

Sustainable Services Programme

A part of the NHS Future Fit Programme

FINAL Strategic Outline Case

**Approved at The Shrewsbury and Telford Hospital Trust Board
on 31 March 2016**

22 March 2016

Contents

Contents	1
INTRODUCTION	1
THE PROBLEM WE ARE TRYING TO SOLVE	2
1. STRATEGIC CONTEXT	3
1.1 Shropshire and Telford and Wrekin Health Economy	3
1.2 Commissioner Support.....	3
1.3 The Shrewsbury and Telford Hospital NHS Trust.....	3
1.4 Services and Activities.....	3
1.5 Workforce.....	5
1.6 Finances	5
1.7 The Estate.....	6
1.8 Estate Condition.....	7
2. HEALTH SERVICE NEED	9
2.1 Healthcare and Workforce Need.....	9
2.1.1 The Call to Action	9
2.1.2 The Case for Change.....	9
Medical workforce challenges	10
Emergency Department Staffing.....	10
Critical Care Staffing.....	10
Acute Medicine	10
Non-medical challenges	11
Changes in the population profile.....	11
Higher expectations	11
Clinical standards and developments in medical technology	12
Economic challenges.....	12
Opportunity costs in quality of service	12
Impact on accessing services	12
2.2 Estates Constraints and Drivers.....	12
2.2.1 Royal Shrewsbury Hospital.....	12
2.2.2 Princess Royal Hospital	13
2.3 Determination of Trust Requirements for a Potential Solution	13
2.3.1 Future Fit Clinical Model	13
2.3.2 Sustainable Services Clinical Working Group Outputs	13
Acute and Episodic Care.....	13
Urgent Care Centres.....	14
Emergency Centre and Critical Care.....	14
Planned Care	14
2.3.3 Future Fit Activity Modelling.....	15
2.3.4 Sustainable Services Activity Modelling.....	16

2.3.5	Capacity Modelling.....	16
2.4	Assumptions for a Potential Solution.....	18
2.5	Functional Requirements.....	18
2.6	Clinical Centres of Excellence.....	18
2.7	Possible Variations.....	18
3.	DEVELOPMENT OF OPTIONS.....	19
3.1	Potential Solutions.....	20
3.2	Range of Potential Solutions.....	21
3.3	Evaluating the Potential Solutions.....	21
4.	THE POTENTIAL SOLUTION.....	24
4.1	Description of the Shortlisted Options.....	24
4.2	Further Review of the Clinical Services.....	24
4.3	Workforce Impact.....	24
4.4	Possible Physical Solutions.....	25
4.5	Design Standards.....	26
4.6	Estates Impact Including Site-wide Infrastructure and Backlog.....	26
4.7	Facilities Impact.....	27
4.8	Impact on the Wider Hospital Sites.....	27
4.9	IT Considerations.....	27
4.10	Deliverability and Phasing.....	28
5.	AFFORDABILITY.....	29
5.1	Capital.....	29
5.2	Overall Affordability and Key Planning Assumptions.....	30
5.3	Commissioners.....	32
5.4	Potential Variant (Option C2).....	33
5.5	Wider Health Economy Position.....	33
5.6	Financial Impact of Addressing the Trust’s Estate Backlog Issues.....	35
6.	TIMETABLE AND DELIVERABILITY.....	36
6.1	Proposed Timetable.....	36
6.2	Delivery Dates and Phasing Requirements.....	37
6.3	PRH as the Emergency and Acute Site.....	37
6.4	RSH as the Emergency and Acute Site.....	38
6.5	Risks and Risk Management.....	38
6.6	Project Management Arrangements.....	39
6.7	Time and Resource.....	40
6.8	Lessons Learnt and Transfer of Expertise from FCHS Project.....	40
6.9	Consultation, Engagement and Communication.....	40
6.10	Procurement.....	40
6.11	Next Steps.....	40
	CONCLUSION.....	41

TABLE OF TABLES

Table 1:	Services provided at PRH and RSH	4
Table 2:	Summary of 2013/14 Workforce Whole Time Equivalents (WTEs) by Staff Group including internal bank excluding agency and locums	5
Table 3:	SaTH Income and Expenditure 2014/15	6
Table 4:	Summary of SaTH Estates Data – September 2015	8
Table 5:	RSH Facilities – Summary of Six Facet Estates Survey Assessment by Grade as a % of GIA.....	8
Table 6:	PRH Facilities – Summary of Six Facet Estates Survey Assessment by Grade as a % of GIA	8
Table 7:	Baseline and Projected Activity.....	16
Table 8:	Throughput and Utilisation Assumptions	17
Table 9:	Projected Inpatient Bed Requirements 2018/19	17
Table 10:	Initial Options.....	20
Table 11:	Solutions Scoring.....	22
Table 12:	Backlog Impact	26
Table 13:	Income Expenditure Analysis	30
Table 14:	Income and Expenditure Analysis (Price base at 2020/21).....	31
Table 15:	Planning Assumptions	32
Table 16:	Expected Commissioner Contributions post Phase 2 Modelling	32
Table 17:	Financial summary of Women & Children’s potential solution variant	33
Table 18:	Local Health Economy Position	34
Table 19:	Proposed Milestones.....	37
Table 20:	PRH as the Emergency Acute Site	37
Table 21:	RSH as the Emergency Acute Site	38
Table 22:	Top rated risks	39

APPENDICIES

Section 1

- 1a Letter of support from Commissioners (to follow mid-March)
- 1b Full analysis of SaTH patient activity
- 1c Interim Estates Strategy
- 1d/e Existing site plans RSH and PRH

Section 2

- 2a Health economy's health service need against TDA health service need criteria
- 2b Urban Urgent Care Centre draft service outline
- 2c CSU activity modelling process
- 2d Commissioner activity avoidance strategies
- 2e Schedules of Accommodation

Section 3

- 3a Draft balance of services
- 3b Option identification process

Section 4

- 4a Block layout plans
- 4b Development Control Plan (DCP)
- 4c Site wide impact summary
- 4d Site wide Estates impact
- 4e Trust IT Strategy
- 4f Trust IT vision presentation (draft)
- 4g Phasing plans

Section 5

- 5a Optimism bias calculations
- 5b OB forms
- 5c High level cost estimates (for information only)

Section 6

- 6a Risk Register
- 6b Project Initiation Document

Trust Board approval minute

INTRODUCTION

This document represents the Strategic Outline Case for the acute service elements of the Future Fit Programme; known internally as Sustainable Services, it describes the Trust's plans to address the significant challenges to the safety and sustainability of patient services specifically in emergency and critical care.

This work builds on the discussion and feedback from staff, patients and the public within the Future Fit Programme to address the most significant of workforce challenges. The Trust was requested to progress this work by the Future Fit Programme Board in October 2015.

This Strategic Outline Case demonstrates that there are potential solutions which address the Trust's workforce challenges in A&E, Critical Care and Acute Medicine by developing a single Emergency Centre, a single Critical Care Unit and a Diagnostic and Treatment Centre with Urgent and Planned Care service provision at both PRH and RSH. This is in line with the Future Fit Clinical Model and the options developed in partnership with clinicians, staff, patients and the public.

The Strategic Outline Case also describes the 'backlog maintenance' of the estate at both PRH and RSH.

The proposed solutions describe an alternative way of implementing the options previously identified within Future Fit. Previous solutions proved unaffordable. They were also viewed as being too stark in terms of the differences between the two hospital sites; with one very large and busy and one much smaller with lots of redundant space. The revised solutions therefore move away from the 'hot' and 'cold' site solution to a much more evenly balanced distribution of services which would deliver recognisable, vibrant hospital sites 24/7 within the communities served.

The workforce opportunities and impact of the potential solutions is included, with an emphasis on new ways of working and new and expanded roles. The capital costs associated with each solution and the revenue impact is also identified along with the interdependency with the health systems sustainability and deficit reduction plans.

This Strategic Outline Case also introduces the opportunities these service changes may have for addressing the Trust's historical backlog maintenance challenges. Detailed surveys concluded in Autumn 2015 found that areas of the Trust's estate are failing and significant investment is required.

Reconfiguration of services also offers the opportunity to develop the concept of Clinical Centres of Excellence.

We acknowledge and recognise the impact these changes will have on patients and the public and are committed to working hard to understand and mitigate this impact where possible over the coming months. However, we believe we have identified solutions that could address our most significant workforce challenges, be affordable and maintain and improve patient experience in vibrant hospital services in both Shrewsbury and Telford.

THE PROBLEM WE ARE TRYING TO SOLVE

NHS services within Shropshire face an increasing challenge of delivering high quality, safe and sustainable acute services. This is within a climate of rising demand, reducing levels of funding and on-going changes within the workforce.

Like all hospitals, the greatest asset of Shrewsbury and Telford NHS Trust (SaTH) is its workforce. This workforce is skilled and well trained; striving to deliver high quality patient centred care, all day, every day. However, the Trust does not have all the staff it needs in the right locations. The organisation is faced with difficulties in recruiting to essential medical and nursing clinical roles; within the Emergency Departments, Critical Care services and other areas across the Trust. This means a heavy reliance on temporary staff and increased pressure on teams. Continued and innovative solutions to address this recruitment challenge have been explored: recruitment drives nationally and overseas; sharing posts and rotas with neighbouring Trusts; and creating new roles such as fellowships and advanced practice have all failed to provide a sustainable solution. Day to day operational plans are in place to ensure the care and safety of patients within the Trust's clinical services but a long term solution is urgently needed.

This need for a long lasting, sustainable solution is being addressed through a process of health economy wide transformational change. In line with the aspirations of the Future Fit Programme and its clinically-led models of care, the Trust has worked to address the urgent workforce challenges in A&E and Critical Care.

Guidance from the Trust Development Authority (TDA) has been used in the development of this Strategic Outline Case (SOC). It is based on three core principles for service reconfigurations:

- The Options are developed with people, not for them
- Its focus is redesign, not relocation; and
- A whole systems view is taken, with genuine integration and joint planning

The SOC has six sections:

Section 1: details the strategic context

Section 2: describes the health service need, the case for change that is the foundation of the SOC

Section 3: outlines the options being considered

Section 4: details the potential solutions for delivery of the options

Section 5: sets out the affordability of those solutions

Section 6: describes a timetable and outline for deliverability

1. STRATEGIC CONTEXT

The local health system faces a combination of challenges to deliver sustainable and high quality services for the populations it serves.

These challenges and their potential solutions have been debated within the county for many, many years. This has predominantly focussed on the provision of acute hospital services in Shrewsbury and Telford and at times, has also included the community hospitals in Whitchurch, Bishops Castle, Ludlow and Bridgnorth.

In 2013, SaTH alongside the two Clinical Commissioning Groups (CCGs), Shropshire Community Healthcare NHS Trust (ShropComm) and Powys Teaching Health Board (PTHB) all committed to work collaboratively as partners within the Future Fit Programme. All organisations agreed to engage fully with their patient populations and work with their health, social care and voluntary sector partners to shape the future of local healthcare services in order to secure the long-term sustainability of high quality patient care.

During 2014, this work produced an overarching clinical model. Activity and capacity modelling was undertaken to reflect the implications of the clinical model and a short list of site options was developed.

In September 2015, the short list of options was subject to a full options appraisal. At this time, the Future Fit Programme Board agreed to defer reaching any conclusion about recommending a 'preferred option' to the Future Fit Programme's Sponsor Boards, until it was assured that there was an approvable case for investment.

In October 2015, therefore, the Future Fit Programme Board identified two key pieces of work that needed to be undertaken:

- A system wide financial deficit reduction plan
- Business case development to address the Trust's immediate workforce challenges within A&E and Critical Care

Both these pieces of work have been progressed in parallel.

1.1 Shropshire and Telford and Wrekin Health Economy

Shropshire Clinical Commissioning Group (CCG) covers a large geography with issues of physical isolation and low population density within a mix of rural and urban ageing populations. Telford & Wrekin CCG has a large, younger urban population within areas of rurality; Telford is also ranked amongst the 30% of most deprived populations in England.

Both CCGs are dependent on services provided by the Trust and those provided by Shropshire Community Healthcare NHS Trust (ShropComm) for the majority of their populations hospital care. Both commissioners are also aware of the needs of some of the Powys population who also use services from the Trust.

1.2 Commissioner Support

To follow following CCG Board meetings in March 2016 (Appendix 1a).

1.3 The Shrewsbury and Telford Hospital NHS Trust

SaTH is the main provider of district general hospital services for around half a million people in Shropshire, Telford & Wrekin and mid Wales.

1.4 Services and Activities

The majority of the Trust's services are provided at the Princess Royal Hospital (PRH) in Telford and the Royal Shrewsbury Hospital (RSH) in Shrewsbury; providing 99% of Trust activity. Both hospitals provide a wide range of acute hospital services including accident & emergency, outpatients, daycases, diagnostics, inpatient medicine and critical care. Following recent service reconfigurations, inpatient adult Surgery (excluding breast) is provided at RSH, with Women and Children's Services (consultant-led

obstetrics, neonatology, inpatient and daycase paediatrics and inpatient Women’s Services), head and neck and acute stroke care being provided at PRH.

In line with many organisations where the delivery of services is across multiple sites, the Trust is challenged with duplicate costs and inefficiencies inherent in many service structures.

Services	PRH	RSH
A&E	✓	✓
Outpatients	✓	✓
Diagnostics	✓	✓
Inpatient Medical Care	✓	✓
Critical Care	✓	✓
Inpatient head & neck surgery	✓	
Inpatient acute and elective surgery		✓
Surgical Assessment Unit		✓
Ambulatory Care	✓	✓
Inpatient women & children	✓	
Outpatient children	✓	✓
Children’s Assessment Unit	✓	✓
Inpatient Oncology Care		✓
Midwife-led maternity services	✓	✓
Daycase surgery and procedures	✓	✓
Elective Orthopaedics	✓	*✓
Orthopaedic Trauma	✓	✓
Breast Surgery	✓	

Table 1: Services provided at PRH and RSH

*RSH activity is provided by Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust

Alongside services at PRH and RSH the SaTH provides community and outreach services including:

- Consultant-led outreach clinics (held in Community Hospitals and the Wrekin Community Clinic at Euston House, Telford)
- Midwife-led units at Ludlow, Bridgnorth Community Hospital and RJAH in Oswestry
- Renal dialysis outreach services at Ludlow Hospital
- Community services including midwifery, audiology and therapies

During 2014/15 the Trust saw:

- 47,431 elective and daycase spells (1.2% increase on 2013/14)
- 47,151 non-elective inpatient spells (2.4% increase on 2013/14)
- 7,143 maternity and transfer spells (19.0% decrease on 2013/14)
- 401,806 outpatient appointments (due to counting and coding methods changing in year a meaningful comparison to prior years is not possible)
- 109,360 accident and emergency attendances (2.5% increase)

A full analysis of SaTH’s patient activity is provided at Appendix 1b.

1.5 Workforce

The Trust employs approximately 5,000 staff as summarised by staff group in table 2 below:

Workforce Category	WTE
Medical and Dental	544
Administration and Estates	996
Healthcare assistants and other support staff	1235
Nursing, midwifery and health visiting staff	1466
Nursing, midwifery and health visiting learners	40
Scientific, therapeutic and technical staff	819
Total	5100

Table 2: Summary of 2013/14 Workforce Whole Time Equivalents (WTEs) by Staff Group including internal bank excluding agency and locums

The Trust has an ageing workforce profile with >50% of nursing and midwifery registered staff, >20% medical and dental staff, > 25% Healthcare scientists, >33% of admin and clerical and >50% estates and ancillary staff able to retire within 10 years.

1.6 Finances

SaTH turnover for 2014/15 was £316.8m of which income from patient care accounted for £295.7m. The majority of the clinical income came from the following three largest volume commissioning bodies:

- Shropshire CCG (Income £126.7m, 43%)
- Telford and Wrekin CCG (Income £88.5m, 30%)
- NHS England (Income £47.8m, 16%)

Of the remainder of clinical income:

- 10% came from other commissioning organisations, including Welsh commissioners
- 1% came from “other clinical income” which consists of income from private patients, overseas visitors and the NHS Injury Cost Recovery Scheme

A summary of the Income & Expenditure (I&E) position is shown in Table 3 below.

Heading	£m
Income:	
Patient Care	295.7
Education, training & research	11.2
Other revenue	9.9
Total Operating Income	316.8
Expenditure:	
Pay	216.9
Non-Pay	88.6
Depreciation & Amortisation	10.5
Clinical Negligence	6.5
Impairments	8.4
Total Operating Expenses	331.2
Surplus/(deficit) for the financial year	(14.5)
PDC payable	6.1
Retained surplus/(deficit) for the year	(20.633)

Table 3: SaTH Income and Expenditure 2014/15

Table note: For reporting purposes the following are excluded:

▪ Impairments relating to plant, property and equipment	8.363
▪ Adjustment in relation to donated asset elimination	0.140
▪ Surplus/(deficit) at year end	(12.130)

1.7 The Estate

Full details of SaTH's estate are contained within the Trust's Estate Strategy, which is in the process of being updated to reflect the findings of the six facet estate surveys, completed in the latter part of 2015 by Property Surveyors Oakleaf and NIFES. This was a scheduled refresh of the survey and the panel which appraised the options in 2015 was made aware that a new survey was due.

A summary of the survey outcomes and the approach to deliver a new estates strategy is attached in Appendix 1c.

As previously detailed, patient care services are primarily delivered from the two main hospital sites in Shrewsbury and Telford. The buildings on the Royal Shrewsbury Hospital (RSH) site comprise several separate developments, ranging in age from 1966 to the current day:

- the Maternity and Paediatric development at the south of the site adjacent to the main entrance roadway was built in 1967
- the central development of Wards, Outpatients, A&E, Imaging and Support services, which forms the main spine of the site and came into use between 1976 to 1978
- the Cobalt Unit that includes Linear accelerators and Oncology services dating from 1982
- the Renal unit at the north of the site, which was built in 1991 and 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
- Rooftops accommodation in replace of some of the old residential accommodation in the south west corner of the site, completed in phases from August 2009 to December 2010
- The Boiler House and Estate Department in the north-west corner of the site, built in 1966 and 1977 respectively
- the new and extended Cancer Centre opened in 2013

The buildings on the Princess Royal Hospital (PRH) site essentially comprise a 2 storey nucleus hospital opened in 1988 with some additions, as follows:

- extension in 1999 to provide a purpose designed Rehabilitation Unit
- the Management Suite was refurbished in 2013 to create a 28 bed inpatient short stay medical ward
- a new Women's and Children's Centre was opened in 2014
- staff residential blocks and a small private outpatient clinic in the south east corner of the site built in 1989
- a number of underutilised residential blocks were refurbished in 2013 to provide office accommodation

Existing Site Plans for RSH and PRH are included in Appendix 1d and Appendix 1e.

1.8 Estate Condition

Six facet estate surveys were completed in the latter part of 2015 by Property Surveyors Oakleaf and NIFES. They were commissioned to undertake assessments of respectively the Royal Shrewsbury (RSH) and Princess Royal (PRH) Hospitals to establish the condition and performance of the existing estate. The six estate facets assessed were:

- Physical Condition
- Functional Suitability
- Space Utilisation
- Quality
- Statutory Compliance (Fire and Health & Safety requirements)
- Environmental Management

Each facet was broken down into building systems and fabric elements, plus comments included in the reports about any significant issues noted within each block to give context to the backlog findings. Each element was then given a grade of A (as new) to D (life expired and/or serious risk of imminent failure). Where assets had a remaining life assessed at less than five years then a cost estimate was provided to either repair or replace the item (backlog).

As part of the surveys the backlog maintenance cost to bring the estate assets that were below condition B in terms of their physical condition and/or compliance with mandatory fire safety requirements and statutory safety legislation up to condition B (sound and operationally safe) were identified. All of the backlog condition surveys were based on the approach described in the Department of Health's 'A risk-based methodology for establishing and managing backlog' (2004).

Costs to replace, remove or upgrade assets that already met condition A or B criteria, for example for modernisation or best practice purposes have not been classified as backlog.

A summary of the key estate asset information is shown below in Table 4:

Estates Criteria	PRH	RSH	Offsite ¹	Total
Gross Internal Area (m ²)	46,765	61,400	1,477	109,642
Net Book Value (£m)	82.0	78.2	4.0	164.2
Capital Charges Relating to Buildings (£m)	5.7	5.5	0.3	11.5
Total Backlog (Years 0-5) (£m)	20.3	83.2	0.4	103.9
Functional Suitability Backlog (£m)	7.0	62.3		69.3

Table 4: Summary of SaTH Estates Data – September 2015

Table Notes: 1. Offsite area comprises the Queensway Decontamination Unit and some Business Support Departmental space within the Shrewsbury Business Park. 2. All backlog costs (unless otherwise state) are expressed as ‘gross’ works costs (that is the base cost to undertake the works, plus a 50% uplift to cover costs such as VAT, Consultants fees, decanting and temporary services. 3. NBV and Capital Charges as at 1st April 2015.

Tables 5 and 6 provide a summary of the proportion of the facilities (at each of the main sites) graded between condition ‘A’ (excellent/new) and condition ‘D’ (life expired/unacceptable), with condition ‘B’ generally acknowledged to be a satisfactory standard.

RSH	Rating and % of Total GIA				
Estates Facet	A	B	B/C	C	D
Physical Condition (%)	17	14	0	29	40
Statutory Compliance (%)	2	27	0	23	48
Quality – Environmental (%)	0	0	0	100	0
Quality – Amenity (%)	13	21	0	36	30

Table 5: RSH Facilities – Summary of Six Facet Estates Survey Assessment by Grade as a % of GIA

PRH	Rating and % of Total GIA				
Estates Facet	A	B	B/C	C	D
Physical Condition (%)	4	64	9	23	0
Statutory Compliance (%)	0	99	0	1	0
Quality – Environmental (%)	0	100	0	0	0
Quality – Amenity (%)	0	86	0	14	0

Table 6: PRH Facilities – Summary of Six Facet Estates Survey Assessment by Grade as a % of GIA

Table Notes: The data has been derived from the Oakleaf surveys completed in September 2015.

Over a five year investment horizon the total backlog gross cost across both main hospital sites is estimated at £103.5m, which includes £50.3m of items assessed as ‘high’ or ‘significant’ risk.

2. HEALTH SERVICE NEED

Acute hospital services provided by SaTH are of a good standard, recognised in the Care Quality Commission report published in 2015. Most services have developed over many years, with clinicians, managers and staff trying to keep pace with changes in demand, improvements in medicine and technology and increased expectations of the populations served. Nevertheless, it is recognised the current hospital configuration is not sustainable due to the healthcare and workforce issues including:

- Changing healthcare needs of the population now and into the future
- Quality standards that are required and that individuals and organisations aspire to deliver
- A need for improved productivity and a reduction in inefficiencies (in line with the Carter Review and the Trust's work with the Virginia Mason Institute)
- On-going developments in medicine and technology
- Workforce changes in terms of skills, availability and training

In addition, there are a number of estates issues, including:

- Level of backlog maintenance
- Poor quality existing facilities

All of this is underpinned by the economic climate in which the NHS must operate.

2.1 Healthcare and Workforce Need

A high level assessment of the health economy's service need against the health-service need criteria identified within the NHS Trust Development Authority Capital Regime and Investment Business Case Approvals Guidance for NHS Trusts is attached at Appendix 2a.

2.1.1 The Call to Action

Discussions and debate involving local clinicians, staff and many members of the public regarding the current service provision was developed during the major consultation exercise undertaken in November 2013 in response to the national Call to Action for the NHS. At this time, people started to accept that there was a case for making significant change provided there was no predetermination and that there was full engagement in thinking through the options. The outputs from Call to Action can be found on the Future Fit website (www.nhsfuturefit.org). This marked a turning point in terms of progressing a programme of works that would review and develop a new service configuration.

2.1.2 The Case for Change

Local clinicians, patients and members of the public who participated in the Call to Action recognised the need to tackle two things: the real and pressing local service issues and challenges faced by health services nationally that have an impact locally with the key challenge locally being workforce. The issues and challenges identified in the Call to Action include:

- Changes within the medical workforce
- Staffing within the key acute services (A&E; Critical Care; Acute Medicine)
- Changes in the populations profile and patterns of illness
- Higher expectations
- Clinical standards and developments in medical technology
- Economic challenges
- Opportunity cost in quality of service
- Impact of accessing services

- The quality of the patient facilities and the Trust's estate

Medical workforce challenges

Running duplicate services on two sites presents many workforce challenges and can result in a poor employee experience for some of the Trust's medical teams. This compounds an already challenging recruitment environment and leads to difficulty in recruiting the right substantive workforce.

The current service configuration and the requirement for consultants and other specialist staff to cover both hospital sites can at times limit their ability to provide senior patient reviews. In addition, the Trust is unable to achieve Royal College guidance standards in many areas. With the current staffing configuration, it will prove extremely difficult to achieve adequate staffing levels to provide 7-day working across both sites. Furthermore, because teams are spread so thinly services are vulnerable to unexpected absences and the non-availability of staff.

Emergency Department Staffing

The Trust does not currently meet staffing levels recommended by the College of Emergency Medicine across all medical roles including Consultant, Middle and Training grades. Research demonstrates a greater consultant presence in A&E reduces admissions, reduces inappropriate discharges, improves clinical outcomes and reduces risk to patients.

With this minimal workforce and the impact of unforeseen short-term staff absences, A&E staff are finding it increasingly difficult to cope with the increased numbers of attendances, the nature of the patients presenting and increasing numbers of attendances out-of-hours. The Trust is regularly hampered in the ability to provide rapid senior review to patients and this is causing significant numbers of breaches of the 4 hour A&E target at such times. These pressures in A&E; the growing age and acuity of those patients presenting, and the continued bed capacity deficit which routinely prevents timely patient flow, combine to significantly elevate risks in both the immediate term and for the foreseeable future.

Critical Care Staffing

In Critical Care, the Trust's staffing levels are again below the recommended standards. The core standards require:

- Care must be led by a consultant in Intensive Care Medicine
- Consultant work patterns must deliver continuity of care
- In general, the consultant/patient ratio must not exceed a range between 1:8 to 1:15 and the ICU resident/patient ratio should not exceed 1:8.
- A consultant in Intensive Care Medicine must be immediately available 24/7, be able to attend within 30 minutes and must undertake twice daily ward rounds
- Consultant intensivist led multi-disciplinary clinical ward rounds within Critical Care must occur every day (including weekends and national bank holidays)

Critical Care is covered with a mix of general anaesthetists and the small number of Intensivists available, but consultant presence is still well below recommended levels. The Trust is one of very few nationally that have not been able to split its Anaesthetics and Critical Care rotas. The Anaesthetic and Critical Care team face daily challenges, in particular on call, during which the on call consultant could be required in up to four different places.

The Trust has continuously attempted to recruit additional Intensivists; however potential candidates consider the absence of formal split rotas and very onerous on-call arrangements deeply unattractive.

The workforce challenges mean that the service and the team are highly vulnerable to further vacancies or unexpected absences.

Acute Medicine

In 2004, the Royal College of Physicians recommended that there should be a minimum of 3 acute physicians per hospital by 2008. In the 2012 Acute Care Toolkit, it is recommended that hospitals have at

least 1.5 wte acute physicians available for 12 hours per day for an Acute Medical Unit (with exact numbers based on the anticipated number of patient contacts during the core hours of service).

‘Involvement of a minimum of 10 consultants in the weekend rota should ensure a sustainable frequency of weekend working, even if the weekend working arrangements are shared between two consultants. For smaller units, it may be possible to operate a rota with fewer than 10 consultants if there is a comprehensive arrangement in place to provide days off in lieu.’¹

The Trust does not meet the recommended staffing levels; this again limits the ability to provide the levels of senior review needed to ensure timely patient assessment and treatment, and move towards more 7 day working.

Non-medical challenges

The Trust continues to experience recruitment difficulties across a number of non-medical professions such as nursing, operating department practitioners, diagnostic radiographers, domestics and healthcare scientists. These staff groups have historically experienced recruitment challenges in attaining establishment levels, and this has only been compounded by the recent national demand for such roles. Supply and demand data from Heath Education West Midlands suggests that this will not be improved in the short term.

Duplication of services on both sites reduces the ability to support favourable on call rotas which would improve employee experience and the ability for the Trust to be an employer of choice and improve recruitment. In addition there is limited scope to provide cost effective and efficient 7 day working.

Currently it is difficult to support the development of advancing and extending practice for non-medical staff as the ability of medical colleagues to mentor, support and clinically sign off training logs is compromised by the need for them to partake in intensive rotas.

Changes in the population profile

The welcome improvement in the life expectancy of older people experienced across the UK in recent years is particularly pronounced in Shropshire. The population over 65 has increased by 25% in just 10 years. This growth is forecast to continue over the next decade and more. As a result the pattern of demand for services has shifted, with greater need for the type of services that can support frailer people, often with multiple long-term conditions, to continue to live with dignity and independence at home and in the community.

Changing patterns of illness

Long-term conditions are increasing due to changing lifestyles. This means health services need to move the emphasis away from services that support short-term, episodic illness and infections towards services that support earlier interventions to improve health and deliver sustained continuing support, again in the community with consistent support for self-management and care. The increase in the elderly population and the number of people living with long-term conditions coupled with the reduction in funding in the voluntary sector and Social Services results in an increased pressure on acute services such as A&E and acute medicine.

Higher expectations

Quite rightly, the population demands the highest quality of care and also a greater convenience of care, designed around the realities of their daily lives. For both reasons, there is a push nationally towards 7-day provision or extended hours of some services and both of these require a redesign of how health services work given the inevitability of resource constraints.

¹ Royal College of Physicians (2012)

Clinical standards and developments in medical technology

Specialisation in medical and other clinical training has brought with it significant advances as medical technology and capability have increased over the years. But it also brings challenges. It is no longer acceptable nor possible to staff services with generalists or juniors and the evidence shows, that for particularly serious conditions, to do so risks poorer outcomes. Staff are of course, aware of this. If they are working in services that, for whatever reason, cannot meet accepted professional standards, morale falls and staff may seek to move somewhere that can offer these standards. It is also far more difficult to attract new staff to work in such a service. Clinicians are a scarce and valuable resource. Every effort must be made to seek to deploy them to greatest effect.

Economic challenges

The NHS budget has grown year on year for the first 60 years of its life. In one decade across the turn of the 21st century its budget doubled in real terms however, the UK economy is now in a different place. The NHS will at best have a static budget going forward and yet the rising costs of services, energy and supplies along with innovations and technological breakthroughs that require more investment mean that without changing the basic pattern of services, costs will rapidly outstrip available resources and services will face the chaos that always arises from deficit crises.

It is estimated that without radical changes to the way the system works, the NHS will become unsustainable with huge financial pressures and debts. Current trends in funding and demand will create a gap which projections suggest could grow to £30 billion a year by 2021 if nothing is done to address it.

Locally the Shropshire health economy is challenged and has a history of deferring the resolution of structural issues. This has resulted in short-term or one-off fixes rather than making difficult decisions in order to reach sustainable long-term solutions. As a result significant change to provide services that are clinically and financially sustainable is required through innovative solutions.

Opportunity costs in quality of service

In Shropshire and Telford and Wrekin the inherited pattern of services, especially hospital services, across multiple sites means that services are struggling to avoid fragmentation and are incurring additional costs of duplication and additional pressures in funding. The clinical and financial sustainability of acute hospital services has been a concern for more than a decade. Shropshire has a large enough population to support a full range of acute general hospital services, but splitting these services over two sites in their current configuration is increasingly difficult to maintain without compromising the quality and safety of services.

Impact on accessing services

In Shropshire, Telford and Wrekin there are distinctive populations. Particular factors include a responsibility for meeting the health needs of sparsely populated rural areas in the county, and that services provided in our geography can also be essential to people in parts of Wales. Improved and timely access to services is a very real issue and one which the public sees as a high priority. A network of provision already exists across Community Hospitals that can be part of the redesign of services to increase local care.

2.2 Estates Constraints and Drivers

In addition to the direct clinical need, there is also a need to address a number of issues with the existing estate. As described in Section 1.8 (above), there is residual backlog maintenance of over £100m across the 2 sites, which needs addressing, and a significant amount of the existing estate, particularly at RSH, does not conform to modern standards.

Any development at either RSH or PRH will have to fit in with and link to the existing hospital. There are also a number of constraints to development at either site, which are set out below.

2.2.1 Royal Shrewsbury Hospital

The RSH hospital buildings were predominantly built in the 1960s and 1970s, with over 75% of the site constructed between 1965 and 1984. Although there have been new developments (such as the new cancer centre) a lot of the core healthcare provision is still being provided from old buildings. Although

the service is able to be delivered safely, the areas in which some services are provided are challenged in relation to space, conformity to modern building standards and development opportunities.

Historic development at RSH has been largely uncoordinated as the Trust has responded to individual service needs. This has resulted in a site with few potential development zones as it is surrounded by urban housing development on two sides.

Any development at RSH therefore needs to be contained within the site constraints. There is very little spare land to develop on, and that which is present is currently utilised for car parking which would need to be re-provided. The site is also split level which presents challenges for new development. The existing buildings do not lend themselves to reuse or re-designation, and it is difficult to find areas for new buildings which are able to link into the existing core healthcare areas of the site.

2.2.2 Princess Royal Hospital

The Princess Royal Hospital comprises a 2 storey nucleus hospital opened in 1988. The building was extended in 1999 to provide a new rehabilitation unit, and again in 2014 to provide a new purpose built Women's and Children's Centre.

The age profile of the building is therefore generally acceptable and the building is designed as a purpose-built hospital, albeit the original template design is to a different set of space standards to new buildings.

The condition of the PRH hospital is generally fair, although there are a number of backlog items which need addressing.

At the PRH site the nucleus arrangement lends itself to further development with the potential to expand the buildings in a number of arrangements. Areas of the existing building also lend themselves to redevelopment and re-designation.

Any new development at the PRH site therefore needs to work within these constraints.

2.3 Determination of Trust Requirements for a Potential Solution

In order to develop a potential solution that addresses the challenges within A&E and Critical Care and responds to the issues with the existing estate, the Trust established the Sustainable Services Programme within the health economy wide Future Fit Programme.

2.3.1 Future Fit Clinical Model

As part of the Future Fit Programme a Clinical Reference Group (CRG) comprising fifty senior clinicians and leads from health and social care patient representatives, met in November 2013 which began the discussions and debate around the whole system design principles. The CRG agreed that there were three main areas of health care delivery. These are:

- Acute and episodic care
- Long-term conditions
- Planned care

In taking the work forward to address the Trust's immediate workforce challenges and the identification and development of a potential solution for Sustainable Services, senior clinical leaders within the individual Care Groups have come together within a structure of Clinical Working Groups (CWG). A series of CWG meetings have been held which included the Trust's key senior clinicians (medical and non-medical; nursing; therapies etc.) and senior operational managers. The CWG discussed the application of the Future Fit model of care to the immediate workforce challenges faced by the Trust.

2.3.2 Sustainable Services Clinical Working Group Outputs

Building on from the work of the Clinical Reference Group (CRG) and progressing discussions around the immediate workforce challenges, the Sustainable Services Programme potential solution remains in line with the service principles set out within Future Fit:

Acute and Episodic Care

Nearly 65% of the patients that currently attend the Trust's A&E departments do not have life or limb threatening illness or injury and could therefore potentially be seen and treated in an Urgent Care Centre.

The remaining 35% of patients could be treated within the Trust's single Emergency Centre (EC) as shown in the figure below.

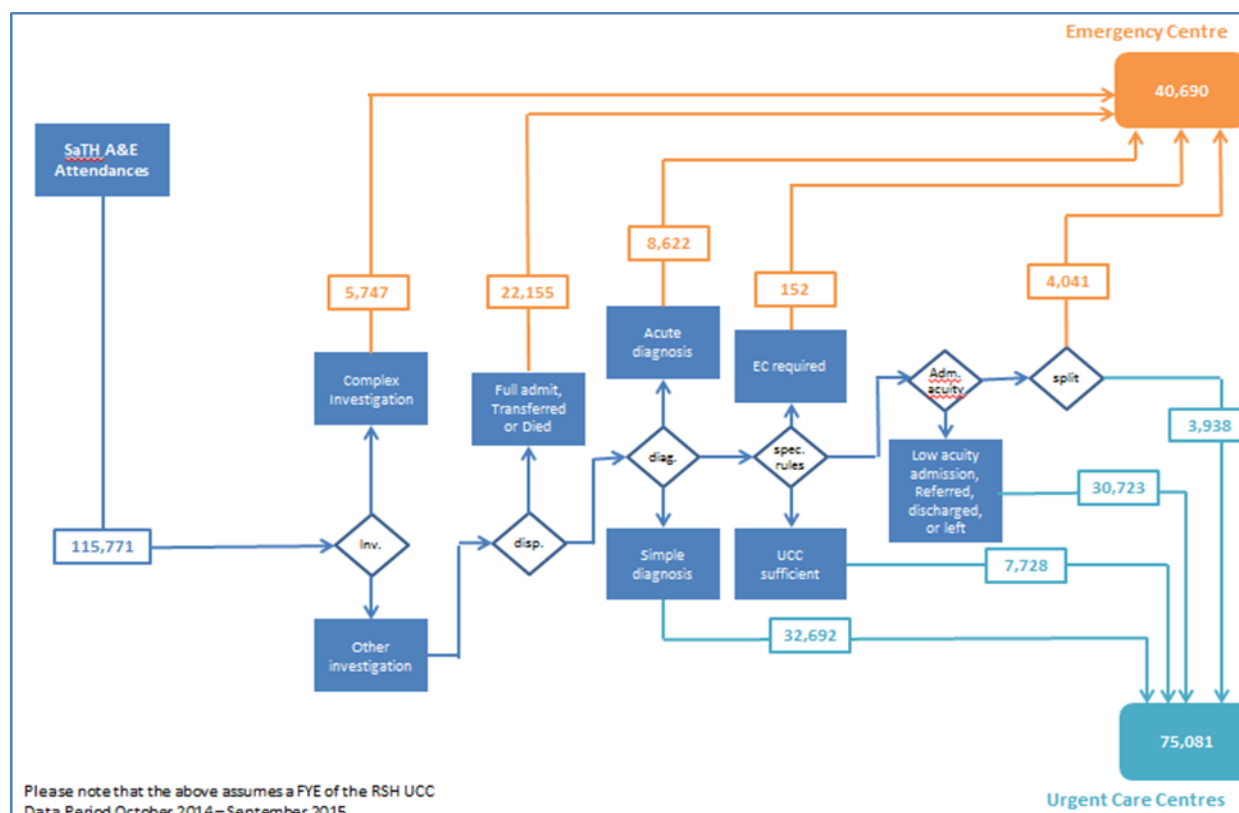


Figure 1: Emergency and Urgent Care Centre Patient Activity Numbers

Urgent Care Centres

The Urban Urgent Care service will be provided on each hospital site and where co-located alongside the Emergency Department will be accessed through a single front door. Patients will access the service as a 'walk-in' or via ambulance if it is considered to be clinically appropriate by the paramedic. The UCCs will have access to diagnostics and where appropriate, staff can draw upon the knowledge and expertise of specialist clinicians within the ED and other specialties in order to provide patients with an efficient and seamless service. The Urban UCCs will be open 24/7. A draft service outline is attached at Appendix 2b.

The Future Fit model for the delivery of rural urgent care continues to progress and is due to be finalised at the end of March 2016. This will enable patients, where clinically appropriate, to be seen and treated in a facility that is more local to them than the UCCs in either Shrewsbury or Telford. A network approach to urgent care with real-time communication and support for staff will be key to its deliverability.

Emergency Centre and Critical Care

For patients that are acutely ill with life or limb threatening injuries and require immediate diagnosis and treatment, they would be taken to the EC. The EC will be fully equipped and staffed to deliver high quality emergency medical and surgical care 24 hours a day, 7 days a week, 365 days a year. Access to the EC will be gained only via transfer from a UCC or Ambulance.

The EC will also serve as a Trauma Unit and will be co-located with a single Critical Care Unit (subject to discussion and approval by the Trauma Network). There will also be full and immediate access to diagnostics (Radiology, Pathology), Haematology (Blood Bank) and Pharmacy.

Planned Care

Outpatients and outpatient procedures will be undertaken at both sites. The majority of day case surgery and care would be delivered on the non-EC site via the Diagnosis and Treatment Centre (DTC).

2.3.3 Future Fit Activity Modelling

Within the Future Fit Programme, NHS Midlands & Lancashire Commissioning Support Unit (CSU) was commissioned to support the health system to develop a range of models to estimate future activity levels. Details of this process are included within Appendix 2c.

Phase 1 modelling estimated the levels of activity that the Trust and Shropshire Community Trust might be expected to manage in 2018/19 taking into account demographic change, a range of commissioner activity avoidance schemes and provider efficiency schemes. Aspects of demographic change were also considered and modelled.

A range of commissioner activity avoidance strategies was then analysed and considered based on the subsets of acute activity that commonly form the basis of commissioner Quality, Innovation, Productivity and Prevention (QIPP) plans. These included areas such as: Conditions amenable to ambulatory care; fall related admissions; Patients who left A&E without being treated; Obesity related admissions etc. A full list is provided in Appendix 2d.

The provider efficiency strategies considered during the modelling utilised the Trust's and other acute providers Cost Improvement Plans (CIPs) in both elective care and urgent care. The aim being to reduce the bed usage for admitted patients or the resource impact of outpatient and A&E activity. This included areas such as: enhanced recovery; frail elderly step-down care; A&E number of investigations etc.

The outputs of the first phase of activity modelling were summarised in two documents;

- Modelling Future Activity Levels Shrewsbury & Telford Hospital NHS Trust, May 2014;
- Modelling Future Community Hospital Provision in Shropshire and Telford, February 2014.

Figure 2 shows the headline changes in acute activity, resource use and costs between the baseline year 2012/13 and 2018/19, under the two demographic scenarios.

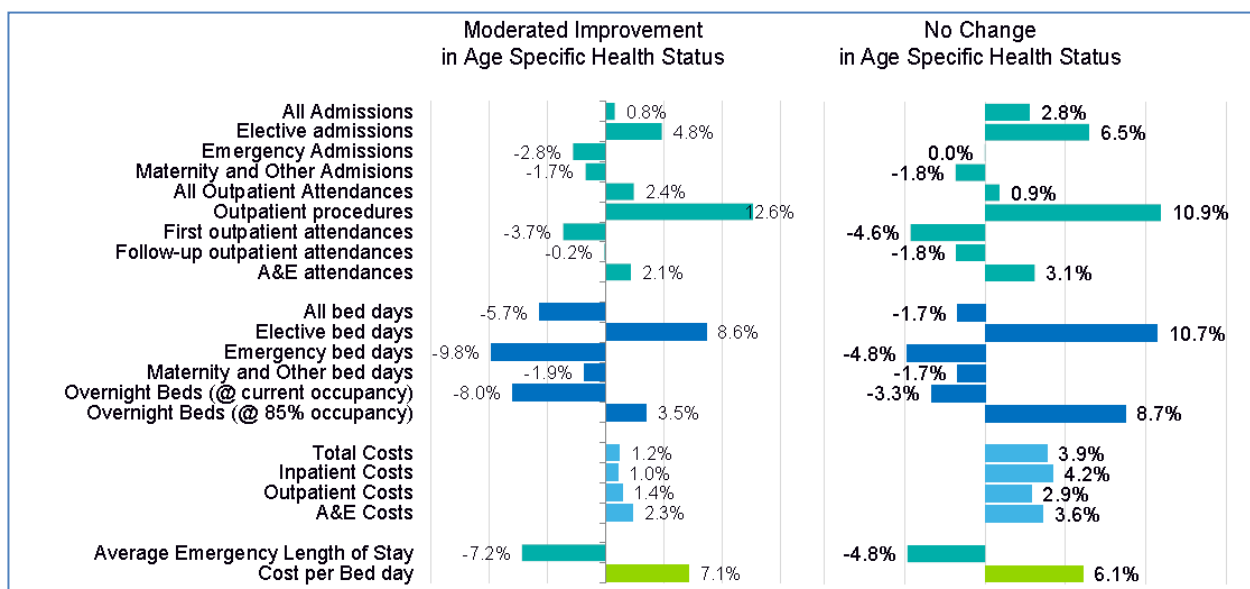


Figure 2: Headline changes in acute activity, resource and costs between 2012/13 and 2018/19

A second phase of modelling, Phase 2, was also undertaken. The outputs are summarised in the document:

- Modelling the Activity Implications of the Future Fit Clinical Model, December 2014.

This Phase 2 modelling built on the initial models to estimate the consequences of more radical redesign proposals generated by the three clinical redesign workstreams. The headline outputs are:

- 69% of front door urgent care activity incorporating activity currently in a number of different services could be managed at an Urgent Care Centre, with the remaining 31% (circa 68,000 attendances) requiring care in the Emergency Department (ED)
- 75% of the activity being managed by the Urgent Care Centres will take the form of minor injuries or ailments, 12% as Ambulatory Emergency Care, 8% as frailty management and 5% as others
- Approximately 35,000 follow-up outpatient attendances managed by the local planned care centres could take place virtually
- Of the 10,000 emergency admissions associated with either frailty or long term conditions in 2012/13, the phase 1 models suggested these admissions could fall by 8% by 2018/19 (largely as a consequence of improvements in primary care management and through better use of community hospitals)
- The Phase 2 models suggests that a further 24% could be avoided by reducing the prevalence of the key risk factors that give rise to Long Term Conditions (e.g. smoking, high cholesterol, high blood pressure) and through greater integration of community and primary care.

2.3.4 Sustainable Services Activity Modelling

The Trust's future activity is aligned to the Future Fit principles however the baseline has been amended from a 2012/13 out-turn to 2014/15 out-turn. Table 7 below shows the baseline and projected future activity for the Trust.

	2014/15 Outturn	Projected 2019/20
Elective Daycase	47,431	42,775
Elective Inpatient		6,806
Non Elective	47,151	42,902
Non Elective Other	8,137	8,647
First Attendance	401,806	91,927
Follow Up Attendance		166,862
Outpatient Procedure		109,656
A&E	109,360	112,836

Table 7: Baseline and Projected Activity

2.3.5 Capacity Modelling

The activity modelling was used to calculate the capacity requirements for the future. In doing this, the following throughput and utilisation assumptions have been made as shown in Table 8 below:

Category	Capacity Modelling Assumption
Inpatient % occupancy*	90%
Daycase turnover rate	1.5
Theatre weeks per year	52
Theatre sessions per week	10
Theatre minutes per session	210
Theatre end utilisation**	80%
Outpatient attendances per room per year: 1 st attendances	2,500
Outpatient attendances per room per year: follow-up attendances	3,500
Outpatient attendances per room per year: outpatient procedures	2,500

Table 8: Throughput and Utilisation Assumptions

* 90% inpatient occupancy rate relates to the main medicine and surgery bed pools, with remaining beds calculated at 85% occupancy.

** Theatre end utilisation takes account of multiple factors, including cancelled sessions as well as non-operating time within sessions (due to gaps between patients etc.), and logistical scheduling issues

The resulting amended capacity requirements for the future are summarised in table 9 below:

Bed Category	Projected Inpatient Bed Requirements (Sustainable Services)
General Beds (including Fit to Transfer)	649
Adult Critical Care	30
Paediatrics	38
Maternity (excluding Delivery Suite)	42
Neonatology	22
Total beds	781
Plus 55 Fit to Transfer Community Provision	

Table 9: Projected Inpatient Bed Requirements 2018/19

Work has been undertaken to quantify and plan for inpatients that no longer require acute hospital care. This cohort of patients equates to those who are classified as 'Fit to Transfer'. Within Future Fit it was agreed that care for these patients does not need to take place within the Emergency site.

Both CCGs have invested in the development of integrated health and social care services to improve the transfer of patients into community settings. Further work has also been led by the System Resilience Group to prototype a new model of Discharge to Assess for patients with complex discharge

needs. Partners across the health and social care system will continue to build on these initiatives to further reduce the numbers of patients delayed in acute hospital beds who could more appropriately receive their on-going treatment and care in their own homes or in community facilities.

2.4 Assumptions for a Potential Solution

The above work generates a number of assumptions, which need to apply to all potential solutions:

- The emergency route in to the Trust (UCC & EC) will be via a single door
- Bed numbers are based on the assumptions of Future Fit with adjustment for 2014/15 baseline as detailed above
- If existing wards are staying as wards, no works will be undertaken
- Critical Care – physical capacity will be provided for 30 spaces. More work is required to understand the staffed capacity initially
- New build wards will be 50% single occupancy and have 32 beds, unless the service requirements require a smaller bed base (e.g. paediatrics and maternity)
- Trust wide service efficiencies and improvements in space utilisation and scheduling will be delivered – focussing on Outpatients, Theatres, Diagnostics and offices

2.5 Functional Requirements

Strategic Healthcare Planning (SHP) were engaged to support the Trust using the activity modelling from Future Fit, the amended modelling to reflect the 2014/15 baseline, the capacity modelling and the assumptions all described above, SHP identified the functional requirements and developed some outline Schedules of Accommodation (Appendix 2e).

2.6 Clinical Centres of Excellence

Implicit within the discussions amongst clinicians within Future Fit and Sustainable Services is the concept of Clinical Centres of Excellence. For some services, consolidating the inpatient bed base or the majority of service delivery onto one site will support and enable the progression of this clinical vision. This work requires further discussion and planning during the development of the Outline Business Case and is something the Trust is committed to delivering in key clinical areas.

2.7 Possible Variations

Within the Future Fit Options, Obstetrics and Neonates was identified as a potential variant; that is, services that should be tested to determine whether they could be delivered on a different site to the Emergency Centre, Critical Care, Acute Surgery etc.

This variant remains under consideration and its further exploration will need to:

- be clinically led
- use best practice and national guidance to frame the discussion
- learn from other hospitals and health systems delivering similar models of care
- be tested against measures of risk, quality and safety, deliverability and sustainability.

3. DEVELOPMENT OF OPTIONS

During 2015, The Future Fit Programme Board established an Evaluation Panel to make recommendations on both the Options to be considered and the Criteria against which such judgements would be made. Each programme sponsor and stakeholder organisation was given the opportunity to nominate a member of the Evaluation Panel.

The Panel's early work included the development of a wide range of potential scenarios from which a long list was created. A number of pre-consultation public engagement events also informed the development and evaluation of options.

The Evaluation Panel was also responsible for recommending the criteria against which long listed options would be evaluated with the pre-consultation public engagement events also informing the development and weighting of the criteria.

Four criteria were proposed initially, to which the Programme Board added a fifth by separating out workforce considerations from wider quality impacts. This resulted in the following broad criteria:

- Accessibility;
- Quality;
- Workforce;
- Deliverability;
- Affordability.

The Evaluation Panel and the wider Future Fit Programme identified potential scenarios for how the approved Clinical Model could be delivered. Key assumptions, at that time, were:

- Emergency Care will be provided from a single location;
- A new "greenfield" site needs to be considered, either to provide all acute services or Emergency Care and some other services;
- It would be possible to deliver all acute services from a single location;
- Two "Urban" Urgent Care Centres will be provided, one at PRH and the other at RSH.
- On this basis the Future Fit Programme Board identified a long list of 13 options (including a Do Minimum Option 1) for consideration.

These scenarios were reduced to a manageable short list of options in line with Department of Health (DH) Capital Investment Manual and Her Majesty's (HM) Treasury Green Book guidance. The options comprise:

- A 'do minimum' option (as required by the Treasury)
- Seven options for the location of the Emergency Centre and the Diagnostic and Treatment Centre (all of which deliver the approved clinical model)
- Urgent Care Centres at both PRH and RSH sites under all options.

The potential to locate consultant-led obstetrics (and neonatal care) either at the Emergency Centre or at PRH was identified as a variant to these options for further exploration.

Option	PRH	RSH
Option A	Provider and Commissioner strategies implemented but no major service change, including A&E	
Option B	EC/Obs&Neo/UCC/LPC	DTC/UCC/LPC
Option C1	DTC/UCC/LPC	EC/Obs&Neo/UCC/LPC
Option C2	DTC/Obs&Neo/UCC/LPC	EC/UCC/LPC

Table 10: Initial Options

These options were fully developed for appraisal in September 2015. However in the light of the deficit in the Local Health System, an affordable case for investment could not be made. In response, the Future Fit Programme Board commissioned the development of a whole-system deficit reduction plan and asked the Trust identify alternative solutions to its most pressing workforce challenges.

3.1 Potential Solutions

Further to the outcome of the capacity modelling exercise and the determination of the functional requirements (as set out in Section 2 above), the Trust considered how services could be delivered across the two sites (PRH and RSH). Senior clinicians, together with operational and corporate leads and the project team, identified a number of ways services could be delivered. This was based on the need to provide:

- one Emergency Department(ED) (within a single Emergency Centre)
- one Critical Care (CC) Unit, to be co-located with the EC
- two Urgent Care Centres (UCC), one at each site
- a balance of activity across the two sites (PRH and RSH)

The site which accommodates the EC, CC Unit and a UCC would then become the **Emergency and Acute** site. The site which accommodates the DTC and stand-alone UCC would become the **Acute and Planned** site. Whilst not directly required to address the Trust’s emergency workforce challenges, this configuration also has the potential to provide the services within a Diagnostic and Treatment Centre at the Acute and Planned site.

This potential solution addresses all of the Future Fit change options:

- Emergency and Acute at PRH and Acute and Planned at RSH (Option B)
- Emergency and Acute at RSH and Acute and Planned at PRH (Option C1)

As referenced in section 2.8, and in the context of Future Fit, a further variation of the Emergency and Acute at RSH and Acute and Planned at PRH is the location of the Women & Children’s Services (**Option C2**). This variant will be discussed in section 4.2.

Based on the core requirement of one EC and CC Unit, the clinical teams identified those services that had a clinical and workforce interdependency with these two emergency services.

The development of the potential solution was progressed over time. The process and outcomes were determined by detailed considerations and discussions with the clinical and non-clinical teams within the Clinical Working Group structure.

The possible balance of services within across an Emergency and Acute and a Planned and Acute configuration has been identified. It is agreed that this will need much more discussion and work as the Trust progresses with a potential solution to its workforce challenges. The detail of this work so far is attached in Appendix 3a.

3.2 Range of Potential Solutions

A number of potential solutions were considered for delivering the Future Fit Options. In line with guidance, a ‘do nothing option’ was included. The solutions considered are shown in Figure 3 below and include:

- **Solution 1** – do nothing
- **Solution 2** – implementing the changes to create an Emergency and Acute site and an Acute and Planned site without any changes to the existing estate
- **Solution 3** – implementing the changes to create an Emergency and Acute site and an Acute and Planned site with changes to the estate for the key services listed above (new build and refurbishment) but without any other transfer and/or changes to any other services
- **Solution 4** – implementing the changes to create an Emergency and Acute site and an Acute and Planned site with changes to the estate for the key services (new build and refurbishment) and the transfer of further essential services to the Emergency and Acute site. These essential services were determined by the clinical teams as those that have a clinical pathway or workforce interdependency
- Two additional solutions were also considered, which challenged the need for an Urgent Care Centre at each site. **Solution 5** co-located a single UCC at the Emergency and Acute site and **Solution 6** co-located a single UCC at the Acute and Planned site.

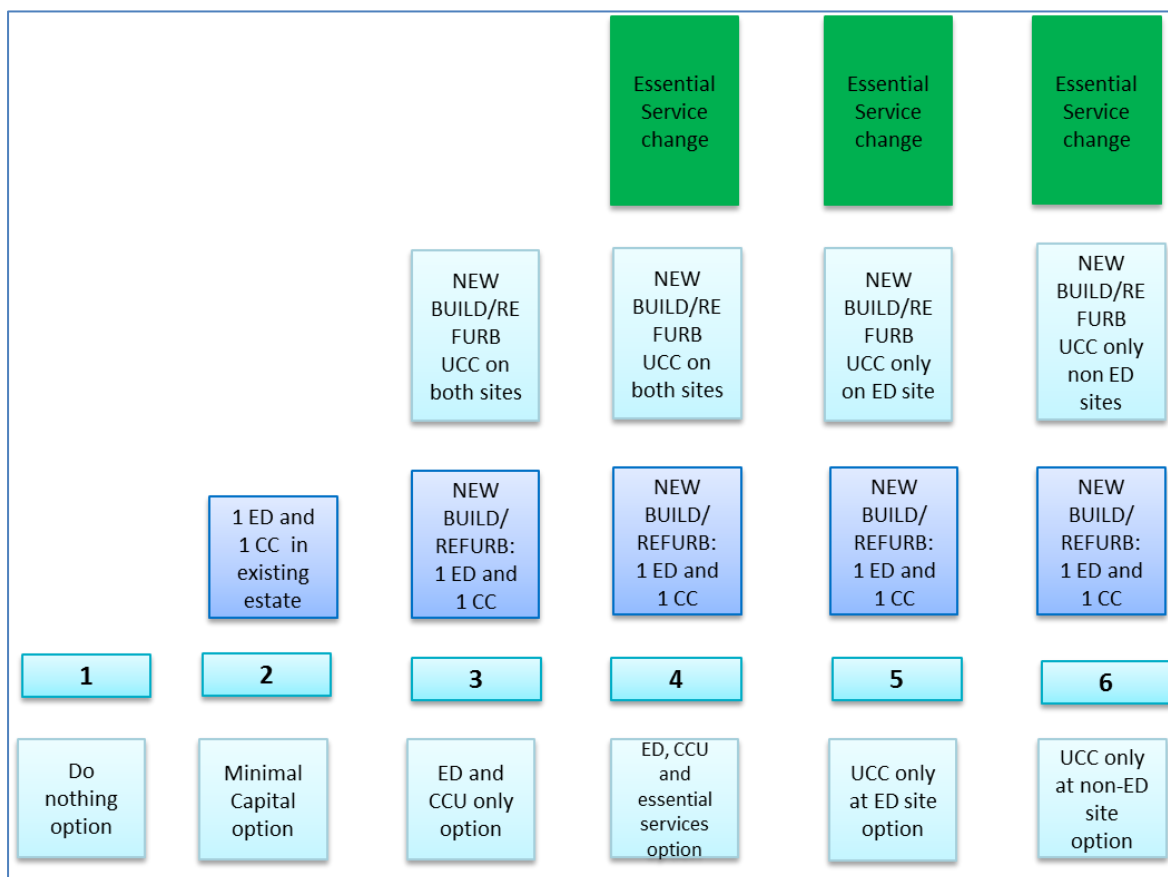


Figure 3: Potential Solutions

3.3 Evaluating the Potential Solutions

The Clinical Working Group and the Trust’s Core Group (project, technical, corporate, IT, estates and facilities leads) determined that the following considerations were key to the deliverability of these potential options:

- Quality – Improving the clinical quality of services

- Access – Maximising access to services
- Environment – Optimising the environmental quality of services
- Workforce – Meeting staff recruitment, retention, training, teaching and staff support needs
- Deliverability – Practicality and timeliness of delivery
- Resources – Making more effective use of resources
- Future-proofing – Strategic fit
- Affordability* – Is the option likely to be affordable in the short/medium term

*It was acknowledged that detailed capital costs were not available at this time however, it was agreed that the affordability criteria should be included due to its significance in the projects progression. However a sensitivity analysis has been undertaken which excludes it to understand the true non-financial scoring.

The potential solutions were evaluated by the Clinical Working Group at a dedicated meeting on 25 November 2015. Following initial discussion, **Solution 5** and **Solution 6** were immediately discounted because they do not address the needs of the public in terms of access to urgent care, would result in unnecessary travel for many and do not fit with the national strategy around emergency and urgent care delivery. These solutions were also felt not to be adequately aligned with the Future Fit clinical model.

The remaining solutions were scored as follows:

Criteria	Weight	Option 1	Option 2		Option 3		Option 4	
			PRH	RSH	PRH	RSH	PRH	RSH
Workforce	20%	2.02	2.02	2.02	4.04	4.04	12.12	10.10
Quality	19%	7.68	3.84	3.84	5.76	5.76	13.43	13.43
Affordability*	18%	3.64	5.45	1.82	7.27	3.64	14.55	10.91
Deliverability	12%	12.12	3.64	3.64	4.85	3.64	8.48	4.85
Access	10%	4.04	2.02	2.02	3.03	3.03	5.05	5.05
Resources	8%	1.62	0.81	0.81	1.62	1.62	4.85	4.04
Future-proofing	6%	0.00	0.00	0.00	0.61	0.61	3.64	3.03
Environment	6%	1.21	0.00	0.00	0.61	0.61	3.64	2.42
TOTAL	100%	32.32	17.78	14.14	27.78	22.93	65.76	53.84
Rank		3	6	7	4	5	1	2

Table 11: Solutions Scoring

The above scoring shows that **Solution 2** (implement without any change/build) and **Solution 3** (implement with change/build to ED, CC Unit and UCC only) scored lower than **Solution 1** (do nothing). Options 2 and 3 were viewed by the clinical teams as being impossible to deliver and would actually make the situation worse than if nothing were done.

Alongside Option 1 (do nothing), **Solution 4** (ED, CC Unit, UCCs and Essential Service change) was therefore concluded to be the only viable option.

Further details of the scoring and evaluation process are included in Appendix 3b.

Further to the outcome of the above Evaluation, the Trust has progressed with **Solution 4** as the remaining viable delivery solution for the Future Fit options. It is hereafter referred to as 'The Potential Solution' without prejudice to which option is finally identified for implementation.

4. THE POTENTIAL SOLUTION

4.1 Description of the Shortlisted Options

The potential solution for Options B, C1 and C2 (with the Emergency and Acute site being at either RSH or PRH (and the Planned and Acute being on the alternate site) has then been developed to an initial level of detail. At this stage, this is to understand the impact, further assess its feasibility and to calculate the capital and revenue cost impact. This has included:

- A further review of the clinical services at each of the sites in more detail
- Understanding the workforce impact
- Developing possible physical solutions and the associated design standards
- Starting to understand the estates impact, including site-wide infrastructure and backlog position
- Exploring the impact on Facilities Management
- The IT considerations
- The impact on the wider hospital sites
- Deliverability and phasing

Each of these items is set out in more detail below:

4.2 Further Review of the Clinical Services

Following the evaluation of the range of solutions, the Trust team revalidated the detail of how the services will be split across the two sites for the potential solution.

A wider Clinical Working Group discussed the service configuration in detail on 8 February 2016 and agreed areas for further discussion and that all of the work developed for the potential solution within this SOC is based on the associated inpatient bed number splits.

This detail has also been shared and discussed at a number of key meetings (Executive Away Day 13 January 2016; Trust Board 28 January 2016; Future Fit Programme Team 4 February 2016; Future Fit Programme Board 18 February 2016).

As introduced in sections 2 and 3 above, the Trust's potential solution needs to include consideration of the potential variant of the separation of Obstetrics and Neonates from the Emergency Centre (Option C2). The Future Fit Programme identified the need for further work to be undertaken on this variant, including understanding clinical evidence to support it. It was agreed that the national 'Maternity Review' that was due to conclude in December 2015, and the parallel report of the Royal College of Obstetricians and Gynaecologists would help to inform this debate.

In addition to this, the Trust has undertaken high-level scoping of the impact of all Women and Children's Services (Obstetrics, Neonatology, Paediatrics and Gynaecology) being co-located on the Acute and Planned site and not the Emergency and Acute site. At this stage, this has been from a workforce and potential estate solution only. Detailed discussions with clinical leaders and teams will need to be undertaken during the development of the OBC. This work will need to include the evidence described above.

During these clinically led discussions further variants may be identified with the potential to align services clinically and still maintain two balanced sites.

4.3 Workforce Impact

The impact of the potential solution on the Trust's workforce has been considered, including the potential impact on recruitment, requirements for relocation of staff, opportunities for workforce transformation, and the impact on the revenue position.

The workforce risks associated with emergency medicine and critical care are addressed and as such the employment offer and ability to recruit improves, due to less onerous on call within acute medicine for example. Further work with regard to role development and workforce transformation would however be an enable and the potential solution identified would be able to support further developments.

- The workforce implications of the potential solution are summarised below:
- Reduction in duplicate costs saved through consolidating some services
- More favourable recruitment in challenged specialities due to single emergency department and critical care configuration
- Minimal new build impact on soft and hard facilities management
- Able to support workforce transformation opportunities and improvements for educating and training multi-disciplinary trainees

4.4 Possible Physical Solutions

The Trust has engaged AHR Architects to develop some initial layouts as to what the possible physical solutions could look like. This piece of work has considered potential locations for development at each of the sites, and has developed some initial block plans, with variants for PRH or RSH as the Emergency and Acute site. This work has considered:

- the likely layout and physical size of each of the key components (ED, CC Unit, UCC, Wards)
- clinical adjacencies and links to the existing services being maintained at each site
- provision of a 'big front door' for the collocated ED and UCC
- the need for future flexibility and potential for further development, service change and consolidation
- an opportunity to improve the overall hospital layout and flow
- an opportunity to create a new entrance and focal point at both sites
- deliverability and the need to minimise the impact on existing hospital services

These block layouts are included in Appendix 4a.

The block plans are designed as a series of 'component parts' that provide flexibility for further consolidation and change overtime, by adding to the core requirement of the potential solution. This provides a potential longer term vision for both hospital sites within an evidence-based Development Control Plan (DCP) for each site (Appendix 4b).

The layouts create a compact and efficient solution and are that built around a 'hot core' of clinical activity (ED, imaging theatres etc.). The layouts also respond to the need to simplify patient and public routes, especially at the RSH site.

It is important to note that these layouts are only an initial view of what might be developed, to check the feasibility and relative scale of the potential solution and to inform the capital costs. The layouts require working up to the next level of detail as part of developing the OBC.

These layout plans were reviewed in detail by the Clinical Working Group at the meeting on 20 January 2016 and were unanimously supported.

The new main entrance areas at each site will contribute significantly to the experience of patients, the public and staff and improve everyone's overall impression of hospital care provided by the Trust. The use of modern, uplifting and 'non-institutional' design has the potential to create a real hub of activity (coffee shops, retail, wayfinding etc.) whilst delivering patients and visitors into the heart of the hospital.

4.5 Design Standards

All new build and refurbished accommodation (where there is a change of use) required to deliver the potential solution will comply with all applicable standards with regard to:

- modern space standards
- control of Infection
- fire
- privacy and Dignity
- accessibility

Department of Health standards, such as HTMs (Health Technical Memorandums) etc.

This will be further discussed and developed at OBC.

4.6 Estates Impact Including Site-wide Infrastructure and Backlog

The Trust Estates team have reviewed the impact of the potential solution on the existing estate both in terms of site-wide infrastructure and the backlog position.

As stated above, all of the new and refurbished accommodation will be provided to modern standards which will provide an improved patient and staff experience in these areas. It will also improve the quality of the estate and the general environment – both recognised to be important contributors to the delivery of better healthcare.

The proposed development will address some of the areas of poor estate identified by the recently completed six facet estate surveys. It will provide additional high quality accommodation in the form of new build and refurbishment and will have some small impact on the backlog position at both sites which are affected by the development.

The impact of the option on the backlog (condition and statutory compliance) position is provided within Table 12 below:

Emergency and Acute Site	Site Reduction (£m)	Acute and Planned Site	Site Reduction (£)	Total Reduction (£m)	Total Residual Gross Condition & Statutory (£m)
RSH (Option C)	15.7	PRH	0.8	16.5	87.0
PRH (Option B)	0.6	RSH	12.8	13.4	90.1

Table 12: Backlog Impact

It can be seen that the reduction in backlog associated with the potential solution ranges from £13.4m to £16.5m depending on which Option is finally selected. This results in a residual backlog position of **£87.0m** under Option C (RSH is the Emergency and Acute Site) and **£90.1m** under Option B (PRH is the Emergency and Acute Site). All figures are gross.

The Trust recognises that the majority of backlog issues will therefore not be addressed. It is acknowledged that this therefore needs to be resolved. The cost pressure associated with capital charge consequence of resolving the backlog (to category B or above) is described in Section 5.

The addition of a significant amount of new estate will create pressures on some of the existing estates services at each site and hence will require some investment in new engineering services infrastructure. A very high level initial review of this has been undertaken by the Trust's Estates team, supported by DSSR Consulting (Mechanical & Electrical) Engineers. Details of the review outcome are provided in Appendix 4d. Further work and costing of the estate and site wide infrastructure will be undertaken in the OBC.

The provision of new estate will also increase the maintenance requirements. These have been considered within the workforce modelling.

4.7 Facilities Impact

As with estates, the addition of a new and changes to the existing estate at each site will require changes to facilities management. Pressure on some existing facilities services such as catering linen/laundry, portering, security, sterile services, and telephony should be noted and will need to be progressed in the OBC.

A very high level initial review of the impact of the potential solution on the existing facilities provision has been undertaken by the Trust Facilities team. Details of this review are provided in Appendix 4c.

The provision of new and changed estate will also increase the facilities management requirements for both hard and soft facilities management, which have been considered within the workforce modelling.

4.8 Impact on the Wider Hospital Sites

The addition of new buildings and refurbishments may have a 'knock-on' effect to the existing clinical, non-clinical and support services at both sites including:

- Imaging, Pathology, Mortuary, Pharmacy, Therapies
- Clinical administration, Education, Research and Training
- Medical Records and Medical Engineering
- Spiritual care, staff welfare, support services, outdoor space
- Staff offices, corporate functions, residences
- Car parking

A high level review and mapping of this impact has commenced and will be developed further in the OBC.

4.9 IT Considerations

An integrated and resilient IT network and infrastructure is a vital enabler within the Sustainable Services and Future Fit programmes. The model of care is built on the premise that clinical teams are connected and are able to interact with systems, view images, data and results at the point of need.

In line with this, the Trust's IT Strategy (Appendix 4e) focuses on sustained and incremental improvements to the organisation's infrastructure and systems. Key to all developments within this strategy is their need to deliver tangible improvements to patient care. All developments also require a resilient infrastructure in which they can safely and securely operate.

Over time, as with much of the NHS, the IT infrastructure and capacity within the Trust has struggled to keep pace with service needs and advances in technology such as the move to mobile devices, a need for wireless connectivity and advanced system protection.

The IT developments, as an enabler to the implementation of a new model of care, will require investment from all organisations within the health economy. A Local Health Economy group is progressing this work led by David Evans (T&W CCG) and Dr Steve James (Shropshire CCG). The focus is on the integration and sharing of information as well as the challenges with the economy's infrastructure.

IT leads within the Trust are therefore clear that an incremental and 'best of breed' approach is required at SaTH. The system will continue to be developed from what is in place, take the best of others experience and combine a network of different systems in such a way that the user is not aware of the complexity behind. This results in a responsive IT network with a user interface that is easy and straightforward to use. This is outlined in Appendix 4f.

There are three levels of IT development that requires investment to deliver the IT system needs of the future. For SaTH, these costs form part of the Trust's capital and affordability position:

- Level 1: Development and improvement to the network including end-points, switches, wireless capability etc.
- Level 2: Investment in the IT infrastructure including increasing processing and storage capacity within the data centres; cooling and power management in computer rooms to manage increased traffic whilst maintaining availability, confidentiality and integrity.
- Level 3: Connection and front end improvements including the clinical portal, pharmacy (e-prescribing), electronic patient records and other as yet unspecified developments that demonstrably improve workflow across clinical teams and organisations.

The potential solution will require investment, to a greater or lesser extent, in current systems to ensure they meet the 'minimum standard' required. This includes the ability for any clinician to access information from any data point, on a mobile or static device within any patient area. This minimum standard will also need to be delivered within community facilities, if staff are to be able to deliver timely and appropriate care around the needs of the patient.

4.10 Deliverability and Phasing

The phasing and deliverability of the options under the potential solution has been considered at this stage and a potential phasing plan produced. This aims to achieve the fastest possible delivery whilst attempting to minimise capital costs and impact on the existing hospitals.

Initial phasing plans are included in Appendix 4g which demonstrates the potential solution is achievable. Indicative dates and an initial programme are included in Section 6.2. This will all be developed further as part of the OBC.

5. AFFORDABILITY

5.1 Capital

A high level capital cost estimate for the potential solutions has been undertaken by Rider Hunt Cost Advisors. These estimates follow best practice and the guidance within the NHS Capital Investment Manual and are presented on OB forms in the standard format.

The works costs are built up using the Healthcare Premises Cost Guides rates per m² (HPCGs) applied to the building areas shown within AHR Architects' block plans, plus appropriate on-costs.

The HPCG rates have been adjusted accordingly for items such as storey height, and the areas have been adjusted to allow for main plant rooms and communication between departments.

For the refurbishment areas, a percentage of the new build rate has been taken based on the type of refurbishment indicated on the schedules.

External works are included based on the items shown on AHR's block plans as well as general allowances for items such as drainage.

General allowances have been made for items such as bad ground, diversions, connections, and breakthroughs. Additional costs have then been added to the above works costs to include for:

- fees, which are based on 15% of the works costs, as the HPCG guidance
- non-works costs, which are an allowance based on similar recent developments
- equipment, which is assumed to be all new and included at 15%, as the HPCG guidance
- location adjustment, based on Shropshire
- planning contingency, which is based on 10% of the works cost
- optimism Bias, as set out below
- inflation, which is included based on the PUBSEC indices
- VAT at the current rate
- VAT Recovery, at an assumed level of recovery based on 100% recovery for fees only

All site-wide impact and infrastructure costs are excluded from these capital cost estimates, and are included separately within the SOC.

No costs for land purchase have been included as there is none deemed to be required.

Equipment costs are deemed to include for all general equipment, and general IT infrastructure, but exclude any specialist medical equipment (such as CT, MRI etc.), and any specialist IT requirements (such as EPR or iPads, etc.).

The level of Optimism Bias has been calculated based on the approved guidance, and based on the level of development and confidence in the scheme at SOC stage. This calculation is included in Appendix 5a.

The costs are shown on form OB1, supported by OB 2-4, which are included in Appendix 5b, plus a separate set of High Level Cost Estimates (for supporting information only), which are included in Appendix 5c.

5.2 Overall Affordability and Key Planning Assumptions

In developing its strategy for an affordable option, the Trust has taken into account the following:

- Projections of income based on the Future Fit Phase 2 modelling including a forecast on demographic changes
- Efficiencies arising from the removal of duplicate rotas, reduction in Junior Doctor intensity payments, co-location of services and the co-horting of surgical specialities
- Increased facilities and ward costs associated with modern and national standards for new wards
- Application of inflation
- Net additional cost of capital
- Repatriation of activity currently being performed for local residents in organisations outside the local health economy.
- Increase of tariff payments in line with the current Sustainability and Transformational fund allocation
- Continued CIP delivery

A summary of the analysis can be found in Table 13 with a detailed analysis showing the impact on the Trust's Income & Expenditure in Table 14 and the key planning assumptions detailed in Table 15 below:

	Option A	Option B	Option C
	Do Minimum	PRH Emergency	RSH Emergency
	£000	£000	£000
Capital Expenditure (Current Prices)		102,028	195,325
Remaining Backlog	103,400	90,100	87,000
Income and Expenditure			
Baseline Recurrent Position	(17,271)	(17,271)	(17,271)
Revenue Impact (reduction)/Increase			
Sustainability Fund	0	10,500	10,500
Demographic Growth	11,300	11,300	11,300
Activity Reductions	(9,600)	(9,600)	(9,600)
Repatriation	12,000	8,640	12,000
General Efficiencies	32,786	32,786	32,786
Inflation	(49,800)	(49,800)	(49,800)
Sustainable Services Case Revenue Savings and Costs			
Workforce Savings	(4,600)	21,389	21,302
Cost of Capital	0	(5,805)	(11,112)
Total Savings from Sustainable Services Case	(4,600)	15,585	10,190
Total Revenue Impact	(7,914)	19,411	17,376
Recurrent Income and Expenditure Position	(25,185)	2,140	105

Table 13: Income Expenditure Analysis

The table above demonstrates the affordability of the potential solution at both PRH and RSH to the Trust. Savings achieved as a direct result of implementing the potential solution is £15.585m in Option B and £10.190m in Option C.

Option C does however enable the Trust to maximise the potential for the repatriation of activity currently being performed for local residents in provider organisations outside the local health system.

	<i>Total 2015/16 Baseline</i>	Option A Do Minimum	Option B PRH Emergency	Option C RSH Emergency
	<i>£000</i>	<i>£000</i>	<i>£000</i>	<i>£000</i>
Income				
Baseline Income	315,859	315,859	315,859	315,859
Phase 1 and 2 Activity Reductions	0	(16,000)	(16,000)	(16,000)
Demographics	0	22,600	22,600	22,600
S&T Fund	0	0	10,500	10,500
Repatriation	0	20,000	14,400	20,000
	315,859	342,459	347,359	352,959
Expenditure				
Pay	(215,945)	(215,945)	(215,945)	(215,945)
Pay Inflation		(34,860)	(34,860)	(34,860)
Efficiency Delivered		24,746	24,746	24,746
Repatriation - Pay Implications		(5,600)	(4,032)	(5,600)
Demographic Changes - Pay Implications		(7,910)	(7,910)	(7,910)
Phase 1&2 Pay Implications		4,480	4,480	4,480
Additional Estates and Facilities Pay costs		(600)	0	0
Additional investment in Medical Staffing		(4,000)	0	0
Workforce Reductions - duplicate costs		0	10,153	10,153
Workforce Savings IT		0	2,300	2,300
Additional Workforce Savings		0	9,110	9,110
HCA Pay Costs associated with safer staffing levels		0	(174)	(261)
Total Pay	(215,945)	(239,689)	(212,132)	(213,787)
Non Pay & Inflation Reserves	(99,741)	(99,741)	(99,741)	(99,741)
Non Pay Inflation		(14,940)	(14,940)	(14,940)
Efficiency Delivered	0	8,040	8,040	8,040
Repatriation - Non Pay Implications		(2,400)	(1,728)	(2,400)
Demographic Changes - Non Pay Implications		(3,390)	(3,390)	(3,390)
Phase 1 & 2 Non Pay Implications		1,920	1,920	1,920
Total Non Pay	(99,741)	(110,511)	(109,839)	(110,511)
Finance Costs	(17,444)	(17,444)	(17,444)	(17,444)
Additional Capital Charges		0	(5,805)	(11,112)
Total Finance Costs	(17,444)	(17,444)	(23,249)	(28,556)
Total Income and Expenditure	(17,271)	(25,185)	2,140	105

Table 14: Income and Expenditure Analysis (Price base at 2020/21)

	2016/17	2017/18	2018/19	2019/20
Tariff Uplift	1.1%	0%	0%	0%
Inflation (blended)	3.1%	2.8%	2.8%	2.8%
Efficiency Factor	3.4%	2.5%	2.5%	2.5%
Growth	1.5%	1.5%	1.5%	1.5%

Table 15: Planning Assumptions

5.3 Commissioners

An analysis of the Trust's income pre and post scheme implementation can be seen in Table 16 below:

Commissioner	Current proportion of income with Commissioner		Proposed proportion of income with Commissioner post implementation		Proposed proportion of income with Commissioner post implementation	
			Option B		Option C	
			(Year 1 or base year)		(Year 1 or base year)	
	%	£000s	%	£000s	%	£000s
Local Health Economy	66.22	209,174	63.71	221,319	64.29	226,919
Others	26.41	83,429	26.09	90,620	25.67	90,620
Other Clinical	0.91	2,861	0.88	3,066	0.87	3,066
Non Clinical	6.46	20,394	6.29	21,853	6.19	21,853
Sustainability and Transformation Fund	-	0	3.02	10,500	2.97	10,500
Total		315,858		347,358		352,958

Table 16: Expected Commissioner Contributions post Phase 2 Modelling

5.4 Potential Variant (Option C2)

A financial appraisal has also been completed to illustrate the potential financial impact of the differing configuration of services where, if the Emergency and Acute site is situated at RSH site, the Women and Children's services remain on the PRH site within the Planned and Acute site.

Financial Summary as at 2020/21

	Option C2 RSH Emergency with W&C Separate £000
Capital Expenditure (Current Prices)	168,167
Remaining Backlog	87,000
Income and Expenditure	
Baseline Recurrent Position	(17,271)
Revenue Impact (reduction)/Increase	
Sustainability Fund	10,500
Demographic Growth	11,300
Activity Reductions	(9,600)
Repatriation	12,000
General Efficiencies	32,786
Inflation	(49,800)
Sustainable Services Case Revenue Savings and Costs	
Workforce Savings	17,710
Cost of Capital	(9,567)
Total Savings from Sustainable Services Case	8,143
Total Revenue Impact	15,329
Recurrent Income and Expenditure Position	(1,942)

Table 17: Financial summary of Women & Children's potential solution variant

The above table illustrates that whilst the capital cost of Option C2 is £1.5m lower than Option C1 there is a significant reduction (£3.5m) in the potential workforce savings; predominately due to the requirement to provide additional medical rotas to deliver the required emergency and cover on the non-emergency site. As a result this variant of the potential solution reduces the revenue performance for the Trust by £2m.

5.5 Wider Health Economy Position

Whilst the tables within Section 5.2 demonstrate the affordability of the potential solution to the Trust, affordability should also be considered within the wider context of the overall health system's financial sustainability.

The health system met in December 2015 to discuss and explore the likely financial challenges facing all providers and commissioners across the population served for the period 2016-2021.

The system leaders commissioned Price Waterhouse Coopers (PWC) to undertake a granular level assessment of the challenges. The conclusion of this will be available in the first week of March 2016, however given the information currently available, a draft financial summary and overview has been produced illustrating the key elements that need to be delivered to deliver financial sustainability over a 5 year period.

Local Health Economy Position

	Commissioner's Providers				
	Commissioners	SATH	RJAH / Community Trust	Other (inc Mental Health)	Total
	£000	£000	£000	£000	
Opening Deficit 2015/16	-4,900	-17,271	2,000		-20,171
Additional Pressures					
Winter Pressures		-2,800			-2,800
Additional Agency Spend		-3,500			-3,500
Opening Deficit 2016/17	-4,900	-23,571	2,000	0	-26,471
Commissioner allocation					
Shortfall	-18,100				-18,100
Community Fit	-6,000				-6,000
Sustainability and Transformation Fund		10,500			10,500
Winter Funds	-2,800	2,800			0
Inflationary Pressures		-49,800	-22,900		-72,700
Deemed Net Gain from Demographic Growth		11,300	6,500	7,400	25,200
QIPP Schemes required to Deliver CCG Business Rules	38,000	-16,000	-11,000	-11,000	0
System wide Financial Problem	6,200	-64,771	-25,400	-3,600	-87,571
Provider Solutions					
Direct Costs Savings as a result of QIPP Schemes		6,400	4,400		10,800
Repatriation of Activity Net Gain		8,640			8,640
Agency Premium - National Cap		3,500	1,000		4,500
CIP Achievable		27,286	22,900		50,186
SATH Sustainable Services Business Case		15,585			15,585
Staff Unavailability		3,000			3,000
Back office Functions		1,000	300		1,300
Review of Midwifery Service		1,500			1,500
Saving identified	0	66,911	28,600	0	95,511
Resultant Position 2020/21	6,200	2,140	3,200	-3,600	7,940

Table 18: Local Health Economy Position

The table above demonstrates the significance of the Trust's delivery of the Sustainable Services Programme on the local health system. The health system CCGs are able to deliver their required business rules and the local providers can deliver their required surpluses when the Sustainable Services Programme is one of the fundamental elements of the system's financial recovery.

5.6 Financial Impact of Addressing the Trust's Estate Backlog Issues

As highlighted in Section 4.6 it is important to note that the significant issue of the remaining backlog maintenance not fundamentally being addressed within the potential solution detailed above.

The Trust is clear that it wishes to address its backlog issues. However, this would result in an additional revenue pressure associated with the cost of capital expenditure of circa £6m.

It is therefore assumed that this cost pressure will feature in the local health system's recovery plan going forward.

6. TIMETABLE AND DELIVERABILITY

The Trust recognises that the delivery of the project is a significant task, requiring good quality project management and a real commitment from all parties involved to ensure its success. The Trust has robust arrangements in place for the on-going management of the project. This section sets out the Trust's timetable and delivery plan to ensure the successful delivery of the project, including:

- Proposed Timetable for achieving the completion of the scheme
- Potential delivery dates and phasing requirements
- Main risks identified at this stage, and arrangements for risk management
- Summary of the project management arrangements
- Confirmation of Trust commitment of time and resource, and plans for knowledge transfer
- Arrangements for consultation, engagement and communication
- Procurement
- Next steps

6.1 Proposed Timetable

The proposed timetable for the next stages of the scheme up to the completion of the FBC is shown in Table 19 below. These proposed dates provide the fastest possible route to delivering the potential solution, whilst ensuring adequate planning, engagement, approvals, and due diligence are undertaken; as well as sufficient periods for the Trust to obtain the necessary approvals from the Trust Development Authority, including HM Treasury as appropriate. An outline programme, including interdependencies and milestones will be developed with the OBC. The Trust's proposed arrangements for managing delivery are set out below.

Milestone	Start	Finish
Trust Board formally approve final draft SOC	-	25 Feb 16
Submit SOC to TDA for approval	-	11 Mar 16
TDA SOC approval period (local and national, inc DH and Treasury)	14 Mar 16	30 Oct 16
Reviews with TDA and responding to queries as required	14 Mar 16	31 May 16
Trust Board formally approve final OBC	27 Oct 16	27 Oct 16
Public consultation	1 Dec 16*	12 Mar 17*
Full Planning Application (allow 16 weeks)	13 Mar 17	30 Jun 17
TDA OBC approval period (local and national, inc DH and HMT)	1 Jun 17	31 Dec 17
Final Commissioner Decision	30 Jun 17	30 Jun 17
Procurement process (assuming D&B or P21+ route)	1 Sep 17	30 Mar 18
Full Business Case (FBC) Approval	30 Aug 18	30 Aug 18

Table 19: Proposed Milestones

* Dates for the public consultation shown are the target dates as set out within the Future Fit Critical Path and are subject to change (especially as a result of external approval processes).

6.2 Delivery Dates and Phasing Requirements

The construction and delivery phase varies according to which site is the emergency acute site. A first pass at the potential phases and associated delivery dates is shown in Tables 19 and 20 below. The outline phasing plans which correspond with these dates are included in Appendix 4g. All of this will be developed further at OBC stage.

All of these dates are deemed to include construction, fit-out, and decanting. At this stage Phase 1 at either site is deemed to commence after the FBC is approved and a short lead-in time is provided to the Contractor (say 2 months). It may be that some early work can be undertaken at risk in parallel with finalising the FBC, particularly at PRH.

NOTE: All dates are very indicative at this stage and require verification. They are for guidance only and are subject to change.

6.3 PRH as the Emergency and Acute Site

There are some initial enabling works required to deliver the potential solution at PRH, but the majority of the work is built in a single phase, with the final CC Unit refurbishment as a final phase.

	Phase	Duration
1	Enabling works and create new parking at PRH	9 months
2	Create new ED/CC Unit/UCC/AEC at PRH plus other works	24 months*
3	Refurbish CC Unit at PRH, refurbish A&E at RSH	9 months
	TOTAL	42 months (3 years 6 months)

Table 20: PRH as the Emergency Acute Site

*at the end of this phase the first part of the service becomes operational

6.4 RSH as the Emergency and Acute Site

There are a series of enabling works and sequencing required to deliver the potential solution at the RSH site. This is as a result of the need to relocate a number of existing non-core services to create the space to develop the new scheme. In addition, the need to move Women and Children's from PRH creates an additional set of phasing.

	Phase	Duration
1	Enabling works to reprovide and relocate existing services at RSH	12 months
2	Demolition of existing services at RSH	4 months
3	Create new ED/CC Unit/UCC/AEC and W&C's Unit at RSH	30 months*
4	Transfer of services from PRH to RSH, vacation at RSH and PRH, demolition at RSH	2 months
5	Reconfiguration and create new entrance at RSH; refurbishment of old W&C's unit at PRH	12 months
6	Final moves and refurbishments	9 months
	TOTAL	69 months (5 years 9 months)

Table 21: RSH as the Emergency Acute Site

**at the end of this phase the first part of the service becomes operational*

6.5 Risks and Risk Management

There are a number of risks associated with the planning and delivery of the Sustainable Services Programme. These risks, their mitigation, and supporting actions are reviewed and managed through the project team and the governance structure in place; which aligns with the normal Trust operational risk management processes and procedures. All identified risks are documented in a project risk register and assessed for likelihood and potential impact and given a RAG rating.

The Programme Risk Register is formally reviewed and updated on a monthly basis by the Project Team. Red rated risks are reported to the Programme Board each month. The current top risks (10 and above) are shown in Table 22 below, and a copy of the latest Risk Register is in Appendix 6a:

Risk	Additional Actions Identified to address risk
Lack of clarity of roles regarding Sustainable Services Programme and NHS Future Fit resulting in a failure to meet the '4 tests' and Gunning Principle required for all NHS service reconfigurations	Urgent need to clarify relationship and roles and communicate with stakeholders and the public. Meetings planned
Risk around wider NHS Future Fit progression including perceived divergence from clinical model, lack of GP support and/or because the NHS Future Fit model has not been adequately refreshed (e.g. Community Fit, the rural offer, financial sustainability) leading to CCGs not being able to approve the plans for, and lead on public consultation	Refreshed messages and mandate through NHS Future Fit Programme for an update to the clinical model required to encompass progress and any changes. Meeting of SROs and Accountable Officers/CEO with communication team to discuss and progress. Outcomes to be fed into meeting of key leads above
Capital costs of the emerging solutions in higher than anticipated leading to concerns around affordability and deliverability	Cost advisors working closely with Architecture and Technical Team. Information to be shared with Trust teams. Draft capital costs received and being worked through. Revenue impact to be mapped

Table 22: Top rated risks

6.6 Project Management Arrangements

The Trust is managing the Sustainable Services Programme as a single project. It is being managed internally, complemented by external advisors where appropriate. The Trust has successfully managed the project to date using the processes outlined within this SOC, which will be developed further as we progress through the OBC and then FBC.

A robust governance structure has been established with defined roles for individuals; and the establishment of a series of groups, teams and boards. This ensures all team members understand their role and responsibilities, and provides a clear and auditable route for decision making and the escalation of risks and issues.

Progress against the key milestones is monitored by the Project Team using an Action Tracker, which is presented each month to the Programme Board and Core Group meeting, and any corrective action taken if required.

A budget for each stage of the project is established at the outset of the stage, and the on-going costs are controlled and monitored by the Project Team, including fees for external consultants. An overall project budget will be established as part of the OBC.

The proposed benefits of the project are emerging within this SOC, which will be developed within the OBC, and a benefits management process established to ensure these are achieved.

A robust project brief will be established, and the design will be managed and controlled by the Project Team and through the Technical Project Manager, to ensure it complies with the brief and will meet all relevant statutory requirements and guidance, with any derogations agreed and documented.

Appropriate change control, issues management, and contract administration will be established as the project progresses.

A robust commissioning, completion, and post-completion process will be established, which will include a Post-Project Evaluation.

All of the project management arrangements are documented in a Project Initiation Document (PID), which is included in Appendix 6b.

6.7 Time and Resource

The Trust confirms that adequate time, resource, and expertise is being allocated to the project to ensure its successful delivery.

6.8 Lessons Learnt and Transfer of Expertise from FCHS Project

The Trust has recently undertaken a major reconfiguration programme, the Future Configuration of Hospital Services (FCHS). In addition to retaining a number of key internal and external project team members from this project, a detailed lessons learnt process was carried out, both of which have helped inform the Sustainable Services Programme and ensure knowledge transfer.

6.9 Consultation, Engagement and Communication

As work within the Sustainable Services Programme is aligned to the health economy's Future Fit Programme, communication and engagement with patients, the public and wider stakeholders is within the Future Fit Programme and managed accordingly.

Involvement and support from the Clinical Commissioning Groups and liaison with the Trust Development Authority has been held throughout the SOC process. Monthly project updates have been provided to the Future Fit Programme Board.

Plans for the Public Consultation are being developed, in partnership with the Future Fit Programme Team.

The project will undergo all required internal and external assurance, including formal review by the West Midlands Clinical Senate as part of Stage 2 NHSE Assurance, regular reporting to the Joint Overview and Scrutiny Committee. It is also envisaged that the project will undergo a 'Gateway' Review.

6.10 Procurement

The procurement options to be explored through the OBC development will include traditional funding routes (Public Dividend Capital (should this be available), DH loans) as well as potential private sources of funding (private loans, property-led funding solutions e.g. Joint Ventures, property development solutions etc.)

No allowance for land purchase has been included, as there is no new land deemed to be required and the Trust currently owns and controls all of the areas to be developed.

6.11 Next Steps

The next steps for the Sustainable Services Programme are:

- Progress this SOC through the formal approval process
- Work with the Future Fit Programme to support and enable them to lead an Appraisal and Assurance Process in the coming months
- Develop communication and engagement plans in partnership with the Future Fit Programme and CCGs to support and enable them to lead Public Consultation later in 2017
- Commence work on the OBC

CONCLUSION

This document presents the Strategic Outline Case for the Trust's Sustainable Services Programme as part of the Future Fit Programme. It describes the Trust's plans to address the significant challenges to the safety and sustainability of patient services specifically in emergency and critical care.

The SOC outlines the potential solution for the creation of balanced hospital sites. Each site will continue to provide essential services for the population served including: Urgent Care, Outpatients, Ambulatory Emergency Care, Diagnostics and Midwifery Led Care. Either site will then provide Emergency Care (the single ED and Critical Care) or the majority of Planned Care (the Diagnostic Treatment Centre). Clinically-led discussion and debate will need to continue on the best location for other essential hospital services: Women and Children's, Surgery, Cancer etc. – many of which can further develop into the Trust's ambition for Centres of Excellence.

It also introduces the Trust's backlog maintenance challenge and highlights the need for an approach to bring much of the estate at RSH back to its 'as built' standard. However, this would result in an additional revenue pressure associated with the cost of capital expenditure of circa £6m.

The SOC identifies the high-level capital costs associated with the required new build and refurbishments to enable this vital service change. The workforce and revenue impact of the proposed changes is also identified. The financial impact is described within the context of the Trust and local health systems long term financial sustainability and deficit reduction plans.

The potential solution is affordable to the Trust at both the PRH and RSH (Options B and C1).

The potential variant of the Emergency and Acute site being at RSH and Women and Children's Services being located on the Acute and Planned site at PRH (Option C2) currently appears to be marginally unaffordable.

The SOC has been developed in accordance with the requirements of the TDA. These requirements include the identification of a range of deliverable and affordable options that will address the problem that we are trying to solve. First, to resolve the workforce challenges within A&E and Critical Care and second, to address the backlog estate issues.

The Trust Board is asked to:

- Review the Strategic Outline Case for the Trust's Sustainable Services Programme
- Approve the Strategic Outline Case for submission to Commissioners and the Trust Development Authority for their support and approval

(Trust Board minute to follow)