisory team to deliver the prerequisite technical components of this outline business case. This is detailed below.

Advisor	*Potential allocation*
Strategic Healthcare Planning – Healthcare planners and architects Construction Development Architects	▪ Building layout and functional brief ▪ Lead consultant for design team ▪ Building design
Capita Symonds – Mechanical and electrical engineers Structural engineers	▪ M&E specification and design ▪ Energy ▪ Structural specification and design ▪ Utilities infrastructure ▪ Roads/car parks
Holbrowe Brooks – Cost Advisors/Quantity Surveyors	▪ Capital costs ▪ Whole life costing ▪ Design and construction co-ordination to OBC
Lambert Smith Hampton – Town Planning Consultants	▪ Urban design ▪ Planning advice/applications ▪ Environmental impact assessment ▪ Environmental strategy ▪ Traffic impact ▪ Travel plans

Table 68 Technical advisory team

The initial project procurement timeframes are shown below.

Description	*July*	*Aug*	*Sept*	*Oct*	*Nov*	*Dec*
Appoint Technical Advisory Team	✓					
Trust Board approval		✓				
OBC submission to SHA			✓			
P21 information pack		✓	✓			
OBC approval			✓			
Scheme registration/selection criteria				✓		
Expressions of interest/ short listing/open day					✓	
Final selection/execution plan						✓

Table 69 Procurement timeframe

16.0 The Financial Case

Chapter Summary

- **The capital required to deliver the preferred option**
- **The impact on the Trust's Income and Expenditure Account, the Statement of Financial Position and cash flow**
- **The issue of affordability**
- **The Trust's Cost Improvement Programme**
- **Financial conclusions**
- **The reconciliation of reconfiguration, demography and the Trusts efficiency plans**

16.1 Introduction

The purpose of this section is to set out the forecast financial implications of the preferred option (as set out in the economic case section 13) and the proposed deal (as described in the commercial case, section 15).

16.2 Capital Funding Requirement

The Trust's quantity surveyors, Holbrow Brooks, have prepared a full set of OB forms for each of the short-listed options. The capital costs for the financial analysis are based on (BIS) PUBSEC for a projected start date of second quarter 2012. The capital costs include an element of non-recoverable VAT based on an estimated level of recoverable VAT. The estimate of recoverable VAT will require further clarification and ratification.

Option	*2012/13 (£000)*	*2103/14 (£000)*	*2014/15 (£000)*	*Total (£000)*
P4	11,785	11,380	5,534	**28,699**
R6	2,633	2,454	1,174	**6,261**
Total	**14,418**	**13,834**	**6,708**	**34,960**

Table 70: Capital funding required

Option P4 minimises new build elements and relies on a co-ordinated programme of ward refurbishment. A summary position is described below:

- Provides the majority of the Obstetrics and Neonatology in new build accommodation, next to the existing Paediatric services and retains the existing MLU and Clinic services to the east of the site. Utilises converted accommodation (vacant HSDU) for overnight stay and non clinical support. Respiratory Medicine is re-located to ward 15. Postnatal ward is adjacent to the Obstetric Unit in the vacated surgical ward 12
- General rehabilitation (ward 15) is re-provided in the community
- Consolidates Children's services around their existing accommodation providing new build accommodation for Outpatients, Oncology and Paediatric Assessment, retaining the existing inpatient accommodation. Services within close proximity to A&E and Imaging
- Consolidates Women's services (breast, gynaecology and EPAU) into existing ward 14, with close proximity to theatres
- Locates Head and Neck Inpatient services on existing ward 8 with close proximity to theatres and critical care.

Option R6 relies entirely on co-ordinated programmes of ward refurbishment and allows re-provisioning Corporate functions into the vacated and refurbished maternity building. A summary position is described below:

- MLU, Antenatal and EPAS consolidated in converted Ward 22 and front-of-house areas of main Ward Block
- Paediatric Outpatients forms part of the existing outpatient facilities, additional clinic space is created by reinstating part of level 2 for consulting / examination
- Paediatric Assessment is provided within existing Paediatric Head and Neck facility with light touch refurbishment
- Transferred surgical inpatients from PRH to be accommodated largely on Level 4, final bed configuration assumes a more robust and developed DTOC strategy and reduced medical bed quantum
- Creation of an Integrated Assessment Unit including engineering links to facilitate existing MAU and existing Head and Neck facility, major refurbishment of current Head and Neck facility for provision of SAU. Medical office suite converted to 2 four bed bays with ensuites and clinical support to enhance the IAU
- Safeguarding of Wards 31 and 32 for future DTOC
- Existing Maternity building available throughout to assist with temporary decanting of non-clinical functions

The Trust is intending that the developments will be funded solely from external funds to the Trust's own capital resources through a Department of Health loan. The period of loan has been assumed to be over a period of 27 years.

	2012/13 (£000)	*2103/14 (£000)*	*2014/15 (£000)*	*Total (£000)*
Option				
P4	11,785	11,380	5,534	**28,699**
R6	2,633	2,454	1,174	**6,261**
Total	**14,418**	**13,834**	**6,708**	**34,960**
Funded by:				
External loan (DH)	14,418	13,834	6,708	**34,960**
Total	**14,418**	**13,834**	**6,708**	**34,960**

Table 71: Capital loan requirement

16.3 Impact on the Organisations Income and Expenditure Account

The initial incremental revenue and expenditure impacts associated with the preferred options are presented over the first 7 years of the project only and are based on the following:

16.3.1 Income

- The preferred options allow the Trust to retain vascular surgery and as such the Trust is aiming to become a 'AAA' screening site. An estimated income stream of £200,000 has been included from 2012/13 onwards
- The preferred options allow the Trust to perform certain paediatric elective work that currently goes out of the county to other providers. An estimated income stream of £100,000 has been included to recognise this activity from 2013/14 onwards.

16.3.2 Pay

- Staff cost reductions are being planned within the Surgical centre and are driven by the consolidation of services onto the RSH site. The impact is based on the more efficient usage of ward staff and equates to a reduction in 2013/14 of 5.64 whole time equivalents (wte) with a cost saving of £211,000
- Staff cost increases are being planned within the Women and Children's centre over the first two years of the project and are driven by changes in the mix of type of staff within the Paediatric team. The increase in 2012/13 is 4.0 wte at a cost of £233,000 and an additional 3.79wte in 2013/14 at a cost of £165,000.

16.3.3 Non Pay

- There is a net increase in the size of the Estate by 5,318sqm that will generate additional running costs – heat and light and cleaning. The additional running costs have been costed from the Trust's ERIC data at rates of £19.95sqm for cleaning and £21.83sqm for heat and light. This total number is £222,000 and when comparing the net effect of running costs should be offset against the equivalent type of costs that will be saved as part of the repatriation of the Finance function from the current offsite facilities. This saving is estimated to be £85,000 and is shown within the repatriation saving detailed below
- The Finance and HR functions are to be repatriated and relocated from their current locations. The rent saving and the opportunity to rent the current HR offices as staff accommodation have been included as a saving of £329,000 and £70,000 respectively
- 'One-off' revenue expenditure relating to decanting costs of £500,000 has been included within 2013/14. Capital related decanting costs have been included within the OB forms.

16.3.4 Capital Charges

- The depreciation of the developments has been set to replicate asset lives of 40 years and is consistent with the Trust's accounting policy
- Interest charges have been calculated at an interest rate of 3.94% over a period of 27 years
- The Public Dividend Capital (PDC) dividend effect has been calculated at 3.5% of the relevant changes within net assets
- The potential 'brought into use' revaluation impairment has not been included within the income statement as this price impairment is excluded from NHS performance metrics
- The Trust has assumed that any potential economic impairment relating to the maternity block at RSH will be absorbed within the revaluation reserve for this asset. As such, no impairment has been recognised in the income statement.

A summary of the impact of the financial appraisal is shown below.

	2012/13 (£000)	2103/14 (£000)	2014/15 (£000)	2015/16 (£000)	2016/17 (£000)	2017/18 (£000)	2018/19 (£000)	2019/20 (£000)
Income								
AAA Screening	200	200	200	200	200	200	200	200
Paediatric elective	-	-	100	100	100	100	100	100
Total Income	**200**	**200**	**300**	**300**	**300**	**300**	**300**	**300**
Pay								
Surgical	-	211	211	211	211	211	211	211
Women and Children	(233)	(398)	(398)	(398)	(398)	(398)	(398)	(398)
Total Pay	**(233)**	**(187)**	**(187)**	**(187)**	**(187)**	**(187)**	**(187)**	**(187)**
Non Pay								
Running costs	-	-	(222)	(222)	(222)	(222)	(222)	(222)
Repatriation savings	-	-	399	399	399	399	399	399
Decanting costs	-	(500)	-	-	-	-	-	-
Total Non Pay	**-**	**(500)**	**177**	**177**	**177**	**177**	**177**	**177**
Capital Charges								
Depreciation	-	-	(874)	(874)	(874)	(874)	(874)	(874)
Interest	(568)	(1,092)	(1,314)	(1,261)	(1,211)	(1,156)	(1,104)	(1,051)
PDC	12	28	(1)	(28)	(47)	(66)	(85)	(104)
Total Capital Charges	**(556)**	**(1,064)**	**(2,189)**	**(2,163)**	**(2,132)**	**(2,096)**	**(2,063)**	**(2,029)**
Total Charge	**(589)**	**(1,551)**	**(1,899)**	**(1,873)**	**(1,842)**	**(1,806)**	**(1,773)**	**(1,739)**

Table 72: Summary of financial appraisal

16.4 Impact on the Statement of Financial Position

The proposed options will have the following impact on the long term assets and liabilities of the Trust's Statement of Financial Position over the first 7 years.

	2012/13 (£000)	2103/14 (£000)	2014/15 (£000)	2015/16 (£000)	2016/17 (£000)	2017/18 (£000)	2018/19 (£000)	2019/20 (£000)
WIP	14,417	28,251						
New Buildings			34,084	33,210	32,336	31,462	30,588	29,715
Total Assets	**14,417**	**28,251**	**34,084**	**33,210**	**32,336**	**31,462**	**30,588**	**29,715**
Loan	(13,883)	(26,651)	(32,024)	(30,690)	(29,356)	(28,022)	(26,688)	(25,354)
Total Liabilities	**(13,883)**	**(26,651)**	**(32,024)**	**(30,690)**	**(29,356)**	**(28,022)**	**(26,688)**	**(25,354)**
Net Impact	**534**	**1,600**	**2,060**	**2,520**	**2,980**	**3,440**	**3,900**	**4,361**

Table 73: Long term asset and liability impact

16.5 Impact on the Cash Flow Statement

The proposed options will have the following impact on the cash flow of the Trust.

	2012/13 (£000)	2103/14 (£000)	2014/15 (£000)	2015/16 (£000)	2016/17 (£000)	2017/18 (£000)	2018/19 (£000)	2019/20 (£000)
Income	200	200	300	300	300	300	300	300
Pay	(233)	(187)	(187)	(187)	(187)	(187)	(187)	(187)
Non Pay		(500)	177	177	177	177	177	177
Interest	(568)	(1,092)	(1,314)	(1,261)	(1,211)	(1,156)	(1,104)	(1,051)
PDC	12	28	(1)	(28)	(47)	(66)	(85)	(104)
Loan	(534)	(1,066)	(1,334)	(1,334)	(1,334)	(1,334)	(1,334)	(1,334)
Total cash outflow	**(1,123)**	**(2,617)**	**(2,359)**	**(2,333)**	**(2,302)**	**(2,266)**	**(2,233)**	**(2,199)**

Table 74: Cash flow impact

16.6 Revenue Impact and Affordability

The Trust's current Long Term Financial Plan (LTFP) details the income statement for the period 2011/12 to 2015/16. The assumptions within this model are:

- Income increases as a result of two elements: (i) a reduction in clinical income (tariff) by 1.5% per annum to 2013/14 then nil growth per annum for the last two years to 2015/16. An increase in non-clinical income of 2% per annum to 2015/16. (ii) an inflation increase in clinical and non-clinical income of 2% per annum
- Increase in pay inflation of 2% per annum to 2012/13, then an increase of 4% per annum for the three years to 2015/16
- Increase in non pay inflation of 4.5% per annum to 2015/16
- Nil inflation in finance costs to 2015/16
- PWC CIP savings delivered in years 2012/13 and 2013/14 (see detail within section 1.7) and inflated by the weighted average inflation amount of 3.96% per annum in 2013/14 and 2014/15 and 3.97% per annum in the final year 2015/16
- Trust CIP schemes that equates to 2% of recurring income in years 2014/2015 and an additional 2% of recurring income in the final year of 2015/16.

	2011/12 (£000)	2012/13 (£000)	2103/14 (£000)	2014/15 (£000)	2015/16 (£000)
Income	290,100	287,400	289,300	295,100	301,000
Pay	(199,800)	(201,000)	(206,900)	(214,100)	(222,700)
Non Pay	(76,400)	(81,000)	(84,600)	(88,500)	(92,400)
Finance Costs	(13,900)	(13,900)	(13,900)	(13,900)	(13,900)
Total Before CIP	**-**	**(8,500)**	**(16,100)**	**(21,400)**	**(28,000)**
PWC CIP Schemes (see section 1.7)	-	17,000	21,000	21,800	22,700
Trust CIP Schemes				5,900	11,900
Total Post CIP	**-**	**8,500**	**4,900**	**6,300**	**6,600**

Table 75: Revenue impact and affordability

The Trust is forecasting sufficient cash generated surpluses to absorb the additional costs of the developments as detailed within section 16.3 and 16.5 and are reflected in the table below:

	2011/12 (£000)	2012/13 (£000)	2103/14 (£000)	2014/15 (£000)	2015/16 (£000)
Total Post CIP	**-**	**8,500**	**4,900**	**6,300**	**6,600**
Impact of Reconfiguration (amounts rounded to £000)	-	(600)	(1,600)	(1,900)	(1,900)
Total Surplus	**-**	**7,900**	**3,300**	**4,400**	**4,700**

Table 76: Cash generated surpluses

16.7 PWC Cost Improvement Schemes

The Trust has recently commissioned PriceWaterHouseCoopers (PWC) to assist in the identification and planning of CIP schemes. This has resulted in the identification of 14 work streams that require progression within the Trust. The Trust has prioritised 8 schemes for delivery in 2012/13 and the remaining schemes to delivery in 2013/14. The table below details the schemes, the forecast year of delivery and any associated non recurrent costs in securing the delivery of the schemes:

	2012/13 (£000)	2012/13 (£000)	2012/13 (£000)	2013/14 (£000)	2013/14 (£000)	2013/14 (£000)
Scheme	**Recurrent**	**Non-recurrent**	**Net Total**	**Recurrent**	**Non-recurrent**	**Net Total**
Medical Workforce	3,481	-	3,481	-	-	-
Nursing	1,835	(584)	1,251	**-**	**-**	**-**
Admin and Clerical	1,868	(747)	1,121	-	-	-
Procurement	1,420	-	1,420	-	-	-
Outpatients	803	(321)	482	-	-	-
Capacity Management	6,255	(1,325)	4,930	-	-	-
Coding	400	-	400	-	-	-
VAT	978	-	978			
Total 2012/13	**17,040**	**(2,977)**	**14,063**			
Allied Health Professionals	-	-	-	333	(133)	200
Corporate Review	-	-	-	228	(91)	137
Estates and Facilities	-	-	-	826	(16)	810
Diagnostics and Pathology	-	-	-	1,332	(533)	799
Theatres	-	-	-	831	(332)	499
Workforce management	-	-	-	367	-	367
Total 2013/14	-	-	-	**3,917**	**(1,105)**	**2,812**
Total	**17,040**	**(2,977)**	**14,063**	**3,917**	**(1,105)**	**2,812**

Table 77: PWC schemes, delivery timescales and non-recurrent savings

16.8 Financial risk rating

The Monitor Financial Risk Rating (FRR) has been used to model the effects the development has on the LTFP and the long term FRR.

The table below summarises the underlying financial metrics over the 5 year period and includes the FRR rating.

		2011/12 (£000)	2012/13 (£000)	2013/14 (£000)	2014/15 (£000)	2015/16 (£000)
EBITDA margin	Metric	4.8%	7.6%	5.9%	6.2%	6.2%
EBITDA, % achieved	Metric	100.0%	100.0%	100.0%	100.0%	100.0%
ROA	Metric	3.4%	8.5%	5.3%	5.8%	5.8%
I&E surplus margin	Metric	0.0%	2.7%	1.1%	1.5%	1.6%
Liquid ratio	Metric	8.0	11.6	14.0	15.6	17.4
Underlying Performance	Rating	2	3	3	3	3
Achievement of Plan	Rating	5	5	5	5	5
Financial Efficiency	Rating	3	5	4	4	4
Liquidity	Rating	1	2	2	3	3
Overall Rating		**2**	**3**	**3**	**3**	**3**

Table 78: Underlying financial metrics

In 2011/12 the Trust is forecasting a rating of 2 due to the low liquidity rating but over the remaining period to 2015/16 the Trust achieves and maintains an overall rating of 3.

16.9 Reconfiguration – Impact of Demography and Trust Efficiency Plans

The support for reconfiguration needs to demonstrate how taking forward this business case enables the Trust to align the impact:

- That future demographic changes have upon the Trusts operational capacity; and
- The delivery of a cost effective solution, crucial in order support the ongoing financial stability of the Trust.

To gain this understanding it is necessary to:

- Be aware of the operational capacity (as measured by available bed numbers) as it relates to reconfiguration, and compare with the alternate option of not undertaking reconfiguration, option P0 – the 'do nothing' option; and
- Consider the revenue cost consequence of the preferred reconfiguration option (P4) with the P0 'do nothing' option.

16.10 Operational Capacity – Reconfiguration compared with do nothing

The operational capacity differences between taking forward reconfiguration and the 'do nothing' option is presented in the table below.

	Reconfiguration Options				*Do nothing*		
	2011	*2014*	*2021*		*2011*	*2014*	*2021*
Operational capacity (measured bed numbers)							
Base bed complement	821	821	821		821	821	821
Bed complement (reduction arising from preferred option)		(28)	(28)				
Closure of maternity facility						(126)	
Revised operational capacity	821	793	793		821	695	695
Operational requirement							
Historical level	821	821	821		821	821	821
Efficiency reduction – based upon 35% to upper quartile		(217)	(217)			(217)	(217)
Demographic change impact			189				189
Revised operational requirement	821	604	793		821	604	793
Operational capacity compared with operational requirement	-	189 additional capacity	-		-	91 additional capacity	98 capacity shortfall

Table 79 Operational capacity – reconfiguration v do nothing

- **Reconfiguration** – by taking forward reconfiguration, the Trust has additional capacity available (amounting to 189 beds) in the year 2014. This position is attributable to greater productive capability made possible through the consolidation of Clinical services and the delivery of services through more efficiently designed care pathways. Over the period 2014 – 2021 the enhanced productive capability is utilised to support the effect of demographic changes such that by the year 2021 Operational capacity and Operational requirements become fully congruent
- **Do nothing** – under the 'do nothing' option the Trust has additional capacity available in the 2014 year equivalent to 98 beds. The additional capacity declines over the period 2014 – 2021 such that by the year 2021 the Trust has a shortfall of capacity equivalent to 98 beds.

16.11 Cost consequence of Reconfiguration compared with do nothing

The cost differential between Reconfiguration and the 'do nothing' option is presented below.

	Reconfiguration Option P4 £000			*Do nothing £000*	
	2014	*2021*		*2014*	*2021*
Increased capital cost	1936	2022		-	700
Increased staffing cost	187	187		2400	2400
Increased income	(300)	(300)		-	-
Non pay savings	(399)	(399)		-	-
Additional revenue cost	**1524**	**1612**		**2400**	**3240**

Table 80 Cost differential between reconfiguration and do-nothing

- **Reconfiguration** – the increased revenue cost associated with taking forward the preferred reconfiguration option (P4) introduces a cost pressure to the Trust amounting to £1.5 – 1.6 million per annum
- **'Do nothing'** option – to deliver the 'do nothing' option requires substantial investment in staffing levels across both Surgical and Paediatric specialties. This investment when combined with the Increased capital charges associated with essential backlog maintenance results in a cost pressure to the Trust amounting to £2.4 – 3.2 million per annum.

From the above it can be seen that:

- **Demographic change** – reconfiguring services is preferable to the 'do nothing' option. By pursuing reconfiguration the Trust is able restructure the delivery of clinical services and in doing so establish greater operational capacity. The enhanced operational capacity is then available to accommodate fully the impact of demographic changes. A 'do nothing' option results in a shortfall in operational capacity between the years 2014 – 2021
- **Cost effective** – reconfiguration (and in particular the preferred option (P4) is preferable to the "do nothing "option because the cost pressure arising from supporting the capital costs required to deliver reconfiguration are compensated through the avoidance of significant increased staffing costs as required with the 'do nothing' option. Accordingly, by pursing reconfiguration the Trust is able to avoid further costs associated with the 'do nothing' option amounting to 1.6 million per annum.

17.0 The Management Case

Chapter Summary

- **A reminder of the programme scope and objectives**
- **Programme phasing and management**
- **Governance and accountability**
- **Risk management**
- **Change management**
- **Engagement and communication**
- **Benefits realisation and post project evaluation**

17.1 Introduction

This section sets out the wider programme management structure to deliver the Future Configuration of Hospital Services and demonstrates at this stage that the Trust is capable of delivering the proposed capital solution in accordance with best practice.

17.2 Public Consultation

A full public consultation was undertaken during March 2011. A summary of the consultation process is provided in (section 6) of this document. The full details of the outcome of the public consultation are provided within the 24 March Board paper (appendix A).

17.3 Programme Scope

The programme includes the acute hospital services provided by SaTH at the Princess Royal Hospital and the Royal Shrewsbury Hospital.

It does not include the hospital services provided by The Robert Jones and Agnes Hunt Hospital Trust or those provided by Shropshire County PCT Community Services within the four community hospitals.

However, whilst not including the provision of community services by the very nature of seeking to transform the way services are currently delivered there will be an impact on care delivered outside of hospital. As the options for change are developed, all impacts will be considered.

17.4 Programme Objectives and Deliverables

The ultimate objective for the Future Configuration of Hospital Services Programme is to secure high-quality, safe and sustainable services for Shropshire, Telford and Wrekin.

The key programme deliverables are to reconfigure acute hospital services within Shropshire, Telford and Wrekin so that:

- Services are safe and sustainable
- Care is of the highest quality and that patient outcomes are maximised
- Medical workforce issues are addressed and EWTD compliance is maintained.

Within each phase of the programme, a project phase plan will be developed. Phase deliverables will therefore be identified to not only achieve the objectives of the particular phase, but also support the delivery of the overall programme.

17.5 Future Configuration of Hospital Services Programme Phasing

The table below provides an overview of the phasing for the programme, demonstrating there are three main phases.

Phase		***Objective***	***Timescale***
1a	Discussion and Design	Developing a robust proposal for the future configuration of services Option modelling	August 2010 – November 2010
1b	Assurance and Consultation	Assurance process to test the clinical proposal put forward including: Local assurance testing National Clinical Advisory Team review Office of Government Commerce review Public Consultation on the option for the future configuration of hospital services.	November 2010 December 2010 – March 2011
2	Planning for Implementation	Planning, securing finance and undertaken procurement	April 2011 – April 2012
3	Implementing the Change	Implementation commences	Phased approach for construction and service moves from April 2012

Table 81: Future Configuration of Hospital Services programme phasing

Phase One of the FCHS programme has been successfully completed and closed on 25/03/11. This phase achieved all deliverables as set out in the FCHS Phase One Plan (see appendix S). The Trust is currently in Phase Two of the programme and the objectives for Phase Two (March 2011 – March 2012) have been agreed by the Trust Board and are to:

- Address the recommendations and assurances set out by the PCT Boards, the Joint Health Overview Scrutiny Committee (HOSC), the National Clinical Advisory Team (NCAT) and the Office for Government Commerce (OGC)
- Develop robust change management and implementation plans
- Present an Outline Business Case (OBC) to the Trust Board in June 2011 and the PCT Boards in July 2011, followed by submission to the Strategic Health Authority
- Present a Full Business Case (FBC) to the Trust and PCT Boards in October/November 2011
- Undertake the necessary planning and procurement processes to enable phased development and implementation from April 2012.

17.6 Programme Management

The programme will continue to be managed according to the Project Initiation Plan and Phase Two Plan. It will be clinically-led by local clinicians. Its outputs and developments will be shared widely with partners and will be based on external reviews, on-going PCT assurance testing and full engagement and involvement of the local Health Overview and Scrutiny Committees and Community Health Council.

The programme arrangements are underpinned by a robust structure and agreed levels of accountability to ensure the scheme is delivered successful by the end of 2014. Clinical engagement and leadership with robust management support will be key to a successful implementation.

The programme structure for Phase Two was agreed at the Trust Board meeting on 28 April 2011 and is provided below.

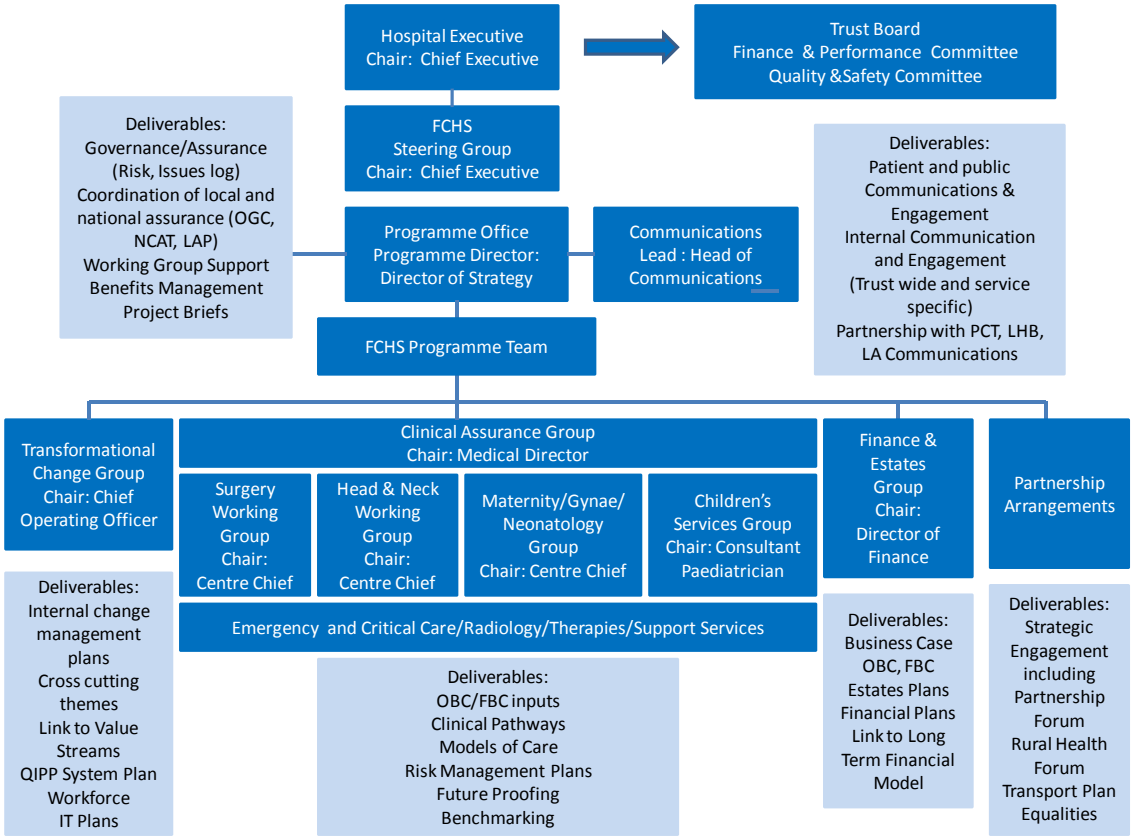


Figure 14: Phase Two programme structure[29]

17.7 Governance and Accountability

Phase Two of the programme will be delivered according to the roles, responsibilities and structures outlined below (as agreed at the Trust Board meeting on 28 April 11).

The support and structures will be reviewed at each phase of the programme. At the beginning of each phase the roles, responsibilities and structures, including the identified lead names will be agreed by the Trust Board. It has been agreed that post approval of the OBC and prior to commencing work on the full business case, there will be a review of the detailed programme plans and necessary resources. Any changes to the Programme Team will be approved by the Steering Group and signed off by the Trust Board in September 2011.

The programme accountability is provided in the table below.

[29] FCHS Steering Group fulfils the role of Programme Board

Group/Role	*Who*	*Responsibility*
Trust Boards		To support the programme and ratify the decisions of Trust Hospital Executive To receive the OBC and FBC
SaTH Hospital Executive (HE)	CEO Programme Director Executive Directors Centre Chiefs	To ensure the delivery of the programme objectives To advise and support the SRO in the delivery of the programme
FCHS Steering Group (Programme Board)	CEO Executive Directors Working Group Leads Programme Director Programme Manager	To monitor the delivery of the programme, receive progress reports and offer solutions to issues and barriers To oversee the management of risk for the programme and support its mitigation To monitor and performance manage delivery of the recommendations within a process of ongoing assurance
Senior Responsible Owner	CEO	To lead the Future Configuration of Hospital Services programme To ensure clinician, staff and stakeholder involvement is maintained To advise HME and the Trust Board on programme delivery, progress and risks
Programme Director/ Strategic Engagement Lead	Director of Strategy	To ensure the development of delivery processes and structures required for the Future Configuration of Hospital Services programme To ensure alignment with the Trusts strategy and other major change programmes To lead the strategic engagement work stream and Chair the Partnership Forum
Clinical Champion	Medical Director	To lead and support clinical involvement and engagement and lead the clinical pathways work stream To support the Clinical Leads and Chair of the Clinical Assurance Group
Clinical Working Group Leads	Centre Chiefs/ Lead consultant	To lead the Clinical Working Group development of pathways and risk mitigation plans To ensure the development of the required Clinical Working Group outputs for the OBC and FBC
Business Change Manager/ Transformational Change Lead	Chief Operating Officer	To lead the transformational change work stream, including implementation and change management To ensure alignment with QIPP and value stream developments
Finance and Estates Lead	Finance Director	To be responsible for the delivery of the OBC and FBC To ensure alignment with the financial elements of the QIPP system plans and integration with the FT LTFM and the Trust's finance and estates plans
Communications Lead	Head of Communications	To lead engagement and communication within the programme, internally and externally To maintain engagement with HOSCs, LINks and CHC To work in partnership with PCT, LA and LHB communications teams
Programme Manager	Programme Manager	To support the Programme Director and Senior Responsible

Group/Role	Who	Responsibility
		Owner in the delivery of the programme To maintain the risk and issues logs and benefits realisation plan To provide monthly updates and progress reports to the FCHS Steering Group To coordinate the local and national assurance To support the work of the work streams/working groups
Programme Administrator	Programme Administrator	To provide administrative support to the FCHS Programme To maintain the FCHS programme document library To ensure the programme management system (Aspyre) is up to date and maintained
Programme Team	Programme Director Programme Manager Business Change Manager/leads Communications Lead Finance and Estates Lead	To ensure all elements of the programme are coordinated and delivered to time and budget through regular sharing of progress (virtually or in meetings) To ensure involvement of key Trust leads in the FCHS programme delivery

Table 82: Phase Two agreed governance and accountability

The Programme Team will meet/communicate weekly within the Programme Office function. Progress will be reviewed, risks identified and reassessed and issues and challenges with the deliverables shared. Solutions will be agreed and programme documentation updated accordingly. An update will then be given to the FCHS Steering Group. Individual lead and ad-hoc meetings will be arranged as required.

Each work stream and lead will be supported by a team of Trust staff. This involvement will be dependent on the area of work at a given time. Key roles will include:

Group/Role	Who	Responsibility
Clinical Pathways	Centre Chiefs Lead consultants Lead GPs	To contribute to and support the development of pathways and risk mitigation plans To support the development of the required Clinical Working Group outputs for the OBC and FBC
Finance and Estates	Deputy Directors of Finance Head of Estates	To support for the delivery of the OBC and FBC To support the alignment with the financial elements of the QIPP system plans and integration with the FT LTFM and the Trust's finance and estates plans
Transformational Change	Head of Human Resources Deputy Heads of Human Resources Divisional General Managers Service Delivery Managers	To support the transformational change work stream, including implementation and change management To support the alignment with QIPP and value stream developments

Group/Role	Who	Responsibility
Communications	Communications Team	To support engagement and communication within the programme, internally and externally To support the engagement with HOSCs, LINkS and CHC To work in partnership with PCT, LA and LHB communications teams

Table 83: Phase Two work stream accountability

17.8 The Assurance Process

The ongoing assurance process has been described in detail in section 6.

17.9 Outline Arrangements for Risk Management

17.9.1 Overview

The management of risk will be embedded into the project management process:

- The requirements of Corporate Governance will be adopted, including more focused and open ways of managing risk
- The FCHS Steering Group will review the risk register at each meeting and will be responsible for the management of actions and mitigation of the risks and issues
- All members of the programme team will own risk in commensurate quantum to their role
- The project reporting structure will encourage reporting and upward referral of significant issues and risks – each of the work stream groups will be responsible for developing and tracking their risks and issues and these will be collated and reported to the FCHS Steering Group
- The risk management framework for the consistent treatment of risk will be established at an early stage and will be shared at all levels of the organisation and also with partners, particularly in the context of the complex types of risk arising from joint working and partnerships
- The programme risk will be managed in the wider context of the whole Trust business.

The Trust is required to undertake a comprehensive assessment of the risk associated with the preferred option. The methodology to be used is shown below:

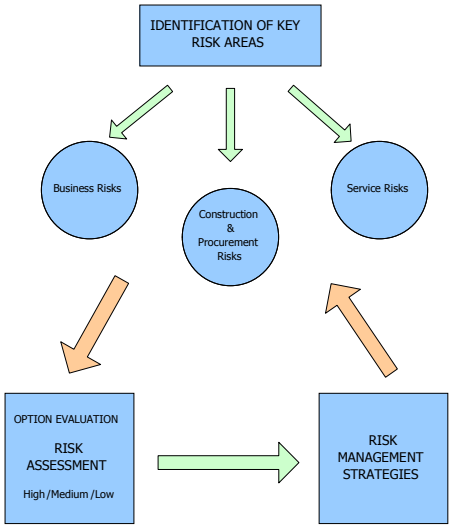


Figure 15: Risk overview

The method of assessing the severity of risks will use the Australian/New Zealand 5 x 5 rating process. This is based on scoring the impact to the Trust of not addressing the risk against the likelihood of its occurrence. These figures are multiplied to give a risk rating factor and those risks scoring 15 will be included in the risk register which will be developed during the business case development process.

The risk appraisal will involve the following distinct elements:

- Identifying all the possible business and service risks associated with the preferred option
- Assessing the impact and probability for all options
- Calculating a risk score.

Risks, other than financial, to the Trust from the development can be categorised into 7 areas:

- Trust Risks
- General Project Risks
- Service Planning Risks
- Workforce Planning Risks
- Capital Planning Risks
- Construction Risks
- Operational Risks.

The Risk Register is included in Appendix T.

17.10 Outline Arrangements for Change Management

The reconfiguration will be implemented in a staged and systematic way that causes the least amount of disruption to services. It is expected that the implementation phase will start from April 2012. However, due to the current level of clinical risk, a more immediate change may need to be implemented within some services. These include relocating all acute surgery onto a single site.

The programme structure has been established to implement the necessary changes and clinical leadership remains central to the programme. The following working groups are established and will be led by the Centre Chiefs:

- Surgery
- Head and Neck

- Maternity, Gynaecology and Neonatology
- Children's.

These work groups will be supported by an additional strand of work which ensures alignment and involvement of services that are directly affected by the reconfiguration of services which include emergency, critical care, radiology, therapies and pathology. This work will be incorporated within the above existing groups and the Centre Chief will be responsible for engaging with the necessary Centre Chiefs and clinical staff from these areas.

The change agenda will be supported by the Transformational Change Lead who is the Chief Operating Officer. This role will ensure a robust framework for change is adopted across the organisation and that the interdependencies between working groups are aligned. The proposed management of change process is detailed in section 11.

Patients and public involvement and communication and engagement will run throughout each work stream.

17.11 Engagement and Communication Plan

Robust engagement and communication are vital to the success of the programme. It is essential that patients and patient representatives, clinicians, wider NHS staff, local authorities, other local representatives and key partners are fully involved in shaping the future of local hospital services.

The Communications and Engagement Lead will co-ordinate the delivery of all communications and engagement activities, assisted by communications and engagement staff at the PCTs.

For details of the communication and engagement plan, refer to (appendix E).

17.12 Contingency Plans

In the event that this programme becomes significantly delayed, then the current arrangements which are in pace for continued delivery of the required services and the mitigation of the risk would continue. However, it must be noted that these contingencies cannot continue long term.

In terms of obstetrics, the Risk Management Executive has agreed that current mitigation in place is acceptable unless there is a significant delay in the OBC approval. It has agreed to review progress in December 2011.

For surgery, it is agreed that in order to accommodate the development of AAA screening, there would be a need for an interim arrangement to accommodate vascular surgery on a single site by April 2012.

Through the Risk Management Executive all risks associated with the challenged services within the reconfiguration programme are continually reviewed.

17.13 Outline Arrangements for Benefits Realisation

The Trust has developed a Benefits Management Strategy and this is enclosed within (appendix F). The high level benefits have been identified and are provided in section 7 of this document. The Trust has developed a Benefits Realisation Plan which is a stand-alone document that will be developed and amended as the programme develops. It has been signed off by the FCHS Steering Group and is enclosed within (appendix F1). The process for developing the plan included:

- Identifying and prioritising the benefits
- Agreeing ownership of each benefit
- Developing measures and quantifying benefit opportunities
- Building benefit management action plans (with timelines; responsibilities; interdependencies; and resources)
- Implementing an on-going benefits tracking and reporting process
- Agreeing how information on benefits delivered will be acted upon during their delivery to maximise the benefits and/or inform programme decision making.

This plan will form part of the evaluation stage.

17.14 Post Project Evaluation

The Trust is committed to full evaluation of all major schemes and projects through a formal evaluation methodology that will provide for:

- Evaluation by the Trust of the capital development, with involvement as necessary from local commissioners
- The subsequent evaluation by commissioners of achievement against outputs
- An evaluation of the total project by the Trust
- Post Project Evaluation will be undertaken as an integral part of the monitoring of benefits realisation.

The Trust will also create a 'lessons learned log' which will consider the issues raised and potential solutions to avoid reoccurrence in the future. The lessons learned log will consider issues within the following areas:

- Finance
- Design
- Consultants
- Construction
- Snagging/handover
- Post completion/defects;
- Operational issues.

18.0 Recommendations

Chapter Summary

- **The recommendation to proceed to the development of the full business case for the Future Configuration of Hospital Services**

The overarching objective for the reconfiguration of hospital services is to secure high quality, safe and sustainable hospital services in Shrewsbury and Telford. With this in mind and in the development of this OBC the Trust has reviewed the different options for where services could be located on each site with particular consideration to delivering a clinically safe model of care i.e. maintaining key clinical adjacencies, minimising disruption to existing services, supporting longer term strategic service developments, providing value for money whilst ensuring affordability in the immediate and longer term.

The investment set out for approval in this OBC builds on the outcome of the public consultation and assurance process and supports the implementation of the reconfiguration of some hospital services between the PRH and the RSH. Implementation of these service changes will address the significant challenges to the future safety and sustainability of acute surgery and our local women's and children's services.

A preferred capital option for both RSH (option R6) and PRH (P4) has been identified. This will require a capital loan of £34.96m, repayable of 27 years. ProCure 21+ is proposed as the preferred procurement strategy.

It is recommended to approve this OBC and proceed with the development of the full business case for the Future Configuration of Hospital Services.