



Developing Health and Health Care
A Strategy for Shropshire, Telford and Wrekin

REPORT FROM THE CLINICAL LEADERS FORUM

Report Two

Challenged Service Strategies

November 2008

SUMMARY AND CONCLUSIONS

This section presents the findings and conclusions of the Clinical Leaders Forum with regard to the challenged services of accident and emergency, acute surgery, paediatrics, obstetrics and urology.

The Interim Report considered by Shropshire County and Telford and Wrekin Primary Care Trusts in May 2008 set out three strategic objectives:¹

- The prevention of disease and the promotion of healthy lifestyles and independent living;
- Provision of services at home or as close to home as possible;
- Provision of sustainable and accessible acute hospital services.

The last of these three strategic objectives was particularly relevant to the challenged services. Specifically the Interim Report concluded that:

by 2012/13

- accident and emergency services should be maintained at both the Princess Royal and Royal Shrewsbury hospitals;
- acute medicine should be developed to underpin emergency medicine;
- general surgery should be reshaped to provide a service for the seriously ill and injured at one site with planned care (elective in patients and day cases) on both sites;
- urgent care centres should be developed;
- assessment services should be strengthened at both site for children and adults;
- hospital at home services should be developed for children and the smaller children's inpatient service should be concentrated onto one site.

by 2020

- emergency services should be concentrated onto a single site for the seriously ill and injured within a network of community and specialist community hospitals;
- an option appraisal should be carried out to determine the location of the single site for the seriously ill and injured and the nature of the network of hospitals providing urgent care and minor injuries units.

¹ Clinical Leaders Forum Interim Report to Shropshire County Primary Care Trust and Telford and Wrekin Primary Care Trust, May 2008.

The CLF and the respective Pathway Development Groups have developed options and assessed options against the two criteria of:

- Making sense clinically; and
- Making sense to the communities we serve.

In assessing the options, the CLF were also aware of the need to resolve the issues in a timely manner and to ensure that any solutions and approaches that needed to be put in place in the immediate future did not compromise the 2020 Option Appraisal.

Benefits to Patients

There are significant benefits to the people of Shropshire, Telford and Wrekin from taking forward the changes identified in the Interim Report over the next five years.

- Developing a specialist service to ensure that patients requiring an emergency vascular operation, such as a life threatening aortic aneurysm, would be carried out by a specialist vascular surgeon at any time of the day or week.
- Allowing the specialist breast surgeons to concentrate on breast surgery.
- Ensuring that emergency general surgery would be done by colorectal and upper gastrointestinal surgeons with expertise in the types of operation which comprise most emergency surgery.
- Having sustainable accident and emergency departments at both hospitals whilst providing a focus for the most seriously ill and injured.
- Continuing to provide planned day case, low risk elective inpatient general surgical/vascular operations and outpatients on both sites so that some 80% of patients will not have to travel to a different site for their planned care.
- Reducing the number of children who need to come into hospital and the time they spend in hospital by providing specialist advice and support closer to home and at the front door of the hospitals.
- Continuing to provide day case operations and outpatient services for children on both sites.

- Providing a working environment for medical staff which allows them to use their specialist expertise to best effect and to ensure that they keep up to date and at the leading edge of clinical care.
- Making the most efficient use of current facilities on both sites.

The Clinical Leaders Forum recognises that the proposals and options in this report have implications for the time it will take for some people to get to hospital. Considerable thought has been given to seeking to minimise the impact on getting to hospital. Both hospitals would retain their accident and emergency services and in addition all outpatient and day case surgery as well as low risk elective inpatient surgery would continue to be done on both sites. In addition, care closer to home is one of the strategic objective underpinning all the models of care developed by the Pathway Development Groups.

CHALLENGED SERVICES 2012/13

General Surgery

1. Continuing to provide emergency surgery services on both the PRH and the RSH Powys is increasingly difficult and carries with it risks to patients, pressure on medical staff and limits the ability to develop more specialist services.²
2. The breast surgeons should cease to participate in the acute surgery rota as soon as is practically possible.
3. A separate vascular rota should be established as soon as is practically possible.
4. Emergency general surgery should be consolidated onto one site since maintaining acute surgery across two sites is not clinically or financially viable once the breast and vascular surgeons withdraw from the acute rota.
5. Arrangements for the transfer of patients between sites where necessary should be reviewed and strengthened. Protocols should also be put in place with the ambulance service regarding consolidation of acute surgery on one site.³

² These pressures on and challenges to the current provision of emergency surgery are described in Section 2.

³ The CLF considered emergency operations for patients who need an emergency operation but can wait until the next day being done on both sites. However it was felt this would be inefficient, would require duplication of some clinical support services and would have implications an increase in level of out of hours so negating many of the benefits and advantages of consolidating emergency surgery.

6. Out of hours surgical cover should be provided across both sites to ensure that acute medicine and other clinical services have the support of surgical advice and cover. The CLF believe this can be done at a relatively small cost and with minimal clinical risk with, for example, cooperation from the vascular surgeons in providing back up cover for the general surgeons.
7. Major vascular and colorectal elective surgery should be done on the site with acute surgery.
8. All day case surgery (some two thirds of general surgery) and outpatient services should continue to be done on both sites. In addition consideration should be given to establishing a five day ward for short stay elective general surgery on the site without acute surgery.

Accident and Emergency Services

1. Accident and Emergency services should be retained on both sites.⁴
2. A Level 2 Emergency service should be provided on one site. This would mean a 24 hour A and E department with acute surgery, acute medicine, trauma, critical care, interventional radiology and clinical support services and diagnostics on site.
3. A Level 3 Emergency service should be provided on the site without acute surgery. The service should be 24 hour a day with acute medicine, trauma (major trauma would need to go to a Level 2 A and E but significant levels of trauma could continue to be provide e.g. fractured neck of femur), critical care, clinical support services and diagnostics on site. Arrangements would also need to be put in place to ensure acute surgery support including the ability to transfer patients and to properly cope with medical patients who need urgent surgical intervention, for instance in the case of a GI bleed.
4. Acute medicine and hospital at night should be developed with the priority focussed on the site with the Level 3 A and E.

Paediatrics

1. The model of care proposed by the Children's PDG should be implemented including hospital at home, paediatric assessment units at both sites and consolidation of paediatric inpatients onto one site. This

⁴ A Level 2 Acute Emergency Service deals with most medical, surgical and trauma (including multiple trauma) emergencies including unselected patients. A Level 3 Acute Emergency Service dealing with most medical emergencies and most trauma including fractured neck of femur but not multiple trauma.

should be implemented over a three year period with consolidation of inpatient paediatric services only after the hospital at home and the assessment services have been established.

2. Paediatric anaesthetic competencies must be available on the site with in patient paediatrics. In addition there must be anaesthetic cover for the paediatric assessment units. Co-location of in patient paediatrics with ENT surgery, whilst desirable, is not essential.

With regard to the other critical clinical linkages (acute surgery and neonates), the CLF did not feel that the challenges on any of these by themselves were insurmountable. This was the same as the view of the external review of the Children's Pathway Development Group process:

“Our overall conclusion on clinical linkages was that whilst they were an important consideration, and should be optimised wherever possible, no linkages were so imperative per se as to dictate a specific solution in terms of the future configuration of children's services. This means that there is room to consider fully the range of other issues (e.g. facilities, population access).”⁵

There was however concern that the cumulative effect of neonates and surgery on a different site to inpatient paediatrics presented considerable risks and challenges that would require careful management. Further the system would be more complex than with the services co-located. A majority of the clinicians on the CLF felt that splitting paediatrics from acute surgery and neonates was not appropriate in light of these issues. However this was not a unanimous view.

3. If acute surgery and in patient paediatrics were not on the same site then consideration would need to be given to:
 - ceasing to carry out general surgical emergency operations on children at night and at the weekends to avoid transfer of very sick children post operatively. Instead these children would need to be transferred to an appropriate children's unit in Stoke, Wolverhampton or Birmingham (this would affect very few children, approximately one at month at each site);
 - arrangements to perform emergency but not immediate operations on children on the site with inpatient paediatrics would need to be put in place to avoid pre and post operative transfers;
 - the out of hours arrangements for general surgery on the non acute site would need to be strengthened to support children whose

⁵ Technical Paper 5: External Review of Paediatrics PDG Process, October 2008

- medical condition deteriorated and who might need the support of a general surgeon;
- paediatric out of hours cover would need to be available on the acute surgical site.
4. The consolidation of acute surgery and paediatrics would provide some flexibility for the anaesthetic service to review its arrangements and ensure that anaesthetists with paediatric expertise are, as far as is practical, concentrated onto the site with inpatient paediatrics.

Obstetrics

1. The CLF recognised the importance of the location of the obstetric hub within the maternity network; the clinical linkages and the poorer clinical outcome with regard to deprived populations.
2. It is essential that obstetrics and neonates are co-located.
3. The facilities for the obstetric unit require considerable investment to bring it up to 21st century standards. However investment in the unit should be limited to what is essential until the completion of the 2020 Option Appraisal.

Urology

1. The CLF found no clinical or strategic argument to alter the conclusion of the Strategic Service Plan that urology should transfer to PRH.
2. Should the implications of moving other surgical services result in unused bed and theatre capacity at either site then consideration should be given to basing urology on the site with surplus capacity.

CONFIGURATION OF CHALLENGED SERVICES

The CLF identified a number of options for the configuration of services on the RSH and PRH. These were assessed against the two key objectives of:

1. consolidating acute surgery and in patient paediatrics in a timely manner;
2. not compromising the 2020 Option Appraisal.

As a result of this, four options were identified for further assessment. The location of the challenged services under each option is shown in the table below. In all cases, day case and outpatient paediatrics & general surgery will be carried out on both sites.

Option	PRH	RSH
1	Level 3 A and E, urology	Level 2 A and E with acute surgery, inpatient paediatrics, obstetrics and neonates
2	Level 2 A and E with acute surgery, inpatient paediatrics, obstetrics and neonates	Level 3 A and E, urology
3	Level 3 A and E with inpatient paediatrics, urology	Level 2 A and E with acute surgery, obstetrics and neonates
4	Level 2 A and E with acute surgery, and inpatient paediatrics	Level 3 A and E, obstetrics and neonates, urology

Each of these options was assessed against the following questions:

1. Did the options meet the two key objectives of resolving the surgery and paediatric issues in a timely manner without compromising the 2020 Option Appraisal?
2. Did the options satisfy the clinical linkage requirement and/or had measures to manage any risks as a result of co-location been identified?
3. What would be the implications for patients in terms of access?
4. Would the options have a significant beneficial or detrimental impact on those living in rural areas?
5. Would the options have a significant beneficial or detrimental impact on deprived sections of the population?
6. How affordable were the options from the point of effective use of capacity, medical workforce and capital implications?

The Clinical Leaders Forum concluded that:

- Option 1 (acute surgery, in patient paediatrics, obstetrics and neonates on the RSH) would provide clinically appropriate co-location of services, make good use of existing capacity and so minimising any capital costs and investment in the medical workforce. Option 1 would maintain access for the rural populations but would have a detrimental effect on the

more deprived populations and have the largest increase in the time taken to get to hospital for most people.

- Option 2 (acute surgery, in patient paediatrics, obstetrics and neonates on the PRH) would provide clinically appropriate co-location of services and minimise the required investment in the medical workforce. Option 2 would require additional beds and theatre capacity to be provided at PRH whilst not fully using the existing capacity at RSH.⁶ The option would worsen access for the rural populations but would locate services closer to the most deprived people as well as to people in the east of Shropshire County. The option would have the smallest impact on the time taken to get to hospital for most people.
- Option 3 (acute surgery, obstetrics and neonates on the RSH and inpatient paediatrics on the PRH) would mean some clinical compromises in the clinically appropriate co-location of services with acute surgery and neonates on a different site to inpatient paediatrics. Option 3 would make good use of existing capacity and require the least capital investment but would require additional investment in the medical workforce. The option would worsen access for the rural populations to inpatient paediatrics but would locate inpatient paediatrics closer to the most deprived people as well as to the people in the east of Shropshire County.
- Option 4 (obstetrics and neonates at the RSH and acute surgery and inpatient paediatrics at the PRH) would mean some compromise in the clinically appropriate co-location of services with acute surgery and paediatrics on the PRH and obstetrics and neonates on the RSH. Option 2 would require additional beds and theatre capacity to be provided at PRH whilst not fully using the existing capacity at RSH. The option would worsen access for the rural populations to acute surgery and inpatient paediatrics but would locate these services closer to the most deprived people as well as to the people in the east of Shropshire County.

⁶ Option 2 would potentially compromise the 2020 Option Appraisal with the relocation of the obstetric unit. However as the detailed costing of the options had not yet been done, it was agreed to leave this option in for further assessment.

2020 VISION

The CLF concluded that in the medium term there should be a single site for the seriously ill and injured. An option appraisal has been started to consider the optimal location.

All the options assume a network of vibrant community hospitals with a range of specialist community and community services providing services closer to home, as identified in the Overarching Plan.

The following options have been identified.

- | | |
|-----------------|---|
| Baseline Option | This will be the configuration of hospital services agreed on the basis of this report for implementation by 2012/13 |
| Option 2 | Under Option 2 the main A and E is based at Shrewsbury together with acute surgery and medicine, trauma, inpatient paediatrics, obstetrics and neonates, Outpatient, day case surgery, minor injuries, midwife unit and specialist community services would be provided in Telford. |
| Option 3 | Under Option 3 the main A and E is based at Telford together with acute surgery and medicine, trauma, inpatient paediatrics, obstetrics and neonates, Outpatient, day case surgery, minor injuries, midwife unit and specialist community services would be provided in Shrewsbury. |
| Option 4 | There will be a new acute hospital between Shrewsbury and Telford dealing with all seriously ill and injured patients. The sub options identify a number of possibilities for the two existing hospitals. |

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SUPPORTING PAPERS AND REPORTS

A. Pathway Development Group Reports

- Maternity and newborn care
- Getting Healthy, Staying healthy
- Children's services
- Planned care
- Acute care
- Mental health
- Long term conditions
- End of life care

B. Technical Papers

- Access
- Clinical Linkages
- Sustaining Services
- Children and Young People
- External Review of Paediatrics

C. Building Capacity in Primary Care

- Summary Report
- Care Coordination
- Diagnostics
- Workforce

D. Engagement Plan and Evidence of Engagement

1. INTRODUCTION

1.1 Background

This report is the second report of the Clinical Leaders Forum (CLF) on Developing Health and Healthcare: A Strategy for Shropshire, Telford and Wrekin and focuses on the 'challenged' service strategies⁷. These were identified by the West Midlands Strategic Health Authority as accident and emergency, acute surgery, paediatrics and obstetrics. In addition the local health economy agreed that urology should also be included as a challenged strategy.

The CLF was asked by the Chief Executives of the four NHS organisations in Shropshire, Telford and Wrekin:

"To review the evidence in respect of the options and to make recommendations for the future pattern of clinically safe general hospital services, serving the populations of Shropshire, Telford & Wrekin, and the catchments of the provider organisations.

To consider options and make recommendations to Shrewsbury and Telford Executive Group (STEG) of an overall picture of the future shape of hospital services, within the context of a modern NHS. To give early consideration to A&E services, services for children and also to cover maternity and neonatal services, emergency surgery and urology services.

In doing so the CLF will need to liaise with the clinical pathway groups meeting at a West Midlands-wide level (associated with the 'Our NHS, Our Future' exercise), to give information and also to receive and consider information from these clinical pathway groups.

To conduct the work of the CLF in a structured manner and to describe a clear process of dialogue and consideration which leads to your recommendations which are evidence based.

The CLF will need to take in to account future patterns of demography. Also to consider the issues around sustainability within the context of the European Working Time Directive (EWTD) and Medical Manpower Careers (MMC).

The CLF will make recommendations which meet the following principles: that recommendations will be clinically safe and also make sense to the communities we serve.

⁷ In October 2007, The West Midlands Strategic Health Authority asked each local health economy to develop an overarching plan for health and healthcare by October 2008, the Clinical Leaders Forum (CLF) was charged with developing the overarching plan.

Financial saving is not a driver for this work. However, recommendations would need to be affordable within available resources, and be clinically sound and viable for the future.”

The CLF comprised the leading clinicians in the health organisations in Shropshire, Telford and Wrekin and senior officers from Shropshire County Council and Telford and Wrekin Council.

1.2 Conclusions of the Interim Report

The CLF's Interim Report was considered by Shropshire County and Telford and Wrekin Primary Care Trusts in May 2008⁸. The Interim Report set out three strategic objectives:

- The prevention of disease and the promotion of healthy lifestyles and independent living;
- Provision of services at home or as close to home as possible;
- Provision of sustainable and accessible acute hospital services.

Regarding the last of these three strategic objectives the Interim Report concluded that:

by 2012/13⁹

- accident and emergency services should be maintained at both the Princess Royal and Royal Shrewsbury hospitals;
- acute medicine should be developed to underpin emergency medicine;
- general surgery should be reshaped to provide a service for the seriously ill and injured at one site with planned care (elective in patients and day cases on both sites);
- urgent care centres should be developed;
- assessment services should be strengthened at both site for children and adults;
- hospital at home services should be developed for children and the smaller children's inpatient service should be concentrated onto one site.

by 2020

- emergency services should be concentrated onto a single site for the seriously ill and injured within a network of community and specialist community hospitals;

⁸ Interim Report from Clinical Leaders Forum to Shropshire County Primary Care Trust Board and Telford and Wrekin Primary Care Trust Board, 13th May 2008

⁹ Pages 15 and 16 Interim Report to Shropshire County and Telford and Wrekin PCT Boards, 13th May 2008

- an option appraisal should be carried out to determine the location of the single site for the seriously ill and injured and the nature of the network of hospitals providing urgent care and minor injuries units.

During the second phase of the work, the options for the 2012/13 configuration of services have been assessed further. This work has been led by the CLF with the detailed work carried out by:

- the Urgent Care Network which has taken over the role of the Acute Pathway Development Group;
- the Children's Pathway Development Group;
- senior clinicians and managers with The Shrewsbury and Telford Hospital NHS Trust. This work was led by the Medical Director.

The work has been carried out within the approach and principles described in the first report from the CLF.¹⁰

1.3 Demographics and Health of the Population

1.3.1 The Catchment Area of PRH and RSH

Shropshire County is a predominantly rural area of 289,300 people with a varied landscape covering an area of 3,197 square kilometres. In 2006, the population density of Shropshire was 90 people per square kilometre. This is much lower than the average for England as a whole (389 people per square kilometre). Shropshire is one of the most sparsely populated counties in England.

The main population centres are Shrewsbury (67,126), Oswestry (16,660), Bridgnorth (11,891), Market Drayton (10,407), Ludlow (9,250), Whitchurch (8,067), Shifnal (6,391) and Wem (5,142).

There are few motorways and dual carriageway roads in the county, which means that most journeys take place on a network of A roads and smaller B road and lanes. There are also few rail links within the county, making travel around the county difficult for non-car users – 18% of households do not own a car compared with the England average of 27%.

The Borough of Telford & Wrekin covers around 112 square miles and has a population of approximately 167,000. At the heart of the Borough is the new town of Telford, so designated in the 1960s and now the local focus for both population and economic growth. The Borough is also home to several small towns - Wellington, Dawley, Donnington, Madeley and Oakengates. To the north of Telford is the market town of Newport and to the south Ironbridge. The

¹⁰ Health and Healthcare in 2012/13: Care Pathways and Models of Care, Report from the Clinical Leaders Forum, November 2008, Section 2.

Borough also has a significant rural area which is located to the north and west of Telford and covers approximately 72% of the Borough's total area.

The area is dominated by the large new town of Telford (population 133, 523) and nearby borough towns. The other area of population concentration is Newport (11,015).

Transport links are generally better than in rural Shropshire, including the direct M54 link to Birmingham and central England. However, there are still access difficulties for people without access to car transport in the more rural and more deprived parts of the borough – 22% of households do not own a car compared with the England average of 27% and 18% in Shropshire.

In addition to the people of Shropshire, Telford and Wrekin, the local NHS also provides services to the people in the northern portion of the county of Powys, which includes a population of about 62,000 people. The county of Powys has a population of 126,000 people in area of 5,196 square kilometres.

1.3.2 Population Projections and Deprivation

Table 1 gives population by age and population projections over the next 15 years for Shropshire, Telford & Wrekin. The population under 15 is proportionately higher in Telford and Wrekin than Shropshire County (21% and 18% respectively) whilst the proportion over 65 is higher in Shropshire County (20% compared to 14%).

Table 1: Current and Projected Population

	Shropshire County			Telford and Wrekin		
	Population 2007	Growth 2007-12	Growth 2007 - 22	Population 2007	Growth 2007-12	Growth 2007 - 22
0-15	51,800	-5%	-7%	33,900	0%	9%
16-64	182,600	0%	-1%	109,300	5%	12%
65-84	49,900	17%	44%	19,900	18%	53%
Over 84	7,300	18%	64%	2,500	12%	48%
	291,600	2%	7%	165,600	5%	17%

Source: Shropshire County Council and Telford and Wrekin Council

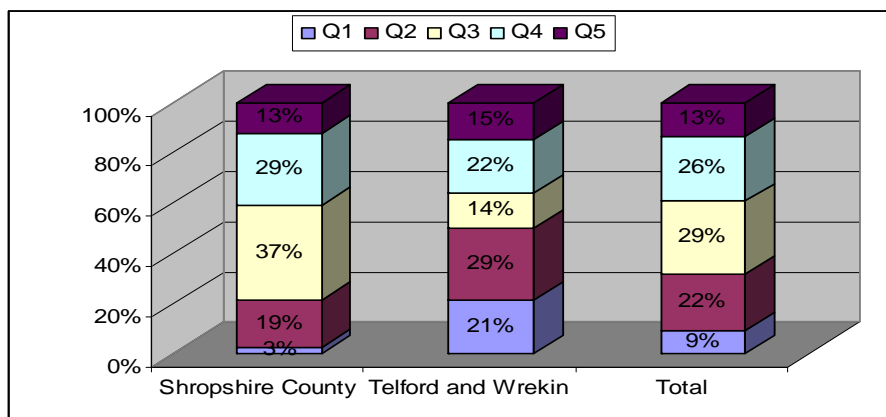
The population is projected to grow by just over 7% over the next 15 years in Shropshire County and by 17% in Telford and Wrekin with the largest growth in the older age groups (the over 65 population is projected to grow 47% in Shropshire County and 52% in Telford and Wrekin). In addition further inward migration into Telford and Wrekin and a significant expansion in house building (it is projected that at least 26,500 additional houses will be needed by 2026), is projected to increase the growth in the working population by 12%, compared to a 1% fall in Shropshire.

There has been a substantial inward migration of people from eastern Europe into Telford & Wrekin in recent years. Approximately 5% of the community are from black and minority ethnic groups. By 2026, it is estimated that the proportion of the population from black and minority ethnic groups will have grown to 6.5%, around 12,900 people.

Figure 1 summarises the levels of socio-economic deprivation in Telford & Wrekin and Shropshire County¹¹, as measured by the quintiles of the Index of Multiple Deprivation. Nearly half of the Telford & Wrekin population live in the two most deprived national quintiles. Overall, the Index of Multiple Deprivation (IMD) 2007 ranks the Borough as falling within the top third most deprived local authorities in England. This compares to 22% of the Shropshire County population who live in the two most deprived national quintiles.

In Telford & Wrekin 21.4% of the population (nearly 36,000 people) live in areas classified within the most deprived fifth of areas in England. In Shropshire County, 3% of the population (586 people) live in the most deprived 20% of areas in England.

Figure 1 Proportion of Population in National Deprivation Quintiles



The deprivation and health of the children varies across Shropshire, Telford and Wrekin. In Telford & Wrekin 24.5% of children aged 0-15 years live in deprivation, which is statistically significantly higher than the English average (22.4%). In Shropshire County 13.2% of 0-15 year olds live in deprivation, which is statistically significantly lower than the English average (22.4%). As a result there are more children living in deprived circumstances in Telford & Wrekin than

¹¹ This is a summative measure, based on 37 measures of socio-economic status. Scores are published at “super-output area” level (which exist below ward level and are defined by the 2001 census) and have an average population of around 1,500 people. For comparative purposes, super-output areas are often aggregated into the 20% bandings (quintiles) of the overall score.

in Shropshire County (8,318 in Telford and Wrekin and 6,820 in Shropshire County).¹²

1.3.3 The Health of the Population

Life expectancy at birth in both men and women is lower in Telford & Wrekin than in Shropshire County. Over the past decade, male life expectancy has improved in both PCTs. Projections indicate that the gap in male life expectancy between Telford & Wrekin and Shropshire County may narrow up to the 2008/10 position. In women, smaller improvements in life expectancy are predicted over the next few years. It is estimated that the gap in female life expectancy between Telford & Wrekin and Shropshire County will persist up to 2008/10.

In line with trends elsewhere in England and Wales all age all cause mortality, infant mortality (AAACM) and deaths from circulatory diseases and cancers have been falling since the early 1990s. Comparisons of the health of the population in Telford and Wrekin and Shropshire show that:

- all age all causes mortality are similar to the national average in Telford and Wrekin for men and significantly higher for women than the national average. Those in Shropshire were significantly lower than the national average;
- infant mortality rates in both Shropshire County and Telford & Wrekin are similar to the national average;
- premature death rates from circulatory diseases were statistically significantly higher than the national average in Telford & Wrekin but significantly lower in Shropshire;
- premature death rates from all cancer were statistically similar to the national average in both Shropshire and Telford and Wrekin other than for women which is lower in Shropshire;
- suicide rates for men, women and persons in Telford & Wrekin and Shropshire County were similar to the national average but rising.

Other indicators point to a greater public health agenda in Telford and Wrekin than in Shropshire, where the indicators are generally more favourable. For instance:

- the proportion of babies breastfed at birth in Telford & Wrekin remains significantly lower than in Shropshire County;
- the proportion of mothers still smoking at delivery in Telford & Wrekin is significantly higher than in Shropshire County;

¹² Further detail of deprivation and demographics of children in Shropshire, Telford and Wrekin is given in Technical Paper 4: Children and Young People.

- there has been no improvement in smoking in pregnancy rates in Telford & Wrekin or Shropshire County in the past five years;
- whilst teenage conception rates have fallen, the under 18 conception rates remain significantly higher than the national average in Telford and Wrekin but are in the lowest quartile in Shropshire;
- obesity levels are high compared to the rest of England and rising.

1.4 Strategic Considerations

The CLF identified six key strategic considerations. These are:

- Health, Wellbeing and Equity;
- Quality, Safety and Effectiveness;
- Supporting and Developing the Workforce;
- Involving People about Making Decisions about their Future Health Services;
- Affordable, Sustainable and Fit For Purpose;
- Personalised Services and Access to Care, Closer to Home.

In addition a number of specific issues were identified by the Pathway Development Groups. These issues are discussed in the report by the CLF on Care Pathways and Models of Care, November 2008. The issues concerning clinical viability and access to hospital services are discussed in more detail in the next section.

2. CHALLENGED SERVICES IN SHROPSHIRE, TELFORD AND WREKIN

2.1 Clinical Viability

Over the next 10 years a number of trends that have been seen in the configuration and nature of services traditionally provided in district general hospitals are anticipated to accelerate. Specifically:

- an increasing range and complexity of work can now be carried out in primary and community care settings and closer to where people live;
- some specialist services will be concentrated in fewer major centres. For example:
 - major trauma - at present about one percent of major trauma is taken directly or transferred to major centres with tertiary services such as neurosciences. It is projected that the proportion of patients who will be treated at specialist centres will increase to between 5 and 10%;
 - stroke services when the first 48 hours is critical in improving outcomes. Patients will be taken to centres which can guarantee a CT scan within an hour and have on site specialist neurology and neurosurgery services. Patients will then be transferred back to hospitals closer to where they live for rehabilitation;
 - vascular, paediatric and some cancer surgery;
 - Intensive care for the most complex cases.

This will require local acute hospitals to focus on what they can do best, working within a network of specialist and community hospitals. Local acute hospitals are likely to become smaller with the clinical staff playing a wider role outside of the acute hospital.

Experience from around the country and the view of the Royal Colleges is that a 24 hour acute hospital emergency service should be planned on the basis of a minimum population of around 500,000. The two accident and emergency services (at the Princess Royal and the Royal Shrewsbury) currently have an 'effective' catchment population of 416,000 as shown in Table 2 below.

Table 2: SaTH's Effective Catchment Population¹³

	PRH	RSH	Total	Other Trusts
Shropshire County	74,456	154,448	228,904	60,696
Telford and Wrekin	150,382	0	150,382	11,218
Montgomeryshire	0	36,819	36,819	22,931
	224,838	191,267	416,105	94,845

¹³ Technical Paper 1: Access. The 'effective' catchment population is based on an analysis of drive times to hospitals and non elective market share.

The emergency activity of the two hospitals in Telford and Shrewsbury is shown in the Table 3. The figures show very similar sized hospital for emergency admissions and A and E attendances, particularly when one takes into account the configuration of surgical services (which would result in more emergency surgery being done at the Royal Shrewsbury Hospital) and the minor injuries units in Shropshire which provide a local service to people and avoid a trip to the A and E in Shrewsbury.

Table 3: Non Elective Inpatients and A and E Attendances 2007/08

	Medical	Surgical	Trauma	Gynaecology and Paediatrics	Total	A and E Attendances
Royal Shrewsbury	9,937	4,093	2,028	4,049	20,107	49,778
Princess Royal	9,609	3,066	1,544	2,423	16,642	53,282
Total	19,006	7,159	3,572	6,742	36,749	103,060

Source: Shrewsbury and Telford Hospitals NHS Trust

There are significant challenges to continuing to provide emergency services from two sites. The main services where clinical viability is an issue are A and E, emergency surgical services, anaesthetics and critical care and paediatrics. The key challenge facing the hospitals is the ability to provide 24 hour a day out of hours cover by senior medical staff to both hospitals. This has become increasingly difficult over the last ten years as a result of:

- Sub specialisation - medical staff becoming more specialist. Whilst this gives greater expertise and a higher quality of service in those areas where there has been sub specialisation, there are fewer consultants to provide a general emergency service. This is a particular problem in general surgery;
- Out of Hours arrangements – in some specialties there are consultants covering a number of services and/or sites at the same time. Services where this is an issue include inpatient paediatrics and anaesthetics/critical care. These arrangements have been put in place over the years to help sustain services on two sites but carry with them risks to patients and unrealistic pressure on medical staff;
- European Working Time Directive (EWTD) – since 1998 the EWTD has resulted in a reduction in the average working time per week that staff including medical staff should work. These requirements have become increasingly stringent and from August 2009 average working time should not exceed 48 hours per week (from 56 hours since August 2007);
- Training of Medical Staff – the decision on where junior doctors should be based is the responsibility of the Postgraduate Dean, taking into account

the number of doctors in training and the quality of the training that is available. A key factor in the assessment of the quality of the training is that junior doctors should be able to see an appropriate number of patients with a variety of illnesses and injuries. Whilst there are few official figures for the number of patients that a junior doctor should see, small units or services which are provided across a number of locations provide fewer opportunities to see the number of patients or the range of conditions. The loss of training recognition significantly reduces the ability of a service to continue and may, in some instances, force the service to close;

- Recruitment - services where there are concerns about risks to patients, pressure on medical staff and continued recognition of training posts have considerable difficulty in recruiting high quality senior medical staff and in particular consultants.

The current provision of services has also limited the ability to develop more specialized services that could be provided in Shropshire, Telford and Wrekin. For instance:

- vascular surgery has moved to being mainly provided at the Royal Shrewsbury. However this had occurred earlier in many other places. The development of techniques, in particular interventional radiology, can only be fully realized if the service is on one site;
- the national cancer strategy seeks to concentrate operations on fewer sites;
- the development of a children's oncology service has only been possible because of it being consolidated on the Royal Shrewsbury Hospital. Other service developments such as renal dialysis are hindered by the current provision of services.

In summary, continuing to provide services for the seriously ill and injured from two sites for the population of Shropshire, Telford, Wrekin and Powys is increasingly difficult and carries with it risks to patients, pressure on medical staff and limits the ability to develop more specialist services. At the same time, the urban population concentrations in Shrewsbury and Telford combined with the rurality of the population in Shropshire County and the deprivation levels in Telford and Wrekin provide major challenges for access to health care services. The strategy will need to ensure that both these issues are taken into account.

2.2 Accident and Emergency

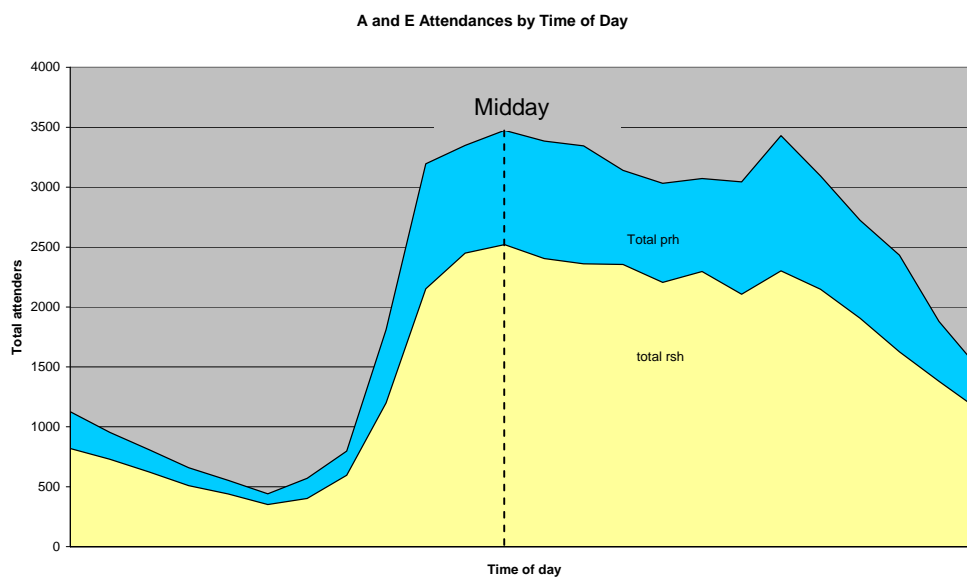
The Accident and Emergency Department (A and E) should be the hub of an emergency service within a coordinated network of primary and community services, community hospitals, and urgent care centres. The Accident and Emergency Department must also have strong links with major trauma centres providing specialist tertiary services such as neurosurgery and cardiac surgery.

Currently A and E is provided at both the Princess Royal and Royal Shrewsbury hospitals. As shown in Table 2, above the two hospitals have very similar activity levels.

The pattern of A and E attendances by day of week and time of the day are very predictable as shown in Figure 1. Attendances drop significantly between 11 pm and 8 am on both sites.

Currently there are four A and E consultants and six associate specialists across both sites. The departments are staffed overnight by a single handed trainee doctor with back up from senior staff on call at home. The current staffing levels do not provide adequate senior medical cover at night. Ideally there should be 24 hour cover at consultant level. Continuing to provide services on both sites would require a sustained investment in A and E consultants to at least double the number of consultants.

Figure 2: A and E Activity by Time of Day



2.3 Emergency Surgery

Currently services are provided from Telford and Shrewsbury. Out of hours cover for general surgery is provided by all the surgeons. However sub-specialisation with new consultants having less or no general experience for the acute take and a changing skill mix in junior trainees is now limiting the ability to provide safe cover. Examples of where the implications of these issues are impacting include:

- Breast surgery is already highly sub-specialised and in many places breast surgeons do not participate in the acute take. Although the breast

- surgeons currently perform acute general surgery this is not sustainable in the medium term as there is a need to maintain skills. Furthermore the replacement of surgeons when they retire will be by specialist breast surgeons with limited experience of acute surgery;
- Vascular surgery. National recommendations are to provide access to treatment by consultant vascular surgeon, which necessitates a separate vascular surgery emergency rota. This practice has been adopted in most places and the evidence base supports better outcomes. The need for a vascular surgery rota together with the demands that vascular surgery places on surgical anaesthetic and radiology resources argues strongly for emergency vascular and major elective surgery to be located on one site. New techniques, including endovascular and palliative care, are currently only on offer on one site. The establishment of a separate vascular rota would result in the loss of five surgeons to the acute surgery rota;
 - Colorectal surgery where the need to attract good trainees and the requirements of the Greater Midlands Colorectal Cancer Network to consolidate colorectal cancer work means that most elective operative activity is now centralized on RSH site with out-reach clinics performed in the community and at PRH.

The withdrawal of sub specialty surgeons from the acute take would make the maintenance of two sites admitting emergency surgical patients non-viable without a significant increase in the number of surgeons. Even if the finances were to be made available, it is unlikely that the Trust would be able to recruit as the posts would not be attractive enough to attract high calibre surgical consultants because of the dilution of the elective workload across a larger number of surgeons.

2.4 Urology

Urology services are currently provided at both RSH and PRH with three quarters of the beds and activity undertaken at RSH. Following public consultation under The Strategic Service Plan it was agreed to transfer urology to the PRH with outpatient and day case services provided on both Royal Shrewsbury and Princess Royal hospital sites.

2.5 Paediatrics

Hospital paediatric services in Shropshire, Telford and Wrekin are provided in both Shrewsbury and Telford. Paediatric activity at the two sites is summarised in Table 4.

Table 4: Emergency and Outpatient Paediatric Activity 2007/08

	Emergencies	New Out Patients
Royal Shrewsbury	2,736	3,506
Princess Royal	2,422	3,944
	5,158	7,450

Source: Shrewsbury and Telford Hospitals NHS Trust

Services in the community are less well supported and as a result children are treated in hospital who could be more appropriately treated at home. The national trend is for children to be supported in community settings resulting in fewer hospital admissions and shorter lengths of stay.

The two paediatric units are currently staffed on separate rotas. Rotas at PRH are managed using staff grades. At the RSH the rota includes consultants covering the neonatal unit and a community paediatrician. Neither of these situations is ideal and present additional clinical risks. The Telford and Wrekin PCT has agreed to fund the implications of the European Working Time Directive in order to sustain in patient paediatric services on both sites. The current cost of this is £200,000 a year above the tariff paid for the paediatric services and is projected to increase to £400,000 a year. However it is proving increasingly difficult to recruit to these posts.

Currently there is recognition for training posts at the Royal Shrewsbury. If the concerns about the configuration of services and training opportunities are not resolved then there is a risk that recognition of training posts will be withdrawn. This would threaten the future viability of the inpatient service on both sites.

There are clear national and regional standards which the local services will need to meet by 2009. These include the West Midlands standards in 'The Care of the Critically Ill or Injured Child' and the European Working Time Directive. A regional review of paediatric services¹⁴ has concluded that the Princess Royal service does not meet minimum staffing requirements and raises concerns about the maintenance of skills within the current configuration. There are also significant risks to the continued recognition of training posts under the current configuration of services.

2.6 Anaesthetics and Critical Care

Anaesthetists provide out of hours cover for critical care, on outreach wards for critically ill patients, emergency resuscitation, emergency surgery and obstetrics.

¹⁴ West Midlands Children's, Young People and Maternity Services Configuration Group, April 2008

They also are involved in the transfer of acutely ill patients between sites or to tertiary centres such as the neurosurgery unit in Stoke. There are two major constraints on the anaesthetic services providing effective out of hours cover on both sites:

- there is not a separate rota for critical care ;
- the implications of the more stringent European Working Time Directive. The anaesthetic rotas will not be compliant without additional staffing and further expansion and development of the intensive care service will be very difficult if the service remains across two sites.

In addition, the infrastructure of the ICU at RSH is inadequate and needs rebuilding rather than refurbishing. Both are very high cost options. Currently the unit is poorly equipped to deal with infection risks such as MRSA and C. difficile.

The precise requirements of the critical care facilities and the anaesthetics workforce depend on the final configuration of services. However maintaining emergency admissions on both sites will require additional anaesthetic staff and an investment in the facilities. In the medium/longer term continuing to provide ICU services across both sites will limit the ability of the critical care unit to develop and provide appropriate services for the seriously ill and injured.

2.7 Maternity Services

The Darzi West Midlands Clinical Pathway Group in conjunction with other regional groups believe the model of care for maternity and the newborn should consider pregnancy to be a normal event and care should be midwifery led. Care should be holistic with a greater emphasis on social elements. There should be equity of access especially for the most vulnerable groups. There should be choice for the site of care and delivery with an emphasis on keeping that care local. Obstetric and neonatal services should be, when clinically appropriate, designed around the majority with access to these specialised services when required.

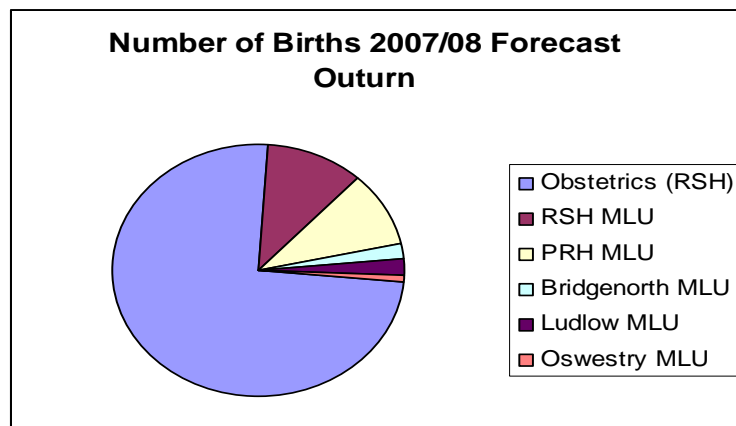
The model of care in Shropshire since 1972 has been that of a Hub and Spoke with the Consultant Unit based at the Royal Shrewsbury Hospital acting as the Hub and the midwifery led units in Oswestry, Telford, Bridgnorth, Shrewsbury, Ludlow, Newtown and Welshpool. In 2007/08 there were just over 5,000 births with just over a quarter of these in the midwifery led units. The proportion of births at each unit is shown in Figure 3.

A regional review of maternity services¹⁵ has identified the need for dedicated anaesthetic support and an increase in consultant presence on the labour ward.

¹⁵ West Midlands Children's, Young People and Maternity Services Configuration Group, April 2008.

This model of care enables the maternity service to deliver the aspiration of the regional Darzi group and records a peri-natal mortality rate which is lower than the rate for the West Midlands (CEMACH). In addition, compared with other units in the West Midlands, the service delivers a lower surgical intervention rate (caesarean section); a lower rate of antenatal admission (CBSA: maternity services paper); a lower number of antenatal visits and an increased number of contacts with community midwives. The Trust was assessed by the Healthcare Commission Maternity Services Review 2007 as a “best performing” Trust and achieved CNST level 3 in 2007, as well as being recognised nationally by the award of the 2004 “All Parliamentary Award for the highest normal delivery rate” and the 2005 “All Parliamentary Award for increasing home births”. All this is delivered with an average cost per birth that is well below the mean for the West Midlands (CBSA).

Figure 3: Births by Location



* Oswestry and Bridgnorth units were closed for part of the year.

3. CHALLENGED SERVICE STRATEGIES: MAKING SENSE CLINICALLY

The CLF has considered the future provision of services which are facing particular challenges as discussed in Section 4. This has been done within the framework provided by the Models of Care and taking into account:

- a. access¹⁶;
- b. clinical linkages¹⁷;
- c. clinical viability and sustainability issues¹⁸;
- d. children and young people¹⁹.

The options have also been assessed for affordability based on an assessment of making use of available theatre and bed capacity to minimise additional capital costs and medical workforce costs. A detailed assessment of capital costs has not been done. Some of the options do not require significant changes in capacity or capital investment. Where significant capital investment is required, a final decision should be taken in light of the conclusions of the 2020 Option Appraisal.

The Maternity and New Born model of care is leading edge and development should seek to enhance and build on the current model of care. There is however a need to invest significantly in the infrastructure of the obstetrics unit. The implications of access and service issues have been looked at in this review of challenged strategies but any major investment in the obstetrics unit whether at RSH or at a different location should be consistent with the 2020 option appraisal.

3.1 A Network of Hospitals

In identifying the options for the challenged services four levels of hospital emergency care were defined. These would be provided from a network of hospital as shown in Figure 4.

- Level 1 Acute Emergency Service dealing with all emergencies including immediate life threatening and major trauma including those requiring specialist tertiary care;
- Level 2 Acute Emergency Service dealing with most medical, surgical and trauma emergencies including unselected patients;
- Level 3 Acute Emergency Service dealing with most medical emergencies and significant trauma;
- Urgent Care Centre and Minor Injuries Units.

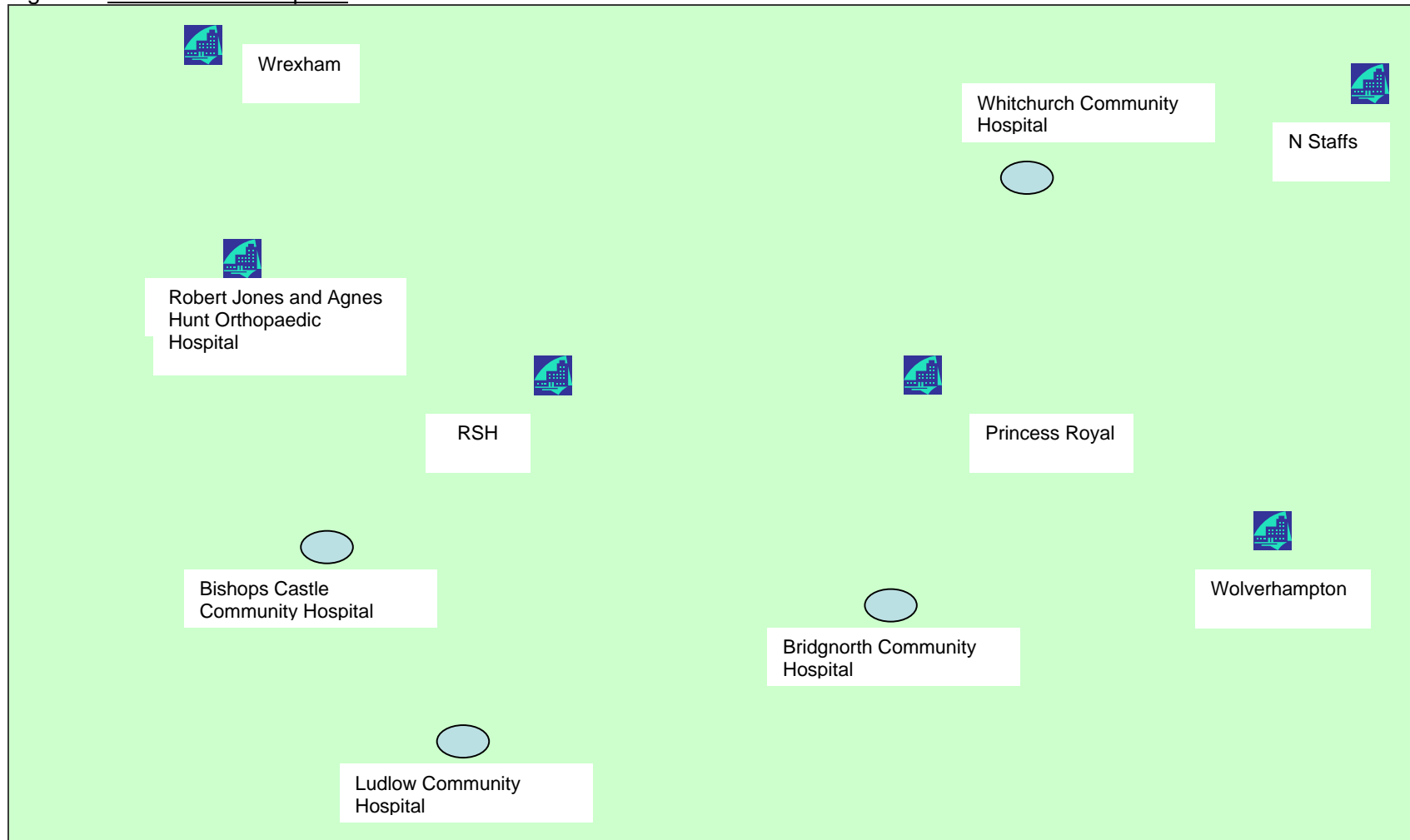
¹⁶ Technical Paper 1: Access, November 2008

¹⁷ Technical Paper 2: Clinical Linkages, November 2008

¹⁸ Technical Paper 3: Sustaining Clinical Services, November 2008

¹⁹ Technical Paper 4: Children and Young People, November 2008

Figure 4: A Network of Hospitals



A and E Level 1 requires neurosurgery and other specialist services and is provided in Birmingham or Stoke.

A Level 2 Emergency service requires a 24 hour A and E department acute surgery, acute medicine, trauma, critical care, interventional radiology, clinical support services and diagnostics on site.

A Level 3 Emergency service needs to have a 24 hour A and E department²⁰ trauma (major trauma would need to go to a Level 2 A and E but significant levels of trauma could continue to be provide e.g. fractured neck and femur), critical care, clinical support services and diagnostics on site. Arrangements would also need to be put in place to ensure acute surgery support including the ability to transfer patients and to properly cope with medical patients who need urgent surgical intervention, for instance in the case of a GI bleed. The report by the Academy of Royal Colleges²¹ recommends that a hospital dealing with acute medical emergencies should not be seen as a permanent configuration but may be implemented as a step towards a more permanent configuration of services.

3.2 Emergency Hospital Care

3.2.1 Accident and Emergency Services

The two A and E departments are currently covered on a joint consultant rota with middle grade doctors at each site. Whilst this is not ideal, it does not constitute a major clinical risk. As such the major determinates on A and E services in the 2012/13 model of care are the issues facing acute surgery.

Whatever the emergency model of care for 2012/13, there are a number of potential developments which could help address the issues facing A and E over the next five years. These include:

- development of acute medicine which could enable a more senior doctor at the front end (either in A and E or the admissions unit);
- hospital at night which could take some of the pressures off the junior doctors by having routine tasks done by a multidisciplinary team;
- development of a paediatrics assessment unit on each site.

3.2.2 General Surgery

Four options are considered for the future of acute surgery. These are:

- no change i.e. continuing to provide elective and emergency surgery at both sites with all surgeons participating in the acute take;

²⁰ Or one which was open for the majority of the 24 hours with arrangements for patients to be transferred at times of low activity

²¹ Report of Acute Services Working Party, Academy of Royal Colleges, 2007

- continuing to provide acute surgery on both site whilst recognising the sub specialisation issues – two sub options are considered, one with no separate vascular rota (Option A1) and one with a separate vascular rota (Option A2). In both A1 and A2 the breast surgeons would not be part of the acute take. In patient elective and day case surgery would continue to be provided on both sites;
- moving all emergency general/vascular surgery to one site but maintaining inpatient elective and day case surgery on both sites (Option B);
- moving all inpatient general/vascular surgery to one site with day case surgery at both sites (Option C).

The options for general surgery have been assessed against the implications for patients, clinical viability and safety, clinical linkages and medical workforce and costs.²² In summary:

- continuing with the current arrangements would mean that emergency surgical services in Shropshire, Telford and Wrekin continue to be provided by all surgeons including the breast surgeons and without a separate vascular rota. This means that patients requiring an emergency vascular operation such as an aortic aneurysm are not guaranteed a vascular surgeon. This is not the practice in most hospitals and is against what is regarded as best practice;
- maintaining acute and elective surgery on both sites whilst removing breast surgeons for the acute take (Option A1) and establishing a separate vascular rota (Option A2) will require these consultants to be replaced on the rota at a cost of £360,000 and £600,000 respectively. Further investment in middle grade staff will also be needed. Out of hours cover would continue to be provided at both sites. There are a number of problems associated with this option including:
 - colorectal surgery remaining split across two sites. The development of cancer services requires colorectal cancer surgery to be centralised;
 - there is not sufficient elective colorectal, upper GI or vascular work to justify the appointment of significant additional consultants or to offer sufficiently attractive jobs to recruit suitably qualified applicants;
 - continuing to sustain the acuity of care on both sites would make it more difficult to resolve the challenges facing anaesthetics including the ability to have a second middle grade rota at the RSH in light of the out of hours workload (theatres, critical care, obstetrics unit);

²² Technical Paper 3: Medical Staffing, Sub Specialisation and the Out of Hours Challenge, November 2008

- concentrating acute surgery on one site whilst maintaining elective inpatient and day case surgery on both sites (Option B). The implications of this option are:
 - day surgery will be provided on both sites. This means that two thirds of general surgical planned operations will be provided at the same hospital as at present;
 - major elective inpatient vascular and colorectal surgery would be consolidated on the site with emergency medicine. Other elective in patient surgery will be done on both sites, possibly within a 5 day ward;
 - some 7-8 patients requiring emergency surgery will need to go the other site or be transferred each day;²³
 - there will need to be an investment in medical workforce. The extent of this depends on what out of hours arrangements are made as summarised in Table 5;
 - there would be implications for paediatric services as discussed in Section 3.4.

Table 5: Implications of Consolidating Emergency Surgery

Out of hours arrangements	Additional Medical Manpower Costs	Implications for Patients
Rota on each site with general and vascular surgeons participating (1 in 7 on acute site, 1 in 6 on non acute site) Option B1	£240,000 but may be possible to reduce middle level staff (net cost £60,000)	7-8 patients a day need to go to acute site or be transferred. May be able to reduce by operating on emergency, non immediate patients the next day
Acute surgery rota on acute site also covers non acute site with backup from separate vascular rota on acute site Option B2	£120,000	7-8 patients a day need to go to acute site or be transferred

- concentrating all emergency and inpatient surgery on one site (Option C) with day case surgery (two thirds of general surgery elective surgery) on both sites. There would need to be surgical out of hours cover for medical patients on the non acute site as there would be clinical risks for medical patients e.g. GI bleeds and, if inpatient paediatrics is on a different site, for children. One additional GI consultant would be required.

²³ The CLF considered emergency operations for patients who need an emergency operation but can wait until the next day being done on both sites. However it was felt this would be inefficient, would require duplication of some clinical support services and would have implications for out of hours so negating many of the benefits and advantages of consolidating emergency surgery.

3.3 Other Surgical and Critical Care Services

3.3.1 Anaesthetics

The anaesthetic service provides services for theatres, obstetrics and critical care. Currently the out of hours rotas are 1 in 11 at Telford and 1 in 13 at Shrewsbury. The rotas are run as separate rotas. There are a number of challenges facing the anaesthetic service:

- at both sites the out of hours rotas cover theatres, critical care and, in the case of the RSH, the obstetric unit;
- there is no dedicated obstetric anaesthetist;
- there is no weekend trauma list leading to delays for patients;

Rationalisation of acute surgery across the two sites under options B and C will provide some flexibility within anaesthetics to address the above issues. However more integrated working across the two sites would also give additional flexibility within the anaesthetic service. Whilst rationalisation of acute surgery and cross site working will provide part of the solution to the challenges facing anaesthetics, investment in anaesthetics is likely to be needed in the future.

3.3.2 Other Surgical Services

Urology

Currently urology services are provided at both RSH and PRH with three quarters of the beds and activity undertaken at RSH. Following public consultation under The Strategic Service Plan it was agreed to transfer urology to the PRH. The arguments on locating urology on either of the two existing sites are:

Shrewsbury: the RSH services an older population and there are clinical linkages with gynaecology but these are not essential.

Telford: development and retention of the urological cancer work will be reliant on strategic alliance with Wolverhampton which would be better provided from Telford.

Other factors to consider are

- making the best use of capacity;
- the clinical linkage with paediatrics (desirable but not essential);
- the low proportion of urological emergency work;
- potential to develop hospital at night enabling some of the tasks done by junior doctors to be done by a multidisciplinary team. This is particularly advantageous on sites with less acute surgery and lower acuity levels and OOH demands.

Head and Neck

The head and neck services are currently all provided at RSH. If emergency surgery transfers to one site, some services will need to be on the other site to make the best use of current capacity. A number of the clinicians at SaTH have suggested that head and neck could be based on the non acute site. The main reason for this is that the head and neck services have a low emergency workload. Other factors to consider are:

- making the best use of capacity;
- the clinical links to paediatrics;
- potential to develop hospital at night enabling some of the tasks done by junior doctors to be done by a multidisciplinary team. This is particularly advantageous on sites with less acute surgery, lower acuity levels and out of hours requirements.

3.4 Paediatrics

The options for in patient paediatrics must be looked at in light of the overall model of care for children's services and in particular the proposed development of hospital at home and assessment units. The Interim Report identified four scenarios for paediatrics. These were:

Scenario 1	Scenario 2	Scenario 3	Scenario 4
TWO Assessment Units & TWO Inpatient Units	TWO Assessment Units & TWO Inpatient Units & Hospital at Home	TWO Assessment Units & ONE Inpatient Unit & Hospital at Home	ONE Assessment Unit & ONE Inpatient Unit & Hospital at Home
		Sub Options RSH PRH	Sub Options RSH PRH New Site

The second phase of the work focussed on the clinical linkages. Four key clinical links were identified by the PDG as being particularly important for paediatric services. These are:

- Acute surgery;
- ENT;
- Anaesthetics;
- Neonates.²⁴

²⁴ These are discussed in more detail in the Children's PDG report.

As part of the development of the strategy, an external review of the process and work of the Children's PDG was commissioned.²⁵ The conclusion of this review regarding clinical linkages was that:

“Our overall conclusion on clinical linkages was that whilst they were an important consideration, and should be optimised wherever possible, no linkages were so imperative per se as to dictate a specific solution in terms of the future configuration of children's services. This means that there is room to consider fully the range of other issues (e.g. facilities, population access).”

Neonates

Concerning neonates, the external review stated that:

“Classically neonatal services and paediatric services are co-located and at first glance it is easy to assume that they must be co-located. But typically this is for issues of workforce and not because of intersecting clinical pathways other than on infrequent occasions.”

In considering the issue, the CLF also took into account the increasing specialisation distinction between paediatrics and neonatal care, and the policy that babies under 28 days who require readmissions are not re admitted to the neonatal unit, mainly to minimise the possibility of infection.

The Children's PDG has assessed the medical workforce implications as proposed by the Children's PDG of different configurations. These are summarised in Table 6. The PDG's analysis concluded that:

- retaining two inpatient units will require further investment in middle grade and consultant staff;
- having a single in patient paediatrics unit on the same site as neonatal care will enable the middle grade tier to be rationalised and a smaller expansion in consultant staff. In addition there could be a reduction in the number of junior doctors;
- having a single site for in patient paediatrics but on a different site to neonates would require a significant expansion in consultant staff with the potential for some reduction in the middle grade tier. In addition there would need to be a separate on call rota for neonatal intensive care. The main increase in staffing is the establishment of a separate NICU rota and assumes a 1 in 8/10.

²⁵ The review was carried out by Dr Steve Ryan, Medical Director, Alder Hey Children's Hospital and John Adler, formerly Chief Executive, Sheffield Children's Hospital.

Whilst recognising that separating inpatient paediatrics and neonates would require some investment, the CLF were concerned that the proposed medical workforce model was more appropriate to a tertiary centre. For this to be an option a more flexible and cost effective medical workforce model would be required.

Table 6: Medical Workforce Implications of the Different Options for Paediatrics

	Consultants	Middle Grade	Comments
Current Situation	12	18	Combined NICU/Paeds OOH at RSH Separate Paed OOH at PRH
2 IP Units full workforce	15	22	Combined NICU/Paeds OOH at RSH Separate Paed OOH at PRH
Paediatrics and NICU on same site	14	14	Combined NICU/Paeds OOH at RSH Separate Paed OOH at PRH
Paediatrics and NICU on different sites	18	14	4 cons run NICU in day, need 8-10 to have NICU OOH rota

Paediatric Surgery

Paediatric surgery is currently provided at both RSH and PRH. General paediatric surgery is carried out by general surgeons (of whom three do most of the elective work). Emergency in patient paediatric surgery levels in 2007/08 are given in Table 7. As discussed in the Children's PDG report there are problems with the data and in particular what is counted as an emergency and the fact that children are admitted under a paediatrician, not a surgeon. The level of activity is likely to be underestimated.

An assessment was carried out of children who had had an emergency operation at night at PRH over a 12 month period (procedures which started after 6 pm). Of the 54 operations, 46 were trauma patients and 8 were general surgical emergencies. This equated to less than one general surgical operation a month. An assessment was not carried out at RSH but given the similar level of emergency paediatrics, the number operated on at night is low.

With acute surgery and paediatrics on both sites, paediatricians are available to support children having operations and surgeons are available on site to operate on children who need emergency surgery.

Table 7: Paediatric Surgery

	RSH	PRH	Total
General Surgery	45	78	123

Urology	7		7
ENT	102		102
Ophthalmology	12		12
Oral Surgery	25		25
Gynaecology	17		17
	208	78	286

Where acute surgery and inpatient paediatrics are on separate sites the clinical linkages need to be addressed. It is clear from the PDG report and national guidance that having in patient and children's services on a site without acute surgery carries with it risks. In particular:

- children arriving at the non acute site and needing an emergency operation would need to be transferred to the acute surgery site for their operation and then transferred back again.²⁶ Alternatively they would need to be transferred to another paediatric unit for their operation;
- children arriving at the acute site and needing an emergency operation would need transferring to the in patient ward post operatively;
- paediatricians and surgeons would need to be available for out of hours advice and support to each other on both sites.

Whilst none of the challenges are insurmountable, there are significant implications for children and professionals which would require careful management and investment in, for instance, transport capacity.

ENT

If ENT and the inpatient paediatric unit are on different sites there would be issues regarding emergency tracheotomies and support to children on the ENT ward from a paediatrician. Addressing these issues would require ENT clinicians to cover the site with inpatient paediatrics and paediatricians able to visit the ENT ward when required.

The CLF did not feel that ENT and in patient paediatrics on the same whilst desirable was essential.

Anaesthetics

²⁶ The CLF considered emergency operations for children who need an emergency operation but can wait until the next day being done on both sites as is presently the case. However it was felt this would be inefficient in that theatre capacity would need to be available on every day for a small number of children. It would also require duplication of some clinical support services and would increase in level of out of hours surgical cover so negating many of the benefits and advantages of consolidating emergency surgery.

Under the options for acute surgery, it is proposed to have acute medicine on both sites. This will require anaesthetic cover out of hours, so providing support to in patient paediatrics.

Conclusion

The CLF did not feel that the individual clinical linkages issues that arise if surgery and inpatient paediatrics are not co-located were insurmountable. There was however concern that the combined effects of neonates and surgery on a different site to in patient paediatrics presented considerable risks and challenges that would require careful management. Further the system would be more complex than with the services collocated. A majority of the clinicians on the CLF felt that splitting paediatrics, surgery and neonates was not appropriate in light of these issues. However this was not a unanimous view.

4.5 2020 Vision

The CLF concluded that in the medium term there should be a single site for the seriously ill and injured and an option appraisal be carried out.. All the options assume a network of vibrant community hospitals. The following options have been identified.

Baseline Option	This will be the configuration of hospital services agreed on the basis of this report for implementation by 2012/13
Option 2	Under Option 2 the main A and E is based at Shrewsbury with outpatient, day case surgery, minor injuries, midwife unit and specialist community services in Telford.
Option 3	Under Option 3 the main A and E is based at Princess Royal Hospital with outpatient, day case surgery, minor injuries, midwife unit and specialist community services in Shrewsbury.
Option 4	There will be a new acute hospital between Shrewsbury and Telford dealing with all seriously ill and injured patients. The sub options identify a number of possibilities for the two existing hospitals.

4. CHALLENGED SERVICE STRATEGIES: MAKING SENSE TO COMMUNITIES

4.1 Access to Hospital Services

4.1.1 Drive Time Analysis

A detailed assessment of access to hospital has been undertaken using drive time data provided by Dr Foster. Adjustments have been made to reflect market share. This has provided an estimate of the 'effective' catchment population for each hospital as discussed in Section 2.²⁷

All the options considered propose that a considerable level of planned care including all day case activity would continue to be provided at both sites. The impact of relocating services will therefore be on general surgical emergency care and major elective surgery, not outpatients or at least 80% of planned operations.

The conclusions of the drive time analysis are:

- over 80% of the population of Shropshire, Telford and Wrekin live within a 40 minute drive of the RSH or PRH;
- some 5% of the 'effective' catchment population have a drive time of over one hour. The areas affected are parts of Shropshire County (2% of the population) and Montgomeryshire (41% of the population);
- consolidation of any service or services to PRH would have less impact on average drive times than consolidating them on the RSH (average drive times would increase by 20% compared to 29%);
- consolidation of any service or services onto the RSH would adversely impact on the more deprived sections of the population in Telford and Wrekin;
- consolidation onto RSH would have no impact on the population living over one hour away. Consolidation onto the PRH would double the proportion of the population living over one hour away to nearly 10% with the greatest impact on western Shropshire and Montgomeryshire.

The analysis is based on drive times. The greater deprivation and lower car ownership levels in Telford and Wrekin would further impact on the population without a car and/or require greater use of public transport or the ambulance service to access services.²⁸

²⁷ Details are provided in Technical Paper 1: Access.

²⁸ The drive time analysis was also carried out for Site 'X' between Telford and Shrewsbury. This is one of the options for the longer term as discussed in Section 5.2. The conclusions of this are:

- moving services to Site 'X' has the lowest impact on drive times with an estimated 17% increase in average drive times;

The analysis also looked at the impact on the 'effective' catchment population of consolidation all services onto one site. The conclusion are summarised in Table 8.

Table 8: 'Effective' Catchment Population of Single Site Options

	Current (RSH & PRH)	PRH only	RSH only	Site 'X'
Shropshire County	228,904	198,923	153,615	187,306
Telford and Wrekin	150,382	161,600	71,851	161.600
Montgomeryshire	36,819	6,000	36,819	32,119
	416,105	366,522	262,284	381,025
Change from Current	---	-49,583	-153,821	-35,080

The importance of taking access in account when considering configuration of hospital services has recently been emphasised by the decision of the Independent Reconfiguration Panel to reject the proposals of the Oxford Radcliffe Hospitals NHS Trust to reconfigure services in Banbury and stated that:

'The ORH must do more to develop clinically integrated practice across the Horton, the John Radcliffe and Churchill sites as well as developing wider clinical networks with other hospitals, primary care and the independent sector.'

and

*'The IRP is concerned that the changes to paediatric, maternity, special care and gynaecology services at Horton Hospital are being driven by future medical staffing constraints, not by providing a better service for local people.'*²⁹

4.1.2 Deprivation

- the proportion of the population living over an hour away increase for Site X but the increase is less that that for services moving to the PRH.

²⁹ Independent Reconfiguration Panel ADVICE ON CHANGES PROPOSED BY THE OXFORD RADCLIFFE HOSPITALS NHS TRUST TO PAEDIATRIC SERVICES, OBSTETRICS, GYNAECOLOGY AND THE SPECIAL CARE BABY UNIT AT THE HORTON GENERAL HOSPITAL IN BANBURY Submitted to the Secretary of State for Health 18 February 2008

The assessment of the deprivation of the populations in the local authorities has been detailed in the report on Models of Care from the CLF.³⁰ The conclusion from this are:

'The analysis of demographic trends and public health factors has significant implications of the health and healthcare strategy. When compared to national figures, Shropshire County is generally less deprived, with a low violent crime rate and a lower rate of teenage pregnancies. However there are significant areas of localized deprivation within Shropshire County. Whilst there is a high level of obesity, there are fewer deaths from smoking, cancer and fewer early deaths from heart disease and stroke.

Conversely, Telford and Wrekin has a higher projected growth in population, significantly higher levels of deprivation both in Telford and Wrekin as well as Shrewsbury and Atcham parts of which are served by the Princess Royal. Telford and Wrekin also have higher rates of early mortality from smoking and circulatory diseases. Telford and Wrekin also have relatively high rates of teenage pregnancy and obesity and higher numbers of children living in deprivation.'

The implications of the health and deprivation levels of children and young people have also been looked at³¹. The conclusions of these studies show that:

- social deprivation correlated strongly with neonatal morbidity and the need for a neonatal unit admission³²;
- there is a clear relationship between A&E attendance and deprivation against all triage categories³³;
- deprivation was found to be significantly associated with childhood admission rates for respiratory infection, particularly in the under 5 age group³⁴;
- the rate of hospital admissions for infectious intestinal diseases is double in children from the most deprived areas compared to those from the most affluent³⁵.

³⁰ Report from the Clinical Leaders Forum: Health and Healthcare 2012/13: Care Pathways and Models of Care, November 2008

³¹ Technical Paper 4: Children and Young People, November 2008.

³² *Archives of Disease in Childhood Fetal and Neonatal Edition* 2005;90:F337-FF338 D Manning, B Brewster, P Bundred. Social deprivation and admission for neonatal care

³³ *Archives of Disease in Childhood Fetal and Neonatal Edition* 2005;90:F337-FF338 T F Beattie, D R Gorman, J J Walker. The association between deprivation levels, attendance rate and triage category of children attending a children's accident and emergency department.

³⁴ *Respiratory Medicine* 2003 Nov;97(11):1219-24 Hawker JI, Olowokure B, Sufi F, Weinberg J, Gill N, Wilson RC. Social deprivation and hospital admission for respiratory infection: an ecological study.

³⁵ *The Lancet*, Volume 353, Issue 9155, Pages 807 - 808 B. Olowokure, J. Hawker, J. Weinberg, N. Gill, F. Sufi. Deprivation and hospital admission for infectious intestinal diseases.

The level of non-elective paediatric admission activity in Telford & Wrekin has been higher than the England average. In terms of rates, most of this activity is accounted for by admissions from the most deprived population quintile in Telford & Wrekin, supporting the research that higher levels of deprivation are associated with higher admissions.

4.1.3 Patient's Views on Choosing Hospitals

The views of patients when choosing a hospital for planned care was obtained through participation in the two Council's Citizen Questionnaire. In summary:

- 60% of the population in Shropshire County and 68% of the population put quality of care, reputation of the hospital and expertise of the surgeon as the most important factors;
- 11% of people in Shropshire County and 15% of people in Telford and Wrekin felt that speed of treatment was the most important factor;
- Proximity of the hospital was the most important factor for 11% of people in Shropshire County and 13% of people in Telford and Wrekin;
- 10% of people thought cleanliness was the most important factor.

Whilst proximity of care is likely to be of greater importance when considering emergency care, it is clear that safe and effective services are critical issues for the people of Shropshire, Telford and Wrekin.

4.2 Affordability

Capacity

The current bed and theatre configuration (and the configuration for Option A) is shown in Table 9 together with the number of beds and theatre sessions required under Options B and C³⁶.

If the RSH is Site 1 then the number of beds required for general/vascular surgery would be 90 under Option B and 105 under Option C at the RSH (an increase of 34 and 49 respectively). The number of beds for general surgery at PRH would fall from 49 to 15 and 0. This could be accommodated to a larger degree by moving other surgical services from RSH to PRH e.g. urology or head and neck so using current capacity.

If the PRH is Site 1 then there would need to be an increase in beds at PRH from 49 to 90 (Option B) and 105 (Option C). This would need to be additional

³⁶ The following assumptions have been made:

- (i) Site 1 is the emergency surgery site;
- (ii) no adjustments have been made for increased day case rates or more efficient use of beds.

capacity as there is limited scope to move other surgical services to RSH. There would be a corresponding decrease in requirements at RSH.

A similar picture emerges with theatre capacity where relocating other surgical services from PRH would enable services to be broadly accommodated within current capacity if RSH was Site 1. Additional investment would be needed if PRH was Site 1.

Table 9: Bed Configuration and Future Requirements³⁷

	Current & Option A			Option B			Option C		
	RSH	PRH	SaTH	Site 1	Site 2	SaTH	Site 1	Site 2	SaTH
	-----Number of Beds-----								

General/Vascular Surgery	56	49	105	90	15	105	105	0	105
Possible locations of other surgical services to make best use of capacity									
Urology	18	6	24						
Head and Neck	40	0	40						
	114	55	169						
	-----Number of Inpatient Theatre Lists-----								

General/Vascular Surgery, elective	728	884	1,612	728	884	1,612	1,612	0	1,612
General/Vascular Surgery, CEPOD	520	260	780	780	0	780	780	0	780
	1,248	1,144	2,392	1,508	884	2,392	2,392	0	2,392
Possible locations of other surgical									
Urology	312	104	416						
Head and Neck	884	0	884						
	2,444	1,248	3,692						

Source: Shrewsbury and Telford Hospitals NHS Trust

Medical Workforce

The projected medical workforce costs of the options general surgical options are given in Tables 10 and 11 and details are given in Technical Paper 3: Sustaining Services.

³⁷ Patients requiring emergency but not immediate operations and can be operated on the non acute site the following day could mean some adjustment in the bed numbers. The implication of this is that the required bed numbers will move closer to the current bed numbers under Options B and C but the relative differences between the options will not be significantly affected.

Table 10: Cost of Changes to Surgical Medical Workforce (£'000s)

	A1	A2	B1	B2	C
General Surgery	600	1,200	60	120	0*

* potential for middle grade savings dependent on location of other services.

The medical staffing implications of different configurations for paediatrics were discussed in Section 3. Table 11 summarises the cost implications. From this analysis the main issue is the cost of inpatient paediatrics and neonates being on different sites. The assessment by the Children's PDG assumes a separate rota for NICU (Section 3). If separate sites for neonates and paediatrics are to remain an affordable option, alternative out of hours arrangements will need to be found. Further work on this is needed regarding:

- the level of on call for NICU;
- a more integrated rota across NICU and paediatrics to avoid deskilling of consultants whilst retaining cover on both sites.

Table 11: Changes in Costs of Paediatric Workforce³⁸

	£'000s
Current Situation	2,400
2 IP Units full workforce	2,940
Paediatrics and NICU on same site (combined PICU and NICU rotas)	2,460
Paediatrics and NICU on different sites (separate NICU rota)	3,240

³⁸ Consultant and middle grade salary costs

5. FUTURE CONFIGURATION OF CHALLENGED SERVICES

5.1 Configuration of Challenged Services in 2012/13

The CLF identified a number of options for the configuration of services on the RSH and PRH. These were assessed against the two key objectives of:

3. consolidating acute surgery and in patient paediatrics in a timely manner;
4. not compromising the 2020 Option Appraisal.

Each of these options was assessed against the following questions:

1. Did the options meet the two key objectives of resolving the surgery and paediatric issues without compromising the 2020 Option Appraisal?
2. Did the options satisfy the clinical linkage requirement and/or had measures to manage any risks as a result of collocation been identified?
3. What would be the implications for patients in terms of access?
4. Would the options have a significant beneficial or detrimental impact on those living in rural areas?
5. Would the options have a significant beneficial or detrimental impact on deprived sections of the population?
6. How affordable were the options from the point of effective use of capacity, medical workforce and capital implications?

The conclusions of the Clinical Leaders Forum are summarised in Table 13 and further details given in the Technical Papers. Four options were identified for further assessment as shown in Table 12.³⁹ In all cases day case and outpatient general surgery and paediatrics will be carried out on both sites.

Table 12: Options for Configuration of Challenged Services

Option	PRH	RSH
1	Level 3 A and E, urology	Level 2 A and E with acute surgery, inpatient paediatrics, obstetrics and neonates
2	Level 2 A and E with acute surgery, inpatient paediatrics, obstetrics and neonates	Level 3 A and E, urology
3	Level 3 A and E with inpatient paediatrics, urology	Level 2 A and E with acute surgery, obstetrics and neonates
4	Level 2 A and E with acute surgery, and inpatient paediatrics	Level 3 A and E, obstetrics and neonates, urology

³⁹ There was concern expressed by some members of the Clinical Leaders Forum that Option 2 could potentially compromise the 2020 Option Appraisal. However it was agreed to leave this Option 2 in for further assessment, recognising that any potential problem must be managed to ensure that 2020 option appraisal was not compromised.

Table 13: Assessment of Options for Future Configuration of Challenged Services

Option	Key Objectives	Clinical Linkages	Access	Rurality	Deprivation	Affordability
1	Yes	All critical clinical linkages be satisfied	Average drive times increase by 29%	No change	Move emergency services and inpatient paediatrics away from most deprived people	Makes good use of existing capacity with low medical workforce costs and capital implications
2	No unless delay any decision on relocation of obstetrics until 2020 decision made	All critical clinical linkages be satisfied	Average drive times increase by 20%	Double the number of people over an hour away double	Locate services with most deprived section of the population	Increase beds by 84% and theatres by 30% at PRH. 20% beds and 60% theatres capacity not be needed at RSH. Medical manpower costs low. Significant capital to relocate obstetrics
3	Yes	Paediatrics be on different site to surgery and neonates	Increase in average travel time for emergency surgery (29%) and inpatient paediatrics (20%)	In crease in travel time for those in rural areas for inpatient paediatrics	Locate inpatient paediatrics close to most deprived population	Makes good use of existing capacity with minimal capital requirements. Medical manpower costs increase in neonates and paediatrics and acute surgery
4.	Yes	Paediatrics and acute surgery be on different site to obstetrics and neonates	Increase average travel time by 20%	Double the number of people over an hour away double	Locate inpatient paediatrics/acute surgery close to most deprived population	Increase beds by 84% and theatres by 30% at PRH. 20% beds and 60% theatres capacity not be needed at RSH. Medical manpower costs rise with neonates inpatient paediatrics on different sites

5.2 2020 Vision

The CLF concluded that in the medium term there should be a single site for the seriously ill and injured. An option appraisal has been started to look at the options for where the optimal location for such a facility.

All the options assume a network of vibrant community hospitals with a range of specialist community and community services providing services closer to home, as identified in the Overarching Plan.

The following options have been identified.

Baseline Option	This will be the configuration of hospital services agreed on the basis of this report for implementation by 2012/13
Option 2	Under Option 2 the main A and E is based at Shrewsbury with outpatient, day case surgery, minor injuries, midwife unit and specialist community services in Telford.
Option 3	Under Option 3 the main A and E is based at Princess Royal Hospital with outpatient, day case surgery, minor injuries, midwife unit and specialist community services in Shrewsbury.
Option 4	There will be a new acute hospital between Shrewsbury and Telford dealing with all seriously ill and injured patients. The sub options identify a number of possibilities for the two existing hospitals.

The options are outlined in more detail in the Appendix.

**Appendix
2020 Options**

OPTION 2		
Option	Royal Shrewsbury Hospital	Princess Royal Hospital
Option 2A	<p>A and E level 2 dealing with all Emergency Services including acute medicine, acute surgery, trauma and paediatrics and critical care</p> <p>Obstetrics and midwife-led unit</p> <p>Outpatients, day case surgery, all inpatient elective surgery</p> <p>Community services</p> <p>Diagnostic and Clinical Support Services</p>	<p>Urgent Care Centre Paediatric Assessment Unit Minor Injuries Unit</p> <p>Midwife-led unit</p> <p>Outpatients, day case surgery</p> <p>Specialised Community Services</p> <p>Diagnostic and Clinical Support Services</p>
Option 2B	<p>A and E level 2 dealing with all Emergency Services including acute medicine, acute surgery, trauma and paediatrics and critical care</p> <p>Obstetrics and midwife led unit</p> <p>Outpatients, day case surgery, inpatient elective surgery</p> <p>Community services</p> <p>Diagnostic and Clinical Support Services</p>	<p>Urgent Care Centre Paediatric Assessment Unit Minor Injuries Unit</p> <p>Midwife-led unit</p> <p>Outpatients, day case surgery and elective surgery not requiring critical care</p> <p>Specialised Community Services</p> <p>Diagnostic and Clinical Support Services</p>
Option 2C	<p>A and E level 2 dealing with all Emergency Services including acute medicine, acute surgery, trauma and paediatrics and critical care</p> <p>Obstetrics and midwife led unit</p> <p>Outpatients, day case surgery, all inpatient elective surgery</p> <p>Community services</p> <p>Diagnostic and Clinical Support Services</p>	<p>Minor Injuries Unit</p> <p>Midwife-led unit</p> <p>Outpatients, day case surgery</p> <p>Specialised Community Services</p> <p>Diagnostic and Clinical Support Services</p>

Option 3		
Option	Royal Shrewsbury Hospital	Princess Royal Hospital
Option 3A	<p>Urgent Care Centre Paediatric Assessment Unit Minor Injuries Unit</p> <p>Midwife-led unit</p> <p>Outpatients, day case surgery</p> <p>Specialised Community Services</p> <p>Diagnostic and Clinical Support Services</p>	<p>A and E level 2 dealing with all Emergency Services including acute medicine, acute surgery, trauma and paediatrics and critical care</p> <p>Obstetrics and midwife led unit</p> <p>Outpatients, day case surgery, all inpatient elective surgery</p> <p>Community services</p> <p>Diagnostic and Clinical Support Services</p>
Option 3B	<p>Urgent care Centre Paediatric Assessment Unit Minor Injuries Unit</p> <p>Midwife-led unit</p> <p>Outpatients, day case surgery and elective inpatients not requiring critical care</p> <p>Specialised Community Services</p> <p>Diagnostic and Clinical Support Services</p>	<p>A and E level 2 dealing with all Emergency Services including acute medicine, acute surgery, trauma and paediatrics and critical care</p> <p>Obstetrics and midwife led unit</p> <p>Outpatients, day case surgery, inpatient elective surgery</p> <p>Community services</p> <p>Diagnostic and Clinical Support Services</p>
Option 3C	<p>Minor Injuries Unit</p> <p>Midwife-led unit</p> <p>Outpatients, day case surgery</p> <p>Specialised Community Services</p> <p>Diagnostic and Clinical Support Services</p>	<p>A and E level 2 dealing with all Emergency Services including acute medicine, acute surgery, trauma and paediatrics and critical care</p> <p>Obstetrics and midwife led unit</p> <p>Outpatients, day case surgery, all inpatient elective surgery</p> <p>Community services</p> <p>Diagnostic and Clinical Support Services</p>

Option 4			
Option	New Hospital for Seriously Ill and Injured	Royal Shrewsbury Hospital	Princess Royal Hospital
Option 4A	All acute services	RSH closes	PRH closes
Option 4B	<p>A and E level 2 dealing with all Emergency Services including acute medicine, acute surgery, trauma and paediatrics and critical care</p> <p>Outpatients, day case surgery, all inpatient elective surgery</p> <p>Obstetrics and midwife led unit</p> <p>Diagnostic and Clinical Support Services</p>	<p>Minor Injuries Unit</p> <p>Midwife-led unit</p> <p>Outpatients, day case surgery</p> <p>Specialised Community Services</p> <p>Diagnostic and Clinical Support Services</p>	<p>Minor Injuries Unit</p> <p>Midwife-led unit</p> <p>Outpatients, day case surgery</p> <p>Specialised Community Services</p> <p>Diagnostic and Clinical Support Services</p>