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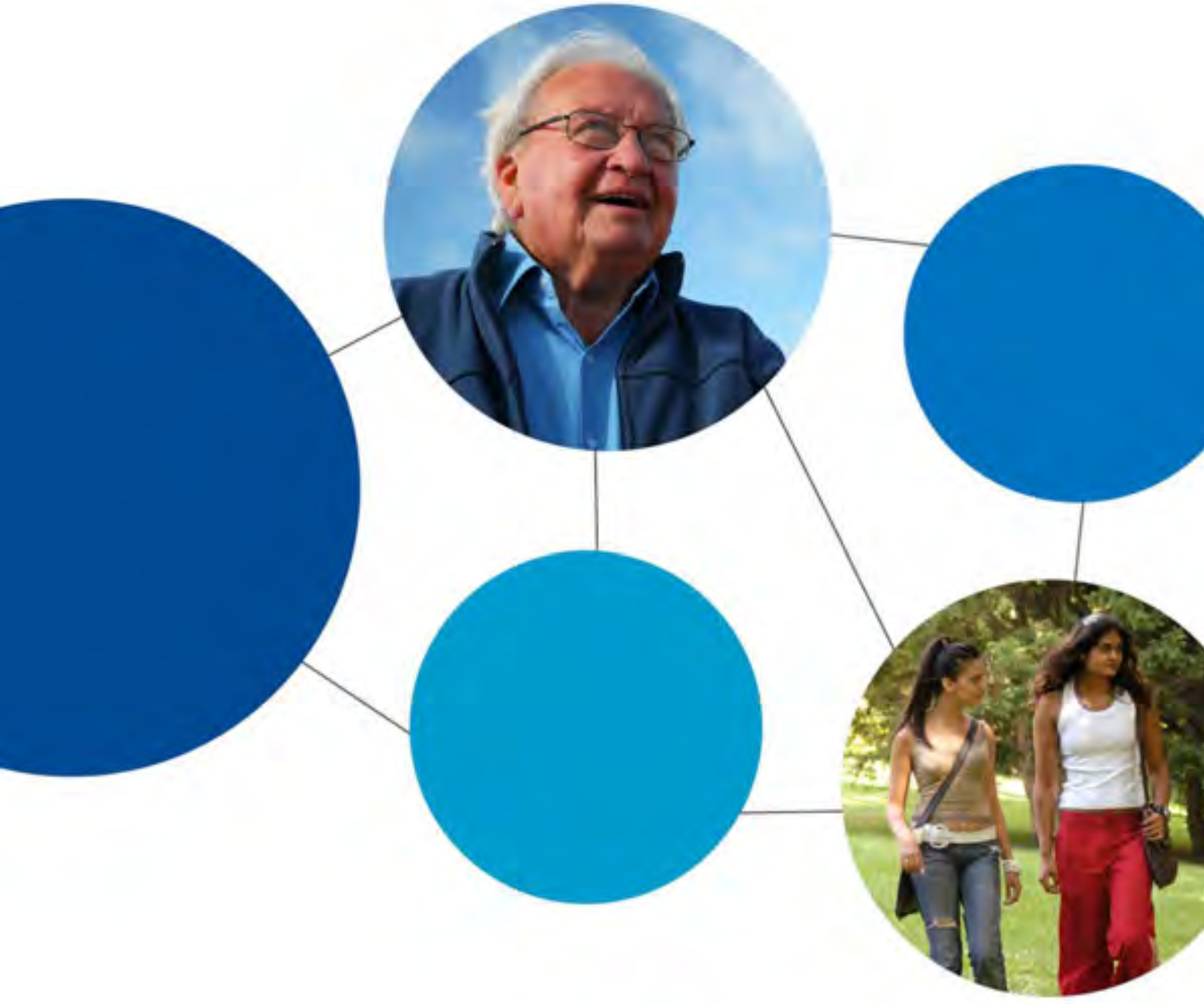


NON-FINANCIAL APPRAISAL PANEL
Evidence Pack
September 2016

CONTENTS

PREFACE

This version of the non-financial option appraisal briefing pack has been prepared to assist the decision making of the CCGs and their Joint Committee. It updates the pack issued to the non-financial appraisal panel with some minor corrections that were explained to the panel when it met on 23rd September and with some additional information, as set out below.

a. Minor Corrections

i. *The options diagram on p.5 had contained two errors. Under 'Royal Shrewsbury Hospital' it was indicated that Options C1 and C2 would have a DTC instead of LPC.*

ii. *The summary of current emergency care access times on p.16 reflected public transport estimates whereas ambulance/car journey times should have been shown. The same correction has also been made where the figures are repeated in Appendix D.*

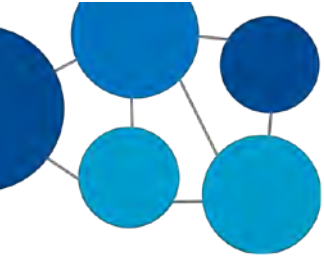
iii. *On p.23 the impact of Option B on emergency care access for BME patients was reported as 13,046 attendances instead of 2,185.*

iv. *In the Key Features section of Option C1 on p.30, the heading read 'W&C at PRH' instead of 'W&C at RSH'.*

v. *In the summary tables for Option A in the Access Summary (Appendix D), four average travel times had to be updated in relation to public transport access to Women and Children's services. The errors were: for Oswestry, 86.3 instead of 85.9 mins; for South Shropshire, 70.5 instead of 71.5 mins; for Powys, 38.3 instead 87.9 mins; and for out of area attendances, 87.9 instead of 30.7 mins.*

b. Additional Information

- *Appendix B was presented to the panel during its meeting and describes SaTH's proposed delivery model.*
- *Appendix D's Access Summary has been added to with the explanatory slides presented to the panel.*
- *Appendix H contains the outline site plans and timescales for delivering each option, again as presented to the panel.*
- *Appendix I contains the 'Options Phase' report of the Integrated Impact Assessment. This was not formally part of the non-financial appraisal as it does not directly address the criteria agreed by the CCGs. Its role is to inform the CCGs of the potential wider impacts of each option so that these can be taken into account in considering the outcome of the appraisal. CCGs will need to identify what further work should be undertaken as part of the 'Consultation Phase' of the IIA.*



SECTION ONE

INTRODUCTION

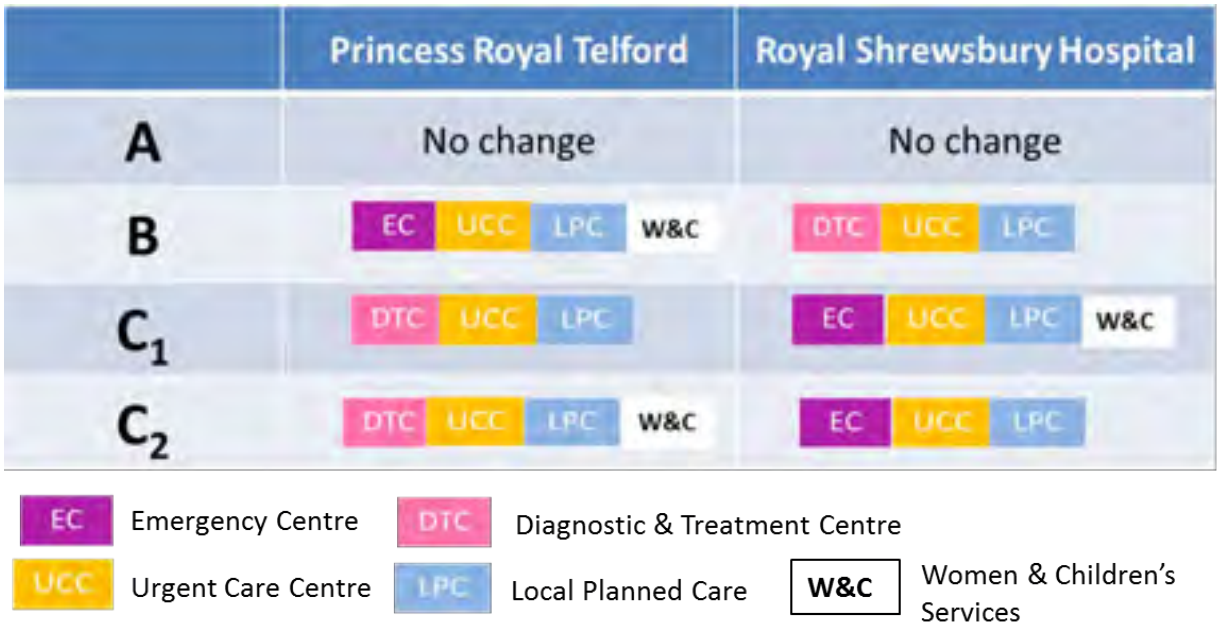
INTRODUCTION

Since June 2014, the programme has been engaged in a process of identifying and developing potential solutions for how the approved Clinical Model could be delivered.

An initial list of more than forty scenarios was refined into a long list of thirteen, from which a shortlist of six options with two obstetric variants was identified. Following more detailed work on each option/variant, the Programme Board concluded that those involving any 'new site' component should be excluded from further consideration on the grounds of being unaffordable.

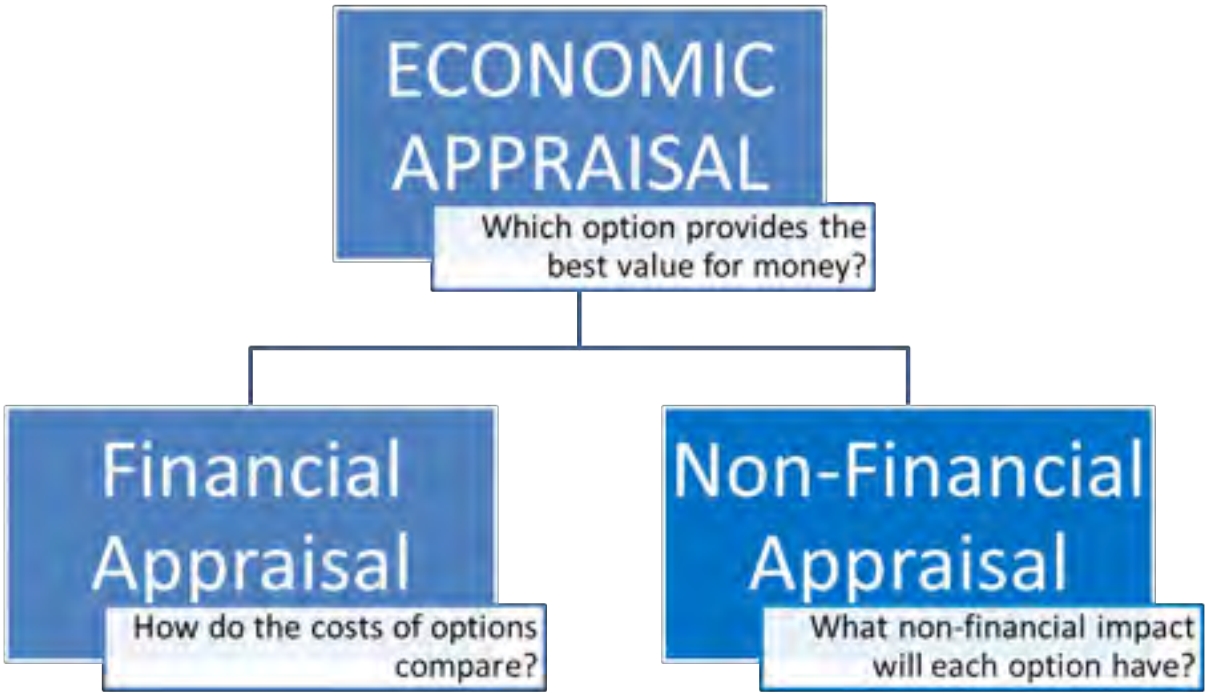
A previous appraisal exercise was undertaken on the remaining shortlist of options in September 2015. As the results were being considered it became evident that proposals could not go forward to public consultation until the deficit in the local health economy had been addressed. As a result, the Programme Board asked SaTH to set out how it could address its most pressing workforce challenges whilst parallel work was initiated to address the deficit (work since taken up by the STP programme).

The work requested from SaTH by the Programme Board led to the development of revised delivery solutions for each of the programme's configuration options. Those solutions offer a much more balanced split of activity between the sites with a 60/40 split of beds between the Emergency Centre site (EC) and the Planned Care (DTC) site.



These options include provision for local urgent care, diagnostics and outpatients in both Shrewsbury and Telford. The programme continues to explore the potential for local urgent and planned care in rural areas but that is outside the scope of this appraisal.

The programme is now at the stage where these remaining options need to be subject to financial and non-financial appraisal. This process follows the guidance set out in the DH *Capital Investment Manual* and HM Treasury's *Green* Book.



1. Financial Appraisal

This technical appraisal replaces the affordability criterion used in the shortlisting process, to reflect the much more detailed financial information which is now available. This appraisal, which will be undertaken by SaTH and reviewed by the Programme's Finance Workstream, covers both capital and revenue costs and addresses questions of affordability to SaTH and value for money for the population. Key outputs will include:

- Net Present Cost (NPC) - the total future costs of the project over a number of years expressed in terms of today's prices,
- Equivalent Annual Cost (EAC) - the average annual impact at today's prices.

The appraisal will need to address a minimum period of 30 years (ideally 60 years) to meet Treasury guidance.

2. Non-financial Appraisal

This is the task of the panel meeting on 23rd September. The remaining appraisal criteria – accessibility, quality, workforce and deliverability – provide the framework for this appraisal. These were agreed by the Board previously, having given consideration to the key benefits the programme seeks to deliver and to the views of the public.

a) Criteria

Summary descriptions of each option have been developed which address each criterion in turn. These are included in this pack with full data sources, where appropriate, contained in the appendices.

b) Panel

The Board has agreed the composition of the Panel. This reflects the organisations which are sponsor or stakeholder members of the Programme.

In order for a fair and robust appraisal to take place, panel members have been asked to:

i) Make a Declaration of Interests

ii) Undertake to adhere to the Programme Code of Conduct, including its confidentiality requirements.

Panel members are representatives of their nominating organisations who will need to use their own judgement in assessing the evidence provided, mindful of the needs of the whole population affected by programme proposals. They are not delegates coming simply to assert a pre-determined view (whether that view is their own, the view of their nominating organisation or the view of any other organisation to which they are affiliated). It is proposed that members' final scores should be anonymous and that they will only be known to those on the day recording scores.

c) Process

The process for the Panel's meeting is as follows:

- 9.00 a.m. Registration & Refreshments
- 9.15 a.m. Welcome & Introduction to the Day - Debbie Vogler
- 9.45 a.m. Confirmation of Criteria Weightings - David Frith
- 10.00 a.m. Presentation of Evidence & Initial Individual Scoring

N.B. Panel members will be asked to consider scores after each item.

- Access – Andrew Hood, Strategy Unit
- Quality – Dr Stephen James, Clinical Design Workstream Lead
- Workforce – Victoria Maher, SaTH
- Deliverability

- Estates – Kate Shaw, SaTH
- Acceptability – Harpreet Jutlla, CSU Comms Team

- 12.00 Noon Identification of Key Questions for Discussion - Debbie Vogler
- 12.15 p.m. Lunch Break
- 12.45 p.m. Response to Questions about Evidence & General Discussion
- 2.00 p.m. Confirm Initial Individual Scoring of Options - David Frith
- 2.15 p.m. Break for Refreshments *[collation of initial scores]*
- 2.30 p.m. Feedback and Discussion of Initial Scoring - David Frith
- 4.00 p.m. Opportunity to Revise Scoring
- 4.15 p.m. Confirmation of Revised Scoring - David Frith
- 4.30 p.m. Close & Next Steps - Debbie Vogler

Members are required not to disclose non-financial scores until they are published by the Programme Board, and at no time to make public the views of other panel members.

i) Weighting the Criteria

Panel members will be asked to consider the criteria weightings including whether there are any valid reasons for varying these from those previous agreed. Sensitivity analysis will subsequently be undertaken using alternate weightings to test the robustness of results. The panel will be supplied with the results of a representative public telephone survey to take into consideration.

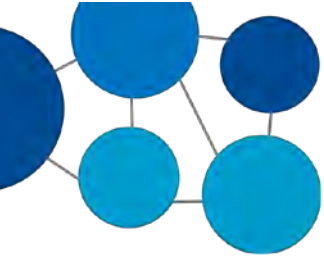
ii) Scoring the Options

Panel members will be asked to score each of the four options/variants against each of the 4 criteria using a set range of scores. Initial individual scoring will take place during the presentation of the evidence for each criterion with a later opportunity to refine these initial scores as a result of any clarification emerging from subsequent discussions.

3. Economic Appraisal

Once the financial and non-financial appraisals are complete, the Programme Office (supported by the Strategy Unit) will combine the results into an overall economic or value-for money appraisal.

There are a number of standard methodologies recommended by HM Treasury which can be used at that stage, alone or in combination.



This appraisal will include:

a) Weighting financial and non-financial scores

A non-financial score for each option is derived from the weighted total of the score for each non-financial criterion, giving a maximum of 100 'benefit points'. A financial score is derived from awarding 100 points to the option with the lowest Net Present Cost (NPC). More costly options are awarded points in inverse proportion to this. The two scores for each option are then combined, and the impact of different financial and non-financial weightings will be tested (informed by public views from the stratified telephone survey).

b) Calculating the cost of each non-financial benefit point

Here, the NPC is converted into an Equivalent Annual Cost for each option, and a cost per benefit point is calculated. The option with the lowest cost per benefit point would be regarded as offering the greatest value for money.

The Programme Office will subsequently make a report to the Board which draws on the methodologies above. This may lead to the Board recommending the identification of a 'preferred option' to CCG Governing Bodies. All remaining deliverable options must be included in Public Consultation before a final decision to proceed is made by commissioners.

SECTION TWO

EVIDENCE FOR

NON-FINANCIAL CRITERIA

Evidence for Non-Financial Criteria

This section describes the nature of the evidence being provided to panel members. It provides notes to help panel members interpret the information presented in the summary descriptions of each option. At the panel workshop, this evidence will be presented by relevant experts, and there will be opportunity for the panel to ask questions for clarification about the evidence.

1. Accessibility

The travel time analysis for this criterion is based on actual SaTH activity data from 2015-16, enabling an assessment to be made of the travel time and distance from each full postcode to each hospital site. It models the impact of each option in terms of that historic activity, to show what the impact would have been were the configurations described in each option to have been in place. It is broken down into the following categories:

- Urgent Care
- Emergency Care
- Complex Planned Care
- Non-complex Planned Care
- Outpatients
- Women's and Children's Services.

For attendances at the EC, road travel times only are presented since admission is expected to be by ambulance only; for DTC, road and public transport times are presented. Both reflect off-peak conditions (9a.m. to 4 p.m.) when the bulk of activity takes place.

The focus of this analysis is on the differential impact of each option - that is, the marginal change that would result from implementing options B, C1 and C2 by comparison with Option A (the 'do minimum').

This impact is further broken down in terms of nine geographic localities and, so far as has been possible from the available data, of groups with protected characteristics (e.g. gender, ethnicity, age and deprivation).

A narrative summary of the analysis is provided in the option templates, and the detailed data tables and maps can be found in the appendices for cross-referencing.

Maps show the differential effects of assuming all activity continues to take place on a SaTH site. To reflect patient choice, data tables also show the impact of travelling to a nearer alternative provider.

Shaded areas on the maps reflect the average travel time for each Lower Super Output Area

(LSOA), each of which has a population of between 1,000 and 3,000. It is important that panel members are mindful of the relative geographic size of LSOAs since there is no material difference between a large red rural area and a small red urban area.

2. Quality

There are two main components in relation to the quality criterion. The first concerns the impact of the options on time critical journeys to EC; the second summarises the impact of each option on the three quality domains of safety, effectiveness and patient experience:

a) Care of patients with time-critical conditions

Data is provided on time-critical ambulance conveyance times by locality. This information relates to 'Red 1' (West Midlands Ambulance Service) and 'Category A' (Welsh Ambulance Service) with a handful of additional incidents where the chief complaint was recorded as Red 1, Cardiac Arrest or Life Threatening Illness. These are considered, at point of triage, as being the most time critical episodes of ambulatory care.

Of the time-critical 999 calls taken by ambulance to Shrewsbury & Telford Hospitals Trust sites, the West Midlands Ambulance Service conveys over 85%. In 2014/15, 743 calls originating from Shropshire or Telford CCG areas or Powys were classified as Red 1/Category A and conveyed to a SaTH hospital. The following table summarises those ambulance conveyance times:

Ambulance Service conveyance Times - 2014/15

Locality	Conveyed	Average journey time
Bridgnorth	67	25.1
North Shropshire	60	27.8
Oswestry	37	23.6
Shrewsbury & Atcham	177	12.1
South Shropshire	41	38.0
Hadley Castle	88	11.3
Lakeside South	63	14.9
The Wrekin	105	10.1
Powys	105	37.8
Grand Total	**743**	**20.0**

No proposals to change ambulance services are currently within the scope of Future Fit options. Commissioners will be able to consider changes to ambulance services, however, where such changes could mitigate any adverse access impact identified in the modelling.

b) Other clinical quality considerations

Tables are provided which summarise the potential impact of each option in terms of the three quality domains. These have been developed by SaTH clinicians and reviewed by CCG clinicians.

The key considerations are the favourable and adverse impacts of:

i) Consolidating emergency and planned services on single sites;

ii) Whether or not consultant-led obstetric activity is co-located with EC (Appendix D contains an external clinical review of this issue, and a position statement from SaTH clinicians); and

iii) The extent of new or significantly refurbished facilities, and the physical disposition of services within each site, which might also be considered to have an impact on both patient and staff experience.

3. Workforce

Clinical workforce shortages are an increasingly critical element of the programme's case for change.

The impact of these shortages is set out under Option A. For the other options, the potential of each option to improve recruitment and retention is summarised.

4. Deliverability

For this criterion, the estates work required to deliver each option is summarised, drawing on work undertaken by external technical advisors. Outline plans and timescales can be found in Appendix H.

Beyond physical deliverability, there are also differential issues in terms of the acceptability of each option to the public and other stakeholders.

The templates contain a summary of the results of a representative public telephone survey which asked respondents about the appropriateness of each option in their view. The full results can be found in the appendices.

Initial work to explore the potential impact of options on a range of areas (health, access, economic, social, environmental) has been undertaken by external expert advisors. A report on this Integrated Impact Assessment will be provided to CCG Governing Bodies to inform their consideration of the option appraisal results. If possible, this will also be shared with the non-financial appraisal panel as background information.

Previous summaries of public views on developing options including reports on deliberative events can be accessed via the programme website (**http://nhsfuturefit.org/useful-documents/board-papers/2014-board-papers/board-papers-17122014-1/120-140929-f-august-deliberative-events-final-report-1/file**).

SECTION THREE

SUMMARY OPTION DESCRIPTIONS

OPTION A

Key Features

PRH	RSH
• Existing services for emergency care, planned care and women's and children's services are maintained.	• Existing services for emergency care and planned care are maintained.

Option A assumes that provider & Commissioner efficiency strategies are implemented in line with Phase 1 modelling but no major service change takes place. The Clinical Model is not implemented.

Other than essential backlog maintenance, it will not involve capital expenditure as part of the Future Fit Programme. The economic appraisal will, however, include an assessment of life cycle costs reflecting the age of existing facilities.

Accessibility for Patients

Is this option materially inferior to others in terms of promoting equity of access to acute hospital services?

Of the projected future activity, all activity is assumed to continue to be provided on the current sites.

Urgent and Emergency Care Patients

The 78,488 urgent care patients currently treated via A&E would experience no change in travel time by car or public transport.

Average Journey Times	Urgent Care	
Mode of Transport	Public Transport	Car/Ambulance
Bridgnorth	62.7	22.4
North Shropshire	58.5	28.2
Oswestry	63.9	25.6
Shrewsbury & Atcham	38.7	11.5
South Shropshire	58.4	36.1
Hadley Castle	40.9	11.5
Lakeside South	48.9	14.3
The Wrekin	30.4	8.8
Powys	64.4	38.4
Out Of Area	48.7	21.3
Overall Average	**44.4**	**16.2**

OPTION A

The 62,531 emergency care patients currently treated via A&E would experience no change in travel time by ambulance (only).

Average Journey Times	Emergency Care
Mode of Transport	Ambulance
Bridgnorth	26.0
North Shropshire	30.3
Oswestry	27.0
Shrewsbury & Atcham	12.5
South Shropshire	38.9
Hadley Castle	14.1
Lakeside South	15.9
The Wrekin	10.6
Powys	39.6
Out Of Area	24.8
Overall Average	**20.9**

The differential travel times compared with urgent care may reflect a combination of factors including:

- Site-specific emergency services (e.g. trauma, stroke);
- The availability of closer to home urgent care services (e.g. community hospitals, GP practices); and
- The specific postcodes of the patients recorded in the 2015-16 data.

Complex Planned Care Patients

The 1,326 complex planned care patients would experience no change in travel time by car or public transport.

Average Journey Times	Complex Planned	
Mode of Transport	Public Transport	Car/Ambulance
Bridgnorth	69.8	23.9
North Shropshire	77.0	31.5
Oswestry	99.5	42.5
Shrewsbury & Atcham	63.8	22.5
South Shropshire	70.8	47.9
Hadley Castle	48.2	13.8
Lakeside South	51.9	15.1
The Wrekin	37.1	10.6
Powys	69.8	48.8
Out Of Area	72.9	26.0
Overall Average	**62.1**	**25.0**

OPTION A

Non-complex Planned Care Patients

The 57,444 non-complex planned care patients would experience no change in travel time by car or public transport.

Average Journey Times	Non-Complex Planned	
Mode of Transport	Public Transport	Car/Ambulance
Bridgnorth	76.8	29.4
North Shropshire	63.7	31.3
Oswestry	67.5	26.9
Shrewsbury & Atcham	40.8	12.5
South Shropshire	58.4	39.3
Hadley Castle	63.7	19.9
Lakeside South	64.8	20.3
The Wrekin	49.9	14.7
Powys	58.0	37.2
Out Of Area	81.3	38.0
Overall Average	**58.5**	**24.0**

Outpatients

The 647,865 non-complex planned care patients would experience no change in travel time by car or public transport.

Average Journey Times	Outpatient (Non-Complex)	
Mode of Transport	Public Transport	Car/Ambulance
Bridgnorth	60.7	22.0
North Shropshire	62.6	29.5
Oswestry	57.8	23.1
Shrewsbury & Atcham	40.6	12.6
South Shropshire	55.7	35.5
Hadley Castle	48.4	14.1
Lakeside South	52.4	15.6
The Wrekin	36.5	10.7
Powys	61.7	37.5
Out Of Area	61.6	30.0
Overall Average	**50.4**	**19.7**

OPTION A

Women's & Children's

The 21,527 Women's and Children's attendances would experience no change in travel time by car or public transport.

Average Journey Times	Women and Children	
Mode of Transport	Public Transport	Car/Ambulance
Bridgnorth	60.4	22.4
North Shropshire	73.3	28.4
Oswestry	85.9	35.5
Shrewsbury & Atcham	58.7	20.8
South Shropshire	71.5	42.2
Hadley Castle	41.2	11.2
Lakeside South	48.0	13.7
The Wrekin	30.5	8.7
Powys	87.9	53.3
Out Of Area	30.7	12.5
Overall Average	**54.9**	**21.1**

Quality of Care

Is this option likely to be materially different to others in terms of clinical safety and effectiveness, and of patient experience?

Care of patients with time-critical conditions

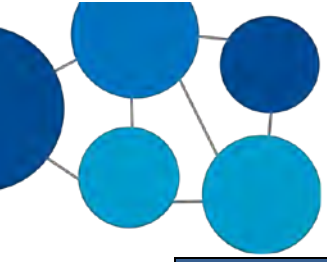
The number of time-critical journeys whose average travel time to the nearest EC falls within the defined time-bands are as follows:

	Conveyance by time-band (minutes)									
Locality	<15	15-29	30-44	45-59	60-74	75-89	90+	Grand Total	% 60+ mins	Average time
Bridgnorth	8	39	18	2				67	0.0%	25.1
North Shropshire	7	31	19	2	1			60	1.7%	27.8
Oswestry	1	33	3					37	0.0%	23.6
Shrewsbury & Atcham	132	42	3					177	0.0%	12.1
South Shropshire	2	9	15	13	2			41	4.9%	38.0
Hadley Castle	71	16	1					88	0.0%	11.3
Lakeside South	34	29						63	0.0%	14.9
The Wrekin	86	19						105	0.0%	10.1
Powys	7	29	39	23	5	1	1	105	6.7%	37.8
Grand Total	**348**	**247**	**98**	**40**	**8**	**1**	**1**	**743**	**1.3%**	**20.0**

OPTION A

Other Clinical Quality Considerations

FAVOURABLE	ADVERSE
Safety Domain	
• Obstetrics, Gynaecology, Paediatrics and Neonates continue to be co-located with (unsustainable) Emergency Care services. • Surgical services remain predominantly on one site and continue to be co-located with (unsustainable) Emergency Care services. • Pathology service reconfiguration unaffected and service maintained. • No major service reconfiguration planned	• Does not address sustainability of critical care, acute medicine and emergency medicine services which risk critical failure if not addressed • Paediatric surgery and surgical support to women's services are at PRH whilst the main surgical base is RSH creating risks particularly out of hours • Lack of acute Gynaecology surgical services at main surgical site to support general surgery / lack of general surgery support at main women & children's site • Insufficient skills/experience in Emergency Medicine and anaesthetics at RSH for acutely unwell children • Inpatient theatre provision misaligned • Fragile medical services on both sites with rotas maintained by use of locums and short term urgent service changes • Inter hospital transfer from speciality to speciality resulting in poor flow and prolonged hospital stay • Delay in accessing interventional radiology for some patients as available at one site only • Increasing short-term measures required to address service safety and sustainability issues – risk that they are introduced in reactive and uncoordinated manner with consequent adverse impact on safety
Effectiveness Domain	
• No short-to-medium term disruption to day-to-day operational delivery as no changes are undertaken • Well established care pathways • Some service reconfiguration complete	• Inadequate senior medical workforce capacity in Emergency Medicine reducing access to senior clinical decision makers in ED • Frequent transfer of patients between sites – this leads to increased length of stay which is associated with decompensation and adverse impact on recovery • Challenges of coordinating paediatric trauma at RSH with split services • Duplication of services across two sites with variation in working practices and duplication in rotas that reduces access to senior clinical decision makers at speciality-level • Effectiveness and outcomes at risk due to requirement for



OPTION A

	short-term measures to address clinical sustainability • Premium costs of measures to address safety and sustainability in the short-term – e.g. agency costs – reduce ability to invest in steps to improve effectiveness and outcomes
Experience Domain	
• Patients and the public have no change to the way they access Urgent and Emergency Care, albeit that those services are not sustainable • Outpatients, medical inpatients and complex diagnostics remain on both SaTH sites	• Variable access to senior decision makers in emergency medicine particularly out of hours • Medical rotas reliant on locums – less likely to be seen by substantive/permanent clinicians embedded in Trust systems and procedures • Two-site service creates confusion for patients and relatives • Continued need for inter-site transfers to bring together the patient with the specialty team • Difficulty in meeting waiting time targets due to failure to separate emergency and non-emergency beds • On-going reliance on poor quality estate and out-dated facilities

Workforce

To what extent will this option improve recruitment & retention and enable better use of the workforce?

- The Trust currently has only 8.6 WTE emergency medicine consultants which represent only 43% of the standards recommended by the College of Emergency Medicine for 16hrs of cover, 7 days a week
- Critical Care is covered with a mix of general anaesthetists and the small number of intensivists available, and consultant presence is still well below recommended levels
- Continued and innovative solutions to address this recruitment challenge have been explored: recruitment drives nationally and overseas; sharing posts and rotas with neighbouring Trusts; and creating new roles such as fellowships and advanced practice have all failed to provide a sustainable solution. Day to day operational plans are in place to ensure the care and safety of patients within the Trust's clinical services but a long term solution is urgently needed
- Trust consultant staffing in acute medicine is less than 50% of the minimum recommended by the Royal College of Physicians; a third of which are Locums
- Inadequate skills in Emergency Medicine and anaesthetics at RSH for acutely unwell children
- Inadequate senior medical workforce in Emergency Medicine reducing access to senior decision makers, particularly out of hours

OPTION A

- Separate consultant teams with different clinical practices on 2 existing sites (in some medical specialities) with very limited cross site working
- Parallel resident and non-resident emergency rotas running for specialities that are duplicated across both sites. Consolidation is likely to reduce on call frequency although intensity will increase.

Deliverability

Is there evidence that this option is practically infeasible or materially inferior in terms of deliverability?

Summary of Physical Changes

The buildings on the *Royal Shrewsbury Hospital* site comprise several separate developments, ranging in age from 1966 to the current day:

- The Maternity and Paediatric development at the south of the site adjacent to the main entrance roadway was built in 1967;
- The central development of Wards, Outpatients, A&E, Imaging and Support services, which forms the main spine of the site and came into use between 1976 to 1978;
- The Cobalt Unit that includes Linear accelerators and Oncology services dating from 1982;
- The Renal unit at the north of the site, which was built in 1991 and extended in 2003;
- The Treatment Centre opened in 2005 also at the north end of the site;
- Medical and nursing educational facilities in the north east corner of the site, built in 2002;
- Residential accommodation in the south west corner of the site, built in 1974 and extended in 1982;
- Rooftops accommodation in replace of some of the old residential accommodation in the south west corner of the site, completed in phases from August 2009 to December 2010;
- Boiler House and Estate Department in the north-west corner of the site, built in 1966 and 1977 respectively;
- The new and extended Cancer Centre opened in 2013

The buildings on the *Princess Royal Hospital* site essentially comprise a 2 storey nucleus hospital opened in 1988 with some additions;

- Extension in 1999 to provide a purpose designed Rehabilitation Unit;
- The Management Suite was refurbished in 2013 to create a 28 bed inpatient short stay medical ward;
- A new Women's and Children's Centre was opened in 2014;
- Staff residential blocks and a small private outpatient clinic in the south east corner

OPTION A

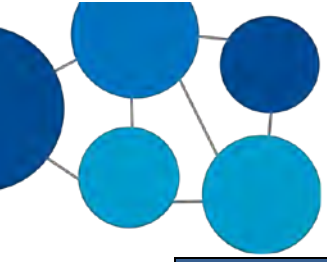
of the site built in 1989;

- A number of underutilised residential blocks were refurbished in 2013 to provide office accommodation

Option A would not involve capital expenditure as part of the Future Fit Programme. No disruption would occur (except through planned backlog maintenance and as life cycle works become due). The ability of facilities to meet future needs would remain unchanged. Given that all other options involve elements of refurbishment and new build works, Option A would result in poorer facilities than others.

Public acceptability

Option not covered in telephone survey as no change involved.



OPTION B

Key Features

EC at PRH	DTC at RSH	W&C at PRH
An Urgent and Emergency Care Network comprising: • Urban Urgent Care Centres at both sites. • A single Emergency Department at the Princess Royal Hospital, Telford with Ambulatory Emergency Care, Critical Care, complex planned care & Children's Assessment Unit.	**A Planned Care Network comprising:** • Local Planned Care facilities at both sites. • A single Diagnosis and Treatment Centre at the Royal Shrewsbury Hospital with Ambulatory Cancer Care.	**A Women's & Children's Network comprising**: • Local Midwifery Led Units as now. • Paediatric outpatients on both sites. • Consultant-led Women's & Children's services at the Princess Royal Hospital, Telford.

Accessibility for Patients

Is this option materially inferior to others in terms of promoting equity of access to acute hospital services?

<u>Urgent and Emergency Care Patients</u>

Of the total 141,019 patient attendances, 76.7% (108,133) would be unaffected.

- The 78,488 urgent care patients currently treated via A&E would experience no change in travel time by car or public transport. Waiting times on arrival may improve due to the separation of urgent care from emergency care and the availability of appropriate clinicians.
- 47.4% (29,645) of emergency patients would be unaffected
- 52.6% (32,886) of emergency patients would be conveyed to PRH instead of RSH
- Average emergency journey times would increase slightly to 25.3 mins (+4.4 mins).

For the 32,886 displaced emergency attendances:

- The localities adversely affected are South Shropshire (+10.1 mins), Shrewsbury & Atcham (+12.9 mins), Powys (+20 mins) and Oswestry (+20.1 mins);
- Journey times will increase by an average of 8.5 minutes;
- Women are marginally more affected than men (+8.7 vs. +8.4 mins);
- 3.5% (2,185) are from BME groups (+7.2 mins);
- 14.8% (9,257) are aged 75 and over (+10.2 mins);

OPTION B

- 1.3% (784) are of pre-school age (+11.2 mins);
- 14.1% (8,800) live in the two most deprived quintiles (+4.5 mins); and
- 16.2% (10,143) live nearer to an external emergency facility.

Complex Planned Care Patients

- 85.7% (1,136) of patients would be unaffected;
- 14.3% (190) of patients would attend PRH instead of RSH; and
- Average journey times would be 25.1 mins (+0.1 mins).

For the 190 displaced attendances:

- The localities adversely affected are South Shropshire (+9.9 mins), Shrewsbury & Atcham (+12.5 mins), Oswestry (+20.1 mins) and Powys (+20.2 mins);
- Journey times will increase by an average of 0.9 minutes;
- Women are marginally more affected than men (+3.1 vs. -0.5 mins);
- 0.6% (8) are from BME groups (-10.5 mins);
- 3.3% (44) are aged 75 and over (+4.2 mins);
- None are of pre-school age;
- 5.7% (76) live in the two most deprived quintiles (-2.8 mins); and
- 3.7% (49) live nearer to an external emergency facility.

Comparable data for journeys by public transport are contained in the appendices. These show a marginal change in overall access time (-0.5 mins) but with a very varied geographical impact, as for car journeys. The greatest adverse impact appears to be on over 75s and deprived populations in Shrewsbury & Atcham, Oswestry and Powys.

Non-complex Planned Care Patients

- 73.5% (42,204) of patients would be unaffected;
- 26.5% (15,240) of patients would attend RSH instead of PRH; and
- Average journey times would increase slightly to 26.3 mins (+2.3).

Of the 15,240 displaced attendances:

- The localities adversely affected are North Shropshire (+7.9 mins), Bridgnorth (+10.8 mins), Lakeside South (+13.6 mins), The Wrekin (+15.2 mins) and Hadley Castle (+15.7 mins);
- Journey times will increase by an average of 8.8 minutes;
- Men are marginally more affected than women (+9 vs.+8.5 mins);

OPTION B

- 1.9% (1,073) are from BME groups (+11.3 mins);
- 5% (2,864) are aged 75 and over (+8.8 mins);
- None are of pre-pre-school age;
- 10.4% (5,974) live in the two most deprived quintiles (+11.3 mins); and
- 7.4% (4,225) live nearer to an external facility.

Comparable data for journeys by public transport are contained in the appendices. These show an increase in overall access time (+6.1 mins) but with a very varied geographical impact, as for car journeys. The greatest adverse impact appears to be on over 75s, BME groups and deprived populations in Bridgnorth, Hadley Castle, Lakeside South and The Wrekin.

Outpatients

The 647,865 outpatients would experience no change in travel time by car or public transport.

Women's & Children's

There would be no change to these services which would remain at PRH, having no impact on the 21,527 attendances.

Quality of Care

Is this option likely to be materially different to others in terms of clinical safety and effectiveness, and of patient experience?

Care of patients with time-critical conditions

The number of time-critical journeys whose average travel time to the nearest EC falls within the defined time-bands are as follows:

	Conveyance by time-band (minutes)									
Locality	<15	15-29	30-44	45-59	60-74	75-89	90+	Grand Total	% 60+ mins	Average time
Bridgnorth	8	39	18	2				67	0.0%	24.9
North Shropshire	5	28	25	1	1			60	1.7%	29.0
Oswestry			26	11				37	0.0%	41.8
Shrewsbury & Atcham	24	121	27	4	1			177	0.6%	22.9
South Shropshire	1	4	14	18	3	1		41	9.8%	44.8
Hadley Castle	73	15						88	0.0%	10.8
Lakeside South	36	27						63	0.0%	14.4
The Wrekin	97	8						105	0.0%	8.3
Powys	1	6	15	38	32	10	3	105	42.9%	56.5
Grand Total	245	248	125	74	37	11	3	743	6.9%	26.3

OPTION B

Other Clinical Quality Considerations

FAVOURABLE	ADVERSE
Safety Domain	
• Single site delivery for emergency care ensures effective medical recruitment to pressed specialities, effective 24/7 medical rotas and therefore timely access to senior decision makers • Unified pathways for care reducing variation and risk inherent in this • Separation of Planned Care from Emergency Care allows the development of effective elective care pathways and reduces variation and confusion • Separation of Planned Care from Emergency Care reduces risk of infection to elective patients – although 'ring-fencing' of beds on the planned care site will be required • All emergency/complex planned care on one site resulting in improved recruitment and retention and access to all specialities in a crisis • 7 day working delivered at both sites with increased presence of senior decision makers	• Potential for occasional inter-hospital transfer of unexpected critically ill patients from the Planned Care site to the Emergency Care site • Risk that the 'ring-fencing' of beds on the Planned Care site is not delivered • Risk to achieving Trauma Unit status at the PRH site due to the proximity to the Trauma Unit at the Royal Wolverhampton Hospital Trust
Effectiveness Domain	
• Separation of Planned Care and Emergency Care enables the 'protection' of scheduled care activity at times of increased demand for unscheduled care resulting in an improved RTT and fewer cancellations – fewer delays will contribute to improved outcomes for patients. • The majority of patients accessing urgent care should go to the same hospital as they do now • 7 day working delivered at both sites with increased presence of senior decision makers	• Patients requiring on-going inpatient care post 72 hours of admission may be transferred from the Emergency Site to the Planned Care site • Risk to the protection of scheduled care activity at times of increased unscheduled care demand
Experience Domain	
• Some levels of service unchanged – e.g. outpatients, UCC and diagnostics at both sites • Separation of Planned Care from Emergency Care enables the 'protection' of scheduled care activity at times of increased demand for unscheduled care resulting in an improved RTT and less cancellations	• A number of services do change • Ambulatory cancer care is separated from inpatient cancer care with impact on experience and continuity of

OPTION B

– fewer delays and cancellations leads to improved patient experience • Fewer delays in access to senior clinical decision-makers in an emergency due to single Emergency site compared with Option A – rotas less reliant on locum staff with more substantive/permanent clinicians who are familiar with Trust and local health & care systems • Addresses current separation of centre for complex surgery centre and Women and Children's • Estates & facilities improved as the Trust addresses its backlog maintenance alongside new facilities for emergency and critical care services – relative to current condition (see Option A) • Patients will be seen in the most appropriate service and facility and by the most appropriate staff as patients are 'streamed' based on their clinical need • 7 day working facilitates timely and appropriate discharge	care for cancer patients • Potential for Ambulance transfers from UCC to ED

Workforce

To what extent will this option improve recruitment & retention and enable better use of the workforce?

- Consolidation of emergency care on a single site is expected to significantly improve recruitment and retention for both emergency and acute medicine (supported by recent experience in consolidated Women and Children's Centre)
- A greater consultant presence in the Emergency Department (ED) achieved with consolidation reduces admissions, reduces inappropriate discharges, improves clinical outcomes and reduces risk to patients. In addition it enables the on call rota frequency to increase more in line with Royal College guidelines
- Reduce the utilisation of locums to cover the middle grade rotas to support 24 hrs a day presence in the ED by having the ability to have more effective rota management as single site cover required
- Combining duplicated specialities enables rota frequency reduction but increased intensity driving a process of 7 day and evening presence and working at consultant level. At Tier 2 and 1 consolidation for rotas will reduce number of Tier 1 doctors required to man the service and will facilitate the expansion of Advanced Practitioner posts
- More attractive to both medical and non-medical trainees as will enhance their learning

OPTION B

experience

- Workforce transformation opportunities and new role development would be considerably easier to operationalise due to increased capacity to mentor/ sign off clinical competence
- Access to senior decision makers on the Emergency Care Site with sustainable medical rotas
- With the ring fencing of elective beds within Planned Care there is less impact of medical outliers, as such this may be attractive to surgical recruitment
- A single acute medical take on the Emergency Care Site will improve rota management of acute physicians and improve access to senior review and clinical decision making 7 days per week
- The multi-disciplinary workforce required to support acutely ill patients will be consolidated onto one site, reducing duplication and supporting enhanced communication for decision making
- The Planned Care Site will enable targeted therapeutic interventions and appropriate on-going medical care from the multi-disciplinary team
- Critical Care consolidation improves compliance to core standards
    - Enhances quality and safety in ITU and emergency care
    - Protects elective workload and income
    - Enhance patient experience
    - Enhance workforce morale
    - Maintain elective targets

Deliverability

Is there evidence that this option is practically infeasible or materially inferior in terms of deliverability?

Summary of Physical Changes

Providing an evenly balanced distribution of services that would deliver recognisable, vibrant hospital sites 24/7 and addressing the most significant backlog maintenance challenges at the Trust would result in significant works and moves at both the PRH and RSH irrespective of the service split.

In option B, PRH is the Emergency Care Site and comprises a new build Urgent Care Centre, Emergency Department, Ambulatory Emergency Care and Critical Care Unit. In addition, the re-provision of new Surgical and Medical Services capacity required on the Emergency Care Site will also be provided in new build accommodation. A new main entrance at the front of the site is also planned. Women and Children's Services remain as now. Some works are also undertaken to address the backlog maintenance evident at the site

The RSH is the Planned Care site and works are undertaken to address the backlog maintenance evident at the site. Day Cases, Elective Inpatients, on-going Inpatient care and Ambulatory Cancer Care are delivered. A new main entrance is planned and an Urgent Care

OPTION B

Centre is provided.

Local Planned Care – outpatients, diagnostics and midwifery led care are provided at both sites. Both sites operate all day, every day 24/7. Centres of Excellence are also developed at both sites.

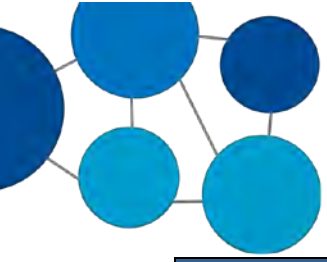
Public acceptability

When asked their view on the appropriateness of this option, public responses were as follows (see appendix for full results).

B - Planned operations to be based at Shrewsbury with Emergency Care and Women's and Children's services at Telford

	1	2	3	4	5	6	7	8	9	10
	%	%	%	%	%	%	%	%	%	%
Bridgnorth	14.5	2.5	5.0	2.1	24.5	8.3	9.5	17.0	5.4	11.2
North Shropshire	20.8	4.4	4.4	5.1	23.7	4.4	5.8	12.0	6.2	13.1
Oswestry	36.6	6.2	5.3	5.7	12.3	6.2	6.2	8.4	1.8	11.5
Shrewsbury	26.8	7.0	12.3	4.2	20.4	3.2	6.0	7.4	4.9	7.7
South Shropshire	26.6	7.2	6.5	6.5	17.3	5.0	7.2	13.7	3.2	6.8
Hadley Castle	21.2	3.4	4.7	6.1	16.2	4.0	8.4	9.4	6.7	19.9
Lakeside South	22.1	5.0	4.7	4.7	17.1	5.4	5.8	12.4	5.0	17.8
The Wrekin	18.1	3.5	4.2	4.5	18.1	5.2	9.0	11.0	7.1	19.4
Powys	41.4	5.6	7.6	6.0	15.7	4.8	5.6	5.6	2.4	5.2
Area	25.0	5.0	6.1	5.0	18.4	5.1	7.1	10.8	4.9	12.7

1 = not at all appropriate and 10 = very appropriate



OPTION C1

Key Features

EC at RSH	DTC at PRH	W&C at RSH
An Urgent and Emergency Care Network comprising: • Urban Urgent Care Centres at both sites. • A single Emergency Department at the Royal Shrewsbury Hospital with Ambulatory Emergency Care, Critical Care, complex planned care & Children's Assessment Unit.	**A Planned Care Network comprising:** • Local Planned Care facilities at both sites. • A single Diagnosis and Treatment Centre at Princess Royal Hospital, Telford with improved and extended Cancer and Haematology provision.	**A Women's & Children's Network comprising**: • Local Midwifery Led Units as now. • Paediatric outpatients on both sites. • Consultant-led Women's & Children's services at the Royal Shrewsbury Hospital.

Accessibility for Patients

Is this option materially inferior to others in terms of promoting equity of access to acute hospital services?

<u>Urgent and Emergency Care Patients</u>

Of the total 141,019 patient attendances, 80.3% (113,273) would be unaffected.

- The 78,488 urgent care patients currently treated via A&E would experience no change in travel time by car or public transport. Waiting times on arrival may improve due to the separation of urgent care from emergency care and the availability of appropriate clinicians.
- 55.6% (34,785) of emergency patients would be unaffected;
- 44.4% (27,746) of emergency patients would be conveyed to RSH instead of PRH; and
- Average emergency journey times would increase slightly to 25.7 mins (+4.8 mins).

Of the 27,746 displaced emergency attendances:

- The localities adversely affected are North Shropshire (+9.2 mins), Bridgnorth (+10.8 mins), Lakeside South (+13.6 mins), The Wrekin (+15 mins) and Hadley Castle (+15.7 mins);
- Journey times will increase by an average of 10.8 minutes;
- Men are marginally more affected than women (+11.1 vs. +10.6 mins);
- 14.2% (2,634) are from BME groups (+12.6 mins);

OPTION C1

- 11.2% (6,996) are aged 75 and over (+10 mins);
- 3.3% (2,049) are of pre-school age (+9.8 mins);
- 20.7% (12,967) live in the two most deprived quintiles (+12.7 mins); and
- 11.4% (7,116) live nearer to an external emergency facility (+3.8 mins).

Complex Planned Care Patients

- 16.7% (222) of patients would be unaffected;
- 83.3% (1,104) of patients would attend RSH instead of PRH; and
- Average journey times would increase marginally to 26.1 mins (+1.1 mins).

Of the 1,104 displaced attendances:

- The localities adversely affected are North Shropshire (+2.7 mins), Bridgnorth (+10.1 mins), Lakeside South (+13.6 mins), The Wrekin (+14.4 mins) and Hadley Castle (+15.6 mins);
- Journey times will increase by an average of 1.4 minutes;
- Men are marginally more affected than women (+1.6 vs. +1.1 mins);
- 7.1 % (94) are from BME groups (+5.7 mins);
- 0.6% (8) are aged 75 and over (+8.2 mins);
- 18.5% (245) are pre-school age (+2.7 mins);
- 32.7% (433) live in the two most deprived quintiles (+6.1 mins); and
- 18.6% (246) live nearer to an external emergency facility.

Comparable data for journeys by public transport are contained in the appendices. These show an increase in overall access time (+4.3 mins) but with a very varied geographical impact, as for car journeys. The greatest adverse impact appears to be on pre-school age, BME and deprived populations in Bridgnorth (except BME), Lakeside South, The Wrekin and Hadley Castle.

Non-complex Planned Care Patients

- 30.9 % (17,735) of patients would be unaffected;
- 69.1% (39,709) of patients would attend PRH instead of RSH; and
- Average journey times would increase slightly to 26.1 mins (+2.1 mins).

Of the 39,709 displaced attendances:

- The localities adversely affected are South Shropshire (+9.3 mins), Shrewsbury and Atcham (+12.6 mins), Powys (+19.9 mins) and Oswestry (+20.1 mins);
- Journey times will increase by an average of 3.1 mins;

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- Women are very marginally more affected than men (+3.2 vs.+3.1 mins);
- 3.3% (1,908) are from BME groups (+0.1 mins);
- 14.9% (8,536) are aged 75 and over (+4.4 mins);
- None are of pre-school age;
- 19.8% (11,355) live in the two most deprived quintiles (-1.6 mins); and
- 18.3% (10,534) live nearer to an external facility.

Comparable data for journeys by public transport are contained in the appendices. These show an increase in overall access time (+2.9 mins) but with a very varied geographical impact, as for car journeys. The greatest adverse impact appears to be on over 75s, BME groups and deprived populations in North Shropshire, Shrewsbury & Atcham, Powys and Oswestry.

Outpatients

The 647,865 outpatients would experience no change in travel time by car or public transport.

Women's & Children's

- 14.7% (3,166) of patients would be unaffected;
- 85.3% (18,361) of patients would attend RSH instead of PRH; and
- Average journey times would increase marginally to 24.4 mins (+3.3 mins).

Of the 18,361 displaced attendances:

- The localities adversely affected are North Shropshire (+5.6 mins), Bridgnorth (+10.6 mins), Lakeside South (+13.6 mins), The Wrekin (+14.6 mins) and Hadley Castle (+15.8 mins);
- Journey times will increase by an average of 3.9 mins;
- There is no material difference in travel times between males and females (including infants) but a change in the nature of Obstetrics services necessitates a particular impact on women;
- 13 % (2,809) are from BME groups (+7.3 mins);
- 0.7% (147) are aged 75 and over (+1 min);
- 35.7% (7,686) are pre-school age (+4.6 mins);
- 36.5% (7,867) live in the two most deprived quintiles (+8.5 mins); and
- 18.5% (3,978) live nearer to an external facility.

Comparable data for journeys by public transport are contained in the appendices. These

OPTION C1

show an increase in overall access time (+9.6 mins) but with a very varied geographical impact, as for car journeys. The greatest adverse impact appears to be on pre-school age, BME, female and deprived populations in Bridgnorth, Lakeside South, The Wrekin and Hadley Castle.

Quality of Care

Is this option likely to be materially different to others in terms of clinical safety and effectiveness, and of patient experience?

Care of patients with time-critical conditions

The number of time-critical journeys whose average travel time to the nearest EC falls within the defined time-bands are as follows:

	Conveyance by time-band (minutes)									
Locality	<15	15-29	30-44	45-59	60-74	75-89	90+	Grand Total	% 60+ mins	Average time
Bridgnorth	1	25	34	7				67	0.0%	33.0
North Shropshire	4	22	27	7				60	0.0%	31.8
Oswestry	1	33	3					37	0.0%	23.6
Shrewsbury & Atcham	147	27	3					177	0.0%	10.9
South Shropshire	2	10	19	9	1			41	2.4%	35.8
Hadley Castle	1	58	25	4				88	0.0%	27.0
Lakeside South	1	46	16					63	0.0%	26.2
The Wrekin	10	82	10	3				105	0.0%	23.0
Powys	7	31	40	24	2		1	105	2.9%	36.5
Grand Total	**174**	**334**	**177**	**54**	**3**		**1**	**743**	**0.5%**	**25.1**

Other Clinical Quality Considerations

FAVOURABLE	ADVERSE
Safety Domain	
• Single site delivery for emergency care ensures effective medical recruitment to pressed specialities, effective 24/7 medical rotas and therefore timely access to senior decision makers • Unified pathways for care reducing variation and risk inherent in this • Separation of Planned Care from Emergency Care allows the development of effective elective care pathways and reduces variation and confusion • Separation of Planned Care from Emergency Care reduces risk of infection to elective patients – although 'ring-fencing' of beds on the planned care site will be required • All emergency/complex planned care on one site resulting in improved recruitment and retention and access to all	• Potential for occasional inter-hospital transfer of unexpected critically ill patients from the Planned Care site to the Emergency Care site • Risk that the 'ring-fencing' of beds on the Planned Care site is not delivered

OPTION C1	
specialities in a crisis • 7 day working delivered at both sites with increased presence of senior decision makers • Ambulatory cancer care is co-located with inpatient cancer care – reduced disruption to established care pathways • Maintenance of Trauma Unit status within the county	
Effectiveness Domain	
• Separation of Planned Care and Emergency Care enables the 'protection' of scheduled care activity at times of increased demand for unscheduled care resulting in an improved RTT and fewer cancellations – fewer delays will contribute to improved outcomes for patients • Increased Planned Care activity gives potential to maintain and grow skills and specialties supporting the long term sustainability of SaTH • The majority of patients accessing urgent care should go to the same hospital as they do now • 7 day working delivered at both sites with increased presence of senior decision makers	• Patients requiring on-going inpatient care post 72 hours of admission may be transferred from the Emergency Site to the Planned Care site • Risk to the protection of scheduled care activity at times of increased unscheduled care demand
Experience Domain	
• Some levels of service unchanged – e.g. outpatients, UCC and diagnostics at both sites • Separation of Planned Care from Emergency Care enables the 'protection' of scheduled care activity at times of increased demand for unscheduled care resulting in an improved RTT and less cancellations – fewer delays and cancellations leads to improved patient experience • Fewer delays in access to senior clinical decision-makers in an emergency due to single Emergency site compared with Option A – rotas less reliant on locum staff with more substantive/permanent clinicians who are familiar with Trust and local health & care systems • Addresses current separation of centre for complex surgery centre and Women and Children's • Estates & facilities improved as the Trust addresses its backlog maintenance alongside new facilities for emergency and critical care services – relative to current condition (see Option A) • Patients will be seen in the most appropriate service and facility and by the most appropriate staff as patients are	• A number of services do change • Potential for Ambulance transfers from UCC to ED

OPTION C1

'streamed' based on their clinical need • 7 day working facilitates timely and appropriate discharge • Ambulatory cancer care is co-located with inpatient cancer care	

Workforce

To what extent will this option improve recruitment & retention and enable better use of the workforce?

- Consolidation of emergency care on a single site is expected to significantly improve recruitment and retention for both emergency and acute medicine (supported by recent experience in consolidated Women and Children's Centre)
- A greater consultant presence in the Emergency Department (ED) achieved with consolidation reduces admissions, reduces inappropriate discharges, improves clinical outcomes and reduces risk to patients. In addition it enables the on call rota frequency to increase more in line with Royal College guidelines
- Reduce the utilisation of locums to cover the middle grade rotas to support 24 hrs a day presence in the ED by having the ability to have more effective rota management as single site cover required
- Combining duplicated specialities enables rota frequency reduction but increased intensity driving a process of 7 day and evening presence and working at consultant level. At Tier 2 and 1 consolidation for rotas will reduce number of Tier 1 doctors required to man the service and will facilitate the expansion of Advanced Practitioner posts
- More attractive to both medical and non-medical trainees as will enhance their learning experience
- Workforce transformation opportunities and new role development would be considerably easier to operationalise due to increased capacity to mentor/ sign off clinical competence
- Access to senior decision makers on the Emergency Care Site with sustainable medical rotas
- Access to senior decision makers on the Emergency Care Site with sustainable medical rotas
- With the ring fencing of elective beds within Planned Care there is less impact of medical outliers, as such this may be attractive to surgical recruitment
- A single acute medical take on the Emergency Care Site will improve rota management of acute physicians and improve access to senior review and clinical decision making 7 days per week
- The multi-disciplinary workforce required to support acutely ill patients will be

OPTION C1

consolidated onto one site, reducing duplication and supporting enhanced communication for decision making

- The Planned Care Site will enable targeted therapeutic interventions and appropriate on-going medical care from the multi-disciplinary team
- The Trust has evidence of a reduced volume of applicants across all staff grades and types at RSH than PRH as recruitment of staff is more likely from the urban conurbation of Birmingham and the Black country which is closer to the PRH site
- Critical Care consolidation improves compliance to core standards
    - Enhances quality and safety in ITU and emergency care
    - Protects elective workload and income
    - Enhance patient experience
    - Enhance workforce morale
    - Maintain elective targets

Deliverability

Is there evidence that this option is practically infeasible or materially inferior in terms of deliverability?

Summary of Physical Changes

By providing an evenly balanced distribution of services that would deliver recognisable, vibrant hospital sites 24/7 and by addressing the most significant of backlog maintenance challenges at the Trust would result in significant works and moves at both the PRH and RSH irrespective of the service split.

In option C1, RSH is the Emergency Care Site and comprises a new build Urgent Care Centre, Emergency Department, Ambulatory Emergency Care and Critical Care Unit. In addition, the re-provision of Women and Children's Services on the Emergency Care Site will also be provided in new build accommodation. Improvements to the existing outpatients are proposed and a new main entrance on the east of the site is also planned. Works are also undertaken to the address the backlog maintenance at the site.

The PRH is the Planned Care site and some works are undertaken to address the backlog maintenance evident at the site. Day Cases, Elective Inpatients, on-going Inpatient care and improved and extended Cancer and Haematology provision are delivered. A new main entrance is planned and an Urgent Care Centre is provided.

Local Planned Care – outpatients, diagnostics and midwifery led care are provided at both sites. Both sites operate all day, every day 24/7. Centres of Excellence are also developed at both sites.

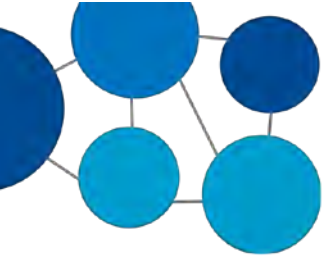
Public acceptability

When asked their view on the appropriateness of this option, public responses were as follows (see appendix for full results).

OPTION C1

C1 - Planned operations to be based at Telford with Emergency Care and Women's and Children's services at Shrewsbury										
	1	2	3	4	5	6	7	8	9	10
	%	%	%	%	%	%	%	%	%	%
Bridgnorth	22.1	3.8	9.6	4.6	26.7	2.9	8.8	12.5	3.3	5.8
North Shropshire	17.5	4.4	5.5	6.9	24.4	5.5	6.9	13.5	3.6	12.0
Oswestry	24.8	5.8	1.8	4.9	17.3	5.8	9.7	8.8	6.2	15.0
Shrewsbury	15.2	4.6	8.5	4.6	18.8	6.0	8.5	13.8	4.3	15.6
South Shropshire	16.5	6.1	8.6	6.8	15.4	8.6	8.6	11.8	4.7	12.9
Hadley Castle	38.7	5.7	11.8	5.7	13.8	2.4	4.4	6.1	1.0	10.4
Lakeside South	34.7	8.1	6.9	6.2	16.6	4.2	6.6	6.9	3.1	6.6
The Wrekin	33.2	7.7	7.1	5.8	18.7	4.8	6.5	7.1	2.6	6.5
Powys	31.2	4.4	6.0	3.6	16.4	7.2	6.0	6.0	4.8	14.4
Area	26.1	5.7	7.4	5.5	18.6	5.3	7.2	9.6	3.6	11.0

1 = not at all appropriate and 10 = very appropriate



OPTION C2		
Key Features		
EC at RSH	**DTC at PRH**	**W&C at PRH**
An Urgent and Emergency Care Network comprising: • Urban Urgent Care Centres at both sites. • A single Emergency Department at the Royal Shrewsbury Hospital with Ambulatory Emergency Care, Critical Care, complex planned care & Children's Assessment Unit (plus small inpatient unit for children).	**A Planned Care Network comprising:** • Local Planned Care facilities at both sites. • A single Diagnosis and Treatment Centre at Princess Royal Hospital, Telford with improved and extended Cancer and Haematology provision.	**A Women's & Children's Network comprising**: • Local Midwifery Led Units as now. • Paediatric outpatients on both sites. • Consultant-led Women's & Children's services at the Princess Royal Hospital, Telford.
Accessibility for Patients *Is this option materially inferior to others in terms of promoting equity of access to acute hospital services?*		
<u>Urgent and Emergency Care Patients</u> Of the total 141,019 patient attendances, 80.3% (113,273) would be unaffected. • The 78,488 urgent care patients currently treated via A&E would experience no change in travel time by car or public transport. Waiting times on arrival may improve due to the separation of urgent care from emergency care and the availability of appropriate clinicians. • 55.6% (34,785) of emergency patients would be unaffected; • 44.4% (27,746) of emergency patients would be conveyed to RSH instead of PRH; and • Average emergency journey times would increase slightly to 25.7 mins (+4.8 mins). Of the 27,746 displaced emergency attendances: • The localities adversely affected are North Shropshire (+9.2 mins), Bridgnorth (+10.8 mins), Lakeside South (+13.6 mins), The Wrekin (+15 mins) and Hadley Castle (+15.7 mins); • Journey times will increase by an average of 10.8 minutes; • Men are marginally more affected than women (+11.1 vs. +10.6 mins);		

- 14.2% (2,634) are from BME groups (+12.6 mins);
- 11.2% (6,996) are aged 75 and over (+10 mins);
- 3.3% (2,049) are of pre-school age (+9.8 mins);
- 20.7% (12,967) live in the two most deprived quintiles (+12.7 mins); and
- 11.4% (7,116) live nearer to an external emergency facility (+3.8 mins).

Complex Planned Care Patients

- 16.7% (222) of patients would be unaffected;
- 83.3% (1,104) of patients would attend RSH instead of PRH; and
- Average journey times would increase marginally to 26.1 mins (+1.1 mins).

Of the 1,104 displaced attendances:

- The localities adversely affected are North Shropshire (+2.7 mins), Bridgnorth (+10.1 mins), Lakeside South (+13.6 mins), The Wrekin (+14.4 mins) and Hadley Castle (+15.6 mins);
- Journey times will increase by an average of 1.4 minutes;
- Men are marginally more affected than women (+1.6 vs. +1.1 mins);
- 7.1 % (94) are from BME groups (+5.7 mins);
- 0.6% (8) are aged 75 and over (+8.2 mins);
- 18.5% (245) are pre-school age (+2.7 mins);
- 32.7% (433) live in the two most deprived quintiles (+6.1 mins); and
- 18.6% (246) live nearer to an external emergency facility.

Comparable data for journeys by public transport are contained in the appendices. These show an increase in overall access time (+4.3 mins) but with a very varied geographical impact, as for car journeys. The greatest adverse impact appears to be on pre-school age, BME and deprived populations in Bridgnorth (except BME), Lakeside South, The Wrekin and Hadley Castle.

Non-complex Planned Care Patients

- 30.9 % (17,735) of patients would be unaffected;
- 69.1% (39,709) of patients would attend PRH instead of RSH; and
- Average journey times would increase slightly to 26.1 mins (+2.1 mins).

Of the 39,709 displaced attendances:

- The localities adversely affected are South Shropshire (+9.3 mins), Shrewsbury and Atcham (+12.6 mins), Powys (+19.9 mins) and Oswestry (+20.1 mins);
- Journey times will increase by an average of 3.1 mins;

- Women are very marginally more affected than men (+3.2 vs.+3.1 mins);
- 3.3% (1,908) are from BME groups (+0.1 mins);
- 14.9% (8,536) are aged 75 and over (+4.4 mins);
- None are of pre-school age;
- 19.8% (11,355) live in the two most deprived quintiles (-1.6 mins); and
- 18.3% (10,534) live nearer to an external facility.

Comparable data for journeys by public transport are contained in the appendices. These show an increase in overall access time (+2.9 mins) but with a very varied geographical impact, as for car journeys. The greatest adverse impact appears to be on over 75s, BME groups and deprived populations in North Shropshire, Shrewsbury & Atcham, Powys and Oswestry.

Outpatients

The 647,865 outpatients would experience no change in travel time by car or public transport.

Women's & Children's

There would be no change to these services which would remain at PRH, having no impact on the 21,527 attendances.

Quality of Care

Is this option likely to be materially different to others in terms of clinical safety and effectiveness, and of patient experience?

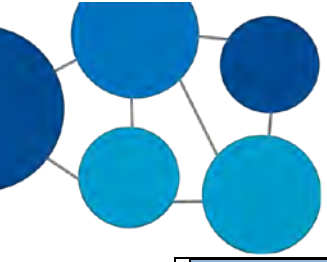
Care of patients with time-critical conditions

The number of time-critical journeys whose average travel time to the nearest EC falls within the defined time-bands are as follows:

	Conveyance by time-band (minutes)									
Locality	**<15**	**15-29**	**30-44**	**45-59**	**60-74**	**75-89**	**90+**	**Grand Total**	**% 60+ mins**	**Average time**
Bridgnorth	1	25	34	7				67	0.0%	33.0
North Shropshire	4	22	27	7				60	0.0%	31.8
Oswestry	1	33	3					37	0.0%	23.6
Shrewsbury & Atcham	147	27	3					177	0.0%	10.9
South Shropshire	2	10	19	9	1			41	2.4%	35.8
Hadley Castle	1	58	25	4				88	0.0%	27.0
Lakeside South	1	46	16					63	0.0%	26.2
The Wrekin	10	82	10	3				105	0.0%	23.0
Powys	7	31	40	24	2		1	105	2.9%	36.5
Grand Total	**174**	**334**	**177**	**54**	**3**		**1**	**743**	**0.5%**	**25.1**

Other Clinical Quality Considerations

FAVOURABLE	ADVERSE
Safety Domain	
• Single site delivery for emergency care ensures effective medical recruitment to pressed specialities, effective 24/7 medical rotas and therefore timely access to senior decision makers • Unified pathways for care reducing variation and risk inherent with this • Separation of Planned Care from Emergency Care allows the development of effective elective care pathways and reduces variation and confusion • Separation of Planned Care from Emergency Care reduces risk of infection to elective patients – although 'ring-fencing' of beds on the planned care site will be required • 7 day working delivered at both sites with increased presence of senior decision makers • Ambulatory cancer care is co-located with inpatient cancer care – reduced disruption to established care pathways	• Separation of women and children's services from critical co-dependencies on the Emergency Care site leads to increased risk due to potential delay in access to multi-specialty senior decision-makers and appropriate treatment • Significant concerns for the delivery of timely and safe emergency care at the Emergency care site for Women and Children (See separate C2 external review)
Effectiveness Domain	
• Separation of Planned Care and Emergency Care enables the 'protection' of scheduled care activity at times of increased demand for unscheduled care resulting in an improved RTT and fewer cancellations – fewer delays will contribute to improved outcomes for patients • Increased Planned Care activity gives potential to maintain and grow skills and specialties • The majority of patients accessing urgent care should go to the same hospital as they do now • 7 day working delivered at both sites with increased presence of senior decision makers	• Separation of women and children's services from critical co-dependencies on the Emergency Care site leads to an impact on safety and effectiveness due to potential delay in access to multi-specialty senior decision-makers and appropriate treatment • Significant concerns for the delivery of timely and safe emergency care at the Emergency care site for Women and Children (see separate C2 external review)



Experience Domain	
• Some levels of service unchanged – e.g. outpatients, UCC and diagnostics at both sites • Separation of Planned Care from Emergency Care enables the 'protection' of scheduled care activity at times of increased demand for unscheduled care resulting in an improved RTT and less cancellations – fewer delays and cancellations leads to improved patient experience • Fewer delays in access to senior clinical decision-makers in an emergency due to single site Emergency Site for many patients compared with Option A – rotas less reliant on locum staff with more substantive/permanent clinicians who are familiar with Trust and local health & care systems • Ambulatory cancer care and inpatient cancer care are on the same site, providing better experience and continuity of care for cancer patients • Estates & facilities improved as the Trust addresses its backlog maintenance alongside new facilities for emergency and critical care services	• Does not address the current separation of the centre for major surgery from Women and Children's • Potential delays for Women and Children to access senior clinical decision-makers in an emergency due to the separation of Women and Children's from the Emergency Care site compared with Option A

Workforce

To what extent will this option improve recruitment & retention and enable better use of the workforce?

- Consolidation of emergency care on a single site is expected to significantly improve recruitment and retention for both emergency and acute medicine (supported by recent experience in consolidated Women and Children's Centre)
- A greater consultant presence in the Emergency Department (ED) achieved with consolidation reduces admissions, reduces inappropriate discharges, improves clinical outcomes and reduces risk to patients. In addition it enables the on call rota frequency to increase more in line with Royal College guidelines
- Reduce the utilisation of locums to cover the middle grade rotas to support 24 hrs a day presence in the ED by having the ability to have more effective rota management as single site cover required

- Separation of Paediatric Inpatient services from Emergency Medicine creates the potential of competency deficiencies for acute Paediatric and Neonatal Care[1]. It has been the experience since September 2014 that it has not been possible to maintain adequate training and skills in paediatric and newborn resuscitation for A&E staff to treat critically ill and injured children and neonates
- Full time paediatric support required for ED and Trauma at RSH. Managing a seriously unwell or critically injured child requires a full paediatric team. This will mean 3 tiers of medical and paediatric nursing staff at both sites 24 hours a day
- No timely neonatal support to patients arriving at the RSH ED. This will increase the risk of poor clinical outcome for babies
- As acute surgery (abdominal, trauma, ophthalmology, head and neck etc) will be based at RSH and the Paediatric inpatient beds will be at PRH, Option C2 creates the need for a staffed (paediatric medical/nursing) paediatric surgical bed base at RSH or the development of a rapid transfer service with appropriate surgical (abdominal, trauma, ophthalmology, head and neck) staff (largely medical) 24/7 at PRH
- Anaesthetic support for paediatric services on 2 sites as both have a requirement for 24/7 support. This would require a full time rota of anaesthetists with competence and confidence in managing children on both sites. All these anaesthetists will need regular exposure to paediatric lists to maintain their skills
- High risk of losing trainees as their time in SaTH will exclude experience of acutely unwell paediatric & neonatal patients who arrive in the ED. The loss of trainees within the county would make our current paediatric services unsustainable
- Recruitment of a SaTH paediatric retrieval team for increased transfers of highly dependent paediatric patients
- Recruitment and retention of staff within all disciplines of paediatrics is currently challenging. This model with split site care would make SaTH less likely to attract the candidates we would wish to recruit in both nursing and medical staff at all grades
- In conjunction with a site to site paediatric transfer team there would be a need to develop a SaTH neonatal stabilisation & transport retrieval service requiring a separate rota for consultants/neonatal nurse practitioners & neonatal nurses
- Rotation between sites would require considerable tier 2 work force expansion and there is a national absence of suitable candidates
- With the separation of Women and Children's services from the Emergency Care site there is limited scope to reduce rota duplication due to the multi-speciality support required. This has a negative impact on the ability to facilitate growth within non-medical advanced roles due to reduced opportunity to supervise/clinically sign off
- Separation of Women and Children's services from the EC presents medical recruitment issues as the split results in the need to increase medical staffing rotas)

[1] Royal College of Paediatrics and Child Health, National Recommendations – Best practice that directs patients to the right care, first time; and delivery of 7 day services, 24/7

- In addition Obstetrics need access to interventional radiology and as such the separation will require an additional rota. However, there are significant challenges with the ability to recruit further interventional radiology individuals to staff an additional rota
- Single site delivery for emergency care ensures effective medical recruitment to pressed specialities, effective 24/7 medical rotas and therefore timely access to senior decision makers
- Critical Care consolidation improves compliance to core standards
    - Enhances quality and safety in ITU and emergency care
    - Protects elective workload and income
    - Enhance patient experience
    - Enhance workforce morale
    - Maintain elective targets
    - Maintain elective targets
- The Trust has evidence of a reduced volume of applicants across all staff grades and types at RSH than PRH as recruitment of staff is more likely from the urban conurbation of Birmingham and the Black country which is closer to the PRH site

Deliverability

Is there evidence that this option is practically infeasible or materially inferior in terms of deliverability?

Summary of Physical Changes

In option C2, RSH is the Emergency Care Site and PRH is the Planned Care Site alongside Women and Children's Services.

The Emergency Care site at RSH comprises a new build Urgent Care Centre, Emergency Department, Ambulatory Emergency Care and Critical Care Unit. In addition, a small inpatient facility for children is also provided in new build accommodation. Improvements to the existing outpatients are proposed and a new main entrance on the east of the site is also planned. Works are also undertaken to the address the backlog maintenance at the site.

The PRH is the Planned Care site with Women and Children's. Some works are undertaken to address the backlog maintenance evident at the site. Day Cases, Elective Inpatients, on-going Inpatient care and improved and extended Cancer and Haematology provision are delivered. A new main entrance is planned and an Urgent Care Centre is provided.

Local Planned Care – outpatients, diagnostics and midwifery led care are provided at both sites. Both sites operate all day, every day 24/7. Centres of Excellence are also developed at both sites.

Public acceptability

When asked their view on the appropriateness of this option, public responses were as follows (see appendix for full results).

C2 - Planned operations and Women's and Children's services to be based at Telford with Emergency Care at Shrewsbury										
	1	2	3	4	5	6	7	8	9	10
	%	%	%	%	%	%	%	%	%	%
Bridgnorth	18.5	4.9	7.8	4.1	28.4	3.7	7.8	14.8	2.5	7.4
North Shropshire	16.1	2.9	5.1	6.2	25.9	7.3	8.0	11.3	4.4	12.8
Oswestry	29.6	6.6	4.0	3.5	19.5	7.5	8.8	5.3	3.1	11.9
Shrewsbury	17.3	6.0	7.1	8.1	18.4	4.6	11.3	12.0	3.9	11.3
South Shropshire	20.1	4.3	10.8	3.2	20.8	9.7	7.5	12.2	3.9	7.5
Hadley Castle	37.1	6.7	8.7	8.0	16.4	3.3	4.3	4.3	1.3	9.7
Lakeside South	32.9	7.0	6.6	6.2	20.9	7.0	6.2	5.4	2.3	5.4
The Wrekin	34.1	8.0	4.5	6.1	20.3	4.5	7.4	5.8	3.2	6.1
Powys	32.4	4.4	6.8	6.0	19.2	6.4	6.8	6.4	2.8	8.8
Area	26.6	5.7	6.9	5.8	21.0	5.9	7.6	8.6	3.1	9.0

1 = not at all appropriate and 10 = very appropriate

SECTION FOUR

APPENDICES

APPENDIX A – Panel Nominees

ORGANISATION	REPRESENTATIVE
Shropshire Clinical Commissioning Group	Dr Jessica Sokolov, GP Board Member
	Dr Steve James, GP Board Member
	Julie Davies, Director of Strategy & Redesign
Telford & Wrekin Clinical Commissioning Group	Dr Mike Innes
	Tracey Jones, Deputy Director of Quality
	Alison Smith, Director of Governance
Powys Teaching Health Board	Victoria Deakins, Lead Therapist
	Andrew Cresswell, Interim North Locality General Manager
	Lesley Sanders
Shrewsbury and Telford Hospital NHS Trust	Dr Kevin Eardley, Care Group Director - Unscheduled Care
	Mr Mark Cheetham, Care Group Director - Scheduled Care
	Ms Louise Sykes, Consultant Anaesthetist - Scheduled Care
	Dr Subramanian Kumaran, Consultant in Emergency Medicine
	Mr Andrew Tapp, Care Group Director - Women & Children
	Julia Clarke, Director of Corporate Governance
	Sarah Bloomfield, Chief Nursing Officer
	Dr Edwin Borman, Medical Director
	Neil Nisbet, Director of Finance
	Victoria Maher, Director of HR
	Debbie Jones, Radiology Care Group Manager
	Robin Hooper, Non-Executive Director
Shropshire Community Health NHS Trust	Dr Ganesh, Medical Director
	Andrew Thomas, Head of Nursing & Quality for Adults
	Tricia Finch, Head of Business & Development
Shropshire Patient Group	Jane Niblock
	Richard Chanter
	Graham Shepherd
Telford & Wrekin Health Round Table	Derek Hall
	Janet O'Loughlin
	Jane Pickavance
Healthwatch Shropshire	Angela Saganowska - Healthwatch Shropshire Board member
	Daphne Lewis – Healthwatch Shropshire Chair
	Vanessa Barratt- Healthwatch Shropshire Board member
Healthwatch Telford & Wrekin	Kate Ballinger – Manager
	David Bell – Healthwatch Telford & Wrekin Member
	Janet O'Loughlin - Member
Powys Patients (via PtHB)	Joy Jones
	Frances Hunt
	Robert Wright
Shropshire Council	Tanya Miles , Head of ASC Operations
	Lee Chapman, Portfolio Holder for Adult Services

ORGANISATION	REPRESENTATIVE
Telford and Wrekin Council	Richard Smith, Director of Adult Social Services
	Helen Onions, Consultant in Public Health
Powys County Council	Jen Jeffreys, Senior Manager - Older People
West Midlands Ambulance Service NHSFT	Mark Docherty, Director of Nursing, Quality & Clinical Commissioning
Welsh Ambulance Services NHS Trust	David Watkins
Robert Jones & Agnes Hunt Hospital NHS FT	David Ford, Consultant Orthopaedic Surgeon
South Staffs & Shropshire Healthcare NHS FT	Alison Blofield, Consultant Nurse and Clinical Director
LMC/GP Federation	Ian Winstanley , Chief Executive, GP Federation
Shropshire Doctors' Cooperative Ltd	Jo Harding, Director of Transformation
NHS England	Richard Woosley, Assurance & Delivery Manager

Representatives of the Joint HOSC and Powys CHC will be in attendance solely as observers.

APPENDIX B - SaTH's Proposed Delivery Model

The Shrewsbury and Telford Hospital NHS
NHS Trust

The Clinical Model for OBC
Non-financial appraisal

Dr Kevin Eardley, Mr Mark Cheetham and Mr Andrew Tapp

23 September 2016

Proud To Care
Make It Happen
We Value Respect
Together We Achieve

The proposal and how this improves services for patients

A single purpose built Emergency Centre:

- Better clinical outcomes with reduced morbidity and mortality
- Bringing specialists together treating a higher volume of critical cases to maintain and grow skills
- Ensure greater degree of consultant delivered decision making and care
- Improved clinical adjacencies through focused redesign
- Improved access to multi-disciplinary teams
- Delivery of care in environment for specialist care
- Improved recruitment and retention of specialists

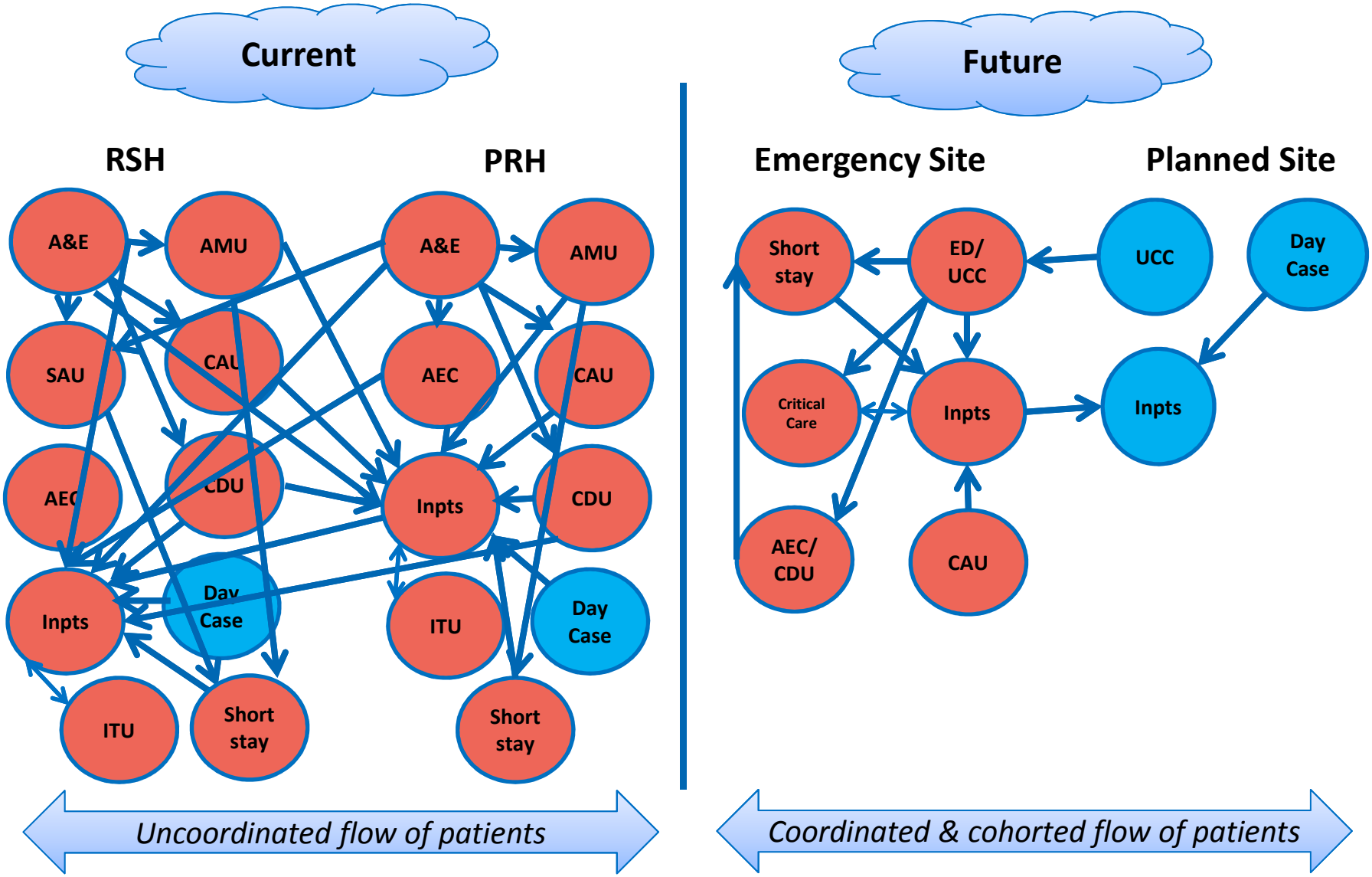
The proposal and how this improves services for patients

Within the balanced site proposal, patients would benefit from:

- Being cared for in their nearest hospital as much as possible for their acute service needs – Urgent Care, Outpatients, Diagnostics and some inpatient specialties
- Receiving planned care within a defined service separate from emergency care
- Improved pathways between primary and secondary care providers delivering a seamless patient pathway.
- Timely access to care through the achievement of national standards
- Improved access to an enhanced range of services within the county i.e. Cardiology

Proud To Care
Make It Happen
We Value Respect
Together We Achieve

Sustainable Services Programme – improving patient experience and flow



The options – balanced hospital sites

Option B ED and Critical Care at PRH

- Majority of planned care at RSH
- Urgent Care Centre, Outpatients, Diagnostics at both PRH and RSH

Option C1 ED and Critical Care at RSH

- Majority of planned care at PRH
- Urgent Care Centre, Outpatients, Diagnostics at both RSH and PRH

Option C2 ED and Critical Care at RSH

- Women and Children's at PRH
- Majority of planned care at PRH
- Urgent Care Centre, Outpatients, Diagnostics at both RSH and PRH

However, following the development of the SOC…

Further and more detailed discussions with the wider clinical body (including primary and secondary care) raised concerns about:

1. Unplanned medical patients being admitted directly to the planned care site

2. The resultant need to provide ‘critical care cover’ across two sites

3. Safety and sustainability of Option C2

NHS Transformation Unit review of Option C2

The remit of the review was to assess the feasibility of option C2

The Greater Manchester CRG Panel key findings;

To make C2 safe and sustainable both sites would require:

- Level 3 adult ICU
- Anesthetics (resident) with capability in both adults and children
- Full suite of Imaging
- Blood transfusion
- Acute medicine
- Access to (acute) surgery
- Resuscitation services
- Paediatrics

Evidence suggests that the probability of achieving and sustaining a clinical workforce to support option C2 would be very challenging

C2 would not meet the necessary standards of the Royal Colleges and CQC issues would be raised

The evidence base from other health communities/ systems indicates that a single emergency centre receiving undifferentiated case mix should have all services including W&C services

Re-modelling pathways and Trust activity for the OBC

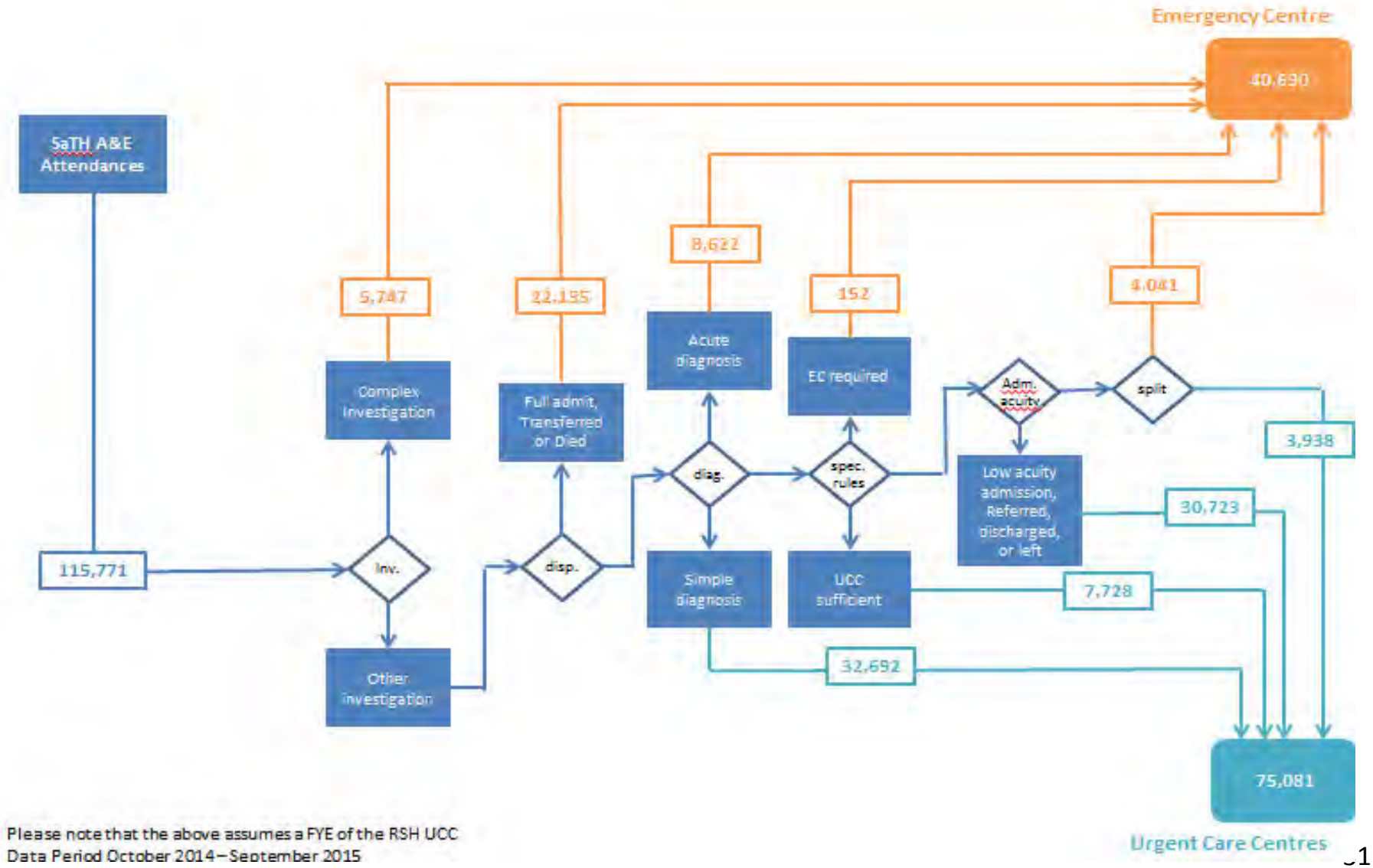
Within Option B and C1:

- Patients receive the right care, from the right staff at the right time
- All acute and unplanned patients to be admitted to the Emergency Site only
- Patients from the Emergency Site are transferred to the Planned Care Site as soon as clinically appropriate
- Acute Medicine (Ambulatory Emergency Care) is delivered at the Emergency Site only
- The number of patients on the Planned Care Site needing critical care is minimised through the single route of admission
- 7-day working within medicine is delivered at both sites
- Cohorting and streaming of patients into the most appropriate service to improve patient outcomes and deliver national standards
- Ring-fencing of planned care beds to reduce cancellations

Urgent Care Centre

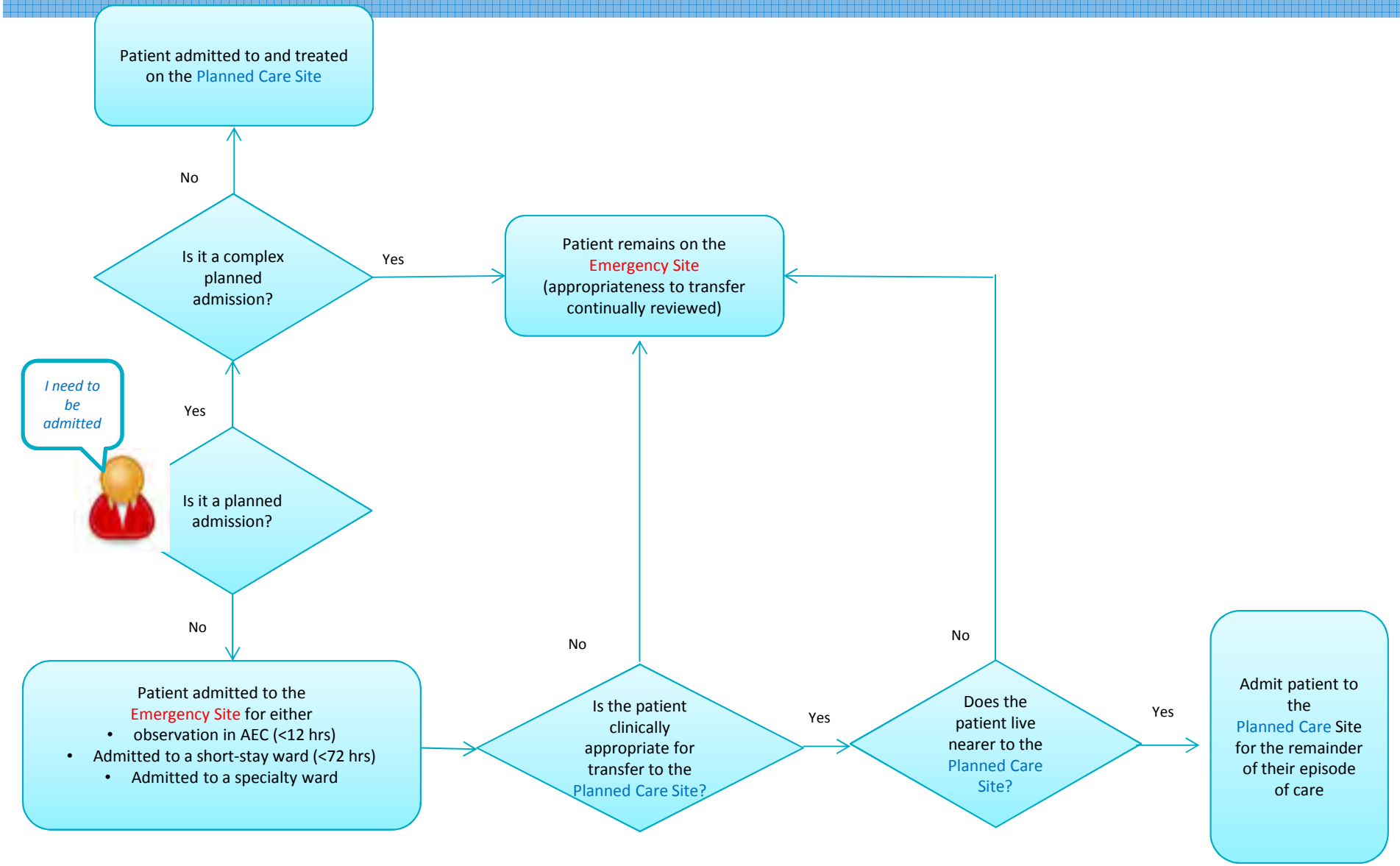
- The original Future Fit algorithm has been applied to the Trust's activity data for 2015/16 to determine whether patients need emergency or urgent care services
- Complaints/conditions to be treated at the Emergency Department include:
  - anaphylaxis
  - stroke
  - severe chest pain
  - multiple trauma
  - compound fractures
  - moderate burns
  - poisoning
- Complaints/conditions to be treated within Urgent Care services are:
  - sprains and simple fractures
  - cuts and scrapes
  - asthma
  - ENT conditions
  - scalds
  - bites and stings

Allocation of A&E attendances – EC or UCC



Please note that the above assumes a FYE of the RSH UCC
Data Period October 2014 – September 2015

Pathway of care for the admitted patient



APPENDIX C - Summary of Travel Time Impact Evidence

i) **Clinical Leaders' Blog**

ii) **SaTH Paper by Dr Simon Walford**

Print

Finding the balance between travel time access and clinical outcomes

February 2016

The following blog provides the views of the three clinicians leading NHS Future Fit in Shropshire and Telford & Wrekin. It is a discussion on the balance between travel time access and clinical outcomes in advance of the planned future consultation on the reconfiguration of hospital services within the county. It is from Dr Stephen James, Clinical Director of Information and Enhanced Technologies, Shropshire Clinical Commissioning Group; Dr Michael Innes, from Telford and Wrekin Clinical Commissioning Group; and Dr Edwin Borman, Medical Director at The Shrewsbury and Telford Hospital NHS Trust:

The NHS Future Fit Programme is being undertaken to redesign the provision of hospital based services. It has done this by describing first how those services can be provided best from a clinical point-of-view. This entailed developing a description, or model, of services. The clinical model that was developed took into account all available evidence about models of service and it included wide public and clinical engagement. As one of the recommendations, it stated that there should be one emergency centre supported by two urban urgent care centres in the two principal towns (Shrewsbury and Telford). From a clinical point of view it was agreed that this provided the greatest opportunity for improved outcomes for patients.

It was also recognised that for some patients this would mean an increase in travel times. The reason we are recommending this model is that this would provide the best outcomes for the population as a whole, given the current and likely future availability of specialist medical and nursing staff. Most importantly, it will deliver care that is better than if no changes were made.

While all of us would love to have the comprehensive and ideal medical facilities right on our doorstep, part of the reality that we have to work with is that this is not possible, even in a highly developed part of the world like the UK.

Some detail behind the reasoning

Whenever we consider quality of care, there is a tension between the unification of services, which brings improvements in care and outcomes, and the resultant changes in travel times, which might benefit some and disadvantage others. It is the balancing of these two factors that makes for most of the debate.

In the vast majority of circumstances, any adverse change in travel time will be outweighed by an improvement in the quality of care that a patient receives on arrival.

The evidence for this comes from the national database for major trauma units, which has shown a consistent reduction in mortality across the UK for patients who have suffered major trauma.

Even though Shropshire would be unlikely to have a major trauma unit, the same principle is recognised for smaller trauma units such as the one currently provided at the Royal Shrewsbury Hospital where all required resources – emergency department, advanced specialists, surgical anaesthetics and Intensive Therapy Unit services – are concentrated[1].

Further evidence from within the county comes from the temporary unification of the Trust's stroke units[2] and the management of patients who have suffered a heart attack.

In addition, evidence from ambulance services that provide paramedic delivery of advanced monitoring and commencement of treatment has proven the principle that patients can be stabilised and treated before they even arrive in hospital.

When we discussed provision of planned care, such as big investigations (scans), and planned operations, people were clear that they placed distance travelled to get the care (and so travel time, by association) lower

in their priority list than the opportunity to get consistent high-quality care. This might be summarised by the statement: “I would rather go further to get better care than stay closer and receive potentially less high quality care”.

Increasingly, travel to receive care requires emergency transport with professional support (e.g. an ambulance with a paramedic). This is especially so with the more major emergencies. For a small, but important, set of circumstances that require emergency care (e.g. heart attacks, stroke, major accidents etc.) time to treatment is more critical for the best outcome. In an even smaller set of circumstances, time to treatment can be critical for life. In these circumstances, it is also the case that the level of experience and skill in the treating team is very important for the outcome.

Given the challenges, both nationally and within the county, of staffing emergency departments, it makes sense for there to be one emergency department where all members of staff are concentrated[3]. This provides the greatest opportunity for senior decision makers – consultants – to be present, another intervention that has been shown to provide the best outcomes for seriously ill patients[4].

With the professional support of a paramedic comes the opportunity to start treatment at the scene, bringing care closer to people and reducing time to treatment. Increasing amounts of evidence, especially from rural Scotland, have demonstrated that this can actually improve care further. For example, people living further away from a hospital can have clot-busting treatment administered at home faster than those conveyed to hospital.

This is particularly relevant for the county of Shropshire and beyond, where travel times and distance can be significant. Work with West Midlands Ambulance Service is helping to prepare for a model where patients are monitored and treated to a far greater extent prior to arriving in hospital[5]. We look forward to working with our colleagues in Wales to achieve the same and have a good track record of working well with them[6] .

NHS Future Fit has provided very detailed evidence, for each of the options considered, regarding the travel distance and duration for the population of the county as a whole. While clearly each option will have implications for some areas, meaning they may have either longer or shorter travel distances and times, it is the view of the clinicians involved in NHS Future Fit that national and local evidence supports centralisation of acute services and that this evidence outweighs the potential impact of increased travel times.

This is our view based on the balance of the evidence but any proposals would undergo full public consultation in the future. We will keep the evidence under review and would welcome hearing your thoughts about this.

Please let us know your thoughts by emailing nhsfuturefit@nhs.net, or calling 0300 3000 903 and you can find out more at www.nhsfuturefit.co.uk

Notes:

1. The College of Emergency Medicine (2008) lists seven key specialties required to provide support to A&E departments: critical care, radiology and diagnostic imaging, laboratory services, acute medicine, orthopaedics, general surgery and paediatrics. Where paediatrics, general surgery and orthopaedics are not available, it is stated that on-site ‘robust and safe’ policies must be in place to ensure rapid access to senior opinion and that transfer must be available.

2 The temporary unification of stroke services has benefited all patients who access Hyperacute stroke services via the Princess Royal Hospital in Telford. We have greatly reduced the time from onset of stroke symptoms to accessing specialist assessments and treatment to minimise the impact of stroke and maximise the potential recovery of all patients wherever they may live. The proportion of patients now accessing thrombolysis, a clot busting treatment which can only be given within the first 3 hours from onset of symptoms, has increased from 7% to 13%, since the move. The national target for thrombolysis is 10% with a national average of 10.9%. We are seeing more strokes patients, but with earlier intervention and preventative measures are seeing a drop in the severity of strokes. Patients are still repatriated at the earliest opportunity, for on-going stroke rehab to their nearest Stroke Rehabilitation Unit, either at the Princess Royal Hospital, the Royal Shrewsbury Hospital or Newtown. As part of our ongoing audit we haven’t identified any missed opportunities to treat related to increased travel time to the unified service.

3 The Urgent and Emergency Care Review undertaken by NHS England (2013) found that appropriate staffing is fundamental to providing a sound NHS service: "Proper staffing is the ‘single most important factor’ in providing a high quality, timely and

clinically effective service to patients". Furthermore, "there is a need to ensure a balanced workforce within an A&E department in order to provide a safe service.

4 The Urgent and Emergency Care Review undertaken by NHS England (2013) highlighted that many NHS A&E departments failed to achieve such standards: "a recent study of A&E departments in the United Kingdom, of which nearly 60 per cent of respondents were in England, carried out by the College of Emergency Medicine highlighted the variation in consultant 'shop-floor' cover to help maintain quality and safety in A&E departments, with the situation worsening over the weekend. Seventy-seven per cent of responding UK A&E departments reported that they had at least one emergency medicine consultant present in the A&E department over 12 hours on weekdays, but only 17 per cent reported such presence for 16 hours.

5 The Urgent and Emergency Care Review undertaken by NHS England (2013) states:
"Rural and remote patients present a specific challenge due to the density of the population and the distances involved. The low-density population of rural areas means that healthcare facilities are spread far apart, and there may not be the critical mass necessary to provide a fully functional major acute hospital within the region". Evidence collected from the most seriously ill patients 12 to 15 years ago is frequently cited that suggested an increase in the distance travelled was associated with an increase in mortality (cited Nicholl et al., 2007). The Urgent and Emergency Care Review undertaken by NHS England (2013) points out that both the ambulance service and hospital treatments have changed substantially since then, but these findings indicate that it is important to monitor the effects of distance and any changes in service configuration. Spurgeon et al (2010) report that the discussion on the clinical case for emergency care reconfiguration is based around the conflicting arguments of the advantages of specialist care versus the risks of delay in reaching a specialist centre. The authors highlight that it is the timing of the start of appropriate treatment, rather than the timing of arrival at hospital that affects the outcome, so interventions by paramedics and/or rapid access to the specialist team once at the hospital can offset or overcome the risk created by the additional travel time (Spurgeon et al 2010).

6 SATH did a lot of work with the Welsh Ambulance Service NHS Trust in the lead-up to the opening of the Shropshire Women and Children's Centre at the Princess Royal Hospital (PRH) in Telford in September 2014. Ambulance service representatives were members of the clinical pathway groups that designed the service changes and helped SATH to understand the activity and flow of patients from wales into Women and Children's Services. In partnership with both the Welsh Ambulance Service and West Midlands Ambulance Service, SATH also developed protocols and guidance for crews taking patients to and from the centre. Both ambulance services were also involved in "dry runs" of transferring a newborn baby between the Royal Shrewsbury Hospital and PRH in an emergency.

EVIDENCE REVIEW:

Are there clinical risks or benefits related to the distance a patient travels to hospital in an emergency?

Introduction

The discussion about how best to organise emergency hospital care in Shropshire, Telford & Wrekin and the Welsh border country is heavily influenced by an underlying belief across the community that travelling further to hospital in an emergency puts people at greater risk of dying. This paper explores the research evidence about mortality in relation to travel distance to an Accident and Emergency service.

How far do people have to travel in an emergency?

The distances that people travel to A&E across England and Wales has recently been independently reviewed by The Health Foundation and the Nuffield Trust who examined all attendances and admissions to hospital from all A&E departments over the ten-year period 2001-2011[1]. The key findings of that paper are as follows:

"•• Major A&E services are currently provided from 200 sites around England. We estimate that there has been a net reduction in the number of sites of around 8% since 2001/02.
•• The mean distance between a person's home and the A&E department that they attended was 7.2 kilometres (km) (4.4 miles), with a median of 4.2 km (2.6 miles), based on analysis of 13 million attendances in 2011/12. Eighty-four per cent of these attendances were by people living within 12 km (7.5 miles) of a major A&E department.
•• The mean distance from hospital to home for an emergency admission was 8.7 km (5.4 miles), with a median of 5.5 km (3.4 miles), based on five million emergency admissions in 2011/12. Seventy per cent of emergency admissions occurred within 10 km of a person's home, and very few people (3 per cent) were admitted to a hospital over 30 km (18.6 miles) away from their home.
•• There was considerable variation in the average home-to-hospital distances by local authority. The shortest average distance was 2.5 km (1.6 miles) for residents of the London Borough of Camden, and the furthest was 34.2 km (21.3 miles) for people living in the Eden District of Cumbria.
•• Nationally, a small minority of all cases (9 per cent) were admitted over 20 km (12.4 miles) away from their home. In 26 of the 326 English local authorities, more than half of the emergency admissions occurred over 20 km from the person's home.
•• There was a slight, but not statistically significant, increase in the average distance for an emergency admission in the 10-year period from 2001/02 to 2011/12, rising from 8.3 km (5.2 miles) to 8.7 km (5.4 miles).
•• The biggest increase in the distances travelled was observed for emergency admissions following stroke, which rose from an average of 7.9 km (4.9 miles) in 2001/02 to 8.9 km (5.5 miles) in 2011/12. The average distance following trauma did not change substantially."

The average distance a person had to travel in the West Midlands was 4.8 miles but the average for rural areas was nearly 11 miles. In Powys 10-50% of people had to travel more than 20km (12 miles) but in Shropshire that proportion was less than 10%.

Time-critical emergencies

The sort of medical emergencies that create the biggest risk of dying are well understood. The Resuscitation Council (UK) exists to promote high-quality, scientific, resuscitation guidelines that are applicable to everybody, and to contribute to saving life through education, training, research and collaboration. The order of intervention which they teach reflects the urgency of the situation as follows:

1. *Make sure the patient's airway is clear*

So the floppy tongue of an unconscious patient may obstruct their airway, a diner may choke on a mouthful of food and an acute asthma attack causes the airways to go into spasm.

2. *Make sure the patient is breathing*

Being knocked out may also stop a patient breathing, as will drowning or being crushed in a crowd. Lung or heart disease may make a patient very breathless.

3. *Make sure the patient has a stable circulation (safe blood pressure)*

In a cardiac arrest the circulation stops. Trauma may cause internal or external bleeding.

The imperative in all these situations is to provide immediate life-saving care. Bystanders may be the first to help. Community First Responders have training to deal with these situations supported by the ambulance service. Then crucially, the arrival of a paramedic, who is often now highly trained, is likely to stabilise the patient for transfer to hospital. Very active recruitment and training programmes for community first responders are running in West Midlands and Welsh ambulance services. Many paramedics are now studying to degree level.

When symptoms described above are reported in a 999 call, they will almost always trigger an immediate, "Category A" or "Red" ambulance to be dispatched and the NHS standard is for the paramedic to reach the patient within 8 minutes on 75% of the calls and always within 19 minutes. Unfortunately, in England and Wales, there has been a steady decline in the number of Category A calls attended within eight minutes over the past four years. The national target of reaching 75% of Category A calls within eight minutes has been breached in 23 consecutive months, having not been met since January 2014[2]. West Midlands Ambulance Service bucks that national trend and is consistently meeting the targets despite substantial increase in the number of calls it receives[3]. The Welsh Ambulance Service in Powys is, by contrast, substantially worse than the national average.

It follows that in the debate about the future configuration of services, the development of Community First Responders and support for the sufficient provision of paramedics to

maintain the ambulance response time standards are amongst the most important ways to reduce mortality in an emergency.

Research evidence that travel distance to A&E increases risk of death

Most of the commentaries and opinion forming documents which re-inforce the public belief that having to travel further to A&E will increase the risk of death refer back to one paper published in 2007[4]. Professor Nicholl's paper is a study of a large number of patients treated in 1999-2001 and is such an important negative influence that the summary is shown in full:

*"**Objectives:** Reconfiguration of emergency services could lead to patients with life-threatening conditions travelling longer distances to hospital. Concerns have been raised that this could increase the risk of death. We aimed to determine whether distance to hospital was associated with mortality in patients with life threatening emergencies.*
***Methods:** We undertook an observational cohort study of 10,315 cases transported with a potentially life threatening condition (excluding cardiac arrests) by four English ambulance services to associated acute hospitals, to determine whether distance to hospital was associated with mortality, after adjustment for age, sex, clinical category and illness severity.*
***Results:** Straight-line ambulance journey distances ranged from 0 to 58 km with a median of 5 km, and 644 patients died (6.2%). Increased distance was associated with increased risk of death (odds ratio 1.02 per kilometre; 95% CI 1.01 to 1.03; p,0.001). This association was not changed by adjustment for confounding by age, sex, clinical category or illness severity. Patients with respiratory emergencies showed the greatest association between distance and mortality.*
***Conclusion**: Increased journey distance to hospital appears to be associated with increased risk of mortality. Our data suggest that a 10-km increase in straight-line distance is associated with around a 1% absolute increase in mortality."*

The methodology and conclusions of this paper have never been repeated by another research group and much has changed in the treatment of emergencies and the skills of paramedics in the 15 years since these patients were treated. It is important to understand that the model used to form the conclusion does not distinguish a "safe" from an "unsafe" distance to travel. The added risk of moving from 1 mile to 6 miles from the hospital is the same additional risk as moving from 11 to 16 miles.

The Resuscitation Council teaching must lead to a suspicion that breathing problems, especially perhaps asthma would be a very time and distance sensitive emergency. There are two papers which analyse deaths in asthma patients treated in the 1980's and 90's[5,6]. Both from the same research group, the first showed asthma deaths were more common in poor people, particularly if the family had no car. Complex statistics did also show that there was a significant but small increase in the mortality of people living more than 15 miles from hospital. The second paper studied the experience of patients with asthma living in East Anglia 1985-95 and analysed 768 deaths during the decade. Again the strong association of risk with poverty and living in a bedsitter was recorded. Complex statistical analysis also showed that increasing estimated travel time (not distance) to hospital was weakly associated with a slightly greater risk of dying.

There are several reasons to be cautious about applying this research to the current population of Shropshire. Asthma treatment, the availability of specialist asthma clinics and community nurse specialist has changed the experience of patients a great deal in the 20+ years since the study and asthma deaths have halved during that time[7]. Most of the increased risk associated with poverty has been eliminated and the increased risk of death is particularly for older people who also suffer from other conditions such as diabetes, heart disease and chronic (smokers') lung disorders. Deaths from asthma in children are now, fortunately, very rare events.

Research evidence that there is no risk or even advantage in travelling further to specialist hospital emergency care

One of the ways to summarise the strategic aims of the NHS is *"Right place, right treatment, right time"*. There is substantial research evidence that the tension created between these three goals for emergency care can be most safely and effectively resolved without requiring that "quickest (or "nearest") is always "best". Such research underpins the organisation of trauma services into networks as well as the concentration of specialist acute cardiac and stroke care in hubs because the research concludes that increased travel time is more than offset by better outcomes for patients in the larger specialist units.

Accidents and Major Trauma

One of the first key examples of such research was the Scottish Urban Versus Rural Trauma Outcome Study published in 2005[8]. All admissions with trauma in 2.8 million people living in the west of Scotland over a two-year period were analysed. There was no difference in the risk of death or in the hospital length of stay with either minor or major trauma when rural patients with longer pre-hospital time were compared with the urbanites. Further research led to the Trauma network built in the UK since 2012 which emphasises the importance of timely resuscitation and then transfer to the appropriate specialist unit. The 2015 peer to peer audit of the service[9], recognises that West Midlands Ambulance Service is one of only two which achieves 100% compliance with those standards. The local network results in almost all patients with serious trauma travelling with WMAS or the Air Ambulance to Stoke or Birmingham. The Trauma Audit and Research Network (TARN) analyses outcome data from all trauma admissions including approximately 12,500 patients who die each year in England. The 2015 report indicates that mortality has gone down by 63% since the years before the trauma network was established 4 years ago[10].

Acute Cardiac Care – Heart Attacks

Cardiac arrest outside hospital remains a desperately serious condition with less than a quarter of patients surviving to leave hospital. Their chances depend heavily on immediate cardiac life support and early defibrillation. The ambulance service quality dashboard of data[3] unfortunately shows little improvement in recent times.

For patients with severe chest pain, the outcome has been transfomed by modern treatments, most particularly PCI, which involves moving the patient to a cardiac operating theatre where, through a small puncture in the artery of the arm, catheters are manipulated

into the heart to unblock the coronary arteries. This treatment is more effective than using fibrinolytic ("clot busting") drugs. The National Institute for Clinical Excellence (NICE) now advises that the patient should be taken directly from the 999 call to such a PCI facility if it can be reached within 2 hours of when fibrinolytic drugs could have been administered[11]. All patients from Shropshire, Telford and Wrekin go to Stoke or Wolverhampton. Since the millennium, the mortality of acute myocardial infarction (heart attack) has halved and as PCI increasingly replaces "clot busting" drugs as the first choice therapy, it continues to fall[12].

Stroke

Patients admitted to stroke services with higher levels of organisation are more likely to receive high quality care as measured by audited process measures of acute stroke care. Those patients receiving high quality care have a reduced risk of death in the 30 days after stroke. This is another example of large improvement in the outcome of a common emergency with mortality reduction of more than 30%[13].

When the stroke service at Royal Shrewsbury Hospital and Princess Royal Hospital Telford had to merge to sustain such a high quality service, the outcomes for patients who travelled further did not get worse, they got better.

These three examples of how the creation of specialist units, usually offering high tech medical care 24 hours a day every day, demonstrate very large beneficial effects of raising clinical standards despite some patients being inconvenienced and perhaps worried by having to travel further. There are other examples of rarer emergencies, leaking aortic aneurysm, for example, where consolidation of highly specialist expertise in fewer acute hospitals has the same effect. The examples summarised reflect a substantial majority of the life threatening emergencies which are going to occur in our community. They are a very strong counter to the argument that similar clinical service improvements in our A&E service would have the opposite effect so feared in the community.

Conclusions of this evidence review for Shropshire, Telford & Wrekin and the border country.

In our community, treatment for the most common serious, life threatening emergencies which people may suffer, including major trauma, heart attack and stroke are already organised around specialist units ready to deliver very high quality care 24/7. People travel further but have a much better chance of survival and greater recovery than they used to.

In our community, Community First Responders and Immediate Care Paramedics already play a vital part in the immediate treatment of patients in an emergency and it is their intervention which "saves the life" for long enough to transport the patient to the right place in a timely and safe way. They must be supported more effectively. The ambulance service in Wales does not perform so well.

There is no recent research about the effectiveness of modern treatments which shows that travel distance or time, within reason, is the over-riding priority in balancing *"Right place, right treatment, right time".*

Simon Walford
May 2016

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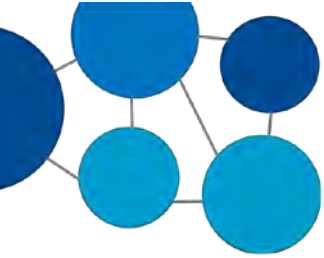

APPENDIX D – Access Data

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Access Data for Option Appraisal

September 2016

Overview of methods

Essentially the same approach as for the previous options appraisal (Sept 2015).

The key features of the analysis are:

- Provider dataset for 2015/16, so purely SATH activity
- TRACC software, Ordnance Survey road networks, proprietary road speeds datasets and Public Transport schedules used for calculation of journey times and distances
- Differential approach i.e. only impacts of 'displaced' activity reported
- Patient **JOURNEY** perspective so some exclusions from activity (e.g. DNA, admissions via A&E) – will not reconcile with activity modelling
- Each point of delivery treated separately – emergency, planned, non-planned etc. as per the description of options by SATH site.
- Car/ambulance journeys only for emergency care and Car & PT for planned care elements
- Presented all activity using either travel mode as impossible to distinguish who has used PT to travel.
- Several key measures reported at locality level (times 9):
  - Total attendances by type
  - Attendances affected and impacts on travel time – **positive or negative**
  - Sensitivity adjustment if travel to alternatives is allowed (current assumption is no impact on SATH market share)
  - Impacts - numbers and journey times - for equality groups (Elderly, young, genders, BME, **deprived*).**

** Note caveat re: differences between Welsh and English deprivation indices*

Explanation of Maps and Tables

Option A = Baseline assessment of patients actual travel to 'chosen' sites.

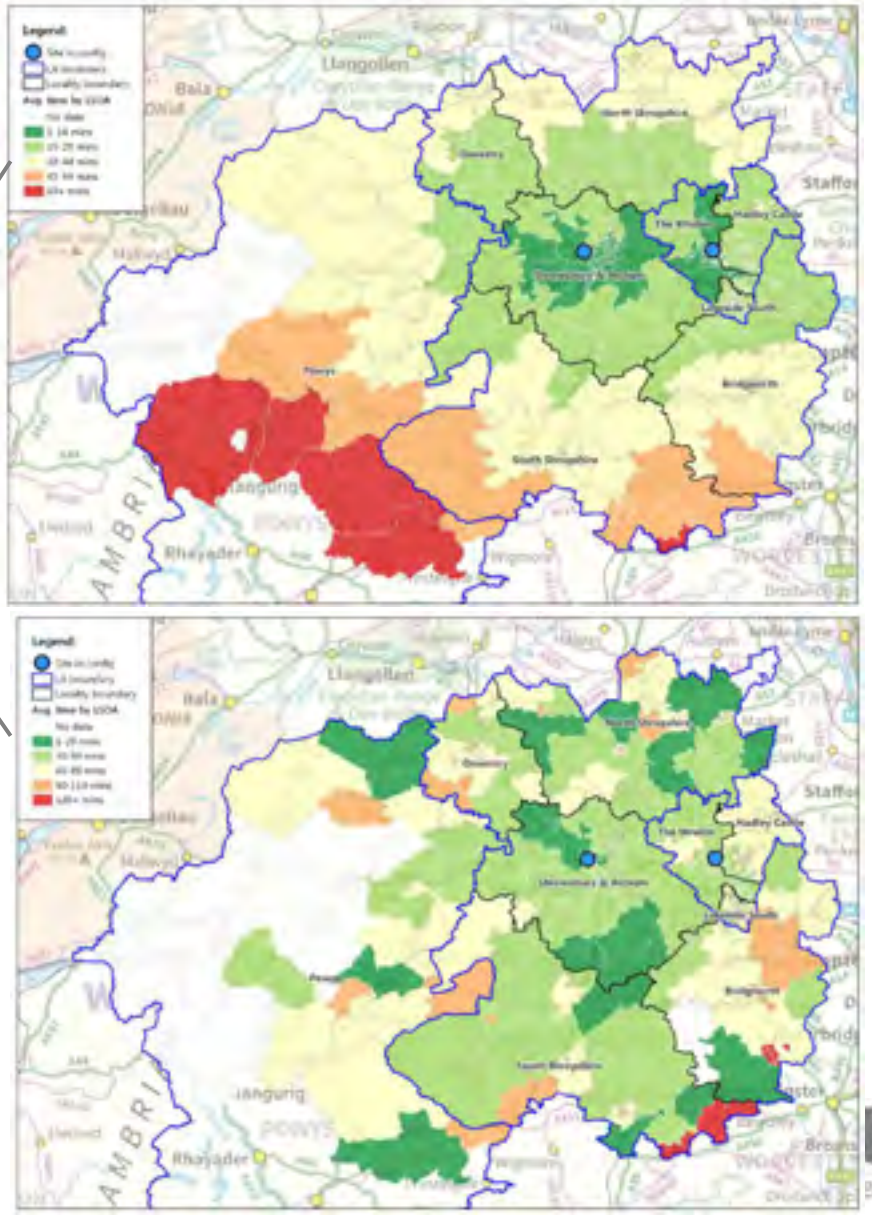
Average times for comparison and series of LSOA* maps for visual context

Average Journey Times	Non-Complex Planned	
Mode of Transport	Public Transport	Car/Ambulance
Bridgnorth	76.8	29.4
North Shropshire	63.7	31.3
Oswestry	67.5	26.9
Shrewsbury & Atcham	40.8	12.5
South Shropshire	58.4	39.3
Hadley Castle	63.7	19.9
Lakeside South	64.8	20.3
The Wrekin	49.9	14.7
Powys	58.0	37.2
Out Of Area	81.3	38.0
Overall Average	**58.5**	**24.0**

15 min

Different bands for car / PT times

30 min



* LSOA = Lower Super Output Area. Individual data is aggregated to this level for mapping (we don't have access to the postcode field)

Explanation of Maps and Tables

	Locality											
	Shropshire					Telford			Powys			
Impact factor	Bridgnorth	North Shropshire	Oswestry	Shrewsbury & Atcham	South Shropshire	Hadley Castle	Lakeside South	The Wrekin	Powys	Out of Area		
Total baseline journeys	5,434	6,616	3,240	11,987	3,629	8,293	4,656	6,082	5,989	2,518		
Baseline avg. time (mins)	29.4	31.3	26.9	12.5	39.3	19.9	20.3	14.7	37.2	38.0	24.0	
Option B avg. time (mins)	33.9	33.1	24.6	11.3	38.2	26.7	26.3	22.0	35.6	41.0		
Journeys displaced to RSH	**2,247**	**1,485**	**369**	**1,230**	**448**	**3,622**	**2,063**	**2,917**	**490**	**369**		
Change to avg. journey time (mins)	10.8	7.9	-20.1	-11.8	-9.0	15.7	13.6	15.2	-20.0	12.5		
Displaced avg. time (mins)	34.4	36.3	25.8	11.9	39.2	27.6	27.6	23.2	39.7	44.9		
Patients living nearer to an alternative site than RSH	**1,719**	**1,054**	**239**		**166**	**657**			**21**	**369**	**4,225**	**7.4%**
Option B avg. time (mins) if alternative chosen	32.1	31.7	24.3		37.7	26.3			35.5	35.6		
Displaced patients in protected groups												
Age - 75+	496	309	65	229	81	643	339	538	93	71		
change to avg. journey time	10.6	8.6	-20.1	-11.9	-9.7	15.8	13.6	15.3	-20.0	12.6		
Age - Pre-school												
change to avg. journey time												
BME groups	108	86	17	56	16	314	133	271	19	53	1,073	1.9%
change to avg. journey time	10.9	8.7	-20.2	-13.3	-8.8	16.0	13.6	15.8	-20.2	12.6		
Gender - Male	1,088	695	158	554	189	1,698	979	1,326	214	187		
change to avg. journey time	10.9	8.0	-20.1	-11.6	-10.4	15.7	13.6	15.2	-19.9	12.5		
Gender - Female	1,159	790	211	676	259	1,924	1,084	1,591	276	182		
change to avg. journey time	10.6	7.8	-20.1	-12.1	-7.9	15.7	13.6	15.1	-20.0	12.3		
IMD 1&2 (most deprived 40%)	502	438	101	253	144	1,733	1,252	1,457	101			
change to avg. journey time	11.0	9.9	-20.2	-10.2	-5.9	15.7	13.7	14.2	-19.9			

Journeys for this type of care w/ baseline and modelled average time by locality.

Journeys for this type of care that have been displaced and their relative impacts.

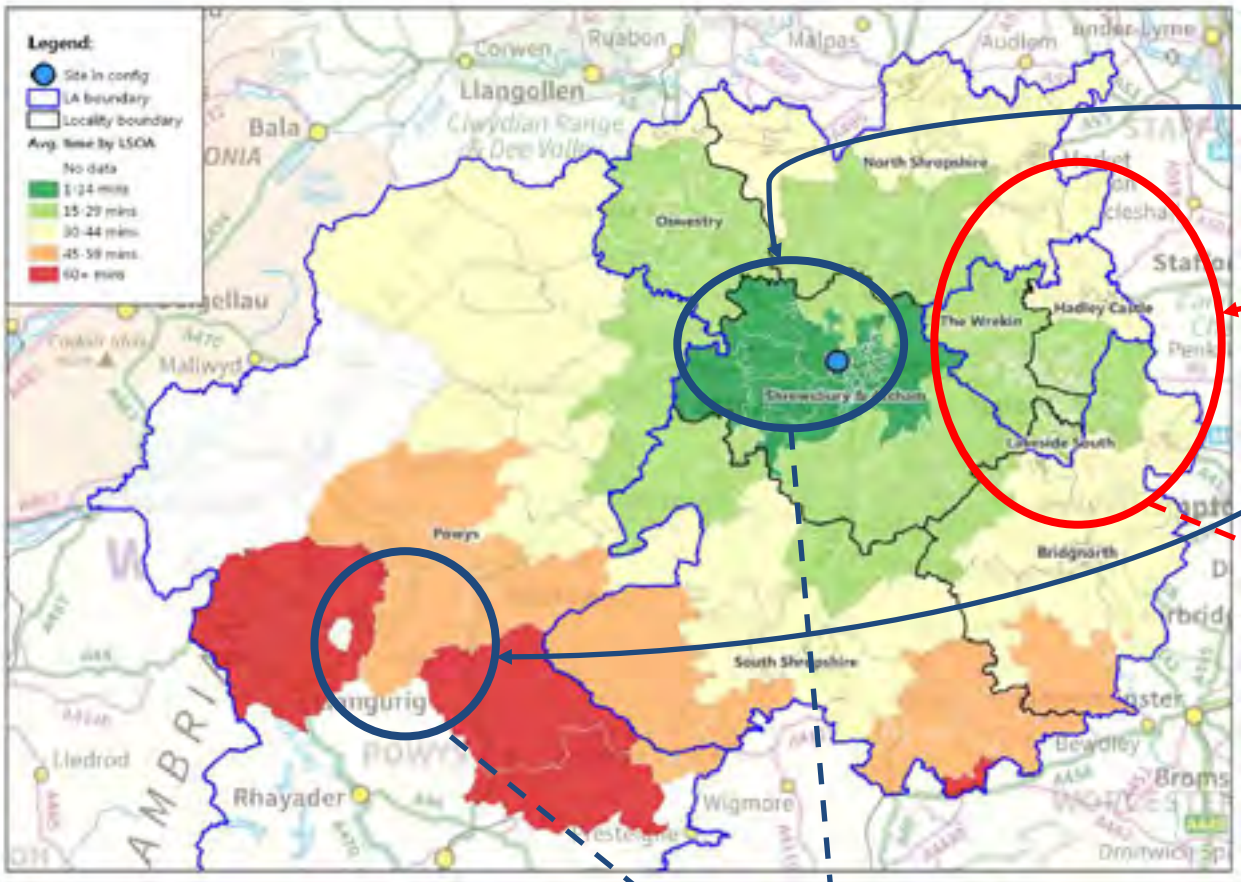
Shows areas where displaced patients may be closer to an alternative provider.

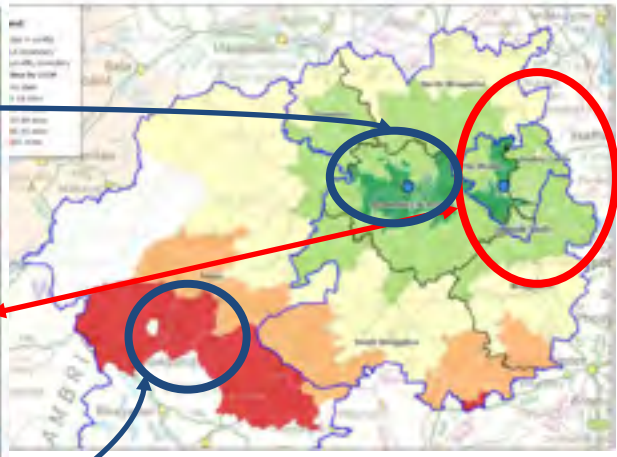
Impacts of 'displacement' on protected or equality groups.

Explanation of Maps and Tables

Option B = All non-complex care to be at Royal Shrewsbury.

(Baseline)





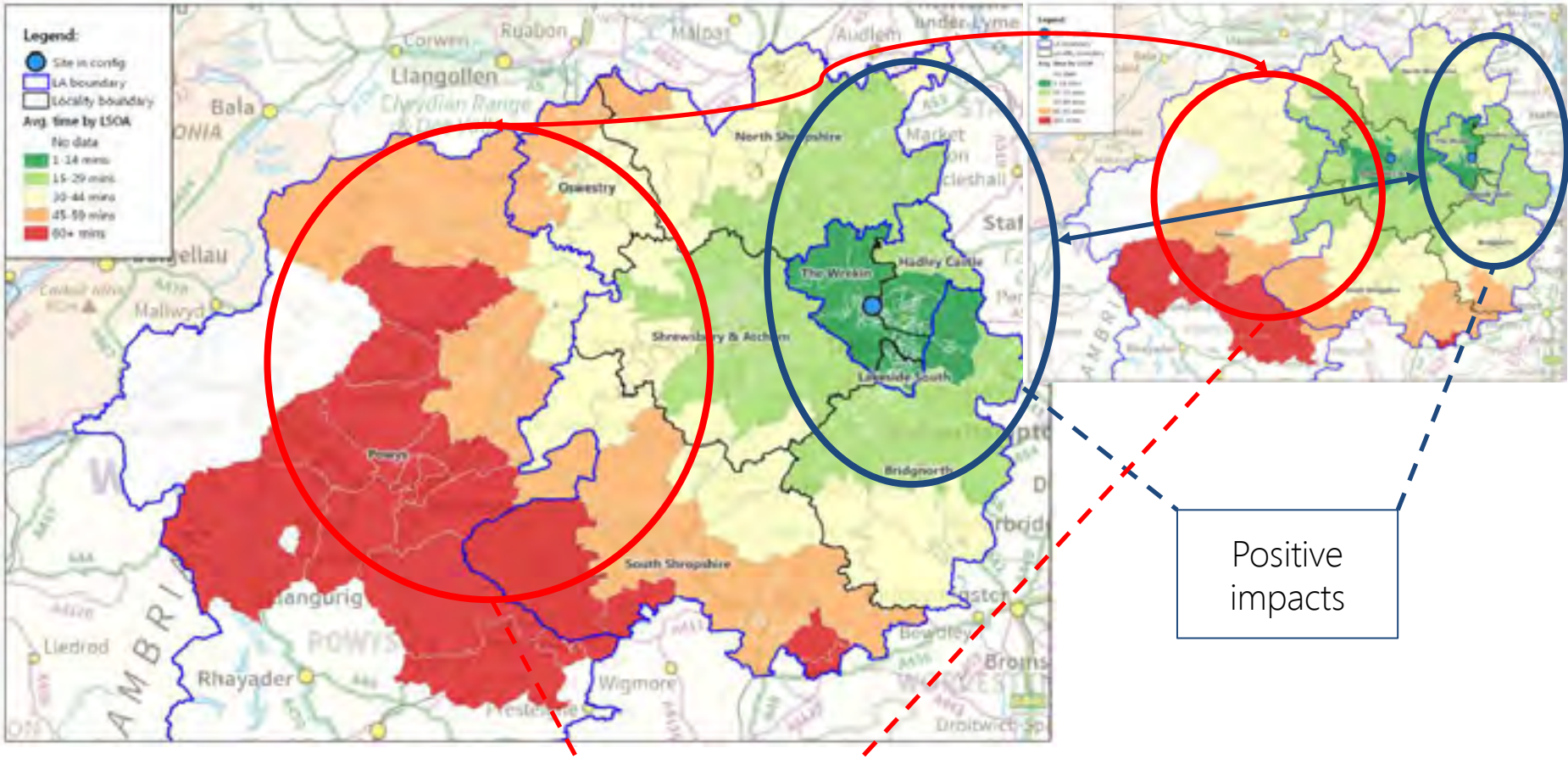
Negative impacts

Positive impacts

Explanation of Maps and Tables

Option C1/C2 = All non-complex care to be at Princess Royal.

(Baseline)



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NHS

Summary

Baseline and general observation:

No impacts to note in the baseline – everyone is assumed to make the same journeys for the same care in the future.

Generally, patients tend to use the site that is closest to their home with the exception of certain cases e.g. Stroke, Maternity, other complex care which is virtually all delivered at PRH currently.

Majority of population within 45 mins of a site by car – due to population densities Telford residents tend to live closer in distance and time to their nearest (PRH) than Shropshire or Powys residents

Public transport access is (naturally) limited, much of population outside of urban centres > 60 minutes from sites.

Travel by public transport typically takes 2-3 times longer than car journeys.

It appears patients choose their closest alternative for emergency and urgent care as well as routine appointments (outpatients) but will travel further for more complex care (may be a result of restricted choice i.e. site specialism).

The total volumes of 'displaced' activity varies across the options:

	B	C1	C2
Complex Planned	190	1,104	1,104
Emergency & Urgent	32,886	27,746	27,746
Non-complex planned	15,240	39,709	39,709
Women & Children	1,615	18,361	1,615
All other	-	-	-
Total	49,931	86,920	70,174

Generally speaking, if option site is PRH for any aspect of care…

Patients adversely affected live in North West & South West of Shropshire and in Powys.

Anywhere up to 20 mins additional travel for some of those areas by car or up to 40 minutes by Public Transport.

Populations affected tend to be older, white and relatively less deprived.

There are fewer alternative hospital locations that patients may choose in this scenario (Aberystwyth, Wrexham, Crewe, Hereford).

The exclusions in this regard are complex care and maternity for which PRH is the principle or only provider site anyway so most activity already goes here – minimal impacts.

Generally speaking, if option site is RSH for any aspect of care…

Patients adversely affected live in Telford & South East of Shropshire.

Generally 10 to 20 mins additional travel for most of those areas by car or 30 to 40 minutes by Public Transport.

Populations affected tend to be younger, ethnically diverse and relatively more deprived.

There are several alternative hospital locations at comparable distances that patients may choose in this scenario (Stoke, Stafford, Wolverhampton, Dudley).

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Access Impact for Emergency and Planned Care

NHS

Emergency Care Access Impact (Ambulance)	B	C1/C2
Attendances Affected	32,886	27,746
Net average travel time change (all journeys)	+4.4 mins	+4.8 mins
Net average travel time change (displaced journeys)	+8.5 mins	+10.8 mins
BME impact	2815	2634
Age 75+ impact	9257	6996
Pre-school age impact	784	2049
Most deprived 40% impact	8800	12967
Locality impact (adverse)	South Shropshire Shrewsbury & Atcham Powys Oswestry	North Shropshire Bridgnorth Lakeside South The Wrekin Hadley Castle

Complex Planned Care Impact (EC)	B	C1/C2
Attendances Affected	190	1104
Net average travel time change (car)	+0.1 mins	+1.1 mins
Net average travel time change (PT)	-0.5 mins	+4.3 mins
Net average travel time change (displaced journeys - car)	+0.9 mins	+1.4 mins
Net average travel time change (displaced journeys - PT)	-3.8 mins	+5.6 mins
BME impact	8	94
Age 75+ impact	44	8
Pre-school age impact	0	245
Most deprived 40% impact	76	433
Locality impact (adverse)	South Shropshire Shrewsbury & Atcham Powys Oswestry North Shropshire (PT)	North Shropshire (car) Bridgnorth Lakeside South The Wrekin Hadley Castle

Non-complex Planned Care Impact (DTC)	B	C1/C2
Attendances Affected	15240	39709
Net average travel time change (car)	+2.3 mins	+2.1 mins
Net average travel time change (PT)	+6.1 mins	+2.9 mins
Net average travel time change (displaced journeys - car)	+8.8 mins	+3.1 mins
Net average travel time change (displaced journeys - PT)	+24.8 mins	+4.8 mins
BME impact	1073	1908
Age 75+ impact	2864	8536
Pre-school age impact	0	0
Most deprived 40% impact	5981	11426
Locality impact (adverse)	North Shropshire Bridgnorth Lakeside South The Wrekin Hadley Castle	South Shropshire Shrewsbury & Atcham Powys Oswestry North Shropshire (PT)

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Comparison of Ambulance Conveyance Times for Time-Critical Patients

NHS

Locality	A. Avg. time	B. Avg. time	B. Difference	C. Avg. time	C. Difference
Bridgnorth	25.1	24.9	-0.2	33.0	7.9
North Shropshire	27.8	29.0	1.2	31.8	4.0
Oswestry	23.6	41.8	18.2	23.6	0.0
Shrewsbury & Atcham	12.1	22.9	10.8	10.9	-1.2
South Shropshire	38.0	44.8	6.8	35.8	-2.2
Hadley Castle	11.3	10.8	-0.5	27.0	15.7
Lakeside South	14.9	14.4	-0.5	26.2	11.3
The Wrekin	10.1	8.3	-1.7	23.0	13.0
Powys	37.8	56.5	18.7	36.5	-1.3
Grand Total	**20.0**	**26.3**	**6.2**	**25.1**	**5.1**

This table shows the average time critical journey time for each locality/option. The change that would result from B and C1/2 compared with now (A) is colour coded to reflect the scale of the change.

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NHS

Option A

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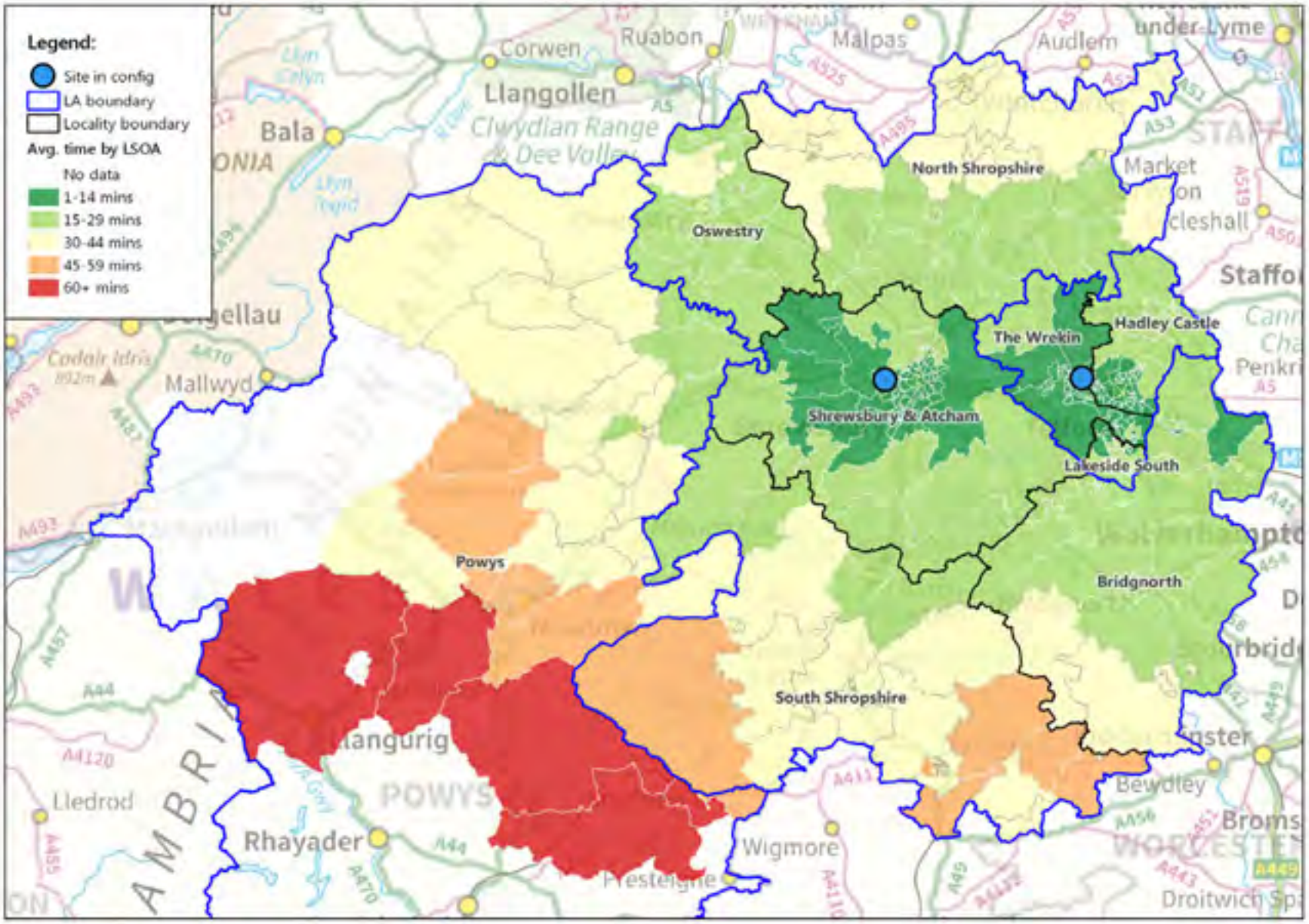
Option A – Overall Activity
Activity retained at SaTH (car/ambulance)

NHS



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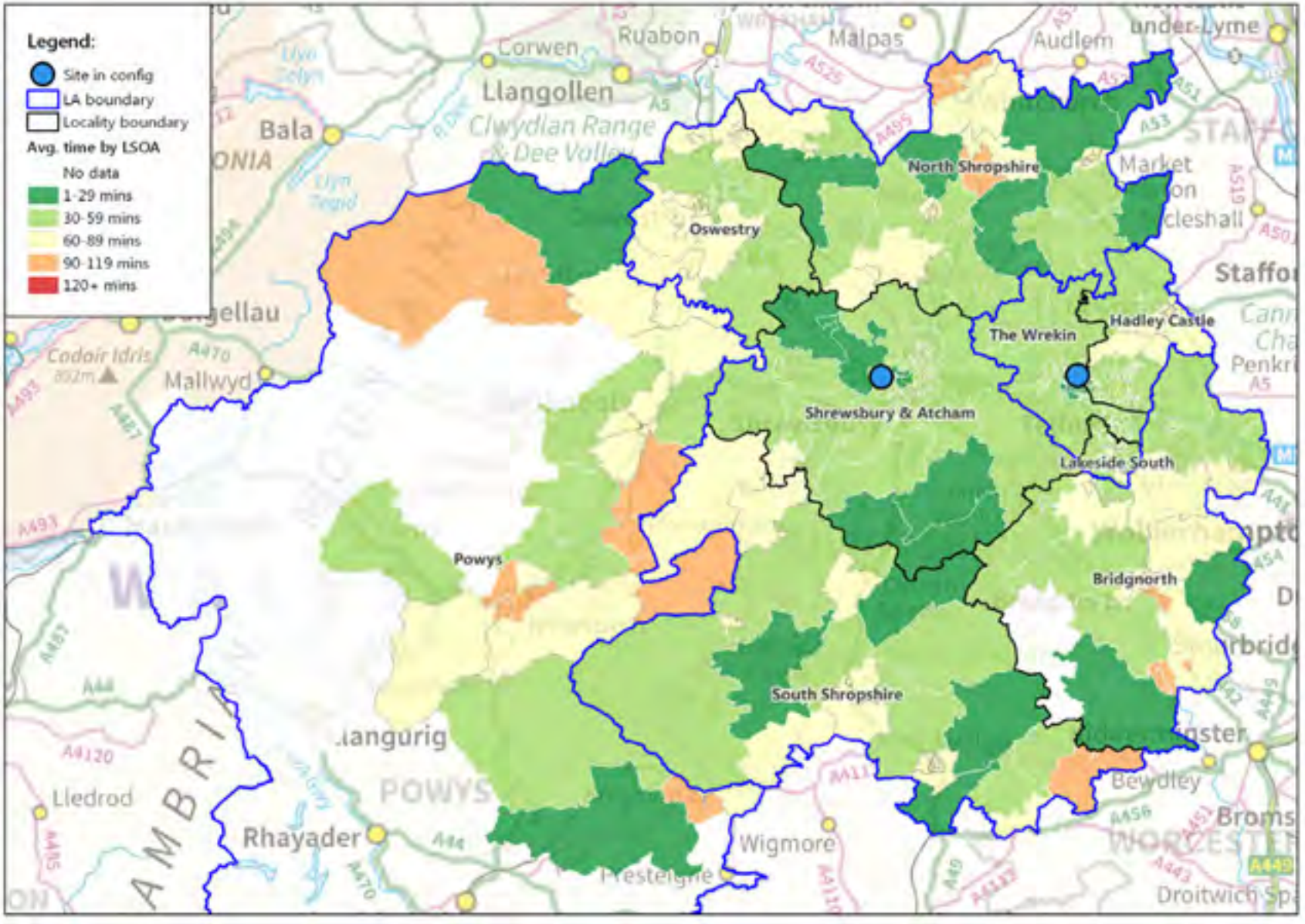
Option A – Overall Activity
Activity retained at SaTH (public transport)

NHS



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Option A – Overall Activity

NHS

Average Journey Times	Complex Planned		Emergency Care	Non-Complex Planned	
Mode of Transport	Public Transport	Car/Ambulance	Ambulance	Public Transport	Car/Ambulance
Bridgnorth	69.8	23.9	26.0	76.8	29.4
North Shropshire	77.0	31.5	30.3	63.7	31.3
Oswestry	99.2	42.8	27.0	67.7	26.9
Shrewsbury & Atcham	63.8	22.5	12.5	40.8	12.5
South Shropshire	72.2	48.5	38.9	57.5	40.3
Hadley Castle	48.2	13.8	14.1	63.7	19.9
Lakeside South	51.9	15.1	15.9	64.8	20.3
The Wrekin	37.1	10.6	10.6	49.9	14.7
Powys	76.8	48.8	39.6	75.5	37.2
Out Of Area	69.8	31.3	24.8	58.0	35.9
Overall Average	**62.1**	**25.0**	**20.9**	**58.5**	**24.0**

Average Journey Times	Outpatient (Non-Complex)		Urgent Care		Women and Children	
Mode of Transport	Public Transport	Car/Ambulance	Public Transport	Car/Ambulance	Public Transport	Car/Ambulance
Bridgnorth	60.7	22.0	62.7	22.4	60.4	22.4
North Shropshire	62.6	29.5	58.5	28.2	73.3	28.4
Oswestry	58.3	23.2	64.0	25.6	85.9	35.7
Shrewsbury & Atcham	40.6	12.6	38.7	11.5	58.7	20.8
South Shropshire	54.4	36.2	57.0	37.8	71.5	42.4
Hadley Castle	48.4	14.1	40.9	11.5	41.2	11.2
Lakeside South	52.4	15.6	48.9	14.3	48.0	13.7
The Wrekin	36.5	10.7	30.4	8.8	30.5	8.7
Powys	61.1	37.5	50.1	38.4	87.9	53.3
Out Of Area	61.7	29.5	64.4	21.9	30.7	16.6
Overall Average	**50.4**	**19.7**	**44.4**	**16.2**	**54.9**	**21.1**

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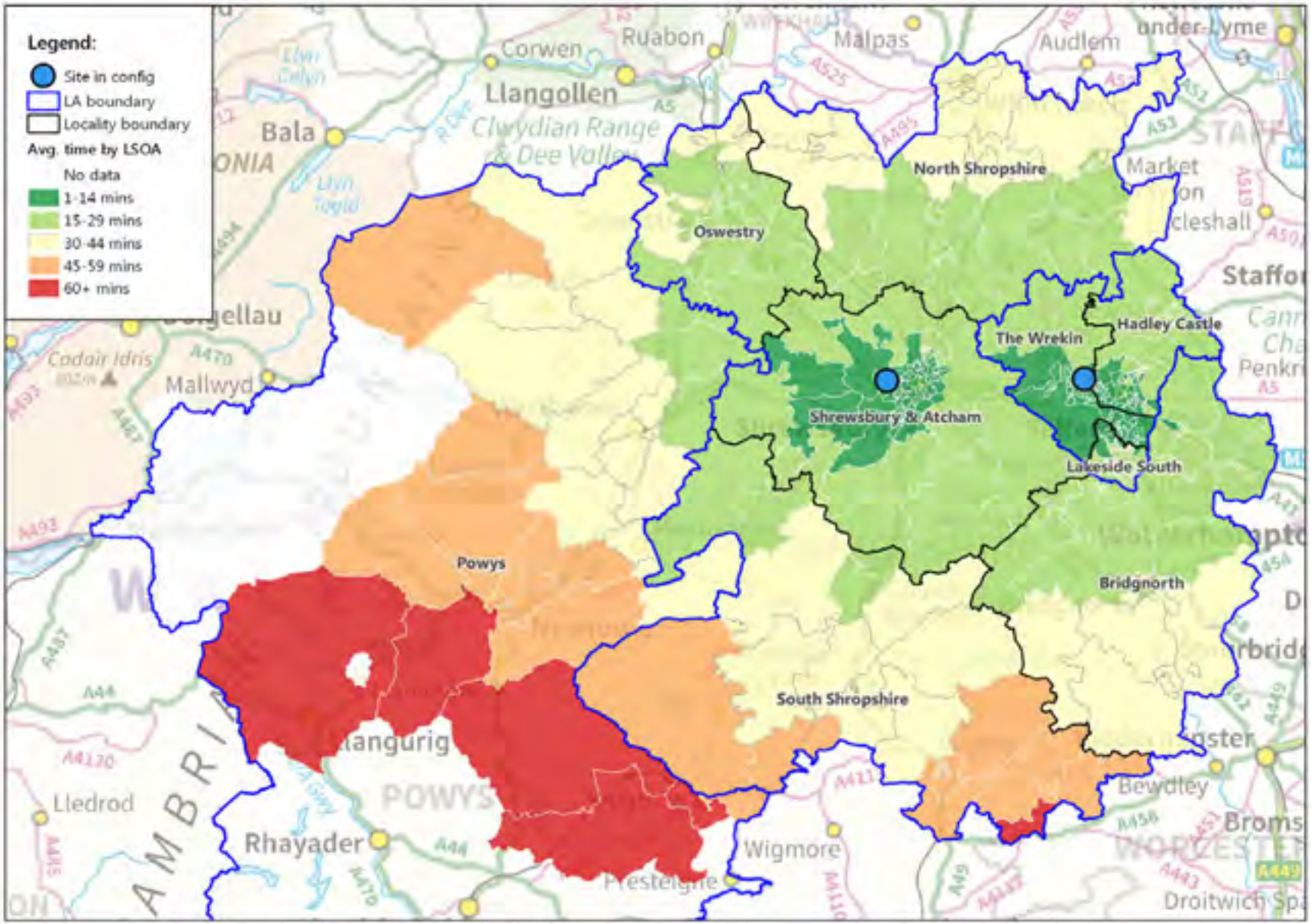
Option A – Emergency
Activity retained at SaTH (car/ambulance)

NHS



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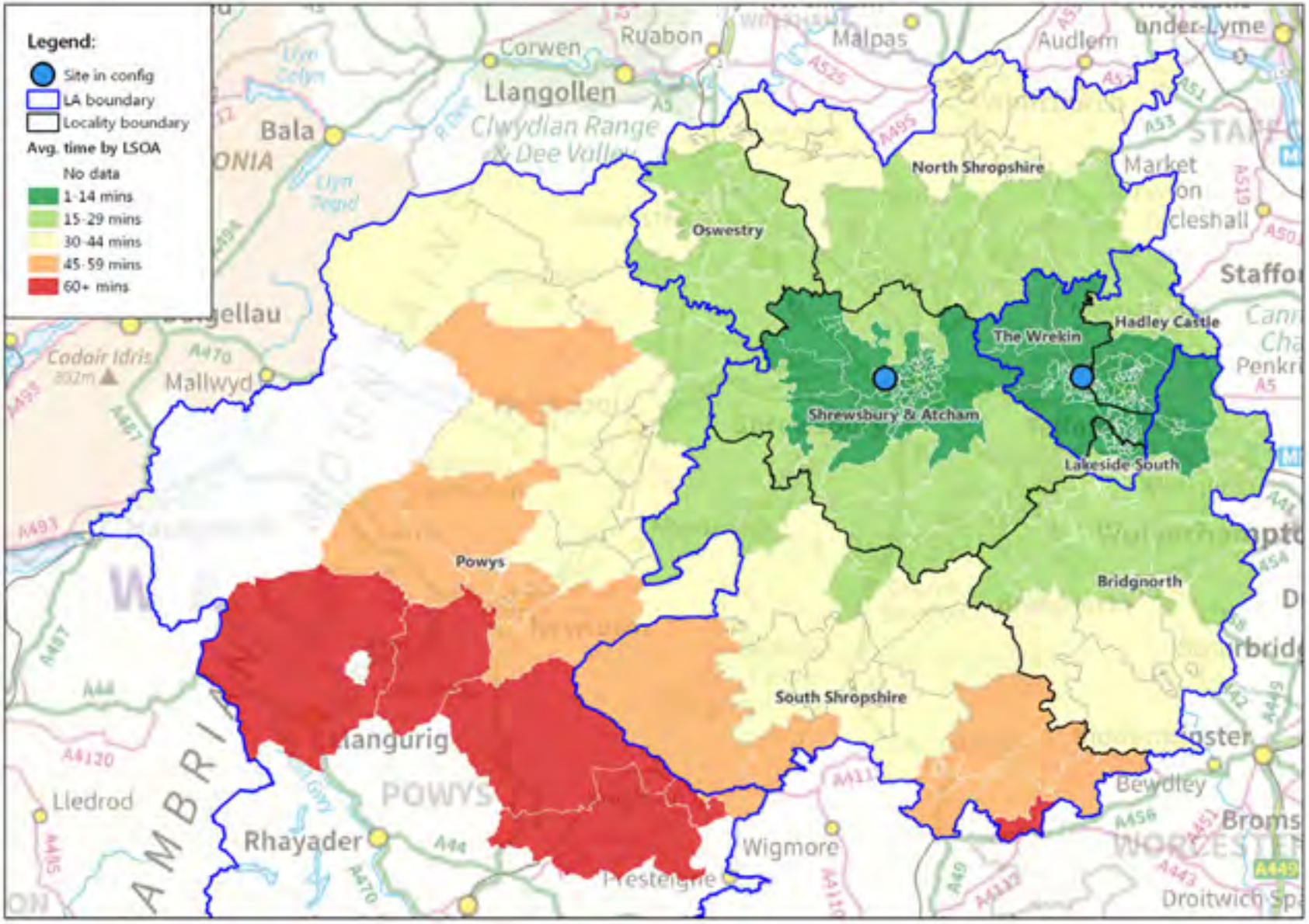
Option A – Urgent Care
Activity retained at SaTH (car/ambulance)

NHS



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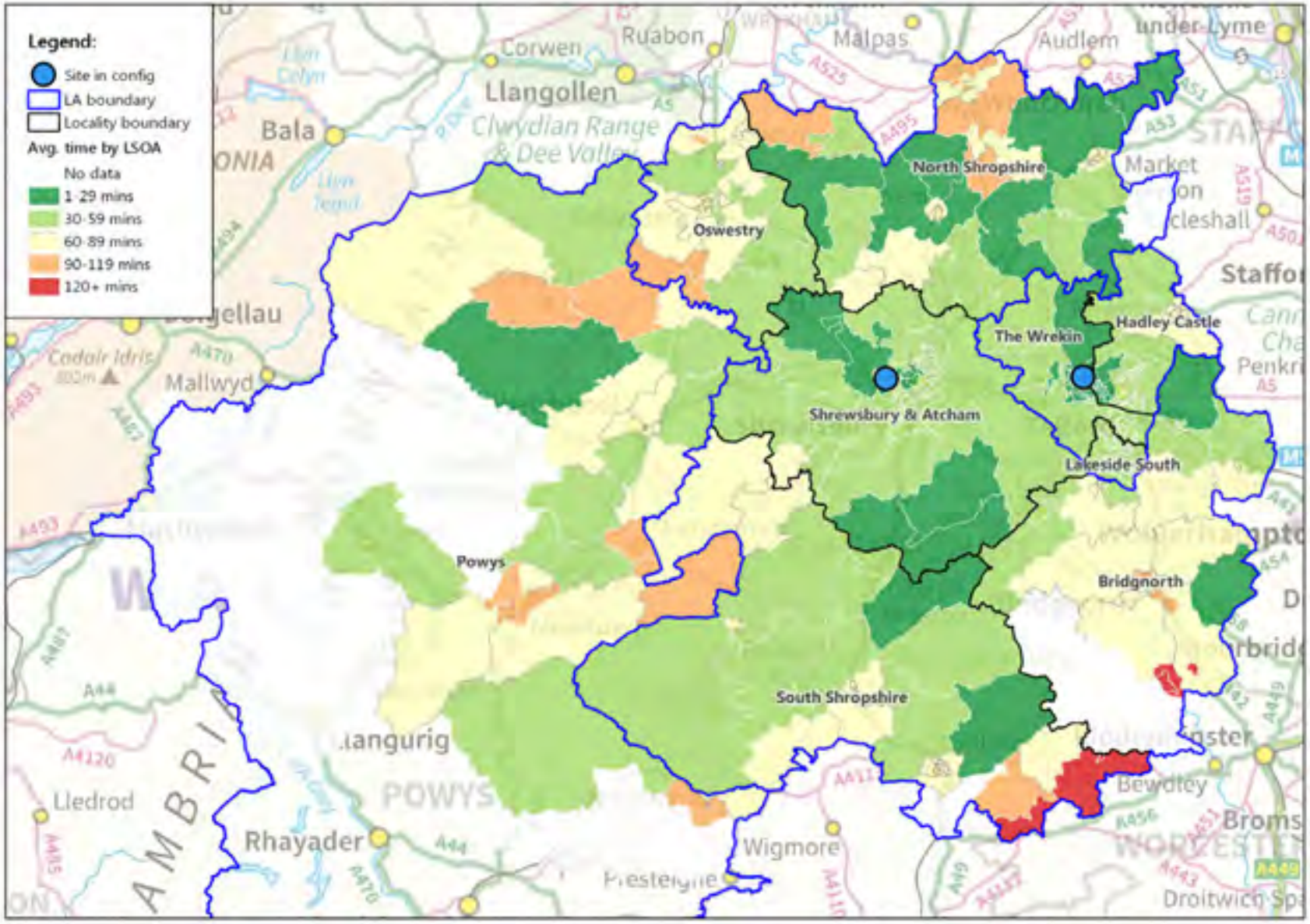
Option A – Urgent Care
Activity retained at SaTH (public transport)

NHS



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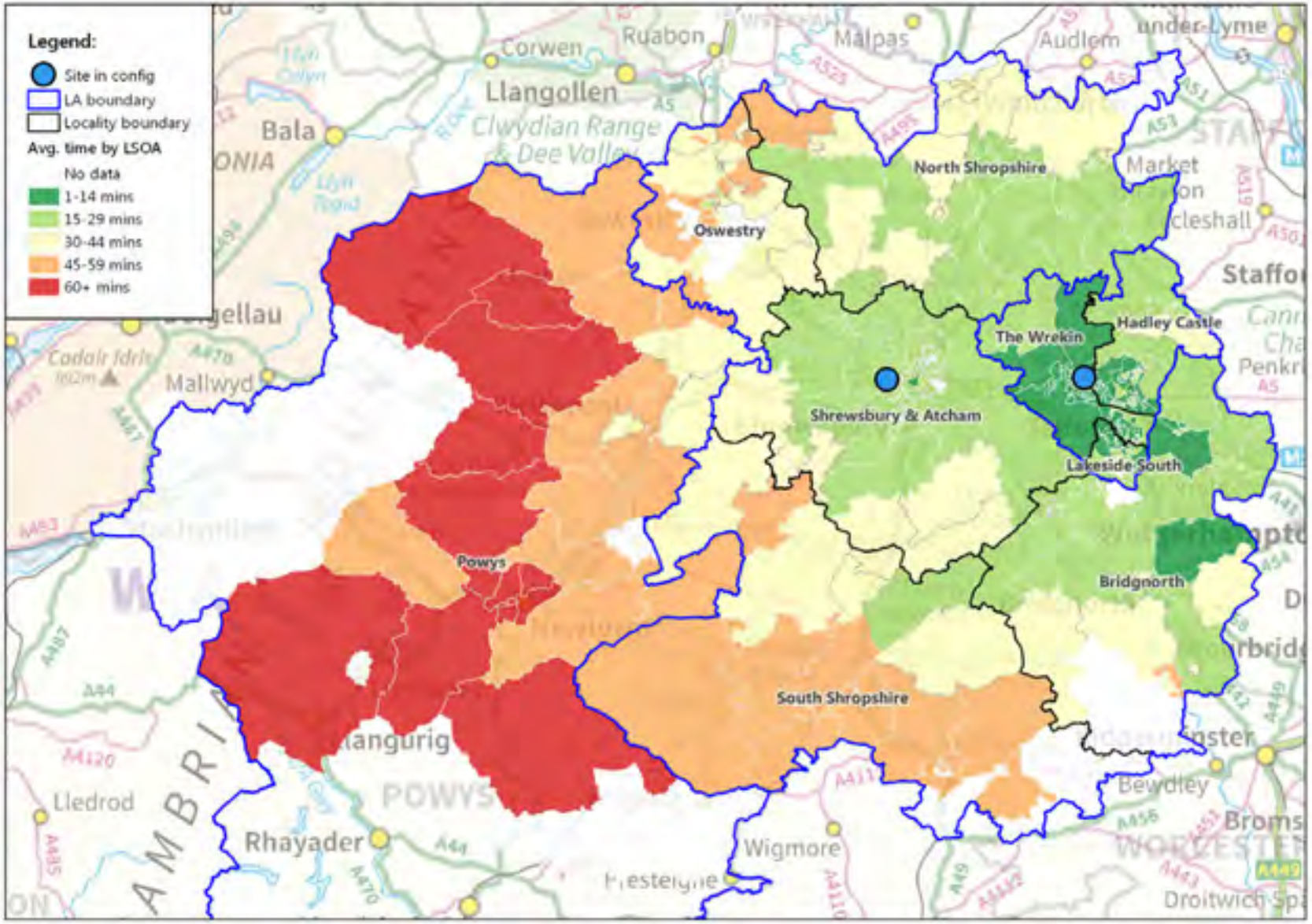
Option A – Complex Planned Care
Activity retained at SaTH (car/ambulance)

NHS



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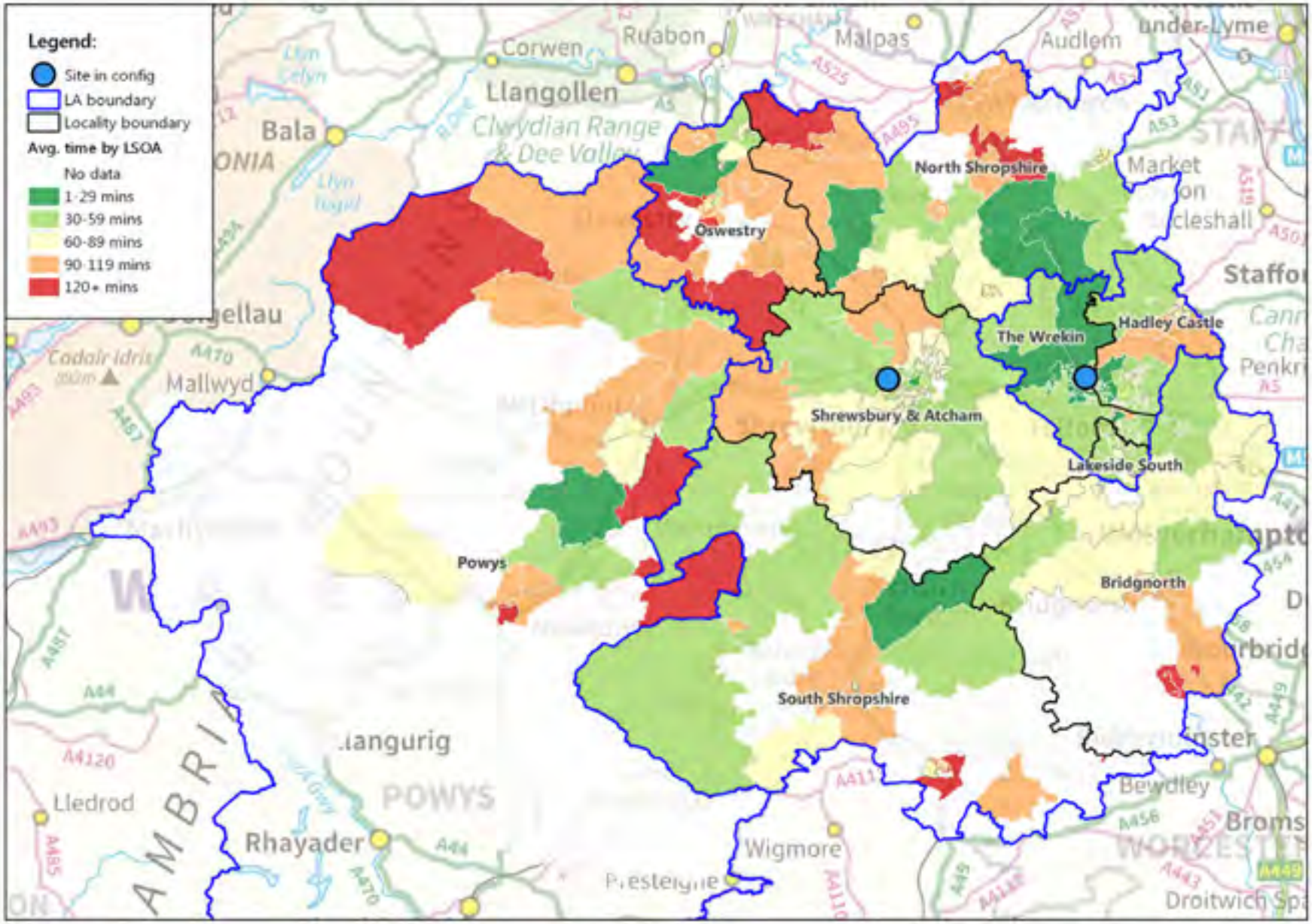
Option A – Complex Planned Care
Activity retained at SaTH (public transport)

NHS



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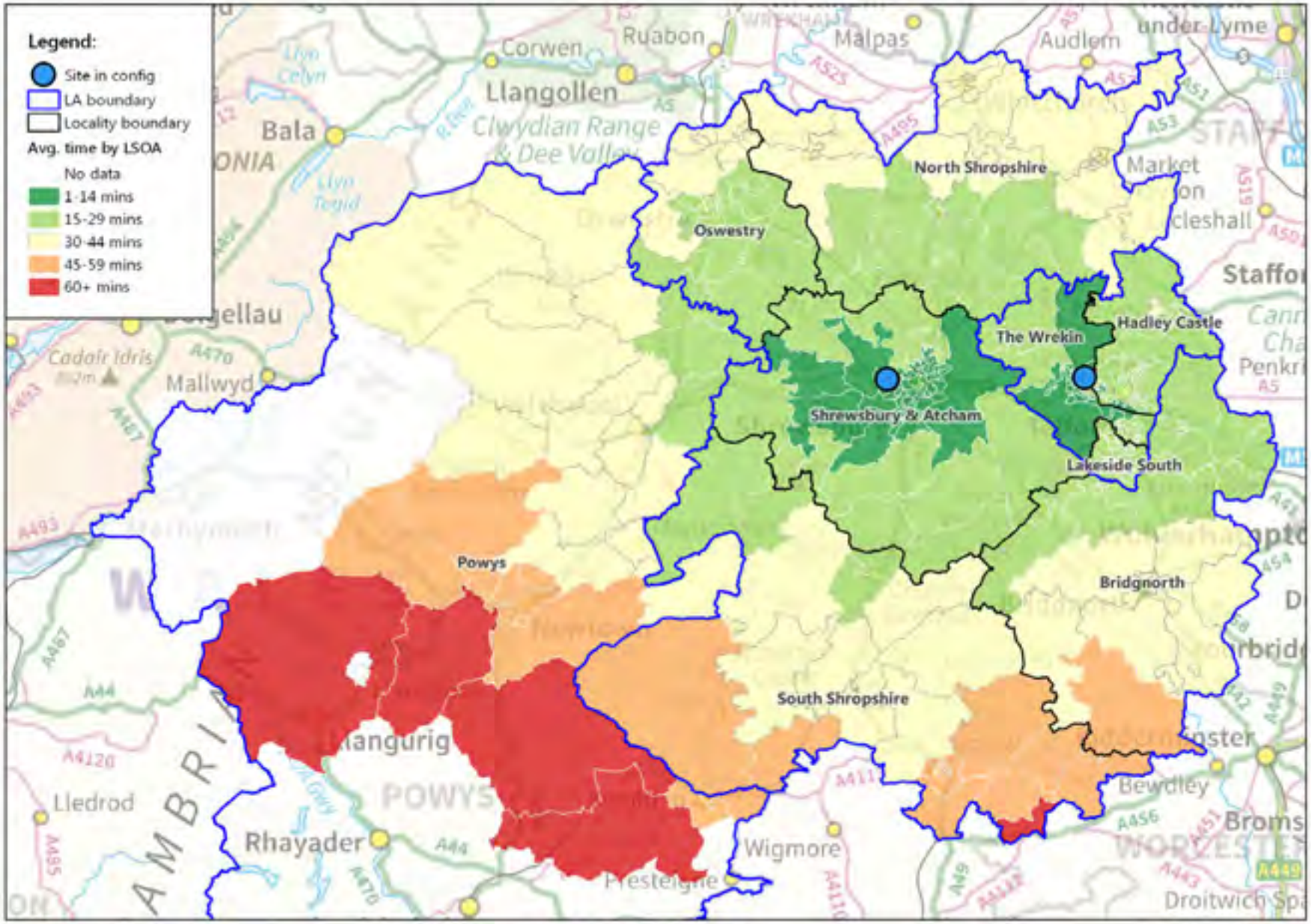
Option A – Non-Complex Planned Care
Activity retained at SaTH (car/ambulance)

NHS



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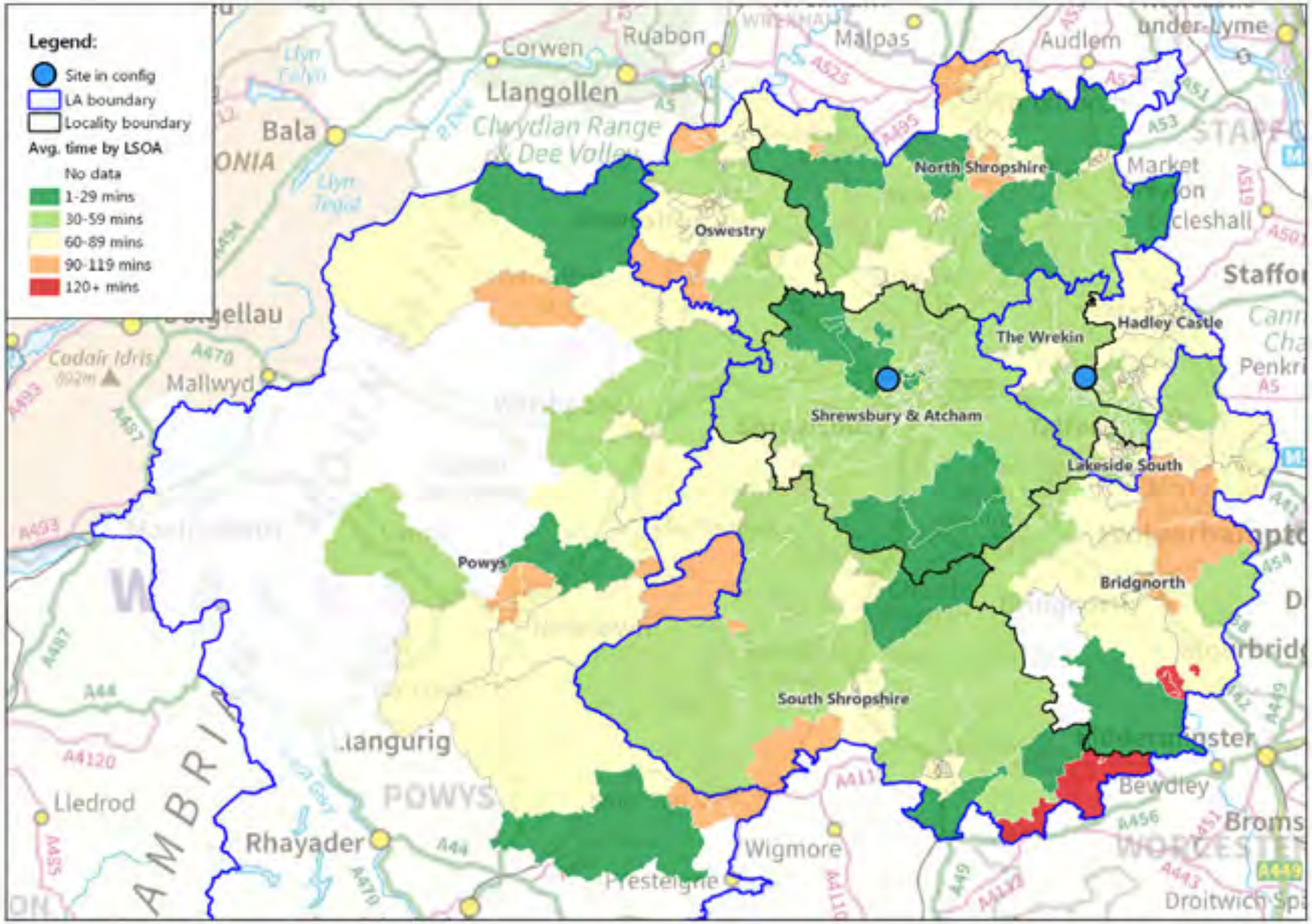
Option A – Non-Complex Planned Care
Activity retained at SaTH (public transport)

NHS



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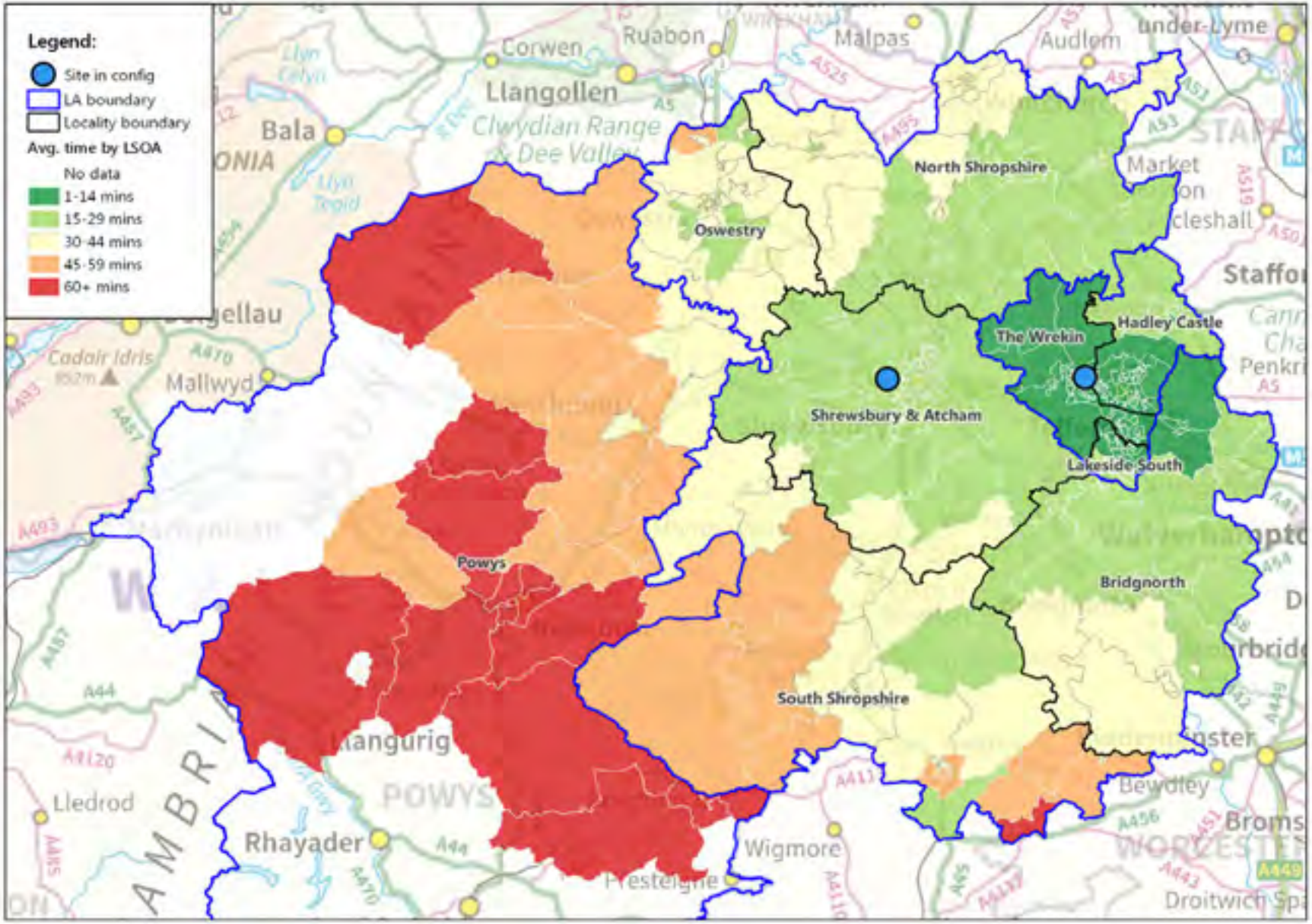
Option A – Women's & Children's
Activity retained at SaTH (car/ambulance)

NHS



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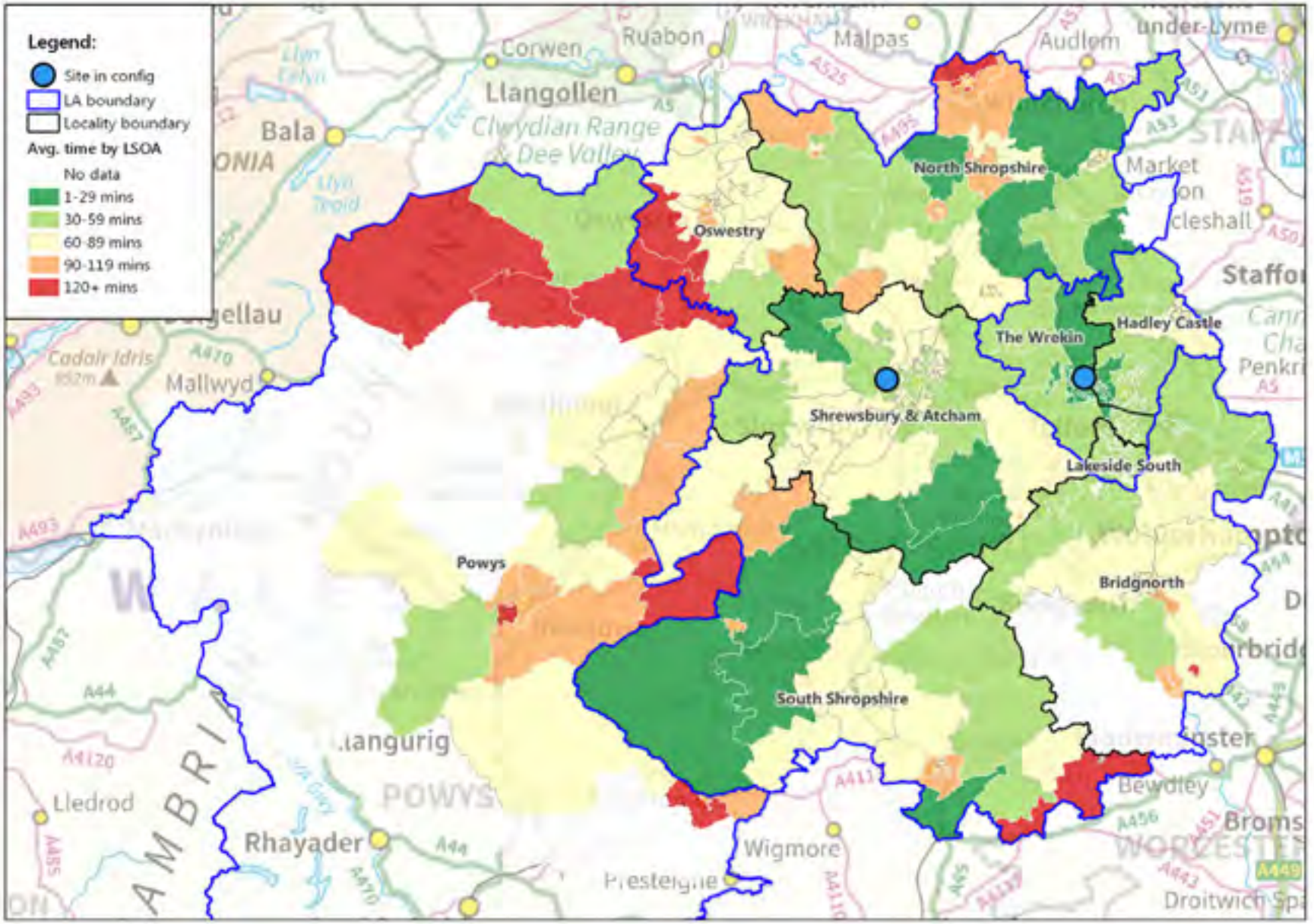
Option A – Women's & Children's
Activity retained at SaTH (public transport)

NHS



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NHS

Option B

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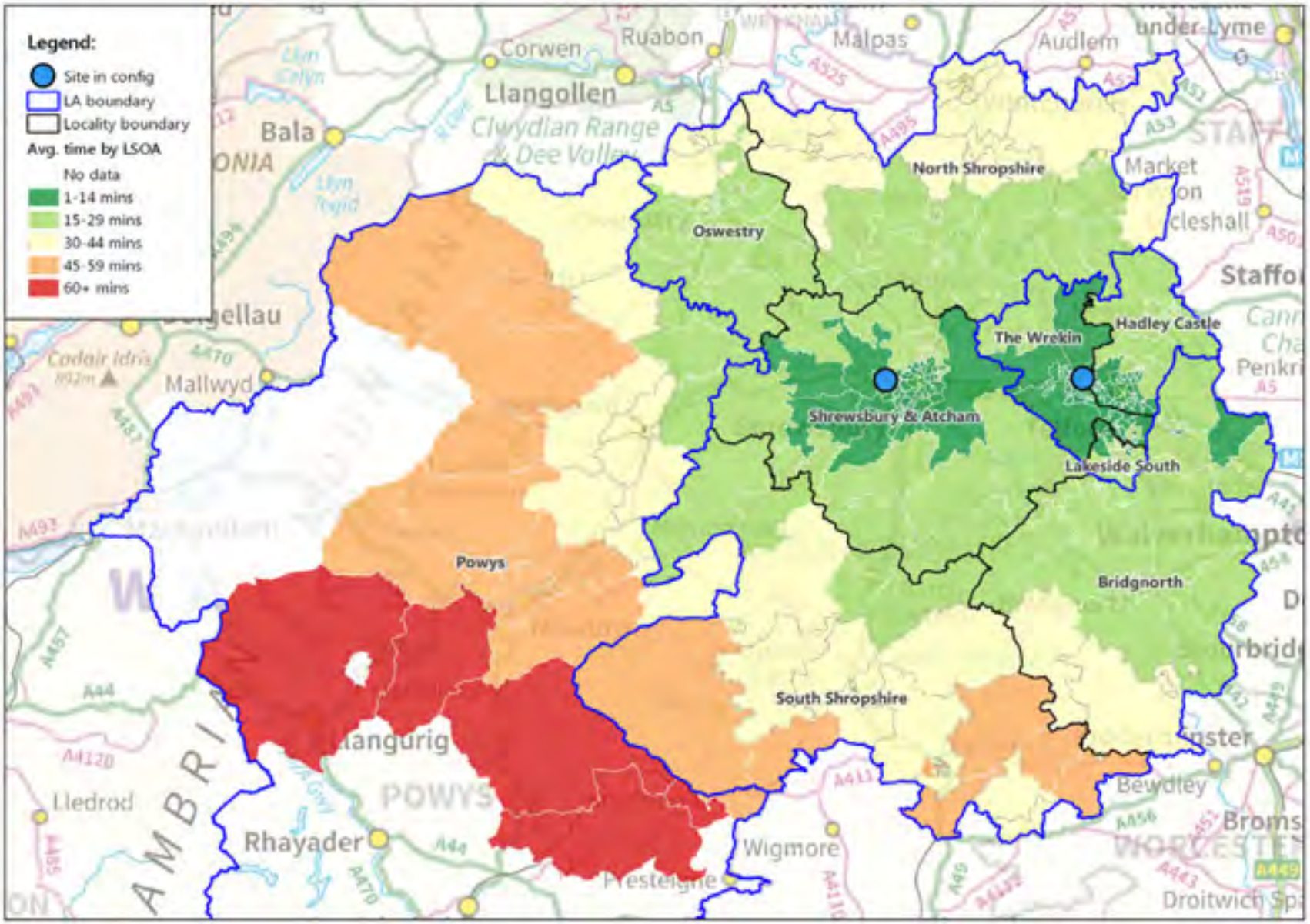
Option B – Overall Activity
Activity retained at SaTH (car/ambulance)

NHS



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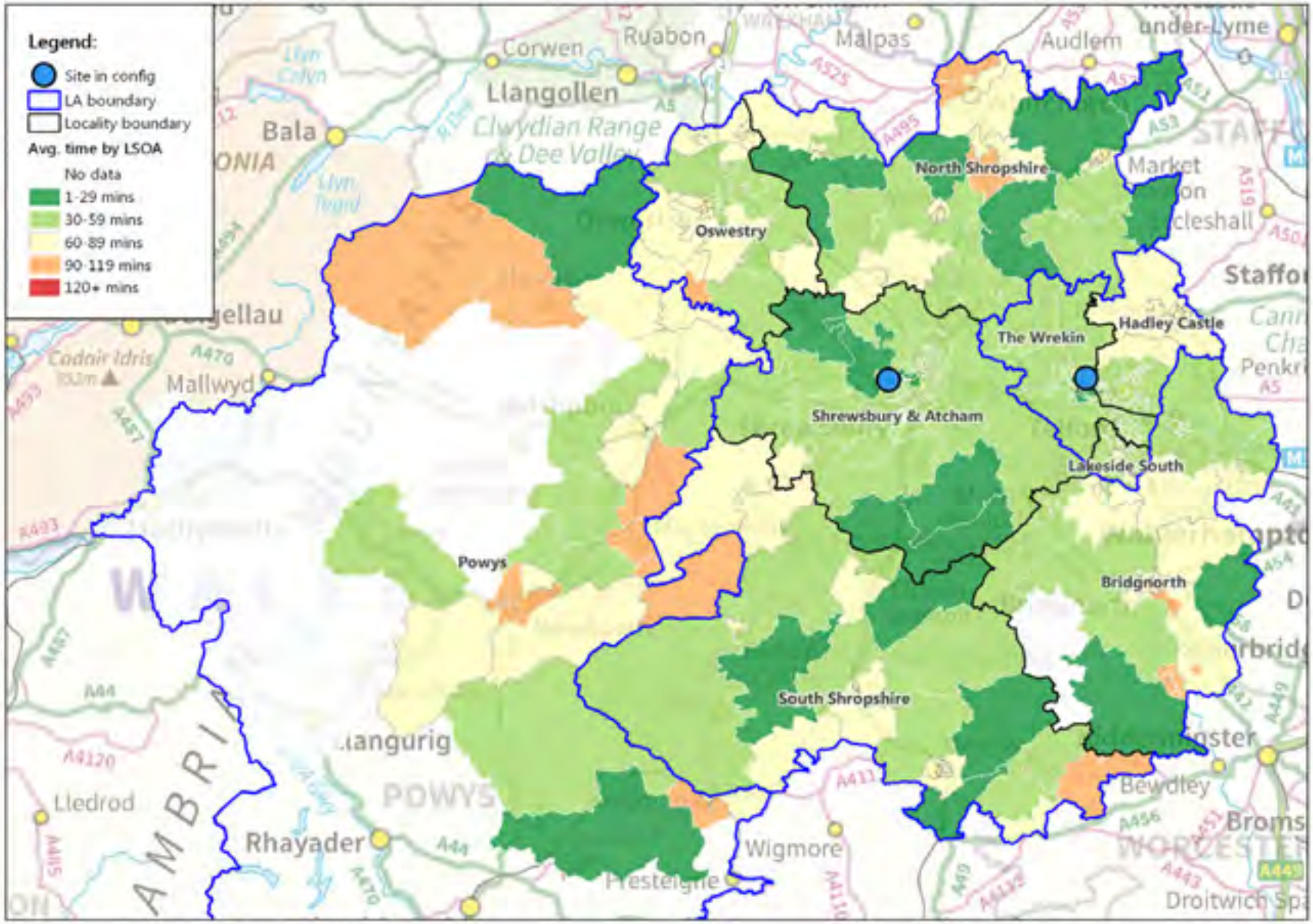
Option B – Overall Activity
Activity retained at SaTH (public transport)

NHS



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Option B – Emergency Care
Activity retained at SaTH (car/ambulance)

NHS

	Locality										All journeys	
	Shropshire					Telford			Powys	Out of Area		
Impact factor	Bridgnorth	North Shropshire	Oswestry	Shrewsbury & Atcham	South Shropshire	Hadley Castle	Lakeside South	The Wrekin	Powys		**n**	**% of all**
Total baseline journeys	4,942	6,922	3,377	14,557	3,249	8,633	5,678	7,222	5,478	2,473	**62,531**	**100.0%**
Baseline avg. time (mins)	26.0	30.3	27.0	12.5	38.9	14.1	15.9	10.6	39.6	24.8	**20.9**	
Option B avg. time (mins)	23.8	29.9	45.0	23.9	47.8	11.5	13.9	8.2	56.5	23.3	**25.3**	
Journeys displaced to PRH	**1,095**	**4,272**	**3,010**	**12,955**	**2,847**	**1,417**	**858**	**1,178**	**4,628**	**626**	**32,886**	**52.6%**
Change to avg. journey time (mins)	-9.9	-0.5	20.1	12.9	10.1	-15.7	-13.6	-14.5	20.0	-6.5	**8.5**	
Displaced avg. time (mins)	25.0	31.7	45.3	24.1	48.0	11.9	13.9	8.7	59.8	48.2	**33.3**	
Patients living nearer to an alternative site than PRH	**60**	**1,561**	**2,823**	**23**	**745**				**4,039**	**892**	**10,143**	**16.2%**
Option B avg. time (mins) if alternative chosen	23.7	28.1	27.0	23.9	44.4				51.4	17.0	**23.3**	
Displaced patients in protected groups												
Age - 75+	278	1,283	993	3,311	1,070	270	150	213	1,595	94	**9,257**	**14.8%**
change to avg. journey time	-9.6	0.0	20.1	13.5	9.9	-15.7	-13.6	-14.4	20.0	-6.0	**10.2**	
Age - Pre-school	6	67	41	549	29	8	2	10	63	9	**784**	**1.3%**
change to avg. journey time	-10.0	1.8	20.1	12.1	12.1	-15.6	-13.7	-11.9	20.0	-9.9	**11.2**	
BME groups	48	269	193	892	145	154	49	140	251	44	**2,185**	**3.5%**
change to avg. journey time	-9.5	-0.8	20.1	13.0	10.8	-16.5	-13.6	-14.7	19.9	-9.5	**7.2**	
Gender - Male	595	2,206	1,507	6,174	1,428	678	399	552	2,334	371	**16,244**	**26.0%**
change to avg. journey time	-9.9	-1.0	20.1	12.7	10.1	-15.8	-13.6	-14.6	20.0	-6.1	**8.4**	
Gender - Female	500	2,066	1,503	6,781	1,419	739	459	626	2,294	255	**16,642**	**26.6%**
change to avg. journey time	-9.9	0.0	20.1	13.0	10.1	-15.7	-13.6	-14.5	20.0	-7.2	**8.7**	
IMD 1&2 (most deprived 40%)	235	905	879	2,985	877	728	578	673	940		**8,800**	**14.1%**
change to avg. journey time	-10.4	-2.9	20.2	10.1	8.0	-15.8	-13.7	-13.9	19.9		**4.5**	

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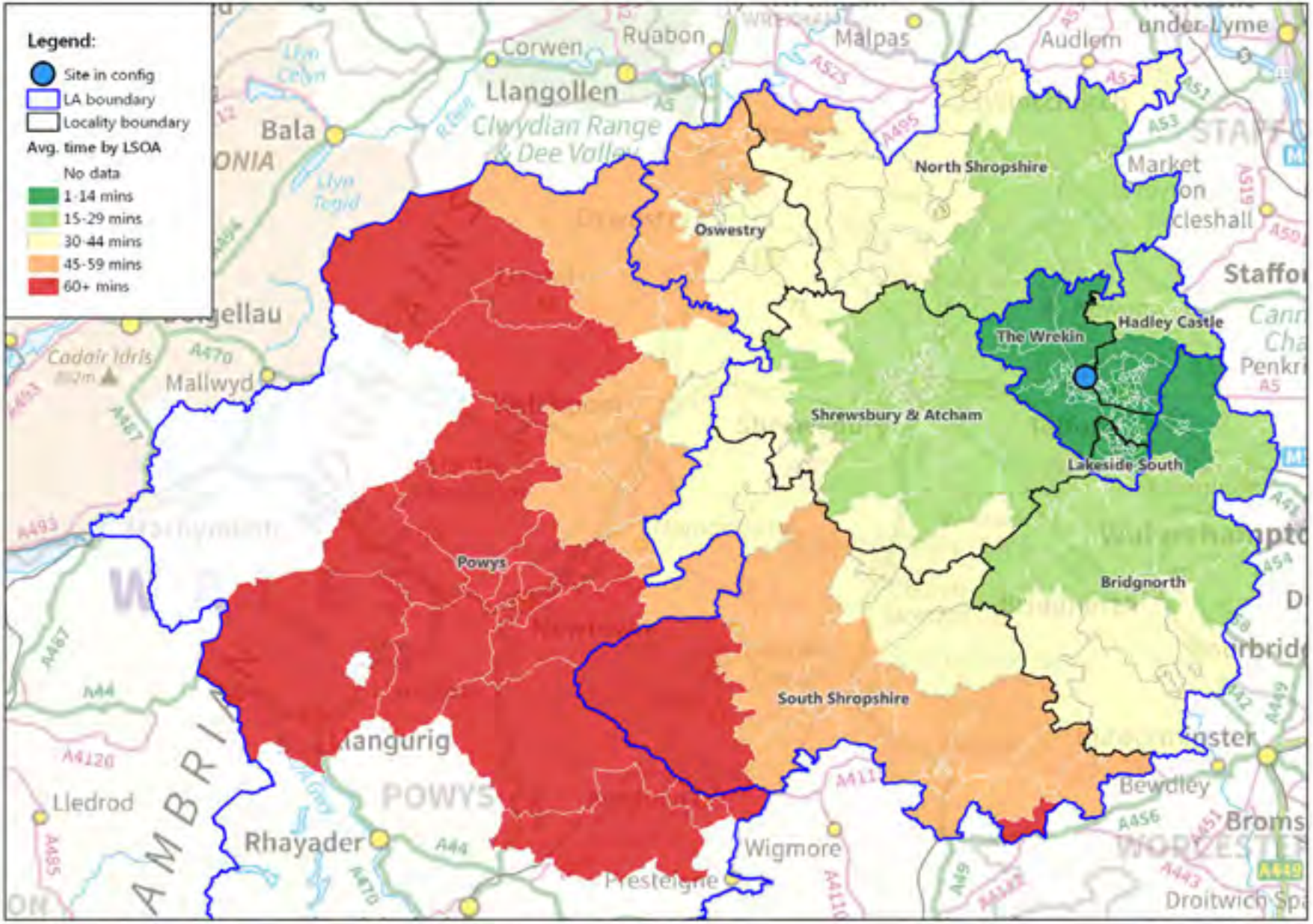
Option B – Emergency Care
Activity retained at SaTH (car/ambulance)

NHS



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Option B – Complex Planned Care
Activity retained at SaTH (car/ambulance)

NHS

	Locality										All journeys	
	Shropshire					Telford			Powys	Out of Area		
Impact factor	Bridgnorth	North Shropshire	Oswestry	Shrewsbury & Atcham	South Shropshire	Hadley Castle	Lakeside South	The Wrekin	Powys	Out of Area	**n**	**% of all**
Total baseline journeys	109	161	73	271	68	200	132	167	119	26	**1,326**	**100.0%**
Baseline avg. time (mins)	23.9	31.5	42.5	22.5	47.9	13.8	15.1	10.6	48.8	26.0	**25.0**	
Option B avg. time (mins)	22.6	31.4	46.0	24.2	50.1	11.6	13.8	8.7	52.4	24.9	**25.1**	
Journeys displaced to PRH	**15**	**25**	**13**	**37**	**15**	**28**	**13**	**21**	**21**	**2**	**190**	**14.3%**
Change to avg. journey time (mins)	-9.3	-1.0	20.1	12.5	9.9	-15.6	-13.7	-15.1	20.2	-13.7	**0.9**	
Displaced avg. time (mins)	23.9	32.0	46.1	23.6	48.4	11.9	14.2	9.0	60.3	27.7	**28.3**	
Patients living nearer to an alternative site than PRH		**12**	**13**		**5**				**17**	**2**	**49**	**3.7%**
Option B avg. time (mins) if alternative chosen		30.8	41.9		49.3				51.8	24.3	**24.7**	
Displaced patients in protected groups												
Age - 75+	3	7	3	13	5	3	2	3	4	1	**44**	**3.3%**
change to avg. journey time	-9.5	-1.5	20.2	12.0	10.4	-14.5	-13.7	-13.7	20.2	-13.7	**4.2**	
Age - Pre-school											**0**	**0.0%**
change to avg. journey time												
BME groups			1			1	3	3			**8**	**0.6%**
change to avg. journey time			20.2			-16.2	-13.7	-15.7			**-10.5**	
Gender - Male	10	16	7	18	12	19	10	13	10		**115**	**8.7%**
change to avg. journey time	-9.5	-2.1	20.2	12.8	9.6	-15.7	-13.7	-14.3	20.2		**-0.5**	
Gender - Female	5	9	6	19	3	9	3	8	11	2	**75**	**5.7%**
change to avg. journey time	-8.9	1.1	20.0	12.2	11.1	-15.4	-13.7	-16.4	20.2	-13.7	**3.1**	
IMD 1&2 (most deprived 40%)	2	6	5	10	6	16	10	14	7		**76**	**5.7%**
change to avg. journey time	-10.6	2.0	20.2	8.8	9.6	-15.9	-13.7	-14.3	20.2		**-2.8**	

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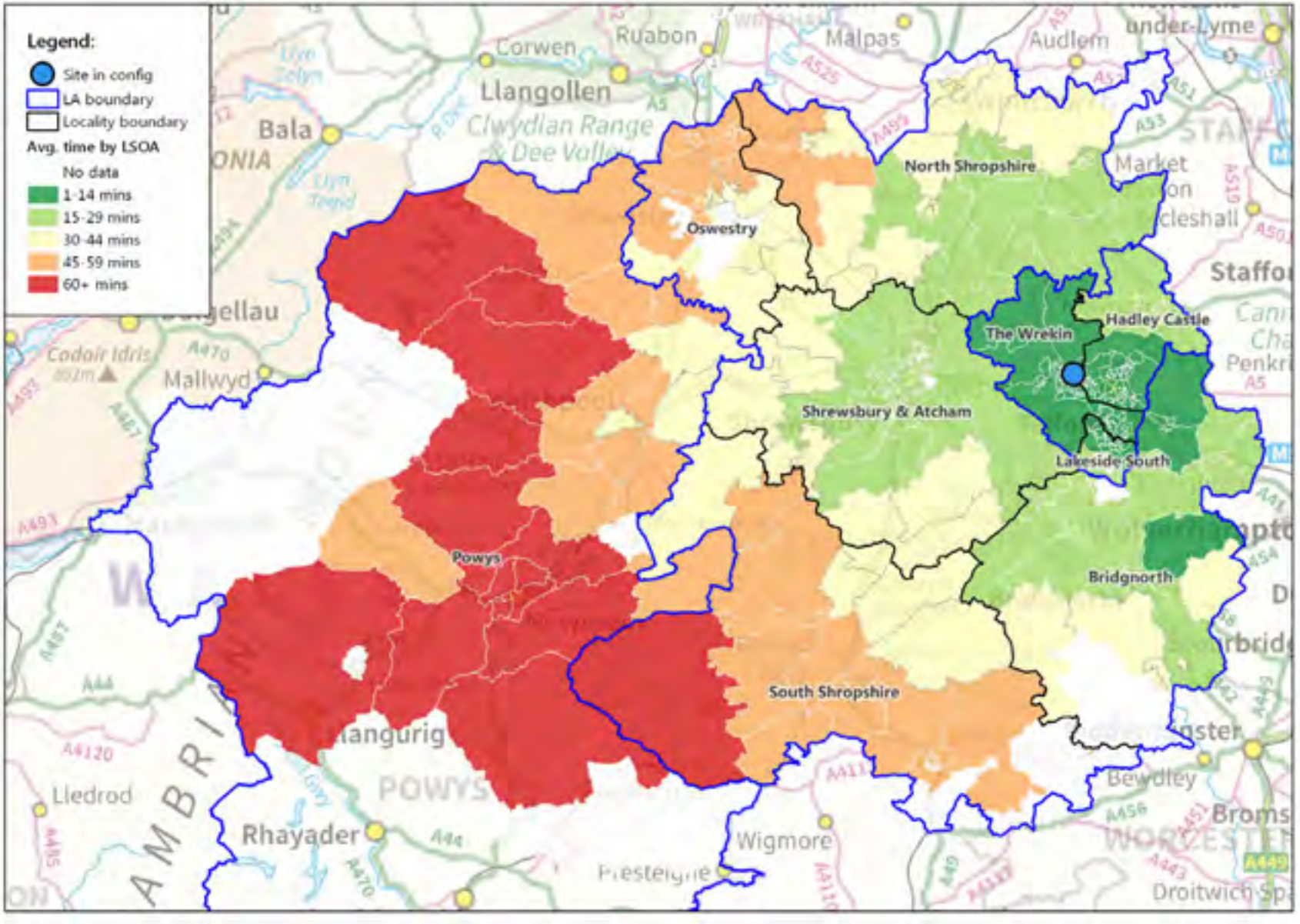
Option B – Complex Planned Care
Activity retained at SaTH (car/ambulance)

NHS



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Option B – Complex Planned Care
Activity retained at SaTH (public transport)

NHS

	Locality										All journeys	
	Shropshire					Telford			Powys	Out of Area		
Impact factor	Bridgnorth	North Shropshire	Oswestry	Shrewsbury & Atcham	South Shropshire	Hadley Castle	Lakeside South	The Wrekin	Powys		**n**	**% of all**
Total baseline journeys	110	160	73	269	68	198	126	167	119	26	**1,316**	**100.0%**
Baseline avg. time (mins)	69.8	77.0	99.5	63.8	70.8	48.2	51.9	37.1	69.8	72.9	**62.1**	
Option B avg. time (mins)	67.2	78.9	106.7	67.7	74.2	42.2	48.4	30.6	72.9	70.5	**61.6**	
Journeys displaced to PRH	**13**	**19**	**13**	**34**	**9**	**28**	**13**	**21**	**10**	**2**	**162**	**12.3%**
Change to avg. journey time (mins)	-21.4	15.5	40.3	30.7	25.3	-42.5	-34.3	-51.7	36.4	-31.1	**-3.8**	
Displaced avg. time (mins)	72.1	96.9	109.0	70.2	109.5	44.1	49.1	30.9	114.6	127.2	**70.9**	
Patients living nearer to an alternative site than PRH	**8**	**11**	**13**		**5**	**1**			**2**	**2**	**42**	**3.2%**
Option B avg. time (mins) if alternative chosen	66.5	77.1	99.7		71.0	42.2			72.5	65.6	**60.7**	
Displaced patients in protected groups												
Age - 75+	3	7	3	11	2	3	2	3	3	1	**38**	**2.9%**
change to avg. journey time	-12.7	7.6	42.2	26.2	5.7	-46.7	-25.7	-45.3	39.7	-31.1	**5.3**	
Age - Pre-school											**0**	**0.0%**
change to avg. journey time												
BME groups			1			1	3	3			**8**	**0.6%**
change to avg. journey time			17.8			-25.4	-31.9	-42.1			**-28.7**	
Gender - Male	8	14	7	16	6	19	10	13	6		**99**	**7.5%**
change to avg. journey time	-19.2	10.6	38.0	30.5	23.0	-41.9	-33.7	-53.8	37.2		**-7.3**	
Gender - Female	5	5	6	18	3	9	3	8	4	2	**63**	**4.8%**
change to avg. journey time	-24.9	29.1	42.9	30.9	29.9	-43.7	-36.3	-48.3	35.0	-31.1	**1.8**	
IMD 1&2 (most deprived 40%)	2	6	5	9	4	16	10	14	4		**70**	**5.3%**
change to avg. journey time	-28.2	14.6	41.9	26.6	24.3	-48.5	-34.5	-47.5	43.3		**-14.8**	

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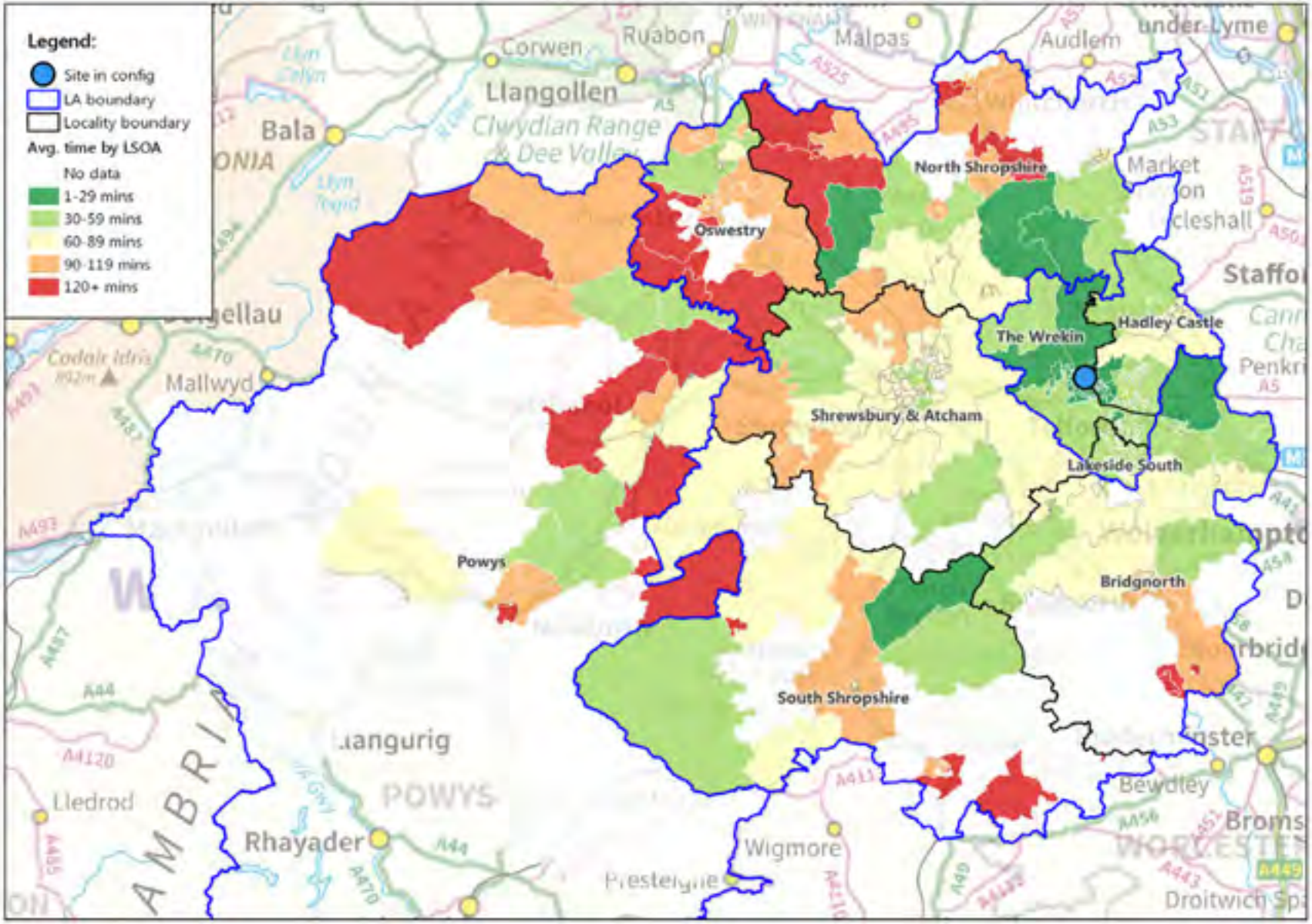
Option B – Complex Planned Care
Activity retained at SaTH (public transport)

NHS



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Option B – Non-Complex Planned Care
Activity retained at SaTH (car/ambulance)

NHS

	Locality										All journeys	
	Shropshire					Telford			Powys	Out of Area		
Impact factor	Bridgnorth	North Shropshire	Oswestry	Shrewsbury & Atcham	South Shropshire	Hadley Castle	Lakeside South	The Wrekin	Powys	Out of Area	**n**	**% of all**
Total baseline journeys	5,434	6,616	3,240	11,987	3,629	8,293	4,656	6,082	5,989	1,518	**57,444**	**100.0%**
Baseline avg. time (mins)	29.4	31.3	26.9	12.5	39.3	19.9	20.3	14.7	37.2	38.0	**24.0**	
Option B avg. time (mins)	33.9	33.1	24.6	11.3	38.2	26.7	26.3	22.0	35.6	41.0	**26.3**	
Journeys displaced to RSH	**2,247**	**1,485**	**369**	**1,230**	**448**	**3,622**	**2,063**	**2,917**	**490**	**369**	**15,240**	**26.5%**
Change to avg. journey time (mins)	10.8	7.9	-20.1	-11.8	-9.0	15.7	13.6	15.2	-20.0	12.5	**8.8**	
Displaced avg. time (mins)	34.4	36.3	25.8	11.9	39.2	27.6	27.6	23.2	39.7	44.9	**28.4**	
Patients living nearer to an alternative site than RSH	**1,719**	**1,054**	**239**		**166**	**657**			**21**	**369**	**4,225**	**7.4%**
Option B avg. time (mins) if alternative chosen	32.1	31.7	24.3		37.7	26.3			35.5	35.6	**25.7**	
Displaced patients in protected groups												
Age - 75+	496	309	65	229	81	643	339	538	93	71	**2,864**	**5.0%**
change to avg. journey time	10.6	8.6	-20.1	-11.9	-9.7	15.8	13.6	15.3	-20.0	12.6	**8.8**	
Age - Pre-school											**0**	**0.0%**
change to avg. journey time												
BME groups	108	86	17	56	16	314	133	271	19	53	**1,073**	**1.9%**
change to avg. journey time	10.9	8.7	-20.2	-13.3	-8.8	16.0	13.6	15.8	-20.2	12.6	**11.3**	
Gender - Male	1,088	695	158	554	189	1,698	979	1,326	214	187	**7,088**	**12.3%**
change to avg. journey time	10.9	8.0	-20.1	-11.6	-10.4	15.7	13.6	15.2	-19.9	12.6	**9.0**	
Gender - Female	1,159	790	211	676	259	1,924	1,084	1,591	276	182	**8,152**	**14.2%**
change to avg. journey time	10.6	7.8	-20.1	-12.1	-7.9	15.7	13.6	15.1	-20.0	12.3	**8.5**	
IMD 1&2 (most deprived 40%)	502	438	101	253	144	1,733	1,252	1,457	101		**5,981**	**10.4%**
change to avg. journey time	11.0	9.9	-20.2	-10.2	-5.9	15.7	13.7	14.2	-19.9		**11.3**	

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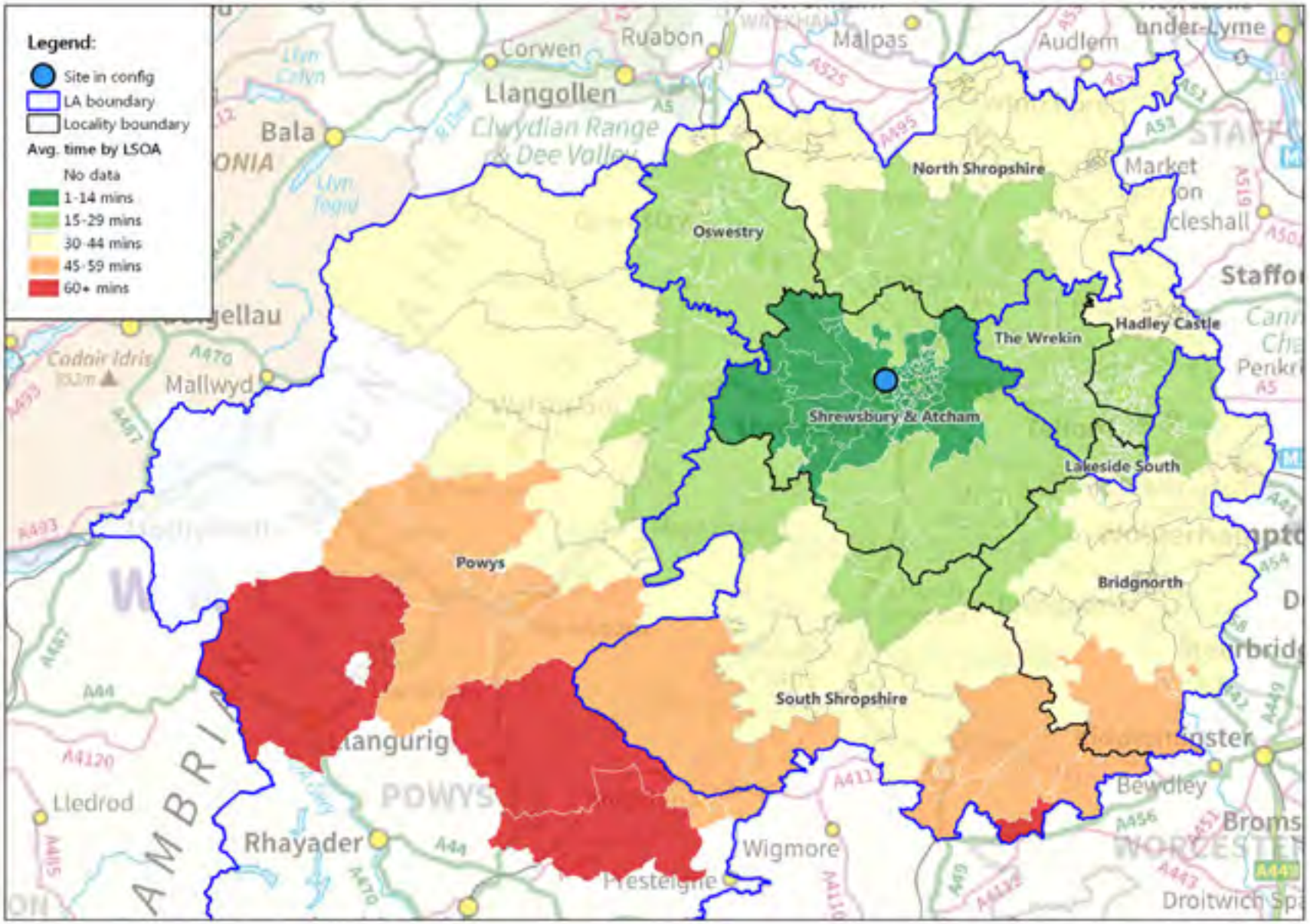
Option B – Non-Complex Planned Care
Activity retained at SaTH (car/ambulance)

NHS



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Option B – Non-Complex Planned Care
Activity retained at SaTH (public transport)

NHS

	Locality										All journeys	
	Shropshire					Telford			Powys	Out of Area		
Impact factor	Bridgnorth	North Shropshire	Oswestry	Shrewsbury & Atcham	South Shropshire	Hadley Castle	Lakeside South	The Wrekin	Powys		**n**	**% of all**
Total baseline journeys	5,430	6,588	3,218	11,888	3,632	8,142	4,439	5,986	5,987	1,497	**56,807**	**100.0%**
Baseline avg. time (mins)	76.8	63.7	67.5	40.8	58.4	63.7	64.8	49.9	58.0	81.3	**58.5**	
Option B avg. time (mins)	84.7	63.5	62.5	38.1	55.9	81.9	80.7	74.2	56.4	85.2	**64.6**	
Journeys displaced to PRH	**1,976**	**1,192**	**341**	**1,156**	**342**	**3,535**	**1,934**	**2,858**	**323**	**239**	**13,896**	**24.5%**
Change to avg. journey time (mins)	21.9	-0.9	-47.6	-27.9	-26.1	41.8	36.4	50.8	-29.9	23.6	**24.8**	
Displaced avg. time (mins)	99.4	81.7	69.5	41.7	77.0	85.4	84.8	78.9	96.6	140.8	**82.6**	
Patients living nearer to an alternative site than PRH	**1,774**	**532**	**89**		**173**	**3,155**	**347**	**1,784**	**40**	**237**	**8,131**	**14.3%**
Option B avg. time (mins) if alternative chosen	76.2	62.1	62.1		54.8	77.4	80.6	71.8	56.3	71.7	**62.3**	
Displaced patients in protected groups												
Age - 75+	440	254	61	219	65	637	324	532	64	41	**2,637**	**4.6%**
change to avg. journey time	21.3	2.7	-50.5	-28.6	-22.2	40.1	35.5	50.9	-31.0	22.9	**23.6**	
Age - Pre-school											**0**	**0.0%**
change to avg. journey time												
BME groups	88	65	15	54	12	305	121	256	14	34	**964**	**1.7%**
change to avg. journey time	24.0	-2.8	-51.8	-28.6	-15.9	45.2	35.4	51.2	-23.6	14.0	**31.9**	
Gender - Male	948	557	146	516	142	1,650	917	1,300	147	118	**6,441**	**11.3%**
change to avg. journey time	23.0	0.1	-48.4	-28.0	-24.3	42.0	36.2	51.4	-30.2	22.9	**25.5**	
Gender - Female	1,028	635	195	640	200	1,885	1,017	1,558	176	121	**7,455**	**13.1%**
change to avg. journey time	21.0	-1.8	-47.0	-27.8	-27.4	41.6	36.6	50.3	-29.6	24.2	**24.1**	
IMD 1&2 (most deprived 40%)	479	376	100	239	98	1,709	1,191	1,435	49		**5,676**	**10.0%**
change to avg. journey time	25.4	3.1	-47.9	-26.1	-22.6	47.1	33.8	44.1	-42.8		**32.1**	

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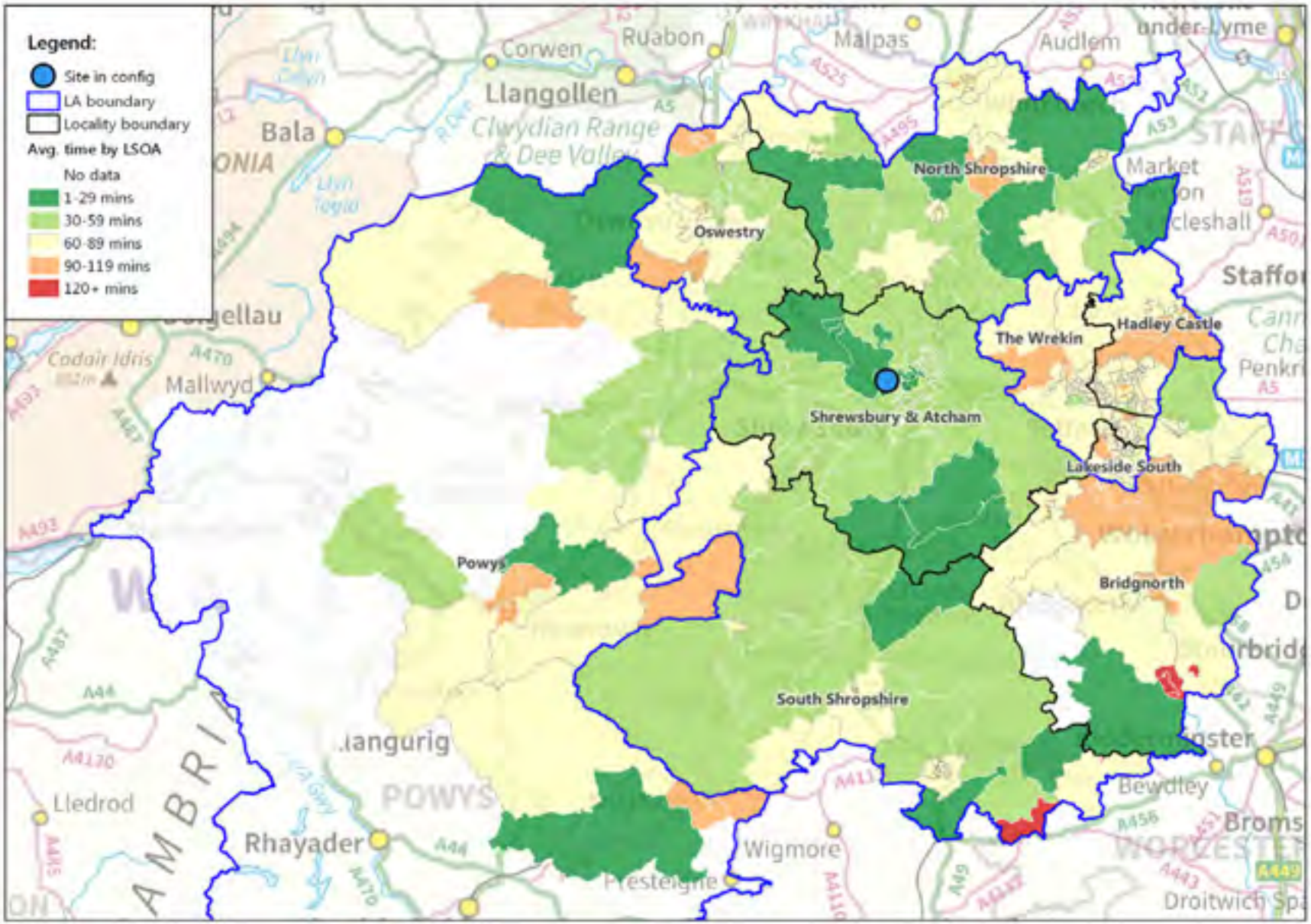
Option B – Non-Complex Planned Care
Activity retained at SaTH (public transport)

NHS



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NHS

Options C1 & C2

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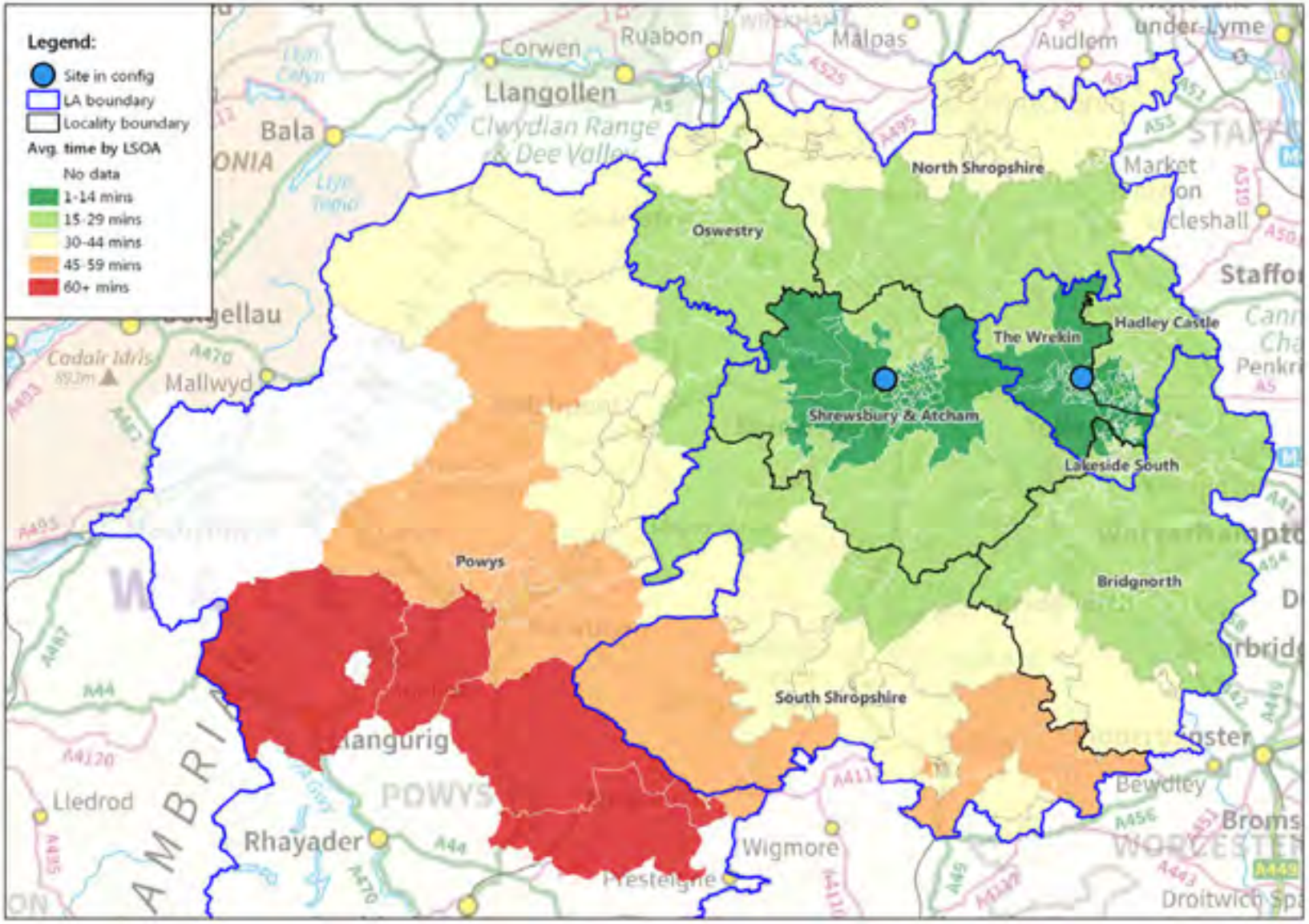
Option C1 – Overall Activity
Activity retained at SaTH (car/ambulance)

NHS



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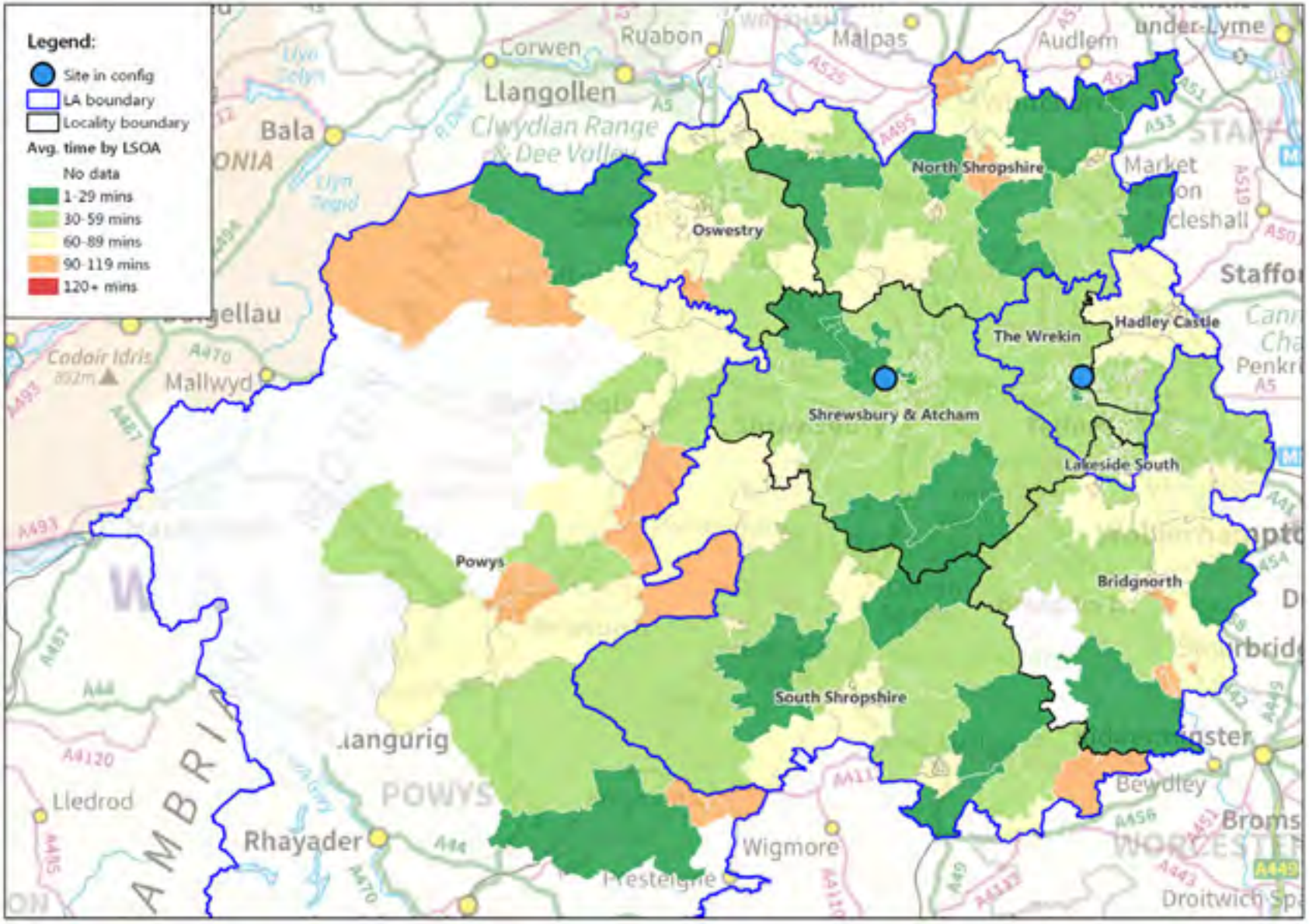
Option C1 – Overall Activity
Activity retained at SaTH (public transport)

NHS



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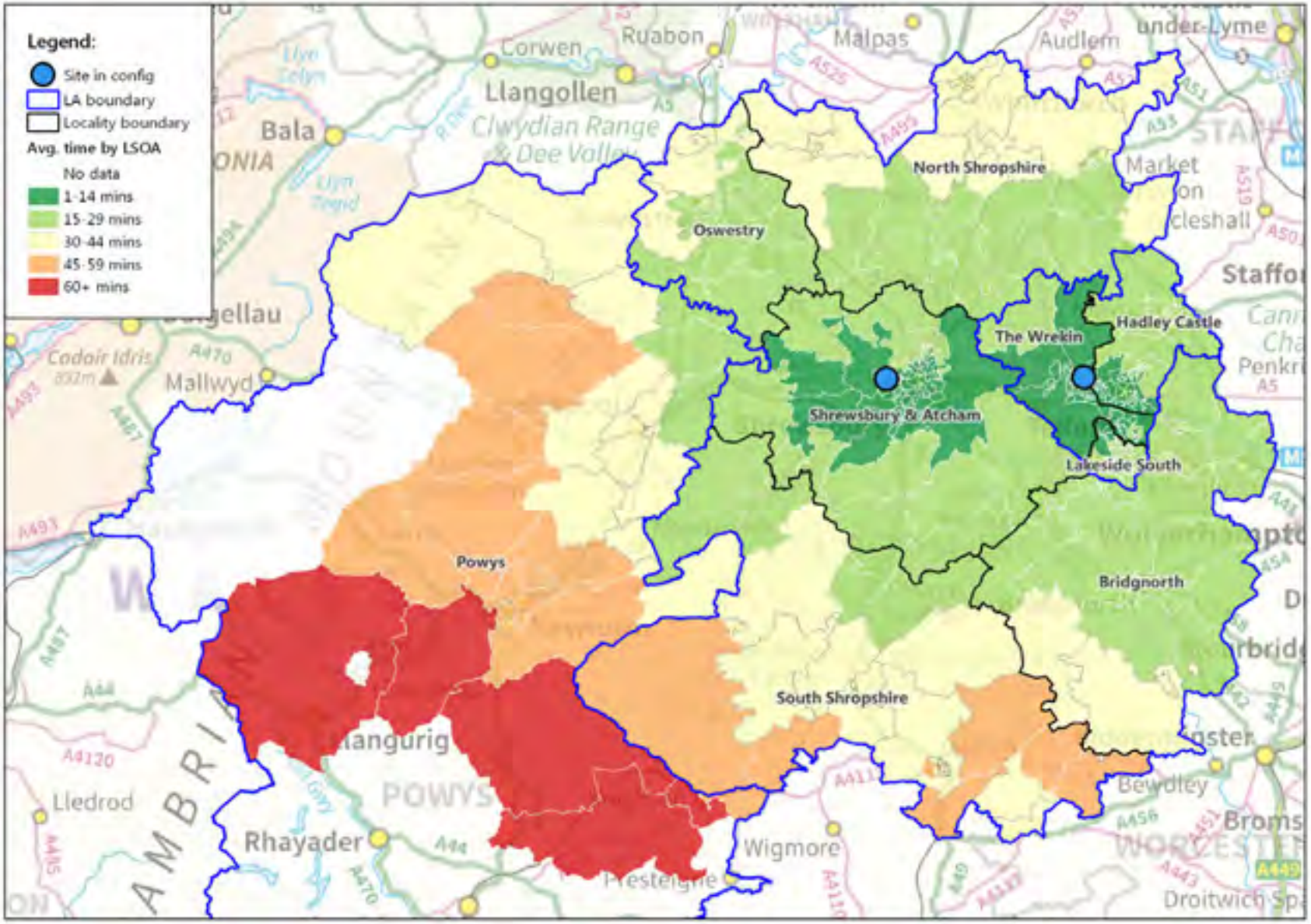
Option C2 – Overall Activity
Activity retained at SaTH (car/ambulance)

NHS



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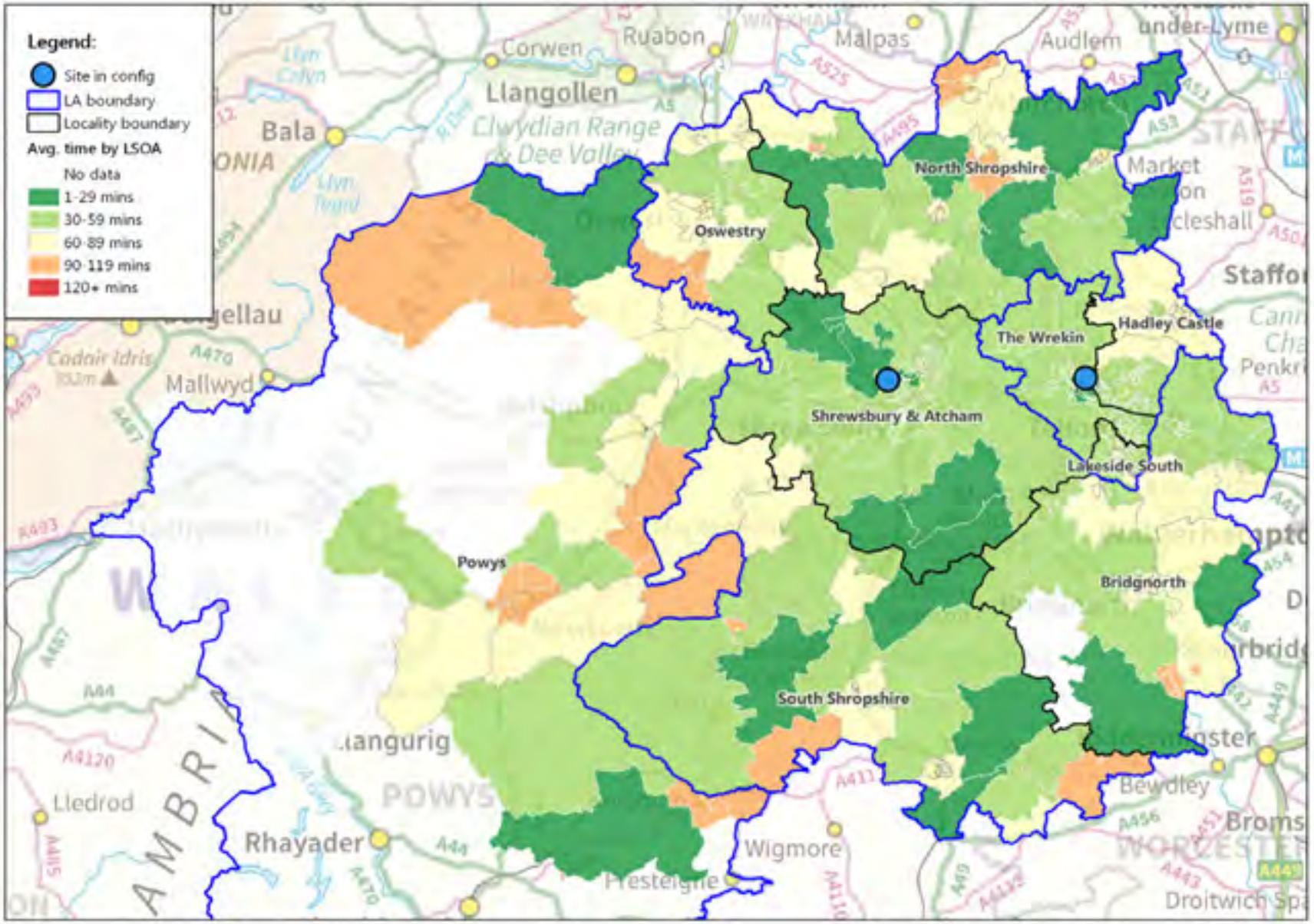
Option C2 – Overall Activity
Activity retained at SaTH (public transport)

NHS



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Option C1/2 – Emergency Care
Activity retained at SaTH (car/ambulance)

NHS

	Locality										All journeys	
	Shropshire					Telford			Powys	Out of Area		
Impact factor	Bridgnorth	North Shropshire	Oswestry	Shrewsbury & Atcham	South Shropshire	Hadley Castle	Lakeside South	The Wrekin	Powys	Out of Area	**n**	**% of all**
Total baseline journeys	4,942	6,922	3,377	14,557	3,249	8,633	5,678	7,222	5,478	2,473	**62,531**	**100.0%**
Baseline avg. time (mins)	26.0	30.3	27.0	12.5	38.9	14.1	15.9	10.6	39.6	24.8	**20.9**	
Option C avg. time (mins)	34.3	33.7	25.0	11.2	38.0	27.0	27.3	22.9	37.6	28.6	**25.7**	
Journeys displaced to RSH	**3,816**	**2,624**	**339**	**1,531**	**387**	**7,065**	**4,768**	**5,922**	**546**	**748**	**27,746**	**44.4%**
Change to avg. journey time (mins)	10.8	9.2	-20.1	-11.7	-8.0	15.7	13.6	15.0	-20.1	12.4	**10.8**	
Displaced avg. time (mins)	34.4	36.5	25.3	12.0	40.0	27.4	27.6	23.3	40.0	48.5	**28.5**	
Patients living nearer to an alternative site than RSH	**2,874**	**1,901**	**217**		**141**	**1,225**			**10**	**748**	**7,116**	**11.4%**
Option C avg. time (mins) if alternative chosen	31.0	31.4	24.8		37.6	26.1			37.6	20.4	**24.7**	
Displaced patients in protected groups												
Age - 75+	1,397	773	84	421	141	1,607	924	1,347	156	146	**6,996**	**11.2%**
change to avg. journey time	10.5	8.7	-20.1	-12.1	-8.6	15.5	13.6	15.0	-20.1	13.2	**10.0**	
Age - Pre-school	184	186	32	160	33	498	403	456	61	36	**2,049**	**3.3%**
change to avg. journey time	10.8	8.4	-20.2	-11.6	-6.3	15.8	13.6	14.5	-20.2	13.3	**9.8**	
BME groups	162	136	26	112	16	913	319	823	42	85	**2,634**	**4.2%**
change to avg. journey time	10.5	9.9	-20.0	-12.4	-6.2	16.4	13.6	15.2	-20.2	12.8	**12.6**	
Gender - Male	1,781	1,234	171	643	191	3,391	2,332	2,908	251	397	**13,299**	**21.3%**
change to avg. journey time	10.9	9.5	-20.1	-11.2	-8.2	15.8	13.6	15.0	-19.9	12.1	**11.1**	
Gender - Female	2,035	1,390	168	888	196	3,674	2,436	3,014	295	351	**14,447**	**23.1%**
change to avg. journey time	10.7	8.9	-20.1	-12.0	-7.8	15.7	13.6	15.0	-20.2	12.7	**10.6**	
IMD 1&2 (most deprived 40%)	866	825	103	331	153	3,792	3,243	3,544	110		**12,967**	**20.7%**
change to avg. journey time	10.8	10.7	-20.2	-10.0	-4.9	15.9	13.7	14.2	-20.0		**12.7**	

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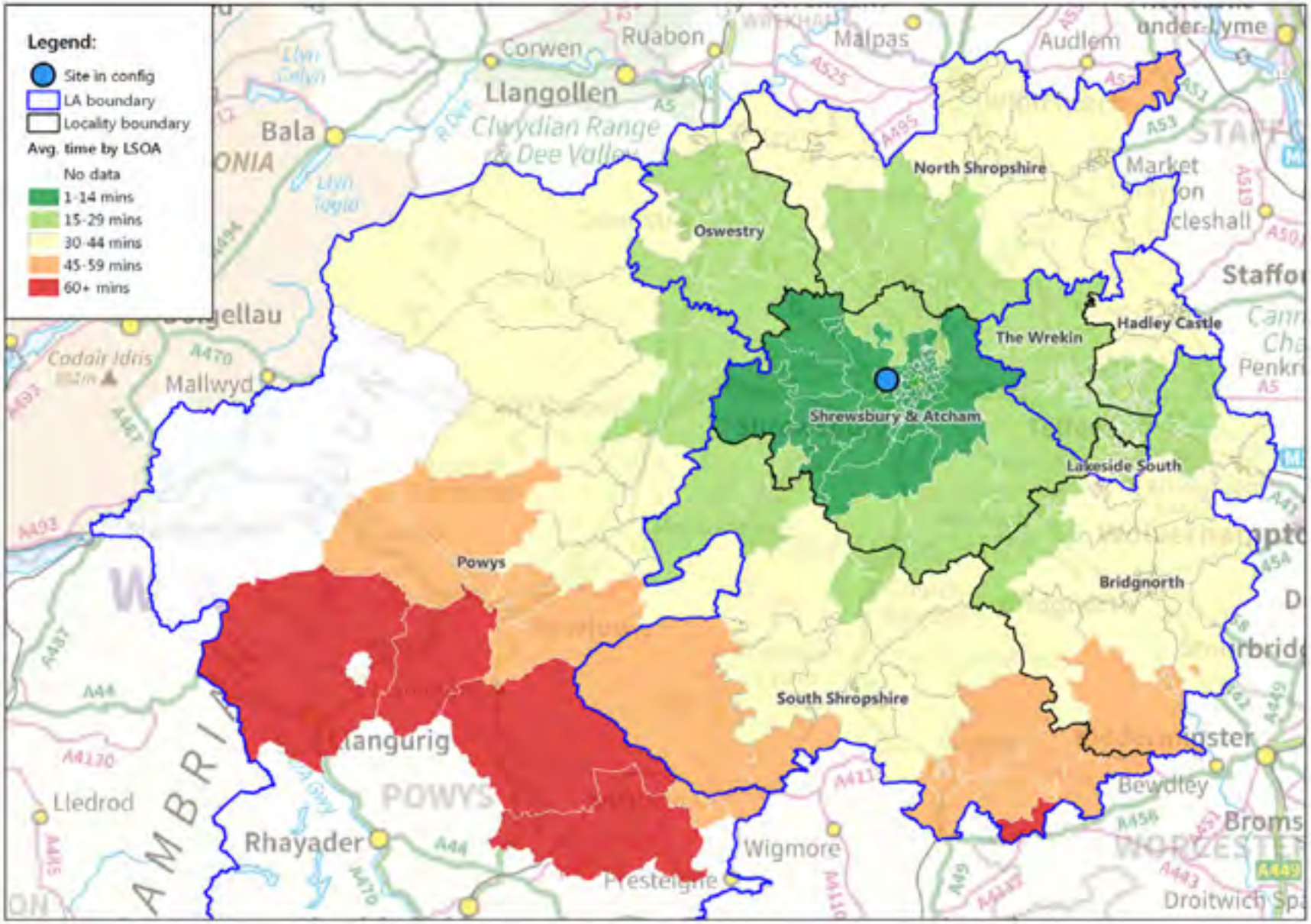
Option C1/2 – Emergency Care
Activity retained at SaTH (car/ambulance)

NHS



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Option C1/2 – Complex Planned Care
Activity retained at SaTH (car/ambulance)

NHS

	Locality										All journeys	
	Shropshire					Telford			Powys	Out of Area		
Impact factor	Bridgnorth	North Shropshire	Oswestry	Shrewsbury & Atcham	South Shropshire	Hadley Castle	Lakeside South	The Wrekin	Powys	Out of Area	**n**	**% of all**
Total baseline journeys	109	161	73	271	68	200	132	167	119	26	**1,326**	**100.0%**
Baseline avg. time (mins)	23.9	31.5	42.5	22.5	47.9	13.8	15.1	10.6	48.8	26.0	**25.0**	
Option C avg. time (mins)	32.5	33.8	25.9	11.7	40.6	26.9	27.2	22.9	34.8	33.5	**26.1**	
Journeys displaced to RSH	**93**	**136**	**60**	**233**	**53**	**169**	**117**	**143**	**83**	**17**	**1,104**	**83.3%**
Change to avg. journey time (mins)	10.1	2.7	-20.1	-12.5	-9.4	15.6	13.6	14.4	-20.1	11.5	**1.4**	
Displaced avg. time (mins)	32.8	34.0	25.9	11.9	41.2	27.3	27.6	23.2	39.7	46.3	**26.7**	
Patients living nearer to an alternative site than RSH	**66**	**80**	**41**		**17**	**24**			**1**	**17**	**246**	**18.6%**
Option C avg. time (mins) if alternative chosen	29.5	29.6	23.1		38.3	26.2			34.7	17.5	**24.6**	
Displaced patients in protected groups												
Age - 75+		2		2		2		1		1	**8**	**0.6%**
change to avg. journey time		15.5		-14.0		16.5		13.7		16.2	**8.2**	
Age - Pre-school	21	34	11	53	10	38	32	35	10	1	**245**	**18.5%**
change to avg. journey time	9.4	2.8	-20.0	-11.1	-12.0	15.3	13.6	14.0	-20.2	4.4	**2.7**	
BME groups	2	9	3	14	3	21	10	28	4		**94**	**7.1%**
change to avg. journey time	7.8	-1.2	-20.2	-14.1	-4.5	16.1	13.6	14.5	-20.2		**5.7**	
Gender - Male	50	75	26	125	32	96	66	81	49	9	**609**	**45.9%**
change to avg. journey time	10.3	1.5	-20.2	-12.3	-7.9	15.5	13.6	14.4	-20.1	11.9	**1.6**	
Gender - Female	43	61	34	108	21	73	51	62	34	8	**495**	**37.3%**
change to avg. journey time	9.9	4.2	-20.1	-12.6	-11.6	15.7	13.6	14.4	-20.2	11.0	**1.1**	
IMD 1&2 (most deprived 40%)	17	35	15	58	28	84	83	94	19		**433**	**32.7%**
change to avg. journey time	11.2	4.5	-20.2	-9.9	-8.2	16.0	13.7	13.8	-20.0		**6.1**	

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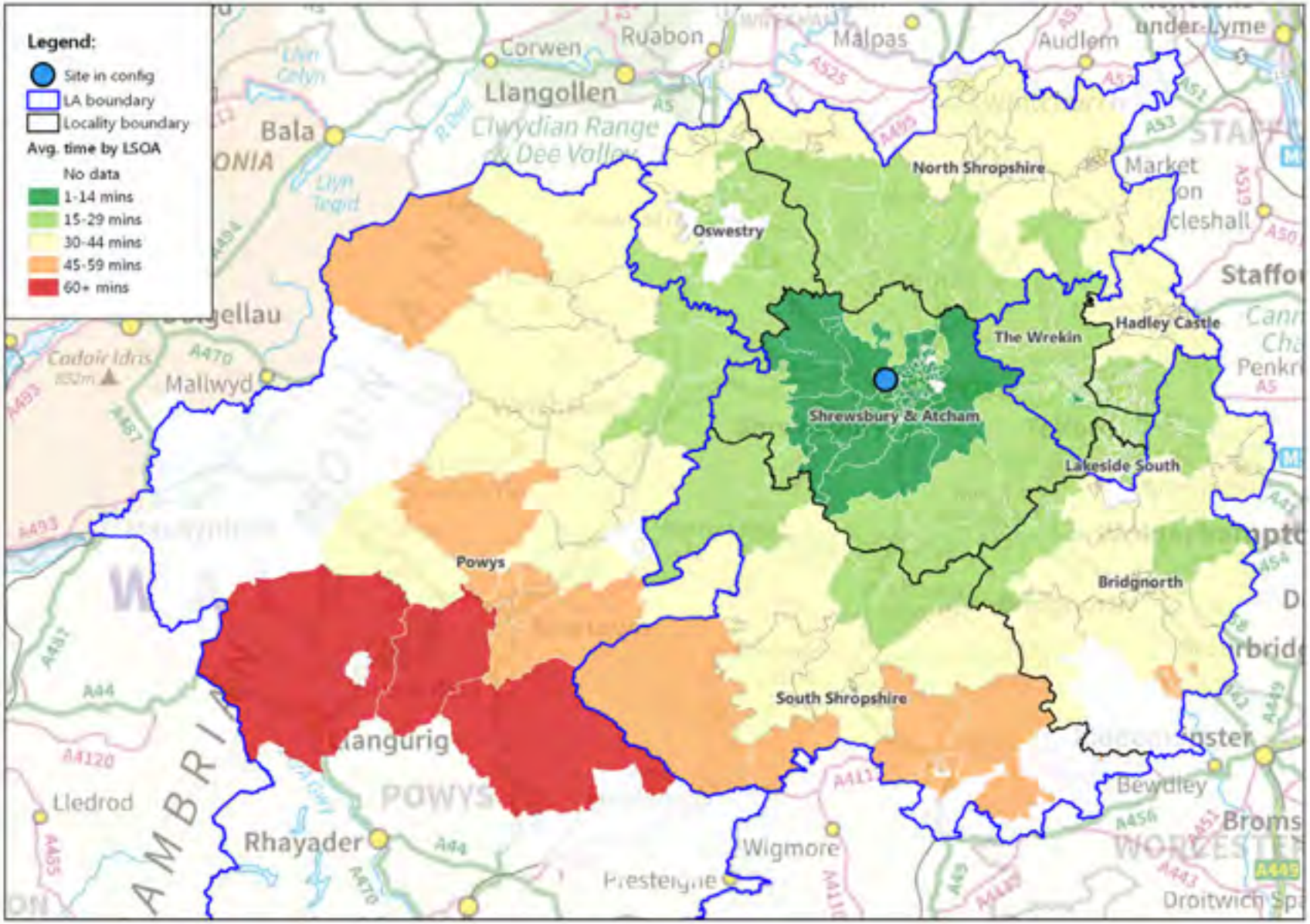
Option C1/2 – Complex Planned Care
Activity retained at SaTH (car/ambulance)

NHS



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Option C1/2 – Complex Planned Care
Activity retained at SaTH (public transport)

NHS

	Locality										All journeys	
	Shropshire					Telford			Powys	Out of Area		
Impact factor	Bridgnorth	North Shropshire	Oswestry	Shrewsbury & Atcham	South Shropshire	Hadley Castle	Lakeside South	The Wrekin	Powys		**n**	**% of all**
Total baseline journeys	110	160	73	269	68	198	126	167	119	26	**1,316**	**100.0%**
Baseline avg. time (mins)	69.8	77.0	99.5	63.8	70.8	48.2	51.9	37.1	69.8	72.9	**62.1**	
Option C avg. time (mins)	85.8	64.7	64.9	39.1	57.3	83.2	83.2	77.1	55.1	79.1	**66.4**	
Journeys displaced to RSH	**87**	**109**	**56**	**222**	**39**	**167**	**111**	**143**	**63**	**12**	**1,009**	**76.7%**
Change to avg. journey time (mins)	20.3	-18.1	-45.1	-29.9	-23.6	41.5	35.5	46.7	-27.8	13.4	**5.6**	
Displaced avg. time (mins)	94.5	80.8	68.6	41.3	80.5	84.2	84.6	77.9	91.7	145.0	**74.6**	
Patients living nearer to an alternative site than RSH	**70**	**52**	**16**		**27**	**146**	**22**	**74**	**3**	**12**	**422**	**32.1%**
Option C avg. time (mins) if alternative chosen	69.9	60.5	60.7		48.6	76.0	83.0	74.0	55.0	38.2	**61.6**	
isplaced patients in protected groups												
Age - 75+		2		1		2		1		1	**7**	**0.5%**
change to avg. journey time		22.1		-15.9		35.2		33.1		25.4	**22.4**	
Age - Pre-school	21	28	10	52	6	38	30	35	7	1	**228**	**17.3%**
change to avg. journey time	20.2	-8.8	-52.2	-28.2	-15.0	39.7	34.3	48.0	-32.8	-49.2	**8.9**	
BME groups	1	9	2	13	1	21	10	28	4		**89**	**6.8%**
change to avg. journey time	-3.0	-14.8	-50.9	-33.7	-34.9	49.5	32.1	44.0	-13.4		**20.5**	
Gender - Male	47	61	26	122	23	96	61	81	38	7	**562**	**42.7%**
change to avg. journey time	21.4	-18.8	-44.5	-30.9	-22.4	41.0	34.8	47.1	-28.1	22.2	**6.0**	
Gender - Female	40	48	30	100	16	71	50	62	25	5	**447**	**34.0%**
change to avg. journey time	18.9	-17.3	-45.6	-28.8	-25.3	42.3	36.3	46.1	-27.3	1.1	**5.1**	
IMD 1&2 (most deprived 40%)	17	30	13	58	21	82	79	94	14		**408**	**31.0%**
change to avg. journey time	28.1	-15.1	-39.9	-27.7	-21.2	47.1	33.0	41.3	-35.6		**17.9**	

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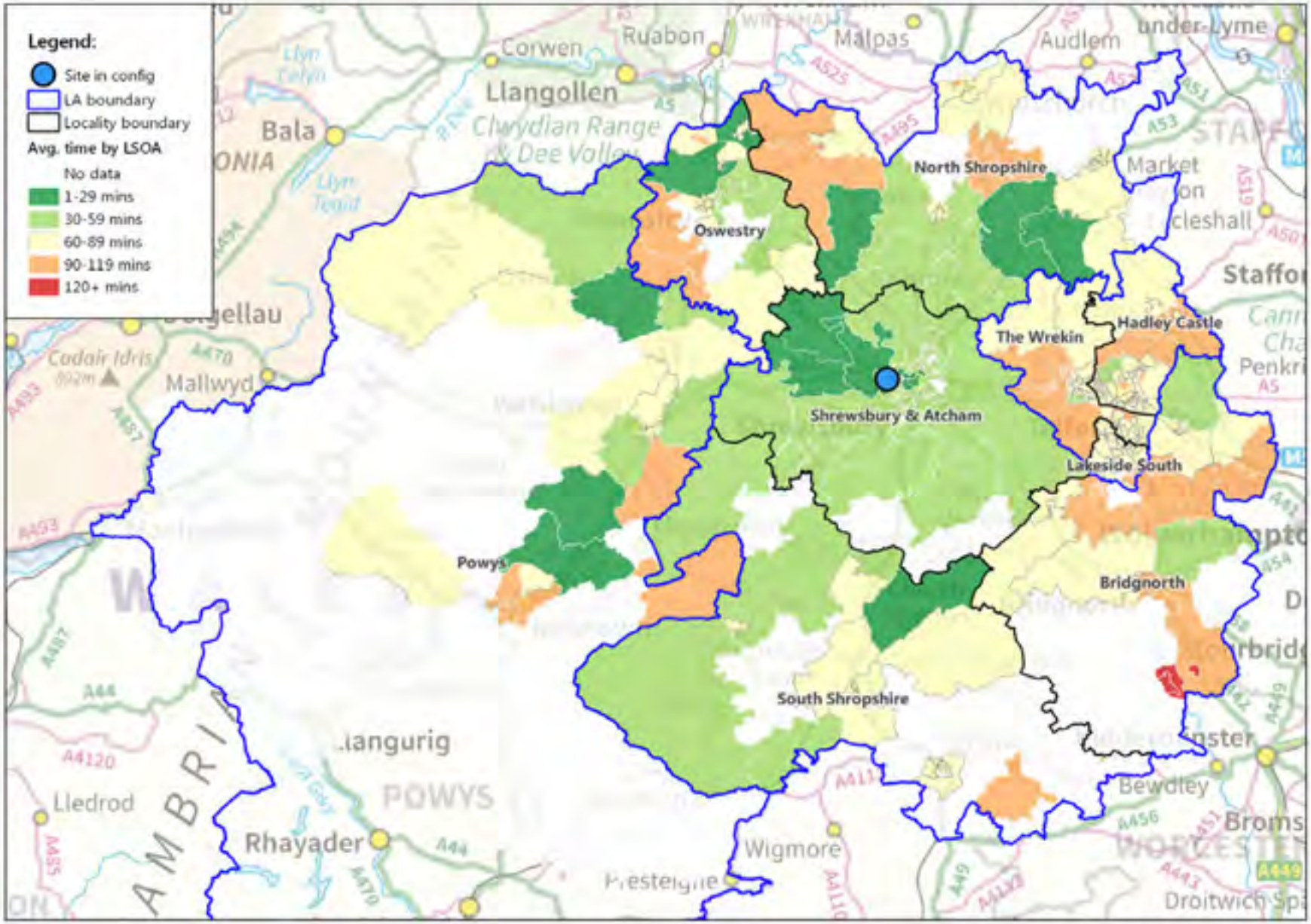
Option C1/2 – Complex Planned Care
Activity retained at SaTH (public transport)

NHS



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Option C1/2 – Non-Complex Planned Care
Activity retained at SaTH (car/ambulance)

NHS

	Locality										All journeys	
	Shropshire					Telford			Powys	Out of Area		
Impact factor	Bridgnorth	North Shropshire	Oswestry	Shrewsbury & Atcham	South Shropshire	Hadley Castle	Lakeside South	The Wrekin	Powys		**n**	**% of all**
Total baseline journeys	5,434	6,616	3,240	11,987	3,629	8,293	4,656	6,082	5,989	1,518	**57,444**	**100.0%**
Baseline avg. time (mins)	29.4	31.3	26.9	12.5	39.3	19.9	20.3	14.7	37.2	38.0	**24.0**	
Option C avg. time (mins)	23.8	29.8	41.5	23.6	41.1	11.7	13.3	7.8	53.1	54.5	**26.1**	
Journeys displaced to PRH	**3,046**	**4,950**	**2,766**	**10,547**	**3,122**	**4,323**	**2,389**	**2,862**	**4,788**	**916**	**39,709**	**69.1%**
Change to avg. journey time (mins)	-10.0	-2.1	20.1	12.6	10.0	-15.8	-13.6	-14.7	19.9	-8.9	**3.1**	
Displaced avg. time (mins)	25.0	31.3	45.5	24.1	48.8	12.4	13.8	8.3	60.3	41.0	**30.2**	
Patients living nearer to an alternative site than PRH	**105**	**1,760**	**2,717**	**19**	**994**				**4,156**	**783**	**10,534**	**18.3%**
Option C avg. time (mins) if alternative chosen	23.7	27.4	24.2	23.6	37.6				48.0	43.5	**23.8**	
Displaced patients in protected groups												
Age - 75+	616	1,035	622	2,289	813	870	403	569	1,204	115	**8,536**	**14.9%**
change to avg. journey time	-9.8	-0.7	20.1	12.6	9.9	-16.0	-13.6	-14.3	19.9	-10.7	**4.4**	
Age - Pre-school											**0**	**0.0%**
change to avg. journey time												
BME groups	93	210	112	473	119	281	107	263	136	114	**1,908**	**3.3%**
change to avg. journey time	-11.8	-2.0	20.2	14.6	8.4	-16.3	-13.6	-14.7	20.1	-11.7	**0.1**	
Gender - Male	1,412	2,604	1,392	5,242	1,669	2,279	1,334	1,436	2,532	522	**20,422**	**35.6%**
change to avg. journey time	-9.9	-2.4	20.1	12.7	10.7	-15.9	-13.6	-14.8	19.9	-8.6	**3.1**	
Gender - Female	1,634	2,346	1,374	5,305	1,453	2,044	1,055	1,426	2,256	392	**19,285**	**33.6%**
change to avg. journey time	-10.1	-1.8	20.1	12.6	9.1	-15.7	-13.6	-14.7	19.9	-9.4	**3.2**	
IMD 1&2 (most deprived 40%)	616	1,106	735	2,025	1,046	1,971	1,442	1,416	1,069		**11,426**	**19.9%**
change to avg. journey time	-10.8	-5.3	20.2	10.5	7.3	-15.8	-13.7	-14.0	19.8		**-1.6**	

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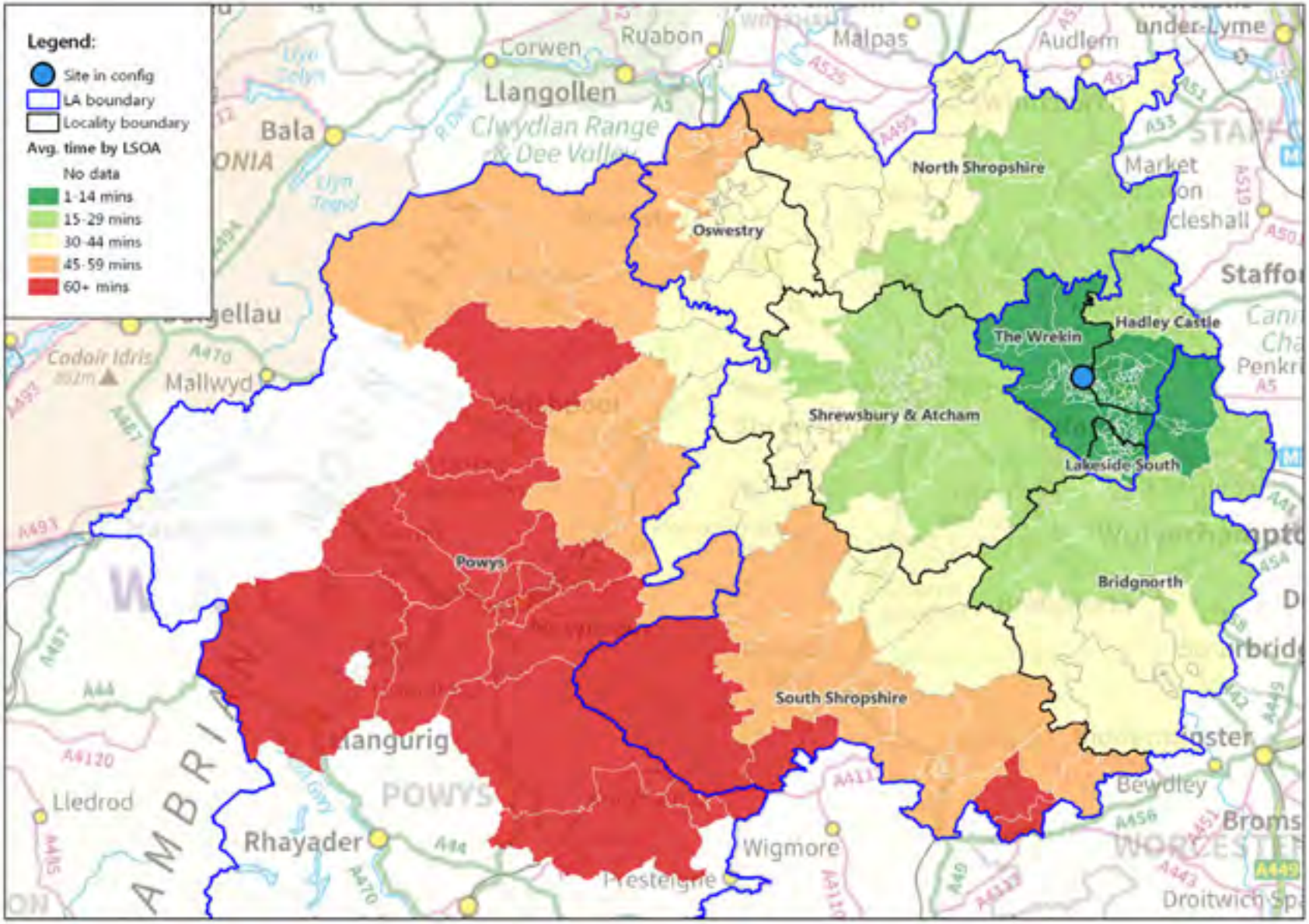
Option C1/2 – Non-Complex Planned Care
Activity retained at SaTH (car/ambulance)

NHS



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Option C1/2 – Non-Complex Planned Care
Activity retained at SaTH (public transport)

NHS

	Locality										All journeys	
	Shropshire					Telford			Powys	Out of Area		
Impact factor	Bridgnorth	North Shropshire	Oswestry	Shrewsbury & Atcham	South Shropshire	Hadley Castle	Lakeside South	The Wrekin	Powys		**n**	**% of all**
Total baseline journeys	5,430	6,588	3,218	11,888	3,632	8,142	4,439	5,986	5,987	1,497	**56,807**	**100.0%**
Baseline avg. time (mins)	76.8	63.7	67.5	40.8	58.4	63.7	64.8	49.9	58.0	81.3	**58.5**	
Option C avg. time (mins)	67.1	74.0	105.1	64.5	73.2	42.3	46.1	26.9	74.5	74.6	**61.4**	
Journeys displaced to RSH	**2,658**	**3,992**	**2,569**	**9,839**	**2,283**	**4,199**	**2,285**	**2,804**	**3,241**	**650**	**34,520**	**60.8%**
Change to avg. journey time (mins)	-19.7	17.0	47.0	28.7	23.7	-41.6	-36.4	-49.1	30.3	-14.9	**4.8**	
Displaced avg. time (mins)	79.5	97.4	116.1	69.8	101.0	45.2	48.5	28.8	124.9	128.7	**77.8**	
Patients living nearer to an alternative site than RSH	**1,550**	**2,060**	**2,453**	**3**	**1,508**	**206**			**886**	**650**	**9,316**	**16.4%**
Option C avg. time (mins) if alternative chosen	62.8	64.9	73.3	64.5	55.9	42.2			68.2	42.9	**55.5**	
Displaced patients in protected groups												
Age - 75+	556	888	597	2,182	649	846	362	559	808	46	**7,493**	**13.2%**
change to avg. journey time	-19.4	21.7	48.9	29.0	25.5	-40.8	-37.0	-50.1	31.8	-4.6	**9.0**	
Age - Pre-school											**0**	**0.0%**
change to avg. journey time												
BME groups	85	193	106	438	111	258	104	263	100	102	**1,760**	**3.1%**
change to avg. journey time	-14.5	20.6	47.3	32.9	19.6	-45.6	-35.8	-45.9	25.4	-18.7	**-1.4**	
Gender - Male	1,263	2,132	1,313	4,856	1,187	2,176	1,270	1,420	1,642	376	**17,635**	**31.0%**
change to avg. journey time	-18.3	16.9	47.1	28.8	22.9	-40.1	-36.6	-49.2	30.3	-15.4	**4.7**	
Gender - Female	1,395	1,860	1,256	4,983	1,096	2,023	1,015	1,384	1,599	272	**16,883**	**29.7%**
change to avg. journey time	-21.0	17.1	46.9	28.6	24.5	-43.3	-36.2	-49.0	30.3	-13.9	**4.9**	
IMD 1&2 (most deprived 40%)	615	957	713	1,919	721	1,931	1,387	1,394	652		**10,289**	**18.1%**
change to avg. journey time	-27.5	9.3	48.3	26.1	19.7	-48.4	-34.0	-42.1	40.5		**-8.0**	

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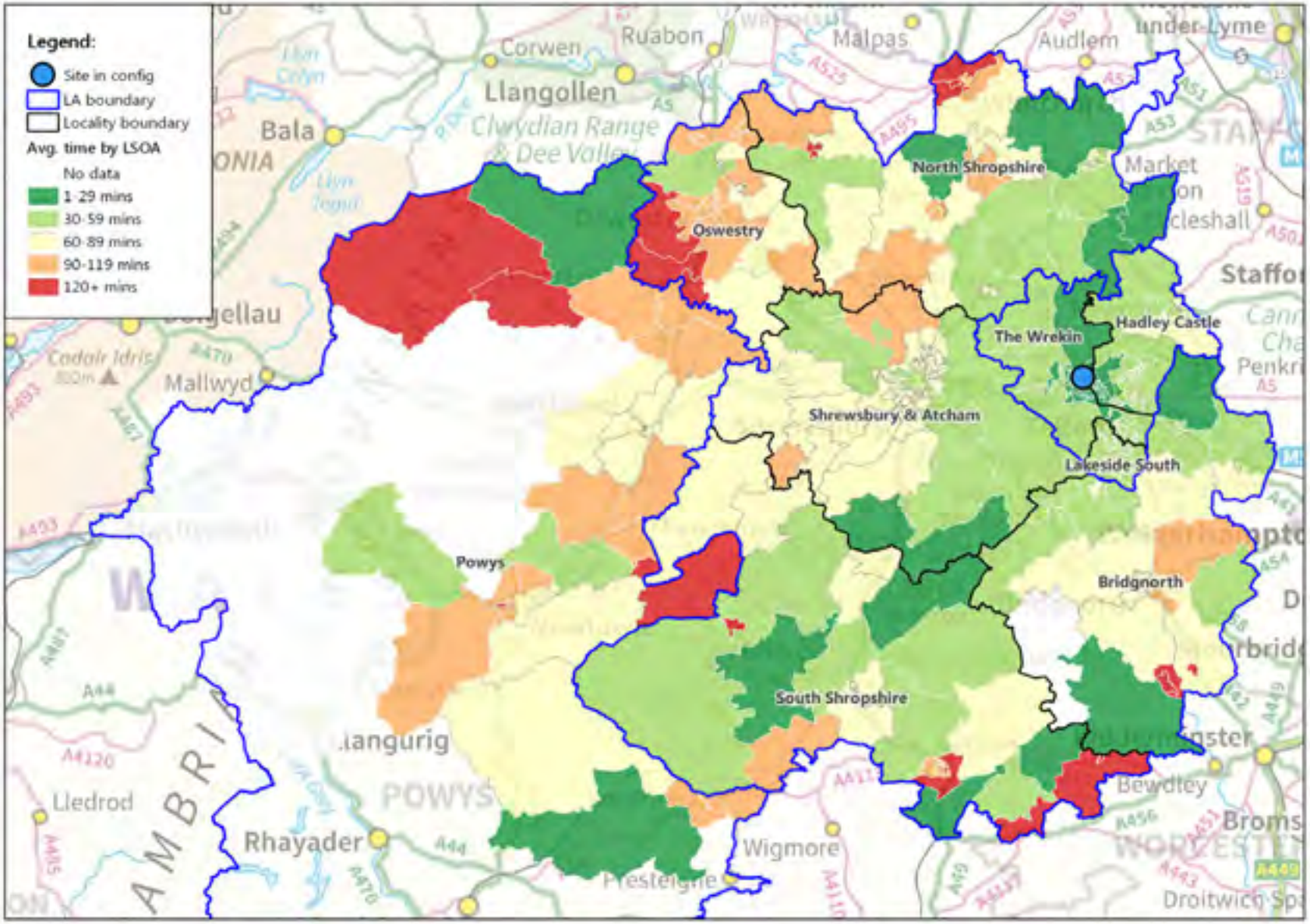
Option C1/2 – Non-Complex Planned Care
Activity retained at SaTH (public transport)

NHS



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NHS

Option C1
Women's & Children's
[C2 as for A/B]

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Option C1 – Women's & Children's
Activity retained at SaTH (car/ambulance)

NHS

	Locality										All journeys	
	Shropshire					Telford			Powys	Out of Area		
Impact factor	Bridgnorth	North Shropshire	Oswestry	Shrewsbury & Atcham	South Shropshire	Hadley Castle	Lakeside South	The Wrekin	Powys		**n**	**% of all**
Total baseline journeys	1,725	2,190	960	4,452	1,025	3,521	2,441	2,820	1,354	1,039	**21,527**	**100.0%**
Baseline avg. time (mins)	22.4	28.4	35.5	20.8	42.2	11.2	13.7	8.7	53.3	12.5	**21.1**	
Option C1 avg. time (mins)	31.9	33.5	21.0	11.4	35.1	26.5	26.8	22.7	37.5	15.9	**24.4**	
Journeys displaced to RSH	**1,551**	**1,986**	**692**	**3,469**	**801**	**3,404**	**2,356**	**2,695**	**1,070**	**337**	**18,361**	**85.3%**
Change to avg. journey time (mins)	10.6	5.6	-20.1	-12.1	-9.0	15.8	13.6	14.6	-20.0	10.6	**3.9**	
Displaced avg. time (mins)	35.1	34.6	25.1	11.6	39.9	27.1	27.5	23.4	40.1	47.2	**26.8**	
Patients living nearer to an alternative site than RSH	**1,203**	**1,208**	**445**		**331**	**422**			**34**	**335**	**3,978**	**18.5%**
Option C1 avg. time (mins) if alternative chosen	28.0	28.8	19.1		32.0	25.8			37.4	7.9	**22.9**	
Displaced patients in protected groups												
Age - 75+	24	14	10	34	7	17	16	14	10	1	**147**	**0.7%**
change to avg. journey time	11.0	5.6	-20.2	-13.7	-8.6	16.2	13.7	15.7	-20.2	12.8	**1.0**	
Age - Pre-school	680	829	261	1,439	327	1,504	992	1,153	365	136	**7,686**	**35.7%**
change to avg. journey time	10.4	5.9	-20.1	-11.7	-8.8	15.9	13.6	14.6	-19.9	11.2	**4.6**	
BME groups	130	200	91	375	81	762	313	662	128	67	**2,809**	**13.0%**
change to avg. journey time	11.1	6.8	-20.1	-13.1	-7.2	16.5	13.6	14.9	-20.1	12.5	**7.3**	
Gender - Male	514	603	191	959	242	1,006	642	792	331	91	**5,371**	**25.0%**
change to avg. journey time	10.5	5.9	-20.1	-12.1	-9.0	15.8	13.6	14.5	-20.0	9.4	**4.0**	
Gender - Female	1,037	1,383	501	2,510	559	2,398	1,714	1,903	739	246	**12,990**	**60.3%**
change to avg. journey time	10.6	5.4	-20.1	-12.1	-9.0	15.8	13.6	14.7	-19.9	11.0	**3.9**	
IMD 1&2 (most deprived 40%)	351	545	230	921	285	1,891	1,651	1,806	206		**7,886**	**36.6%**
change to avg. journey time	10.9	8.6	-20.2	-9.9	-6.3	16.1	13.7	14.0	-20.0		**8.5**	

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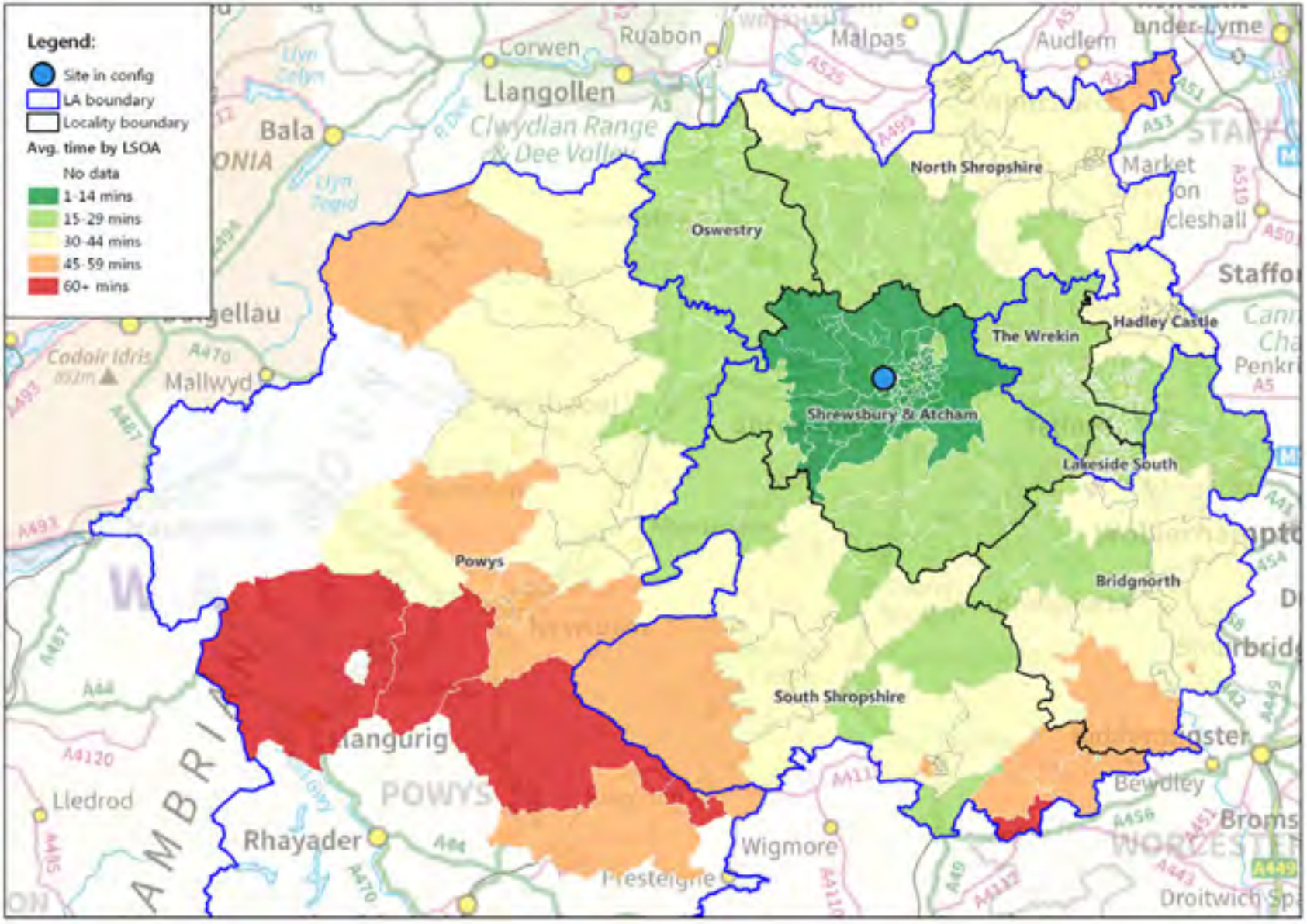
Option C1 – Women's & Children's
Activity retained at SaTH (car/ambulance)

NHS



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Option C1 – Women's & Children's
Activity retained at SaTH (public transport)

NHS

	Locality										All journeys	
	Shropshire					Telford			Powys	Out of Area		
Impact factor	Bridgnorth	North Shropshire	Oswestry	Shrewsbury & Atcham	South Shropshire	Hadley Castle	Lakeside South	The Wrekin	Powys		**n**	**% of all**
Total baseline journeys	1,715	2,179	946	4,416	1,025	3,487	2,319	2,776	1,353	1,036	**21,252**	**100.0%**
Baseline avg. time (mins)	60.4	73.3	85.9	58.7	71.5	41.2	48.0	30.5	87.9	30.7	**54.9**	
Option C1 avg. time (mins)	77.5	65.9	53.5	37.7	54.5	82.3	83.0	76.0	70.9	34.7	**64.5**	
Journeys displaced to RSH	**1,312**	**1,682**	**652**	**3,284**	**631**	**3,337**	**2,230**	**2,643**	**863**	**247**	**16,881**	**79.4%**
Change to avg. journey time (mins)	22.2	-9.6	-47.0	-28.2	-27.7	42.9	36.4	47.8	-26.7	16.9	**12.1**	
Displaced avg. time (mins)	99.9	79.2	66.8	40.4	77.5	85.1	85.5	78.6	94.4	140.3	**76.3**	
Patients living nearer to an alternative site than RSH	**1,139**	**649**	**140**		**388**	**3,012**	**610**	**1,552**	**61**	**243**	**7,794**	**36.7%**
Option C1 avg. time (mins) if alternative chosen	60.3	60.9	50.4		45.8	73.5	82.7	72.1	70.0	14.5	**59.1**	
Displaced patients in protected groups												
Age - 75+	21	10	10	34	6	17	12	14	7	1	**132**	**0.6%**
change to avg. journey time	22.9	-11.0	-46.9	-29.3	-27.9	47.8	33.4	49.8	-41.6	50.7	**3.1**	
Age - Pre-school	539	733	249	1,362	262	1,479	936	1,132	311	106	**7,109**	**33.5%**
change to avg. journey time	21.6	-8.8	-48.0	-27.7	-27.5	43.5	36.3	47.5	-26.5	18.3	**13.2**	
BME groups	114	166	84	368	66	751	301	649	106	56	**2,661**	**12.5%**
change to avg. journey time	24.4	-12.4	-45.9	-29.2	-26.2	47.6	36.5	45.9	-21.1	21.4	**22.5**	
Gender - Male	400	520	175	910	187	994	601	779	280	63	**4,909**	**23.1%**
change to avg. journey time	22.1	-6.9	-48.8	-28.3	-27.2	43.2	35.9	47.5	-27.2	18.4	**12.4**	
Gender - Female	912	1,162	477	2,374	444	2,343	1,629	1,864	583	184	**11,972**	**56.3%**
change to avg. journey time	22.2	-10.8	-46.4	-28.1	-27.9	42.8	36.6	48.0	-26.5	16.4	**12.0**	
IMD 1&2 (most deprived 40%)	345	484	227	886	222	1,867	1,575	1,775	139		**7,520**	**35.4%**
change to avg. journey time	26.5	-3.5	-47.4	-25.6	-27.7	47.3	33.0	42.7	-35.1		**23.8**	

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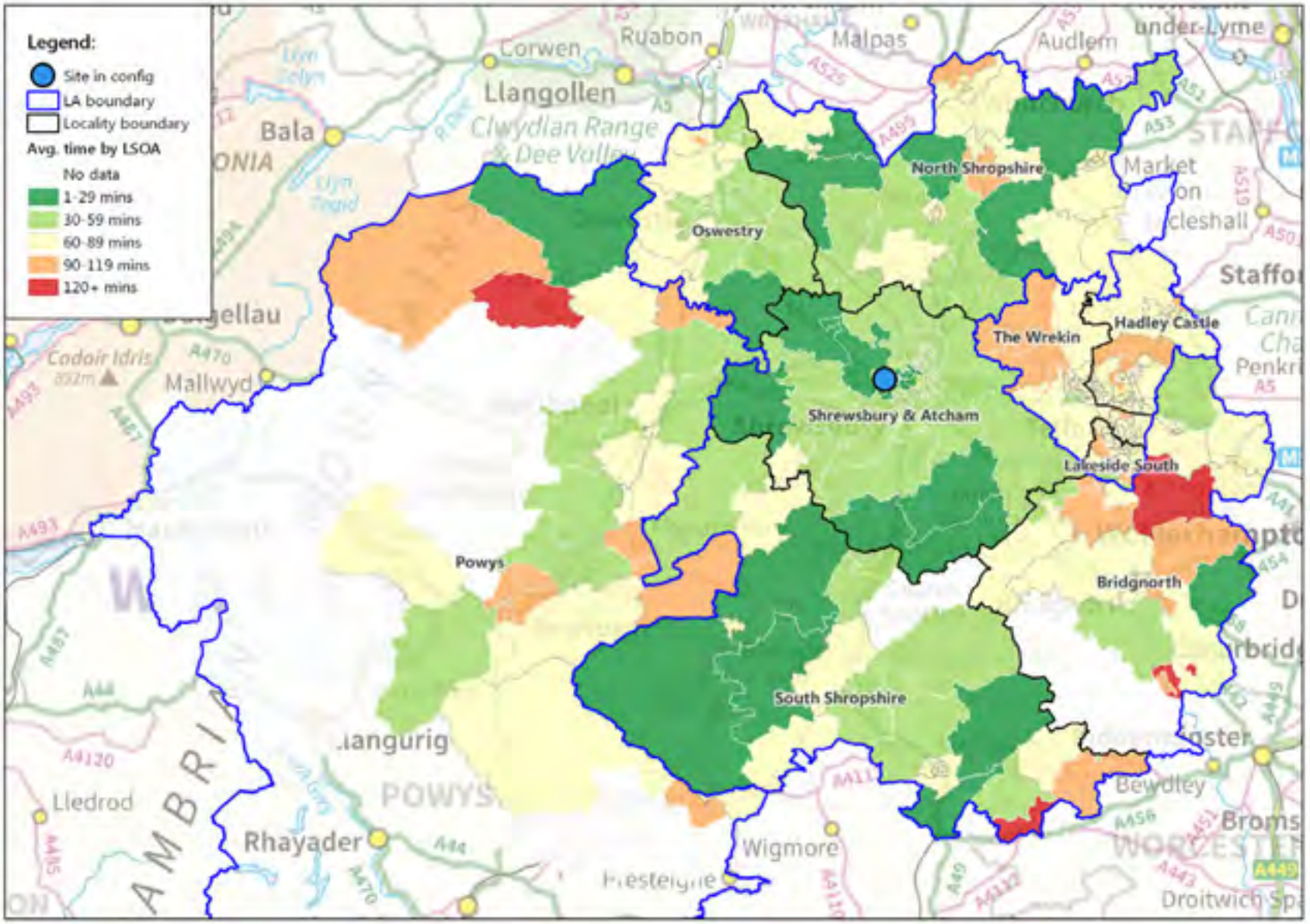
Option C1 – Women's & Children's
Activity retained at SaTH (public transport)

NHS



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APPENDIX E - External Clinical Review of Option C2

i) **SaTH Clinical Report**

ii) **External Clinical Review**

IN CONFIDENCE

The Shrewsbury and Telford Hospital NHS Trust

Future Fit Clinical Model – Option C2

Purpose of this paper

As part of an external clinical review of Option C2, the Trust has been asked to provide the clinical view of Option C2. This view is from the perspective of clinicians and support teams currently delivering acute services within the Trust. This group of professionals and staff are also responsible for the development and delivery of the future acute model of care, of which C2 is one of four options.

This paper sets out a review of Option C2 undertaken by senior clinicians (nursing, midwifery and medical) within the Women and Children's Service. It has been developed in partnership and with input from clinical colleagues from all Care Groups within the organisation and has been written and developed over time through detailed discussion and debate.

In these discussions, teams have been challenged to give due consideration of what would need to be in place to 'make C2 happen'. This is set out within the paper.

The clinical body, without exception, within the Trust have drawn the conclusion based on evidence, discussion and consideration of scenarios that Option C2 cannot be delivered; that it is not safe or sustainable and would put patients, especially babies and children at risk.

Latest position

In the development and production of the Outline Business Case, Option C2 will be worked up, set out and detailed in the same way as the other three options: Do Nothing; Option B; and Option C1.

The Trust remains on plan to submit the draft Outline Business Case to the private session of the SaTH Trust Board in September 2016.

Option C2
Clinical Review Document

1. Introduction

Women and Children's Services at the Shrewsbury and Telford Hospital Trust (SaTH) reconfigured in September 2014 and moved into the purpose built Women and Children's Centre at the Princess Royal Hospital (PRH). This reconfiguration changed the site of the inpatient Gynaecology, Obstetric and Neonatal facilities and combined the two Paediatric inpatient facilities on one site. The paediatric unit is now the 10th largest in the country. The reconfiguration, sponsored and supported by both CCGs, was driven by estate issues at the Royal Shrewsbury Hospital (RSH) and a pressing clinical need to resolve the medical staffing issues surrounding duplication of Paediatric services across the two hospital sites.

During the final stages of the implementation of the reconfiguration of Women and Children's Services in 2014, the Future Fit programme was established. This started the vital discussion on how health care services can be better planned and delivered in the county. At this time, the Trust agreed to put on hold the final elements of the Women and Children's reconfiguration and specifically the development of new facilities for the Women and Children's Services remaining at RSH. This meant a delay in the final implementation of the schemes approved within the Full Business Case: Children's Outpatients; Children's Assessment Unit; Obstetric Outpatients; and Midwifery Led Unit.

Following the Future Fit appraisal process in September 2015, the Trust was asked by the Future Fit Programme Board to develop a Strategic Outline Case (SOC) to deliver a solution that would address the workforce challenges within the Trust's Emergency Departments, Critical Care Units and Acute Medical services.

In line with the Future Fit Programme, four options were included in the SOC:

- Do Nothing
- Option B – Emergency Site at PRH (including Women and Children's)
- Option C1 – Emergency Site at RSH (including Women and Children's)
- Option C2 – Emergency Site at RSH; Women and Children's remains at PRH

There have been detailed clinical discussions in relation to Options B and C1 within the Women and Children's Care Group. No overpowering argument has been put forward that favours one of these options over the other, although there are demographic advantages of the Emergency Site being PRH; recognising that this would result in increased travel times for patients predominantly on the West of the County.

The C2 option has created much debate and discussion amongst the professional groups within SaTH responsible for the delivery of care. Since it was proposed as part of the Future Fit Programme many clinicians within the organisation have disregarded it as a viable option on the grounds of safety and deliverability. These discussions have progressed into formal meetings with the various clinical teams and an appraisal of this option in relation to quality, safety and deliverability has taken place.

This paper will provide an objective account of the impact C2 would have on Women and Children's Services, Emergency Services and other departments and specialties within the Trust supporting Women and Children's Services.

2. Background

The Women and Children's Centre at PRH consists of a Local Neonatal Unit (Level 2), Children's Inpatients, Children's Assessment Unit, Antenatal Ward, Postnatal Ward, a Consultant-led Delivery Suite, a Gynaecological Ward and Women's Services (Ambulatory Gynaecology Care; Early Pregnancy etc). There is also a Children's Assessment Service at RSH which is open 9am-10pm Monday to Friday. There is a Midwifery Led Unit with post natal beds.

Currently, acutely ill women and children are accepted on both sites via the Emergency Departments and the Children's Assessment Units; however, following the move of Women and Children's inpatient Services to PRH and pathway development with the ambulance services in conjunction with triage coordinated through the Care Coordination Centre fewer children, neonates, and obstetric and gynaecology patients are directed to RSH. Indeed public knowledge of services has also resulted in more patients choosing to go directly to the PRH Emergency Department where the full specialist teams, equipment and facilities await them.

The points set out below are those identified and agreed in the internal multi professional discussions:

3. Impact of C2 on Quality and Safety for Paediatrics and Neonates

3.1 Paediatric and Neonatal Emergency Support to ED at RSH

3.1.1 Acute care to children in RSH A&E – Skills and Staff

Separation of inpatient services from Emergency Medicine creates the potential of competency deficiencies for acute Paediatric and Neonatal Care[1]. It has been the experience since September 2014 that it has not been possible to maintain adequate training and skills in paediatric and newborn resuscitation for A&E staff to treat critically ill and injured children and neonates. Training plans are in place but challenging staffing levels and arrangements in A&E make reliable comprehensive delivery of training and skill maintenance a continued challenge. Patient safety is maintained by a 24/7 non-resident consultant paediatrician.

In Option C2 with the complete separation of all Emergency Medicine (EM) services from Inpatient Paediatric Services and staff and with a much greater number of paediatric attendances 24/7 it is clear that Emergency Medicine will not be able to provide the key skill sets for the attending critically ill and injured children. Specific paediatric support would therefore be required for the Emergency Department and Trauma Unit at RSH[2]. Managing a seriously unwell or critically injured child in these circumstances will require a full 3 tier paediatric team with appropriate nursing support at the Emergency Site (RSH). Even with this level of support there will also be no timely neonatal support to patients arriving at the RSH ED. This will increase the risk of poor clinical outcome for babies.

Please see Appendix A.

3.1.2 Facilities

The 30,000 paediatric ED attendances per annum would require adequate beds/ward space to accommodate their immediate clinical demands and on-going care. As acute surgery (abdominal, trauma, ophthalmology, head and neck etc) will be based at RSH and the Paediatric inpatient beds will be at PRH, Option C2 creates the need for a staffed (paediatric medical/nursing) paediatric surgical bed base at RSH or the development of a rapid transfer service with appropriate surgical (abdominal, trauma, ophthalmology, head and neck) staff (largely medical) 24/7 at PRH.

3.2 Paediatric and Neonatal transfer/transport

3.2.1 Internal transfer: site to site

Option C2 will require critically ill and injured children once stabilised in EM to be transferred from RSH to PRH.

[1] Royal College of Paediatrics and Child Health, National Recommendations – Best practice that directs patients to the right care, first time; and delivery of 7 day services, 24/7

[2] West Midlands Quality Review, Care of Critically Ill and Injured Children in the West Midlands, December 2013

There would be significant number of high-dependency paediatric patients transferring from RSH ED to PRH. Such transfers are known to carry an additional risk to the patient and are difficult to implement.

Safe delivery of transfer of critically ill and injured children would require development of a new SaTH paediatric retrieval team with appropriate medical and nursing staff, with appropriate additional rotas.

These HDU transfers would be part of a new transfer need which would include all paediatric patients considered by EM to require inpatient hospital admission.

The process of transfer to the inpatient unit at PRH will result in inherent time delays for patients presenting to RSH ED before transfer to the paediatric inpatient site for definitive care.

In conjunction with a site to site Paediatric transfer service there would need to be a neonatal stabilisation and transport retrieval service again requiring the appropriate staff for this and in view of the complexity of these transfers it is considered that a separate rota for Consultants/Neonatal Nurse Practitioners and Neonatal Nurses would need to be developed. The current good-will model carries an inherent risk and is fragile. The retrieval service (now combined Paediatric and Neonates) will not support intra-hospital transfers.

3.2.2 External

KIDS (Birmingham Children's Hospital Intensive Care) retrieval team collect paediatric patients admitted to SaTH requiring Paediatric Intensive Care Unit (PICU) admission. However, patients require access to local anaesthetic and paediatric staff and a Critical Care Unit (CCU) to initiate and maintain airway and breathing support until they arrive. The KIDS arrival can be subject to delays of 4-8 hours, especially during the winter months.

The local team (paediatrics and anaesthetics) is utilised for keeping these patients safe until the KIDS team arrive.

In Option C2, the majority of paediatric patients requiring this service (local stabilisation followed by transfer) are likely to present at the main ED at RSH but this group of patients will also include patients at the PRH main inpatient unit.

Both sites would therefore require skilled consultant anaesthetic & CCU support able to respond to these paediatric emergencies. This dual requirement is current within the SATH set up but there is grave concern over the sustainability of the maintenance of anaesthetic skills on the non-inpatient site (RSH) in the longer term.

3.3 Paediatric and Neonatal trainees

There is a high risk of losing trainees in option C2 as their time in a recognised training unit (PRH) covering Paediatrics and Neonates will exclude experience of acutely unwell paediatric and neonatal patients who arrive in the ED at RSH.
Examples include:

- status epilepticus
- respiratory and cardiac arrests
- severe asthma
- trauma
- head injury
- sudden unexpected death in infancy (SUDI)
- severe physical and sexual non-accidental injury.

Rotation between sites would require considerable tier 2 work force expansion and there is a national absence of suitable candidates.

Support and approval of this model by the RCPCH has not yet been sought. Concerns regarding sustainability; specialty separation; and an inability to provide and sustain tier 2 support 24/7 across the two sites are likely to impact on their position. If training posts were considered unsuitable there would be a loss of trainees within the county making the current paediatric services unsustainable. In addition the projected number of speciality trainee numbers in the future is highly likely to decrease.

3.4 Anaesthetic support for paediatric emergencies

Having the main inpatient paediatric unit at PRH and 30,000 paediatric ED attendances at RSH would result in a requirement for 24/7 paediatric anaesthetic support on both sites as described above. This would require a full time rota of anaesthetists with competences and confidence in managing children on both sites. They will need regular exposure to paediatric lists in order to maintain their skills and competencies. This is currently not sustainable due to capacity challenges within the anaesthetist workforce.

The Centre for Workforce Intelligence (CFWI) undertook an in depth review on the anaesthetic and Intensive Care Medicine (ICM) workforce. The review focused on fully trained anaesthetists and ICM specialists who hold a certificate of completion of training ('CCT holders'), and typically are employed as consultants**.** This review suggested there is a significant future risk to the supply of anaesthetist and intensivist CCT holders with impact on all middle and training grades. It is therefore envisaged that this problem would only worsen in the future with Option C2.

3.5 Effects on other services within Option C2

3.5.1 Trauma

There is a risk that patients will self-present at the W&C Unit with the expectation that they can be treated for trauma. Therefore, trauma services would need to support both sites 24/7 as there is the likelihood that patients will be attending both sites.

3.5.2 Abdominal, Urological and General Surgery

There is currently considerable difficulty in staffing and safely sustaining on site surgical support for paediatrics at PRH with the surgical inpatient base at RSH. Currently there is speciality presence 0900-1700 Monday to Friday but delivery of acute abdominal surgery to children out of hours already presents considerable challenges and puts at risk the surgical centre at RSH. This matter will continue with C2.

3.5.3 Head and Neck and Ophthalmology

Head and Neck and Ophthalmology will be required to provide emergency cover for both sites (RSH/PRH) within a workforce that is not sufficient for this dual service

3.5.4 Pathology and Blood Transfusion Services

Blood bank would need to be located at the main emergency ED site at RSH and at the PRH site (support of paediatric oncology and obstetrics predominantly). This currently produces extremely challenging workforce issues which would be perpetuated with a workforce with considerable recruitment challenges.

3.5.5 Radiology and Imaging

There will be a requirement to have contrast/interventional radiology and urgent paediatric/neonatal radiology expertise on both sites.

3.6 Recruitment and retention of medical and nursing staff

Recruitment within all disciplines of paediatrics and neonates is currently challenging except at consultant level. This concurs with the information available from medical workforce planning within West Midlands Deanery; there will continue to be challenges at middle and training grades. Option C2, with the potential for split site care would require workforce expansion which would not be met within current provision within the West Midlands and it is believed by the professional body that SaTH would be less likely to attract candidates in both nursing and medical professions at all grades when considering the model of care delivered by C2.

Having the 10th largest paediatric service in the country following 2014 reconfiguration has provided an opportunity to appoint consultants, although currently nursing staff have been difficult to appoint to template; it is believed that this advantage in consultant recruitment will be lost.

The potential for the RCPCH to not support this model would result in inability to provide and sustain tier 2 support 24/7 across the 2 sites.

3.7 Conclusion

The consultant body do not feel Option C2 is achievable or sustainable with the inability to recruit the required expanded work force within a split site option. The consultant body believe that C2 offers too many challenges to the provision of effective and safe services, in relation to having the right clinical skills in the right place to ensure children are cared for in line with best practice and guidance to deliver the best possible outcome for children. These challenges are not only to the specialists in paediatrics but also other specialities involved in the care of children and the new born.

4. Obstetrics, adjacencies and Critical Care

Building on work done at Liverpool Women's Hospital, the clinical community recognised the essential immediate clinical adjacencies of a Consultant Obstetric service; these are:

- gynaecology
- neonatology
- obstetric anaesthesia
- staffed obstetric theatre (option for x2)
- level 2 adult HDU
- level 3 Adult ITU
- emergency medicine
- haematology and blood transfusion
- microbiology
- non obstetric ultra sound
- radiology (with access to intervention radiology)
- acute medicine; and resuscitation services
- the obstetric service would require access to the full suite of speciality medicine and abdominal surgery within 1 hour.

4.1 Specialty and service links

4.1.1 Support Services

The clinical working groups within SaTH recognised that C2 creates significant issues for the staffing of an appropriate 24/7 pathology and blood transfusion service on two sites[3]. The Trust is already experiencing significant challenge in recruiting to current vacancies and has already embraced development of innovative employment and training packages to support service delivery. However, there is no further capacity to increase our internal opportunities to grow our own workforce; C2 would instigate further fragility to the service.

Acute CT, MRI, Ultrasound imaging is required by obstetrics with the infrequent need for intervention radiology. C2 will therefore put specific pressure on radiology staffing to supply appropriate care on 2 sites.

4.1.2 Surgery and Medicine

The requirements of obstetric patients of medical and surgical services would create significant workforce pressures. If there is to be appropriate and timely attendance to the obstetric patients (PRH) then rotas would need to be constructed to supply this support without putting patients at risk at the EM site (RSH).

[3] Care Quality Commission Core Standards, Co-location of a transfusion laboratory

4.1.3 Emergency Medicine

The obstetric link with ED is small, but the critically ill or injured obstetric patient does create significant complexity for an ED distant from a maternity unit or neonatal unit as delivery (usually immediate Caesarean section) forms part of adult resuscitation. This scenario also presents ED with the on-going care of a neonate (who will often be preterm). There will be the requirement of skills to undertake a caesarean section as well as neonatal resuscitation. As with the paediatric/neonatal support to ED model there will need to be a staffed retrieval team attending from PRH for the neonate and the mother.

4.1.4 Critical Care

The link with Critical Care and Critical Care outreach is identified as key to a safe Obstetric service[4].

On occasions there is the need for women pre- and post-delivery to require immediate and longer term critical care support. Women admitted onto the Consultant-led Delivery Suite may have a number of co-morbidities that make them a high risk patient, requiring critical care outreach support but their obstetric needs determine the site where care is delivered with a key relationship between obstetric anaesthesia and critical care. Critical care admission numbers are therefore not a marker of Critical Care need.

In Option C2, for the Obstetric Unit there will need to be on site critical care support to PRH[5].

An alternative model may be having no critical care support but with a retrieval service from RSH to Obstetric and all other inpatients who may be at low risk of needing Level 2 or 3 care. However women requiring critical care both directly and from outreach support whilst they have acute obstetric needs will need to remain at PRH and this creates a staffing issue where critical care retrieval does not solve the problem.

In order to deliver critical care using a retrieval model, mothers would need to be stabilised and transferred to the Critical Care Unit at RSH. The patient would still have on-going obstetric care needs at RSH with no on site Obstetric or Neonatal support. Furthermore if she had already been delivered when her critical care needs were identified, it is likely that her baby would be on the Neonatal Unit at PRH and therefore on a different site to the mother, creating problems of separation from family and baby. Please see Appendix B.

4.1.5 Theatre staffing

Overnight theatre staffing with attendance within 10 minutes for the 2 obstetric theatres without the ability to share with other emergency systems (as is currently the process in PRH) will produce considerable theatre staffing pressures for the obstetric unit aligned with a treatment centre.

[4] Care Quality Commission Core Standards, Access to Level 3 Critical Care
[5] Liverpool Women's Hospital – essential clinical adjacency matrix

4.1.6 Recruitment

Midwives and Obstetricians have strongly indicated they would feel isolated with their patients vulnerable to delayed and poor care. This is likely to result in recruitment and retention issues.

4.2 Conclusion

The midwifery and medical professional clinical body within SaTH do not consider option C2 to be deliverable or sustainable for effective and safe consultant obstetric practice.

5. Mitigation to deliver a clinically safe C2

In order to reduce some of the risk to patients, the following mitigating actions could be taken:

5.1 Mitigation model 1 for Paediatrics

Revert back to having two paediatric inpatient units on each site, both able to deliver initiation of paediatric intensive care, stabilisation and ongoing high-dependency level support. This would work against the CCG sponsored reconfiguration of 2014 supported by the RCPCH and would maintain the pressure on acute anaesthetic and critical care services for both sites which the Sustainable Services Programme is tasked to resolve.

This would result in the loss of the benefits of the first reconfiguration which includes:

- comprehensive paediatric specialty provision for patients
- stable medical workforce
- reduced length of stay
- consultant presence for emergencies in line with 7/7 working and immediate access to resident consultant opinion during the peak activity hours for critically ill children – 7 days a week

The two units would require resident staff with RCPCH level 2 competencies covering 24/7 (middle grade or Consultant) as well as tier 1 staff and non-resident consultant cover. Meeting the need for resident staff with these competencies will mean an increase in Consultant numbers due to the limitations set by the college on training numbers and unavailability of non-training grades senior posts.

To cover RSH 24/7 at tier 2 level we would need at least an additional 5 WTEs on the tier 2 rota, who are likely resident consultants. Based on current recruitment challenges it is thought that this would be unachievable at trainee/SAS level and would result in a return to previous consultant recruitment problems.

Recruitment of the number of nursing staff with appropriate skills required for a second paediatric ward would also be challenging. Development and maintenance of HDU skills would not be feasible due to inadequate throughput of patients on each site. The service would need at least 2 x trained nurses overnight at RSH and 1 x Advanced Paediatric Nurse Practitioner (APNP). This would equate to an additional 7.2 WTE nurses and 4 APNPs (as a minimum).

The specialty support required on each site is given in the table in Appendix D.

This does not resolve the issues of **obstetrics and critical care.**

5.2 Mitigation model 2:

Develop a paediatric ED at PRH and not accept children to the RSH site. This is not thought to be possible because this would require the professional and workforce infrastructure needed for an emergency department as well as:

- ED consultants and medical staff
- ED nursing staff with paediatric training
- resident Anaesthetic team with paediatric skill
- resident trauma team
- resident surgical team
- blood transfusion, full blood chemistry and haematology service

The majority of ED attendances are with injury and therefore even though paediatric illness could be managed, the injury workload could not be accommodated by a purely paediatric led service; therefore additional support in these areas would also be required on the PRH site.

This does not resolve the issues of **obstetrics and critical care.**

5.3 Deliverability

If the mitigating actions are implemented under mitigation models 1 and 2 there is still the question as to whether or not it is deliverable within the current health economy. There are two key elements that impact on deliverability which are workforce and finance.

5.3.1 Workforce

The inability to cover 2 ED sites currently makes mitigation model 2 unlikely. It would require full ED, surgical and anaesthetic support on both sites. It is acknowledged that there is a high turnover of paediatric patients through ED accounting for 25-30% of A&E attendances. The creation of one ED for children would require appointment of an Emergency Medicine Consultant with an interest in paediatrics, but not a full rota of Paediatric ED doctors.

It has to be acknowledged that taking the Paediatric ED attendances away from the main ED would make the one large ED unsustainable as a training unit due to no paediatrics going to the site. Therefore, the loss of trainees would impact on the workforce.

As previously mentioned in section 3.3, there is a high risk of losing paediatric trainees as their time in SaTH would exclude experience of acutely unwell paediatric & neonatal patients who arrive in ED, which is a vital part of their training programme. The loss of trainees within the county would make our current paediatric services unsustainable and have a further impact on our ability to recruit in the future.

Recruitment and retention of staff within all disciplines of paediatrics is currently challenging. This model with split site care would make SaTH less likely to attract the candidates we would wish to recruit in both nursing and medical staff at all grades.

Given projected contraction in trainee numbers and dwindling Associate Specialist /Specialty Doctor workforce there is a concern that trainees in paediatrics are falling in number with fewer available for consultant appointment; those remaining are more likely to choose a job non-resident overnight so recruitment to a resident post is likely to be poor.

Appointment of tier 2 doctors has been problematic and is increasingly so, with the loss of the Associate Specialist grade and lack of specialty doctors. Paediatrics currently has approximately 30% of tier 2 daytime shifts covered by locum consultants. Therefore, it is likely that this cover will have to be provided by resident consultants overnight.

The C2 model of services is likely to further reduce the attractiveness of working in the ED and the Women and Children's Centre, putting the retention of the current workforce at risk.

Sustaining on site surgical support for paediatrics at PRH is a challenge now and will continue.

The high possibility of non-approval of Option C2 by the RCPCH, due to unsustainability and an inability to provide and sustain tier 2 support 24/7 across the 2 sites.

5.3.2 Financial Impact

If the workforce is available, the cost implications for the workforce alone are approximately £6.5 million recurring. This does not take into account the additional equipment and facilities required should a second paediatric unit be provided at RSH. Due to the current health economy's financial position it is unlikely that this would be available.

6. Concluding Residual Risk

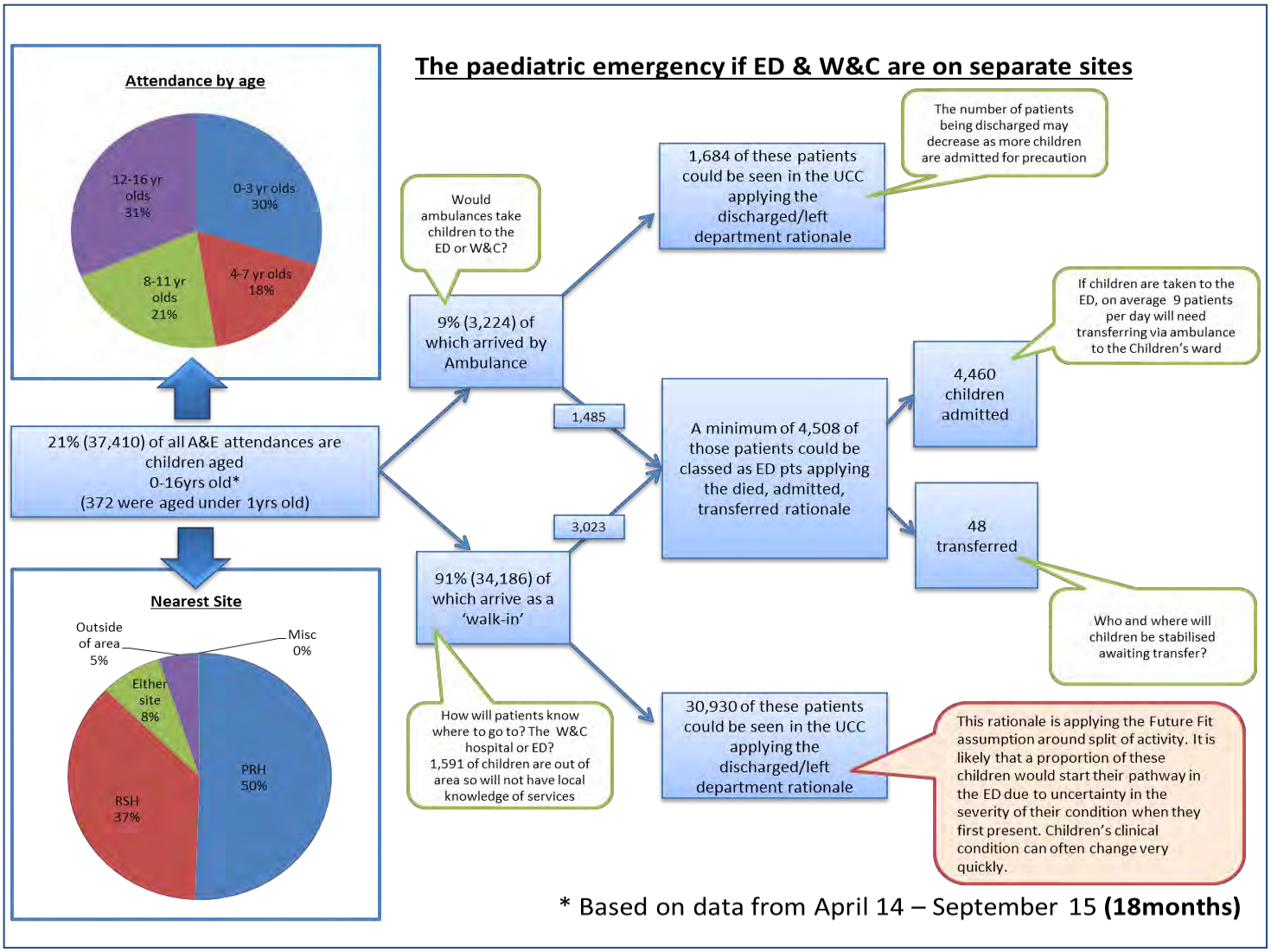
There are a number of high risks identified that would have a potentially grave impact on the safety and quality of services for patients. The mitigating actions that have been explored require large additional investment in the workforce and infrastructure.

The principle aim of the Future Fit and the Trust's Sustainable Services Programme is to address issues within the Emergency Department and Critical Care due to a historic issue. The mitigating actions would further exacerbate the very issues the SSP is trying to address; therefore suggesting the mitigating actions would be undeliverable.

Without the mitigating actions there remains a severe risk to the quality and safety of services for patients and has the potential to destabilise Women and Children's Services in the county.

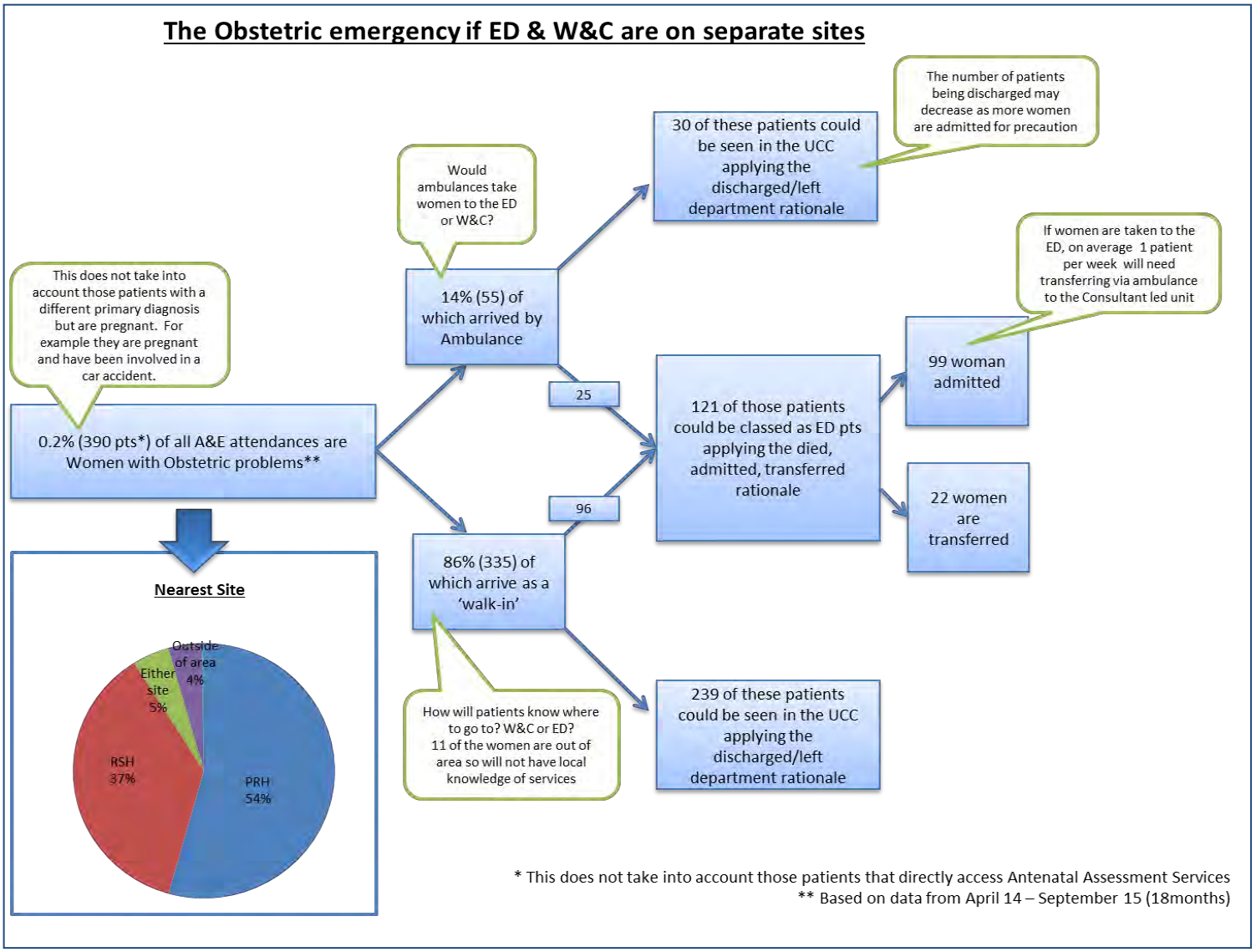
Appendix A:

Paediatric activity



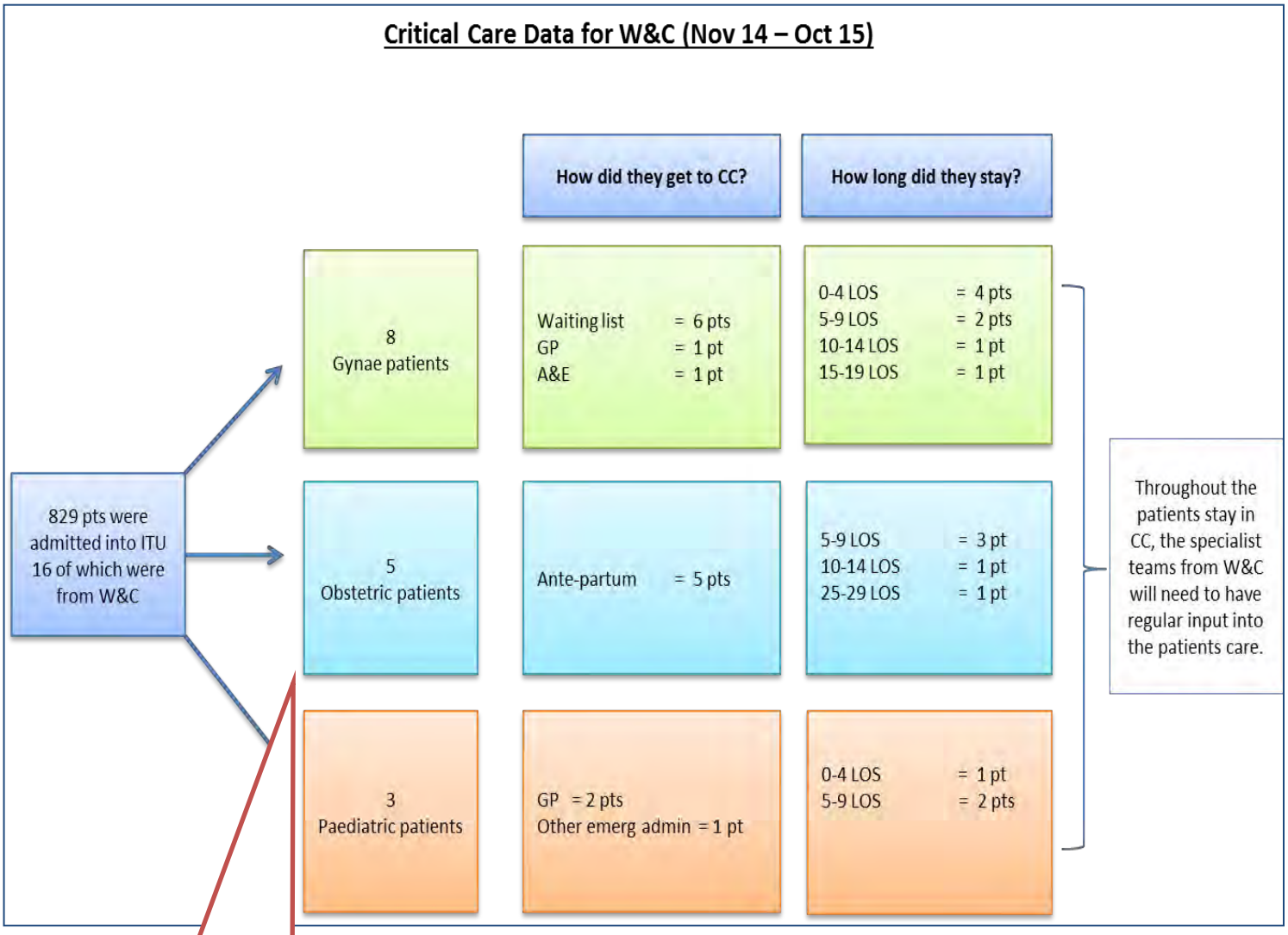
Appendix B:

Obstetric activity



Appendix C

Women and Children's Critical Care Unit admissions



N.B. This is in addition to the women who are supported by the Critical Care Team on an outreach basis whilst staying on the Consultant led Obstetric unit.

Appendix D

Speciality support required on each site under mitigation model

RSH site Paediatric Ward	PRH site Paediatric Ward
Emergency medicine	-
ENT	ENT
Surgery	Surgery
Pathology	Pathology
Trauma	-
Blood bank	Blood bank
Radiology incl CT & USS	Radiology incl CT & USS
HDU	HDU
Neonatal support	Neonatal Unit
HDU nurses	HDU nurses
EPLS trained nurses	EPLS trained nurses
Paediatric nurses	Paediatric nurses
T2 level competencies Consultant resident	T2 trainees/associate specialists/some resident consultant shifts
T1 apnps	Tier 1 trainees
Therapies & dietetics	Therapies & dietetics
Anaesthetic support	Anaesthetic support

NHS
Transformation Unit

Shropshire Acute Services Review

TU

1. Introduction

The NHS Transformation Unit was commissioned to help support the Strategy Unit of the Lancashire and Midlands CSU work with the Shropshire Future Fit programme. This small piece of commissioned work has been undertaken in August 2016.

Recognising the recent development of a Women and Children's Centre at Princess Royal Hospital, Telford (PRH), the Programme Board agreed at the longlisting stage (and confirmed in shortlisting) that the potential to locate consultant-led obstetrics either at the Emergency Centre (EC) or at PRH should be considered as a variant to options which do not locate the Emergency Centre at PRH. Option C2 is the sole remaining variant option.

This paper summarises the findings and conclusions of this initial commission.

We outline below:

1) The remit of the work;
2) What information we had access to;
3) The approach taken and whom we interviewed; and
4) Clinical Reference Group Panel key conclusions and recommendations.

2. Remit of the work

We were asked to:

1) Conduct an independent clinical review of Option C2 by considering both existing clinical stakeholders' views on the option and providing "critical friend" clinical advice on the feasibility of implementing such an option. In particular, commissioners wish to understand what would be required to make the variant option safe and sustainable, and what evidence there is of such configurations elsewhere.
2) Use a Clinical Reference Group Panel of Greater Manchester-based clinicians who have been involved in the development of service reconfiguration options around emergency/urgent care and women's and children's services to review the proposals and provide advice on this option and other options considered so far.
3) Conduct an interview programme of the key clinicians who have commented on the service change proposals to date.
4) Provide a summary report that could inform your current review process of the service options reconfiguration and what we would advise happens next.

3. Information reviewed

In undertaking the above brief, we have reviewed the following:

a) Business Case around the Future Fit programme prepared to date;
b) Option C2 high level option description; and
c) Option C2 Clinical Review Document prepared by senior clinicians at Shrewsbury and Telford NHS Hospitals Trust (SaTH) which sets out the impact that this option would have on women's and children's services, emergency services and other departments and specialities.

Further information was requested on current clinical workforce and activity levels across the two hospitals associated with emergency services and maternity and children services. Some of this was provided to our team on our site visits to both hospitals.

4. Our Approach

In the short time available, we have undertaken the following activities:

i. Convened a group of senior clinical experts from the Greater Manchester area with the professional credibility and independence from SaTH to review all the information and evidence.
ii. Convened a fact finding session to enable the Project Lead (Jeanette McMillan from the Transformation Unit) to meet key stakeholders and clinical leads and interrogate the brief further and establish key questions for the review panel to answer/address.
iii. Co-ordinated a half day workshop with the panel to review and discuss the information presented and develop the key conclusions.

We held a number of stakeholder interviews over a two day period as outlined in the table below:

Table 1 – Interviewees listing

Name	Title
Sanjeev Deshpande	Clinical Director for Neonatology, SaTH
Joe McCloud	Surgery Clinical Director and Deputy Scheduled Care Group Medical Director, SaTH
Louise Sykes	Anaesthetics, Theatres and Critical Care Clinical Director, SaTH
Kevin Eardley	Unscheduled Care Group Medical Director, SaTH
Adrian Marsh	Emergency Medicine Clinical Lead, SaTH
Jo Leahy	Clinical Chair, Telford & Wrekin CCG
Maggie Kennerley	Lead Midwife, SaTH
Andrew Tapp	Women and Children's Care Group Medical Director
Lynn Atkin	Lead Nurse for Women and Children's Care Group, SaTH
Shelia Fryer & Mike Taylor	Pathology Centre Manager, SaTH
Andrew Cowley	Clinical Director for Paediatrics, SaTH
Sheena Hodgett	Obstetrician, SaTH
Julian Povey	Shropshire CCG Clinical Chair
Debbie Vogler	Future Fit Programme Director

Note: Still to be interviewed - Dave Evans, SRO and Accountable Officer for Shropshire County CCG and Telford & Wrekin CCG who returns from leave on 5 September 2016

5. Findings from clinical staff and other stakeholder interviews

The interviews confirmed the overall local clinical assessment that Option C2 would be challenging to implement in its current description given the current location of specific services and concerns about staffing levels, rotas and future training implications. Consultants and clinical staff acknowledge the limitations of workforce, rotas and medical training impacting to varying

degrees, leading to differing opinions as to whether the other site in a concentration of emergency services should be 'warm' or 'cold' in service provision mix. The co–location of children's inpatient service capacity was raised by many as a key requirement for an emergency service option. The key reasons outlined by clinical staff supporting the co-location of women's and children's services with emergency services were articulated as:

- Reduction in clinical risk and improved patient outcomes;
- Clinical co dependencies and adjacencies to support timely care with the competencies to support good clinical outcomes;
- Stops duplication of services on both sites;
- More effective use of workforce and rotas;
- Enhanced recruitment prospects with the consolidation of higher acuity patients on one site;
- Paediatric anaesthetists available for A&E and surgery;
- Single neonatal and paediatric service retained;
- Supports 2013 RCPCH Review recommendation that there is only one A&E department;
- Ready access to intensivists for high acuity obstetric patients;
- Supports key elements of medical training for all specialties;
- Supports Keogh review requiring consultants to give 7 day consultant cover;
- Patients and general public will choose to attend where they understand services to be safest;
- Minimises the number of patient transfers and the need for consultant staff to attend another site in the case of an emergency (distance between PRH and RSH – 18 miles); and
- Will create more opportunities for integration between acute, primary and social care.

The CCG clinical leads expressed the following assessment at the interview:

a) All the previous options of hot and cold site models had raised financial resource challenges facing the health system;
b) Concerns around moving away from excellent modern facilities for women's and children's services and the wish not to lose the service benefits associated with modern facilities and consolidation of services;
c) Adjustments to Option C1 may be raised as part of the consultation process as part of providing a better solution for both populations;
d) All agreed that the configuration of services should be of high quality, minimise risk where possible, be evidence based and address the drivers for change to ensure that the future services are sustainable; and
e) Acknowledgement of the need to consider evidence that women's and children's services should be on a single "hot site" alongside lead emergency centre for the local population.

As a result of these interviews and site visits, a number of clarifications were sought re the clinical response to Option C2:

- Clarification on why critical care is required to be on both sites*;

- The feasibility of paediatrics covering two sites. Acknowledged there are significant challenges in neonatology covering both sites;
- Need to consider demographics as well as geography; and
- Clarification on why surgical specialities are required to be on the same site as women's and children's*.

*see section 8 which responds to these points

6. Clinical Reference Group Panel

We assembled a group of seven clinicians that reviewed your papers and several convened to formulate this response. All the clinicians have been involved in similar service reconfiguration options both with Greater Manchester work and through experience of other health systems. The group is summarised in the table below:

Table 2 – CRG Panel members

Name	Role	Organisation
Martin Smith (Chair)	Clinical Director for Emergency Medicine	Salford Royal NHS Foundation Trust
Steve Jones	Consultant in Emergency and Intensive Care Medicine and Clinical Director of Emergency Services	Central Manchester University Hospitals NHS Foundation Trust
Julie Flaherty	Children's Clinical Lead, Unscheduled Care	Salford Royal NHS Foundation Trust
Helen Howard	Interim Divisional Director of Midwifery	Pennine Acute Hospitals NHS Trust
Edwin Clark	Consultant General Surgeon	Stockport NHS Foundation Trust
Mark Robinson	Consultant Paediatrician and Clinical Director for Child Health	Wrightington, Wigan and Leigh NHS Foundation Trust
Christopher Cooper	Consultant Paediatrician and Clinical Lead for Paediatrics	Stockport NHS Foundation Trust
In attendance:		
Jeanette McMillan	Project Lead	NHS Transformation Unit
Paul Wood	Interim Director of Transformation	NHS Transformation Unit
Rachel Bevan	Project Manager	NHS Transformation Unit

7. CRG Panel key findings

The CRG Panel reviewed the Sustainable Service Programme (Final Strategic Outline Case) and 'Option C2 Clinical Review Document' produced by senior clinicians at SaTH. In reviewing what would be required to make the variant Option C2 safe and sustainable. The following issues were highlighted:

i. Clinical configuration and co locations – Both sites as a minimum would be required to have:
   - Level 3 adult ICU;

- Anaesthetics with capability in both adults and children (critical for ED where children are present);
- Imaging - plain x ray, USS, CT and MRI practitioners required on both sites but opportunity for diagnostic reporting to be centralised enabled by image transfer. Capability to provide interventional radiology on both sites (practitioners would need to travel between sites);
- Blood transfusion;
- Acute medicine;
- Access to surgery;
- Resuscitation services; and
- Paediatrics. NB - Neonates and Paediatrics will need to be sited together otherwise dual middle grade rotas or new ways of working with ANNP and ANPs are required. However, these new workforce models will only be achievable if they do not function in isolation.

From all these services, the critical co–locations were deemed to be paediatrics and ICU.

ii. Workforce development, sustainability and competencies required to deliver high quality care and clinical outcomes – There is a need to demonstrate a sustainable clinical workforce both in WTE and competencies. Having reviewed the current SaTH workforce challenges, the national position and the future availability of medical trainees, the evidence suggested that the probability of achieving and sustaining a clinical workforce to support Option C2 would be very challenging. Consideration should be given to new workforce roles such as associate physicians, assistant practitioners, ANNPs and ANPs. All of these roles would however, require a lengthy lead in time.

iii. Royal Colleges' Standards – Although the scope of work did not include a literature review, the expertise and experience of the Panel was employed to suggest that Option C2 would not meet the necessary standards of the Royal Colleges and CQC issues would be raised.

iv. Opportunities for integration and future proofing - Option C2 does not make reference to integration either with other health services, such as Primary Care services, or with social care services. In the modern health and social care system this is a missed opportunity to integrate services and through doing so improve patient experience and create a more contemporary service. Following on from this, the Panel felt that Option C2 would already be outdated by the time that it had been implemented, meaning that another service reconfiguration would then be needed to cope with future health demands

v. Evidence of similar configurations elsewhere – The evidence base from other health communities/systems indicates that a single emergency centre receiving undifferentiated case mix should ideally have all services including women's and children's services. This is more in line with Option C1 than the Option C2 configuration. The Panel suggested that some of the lessons learnt and service changes that have taken place in the East Lancashire service reconfiguration between Blackburn and Burnley would be useful to consider, including how they have implemented an urgent care service portfolio at the non-emergency centre site that incorporates a well-designed Paediatric Ambulatory Care service model with a supporting workforce model. In this particular case , this has prevented a significant flows of children to the emergency centre site . In addition , this has facilitated the concentration of staffing rotas on the areas of the highest workload.

8. CRG Panel conclusions

i. The Panel concluded that the need for service change was clearly evident given the current staffing levels across the two hospital sites' A&E services. Option C2 as outlined is, in the Panel's view, unlikely to be clinically deliverable in the next couple of years or foreseeable future. The critical service independencies that the system would need to address with consolidation of A&E services would be:
   - The co-location of paediatrics expertise;
   - Level 3 adult ICU; and
   - Training and accreditation standards.

ii. The Clinical Reference Group panel was unaware of any standalone women's and children's hospital service with an Emergency Department receiving just women and children. When women are part of a women and children's hospital you need to address their adult needs with a range of specialities. This is different to a standalone paediatric ED which is common but requires significant support from paediatric ED and inpatient paediatric specialists.

iii. The future clinical service design and delivery models should be innovative, address the forthcoming challenges and be designed to meet the future health standards of 2025 and beyond. Without this approach it is likely that there will be a need for a further service reconfiguration in the short to medium term. It is essential that services are developed collaboratively and are clinically supported.

iv. Current work on innovative workforce models is required to continue with pace to ensure a sustainable workforce capable of delivering the preferred option. But this is only part of the solution as it needs continued development and support in order to make it a sustainable model. As above this should include newer innovations such as associate physicians, assistant practitioners, ANNPs and ANPs, and recognition of lengthy lead in time for any of these roles to be implemented.

9. CRG Panel recommendations

1) We would recommend that your consultation on future options focuses on the hot and extended warmer service site configuration options that provide the opportunity to explore the scale and breath of urgent care services that could be provided on the non-emergency service centre site. As indicated, the Panel advise that you explore some of the East Lancashire service configuration model that achieves compliance with the Royal Colleges' standards and addresses staffing / services model required to minimise the level of patient journeys.
2) The Panel would advise exploring further more innovative clinical models of care underpinning a single emergency centre including women's & children's services ("hot site") and an innovative "warm site" with elective surgery, medicine, rehabilitation, ambulatory care, urgent care, community and primary care services.
3) Given your resource affordability challenges, we would suggest looking at how you could reduce your total system cost envelope around this option through the integration of those services in each locality, rather than viewing it through one organisation's perspective and the transfer of specific services from one organisation to another.
4) In addition, the scale of the emergency services that is considered affordable should be re-examined and it should be considered whether there are options for a shared workforce in certain specialties as part of a larger clinical service provision network.

5) All the options you consider should reflect evidence based standards and innovative models of care that are able to meet the challenges of health and social care in 2025 and beyond. In addition, consideration should be given as to what a sustainable and competent clinical workforce looks like for the future and that addresses and meets expected Royal Colleges' Standards, including training.

10. Next Steps

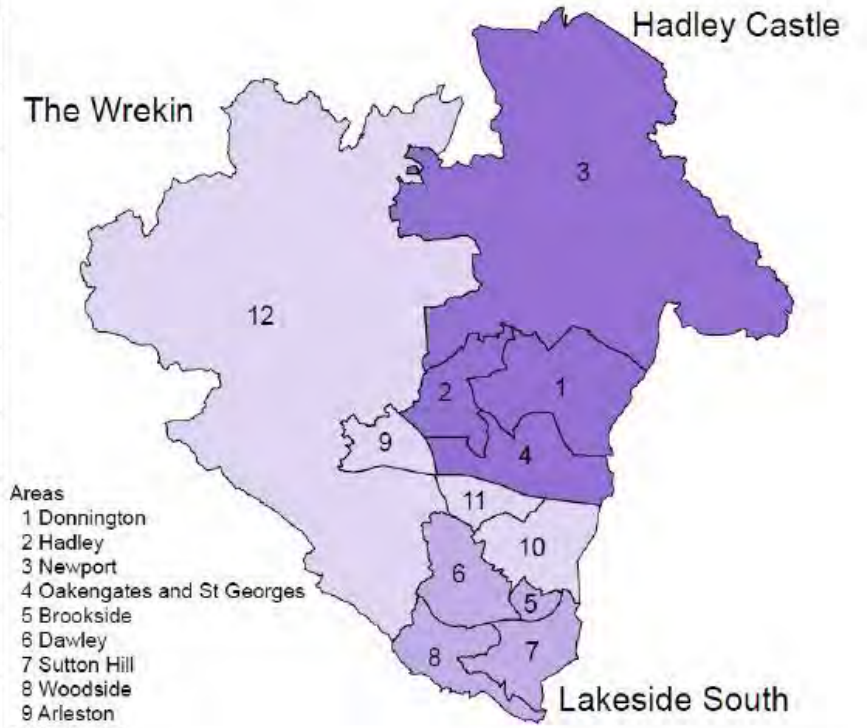
We would welcome the opportunity to discuss this paper further with you and al how we could support your clinical leaders in taking forward your option appraisal and Subsequent preparation for consultation on a range of options .

APPENDIX F – Locality Maps

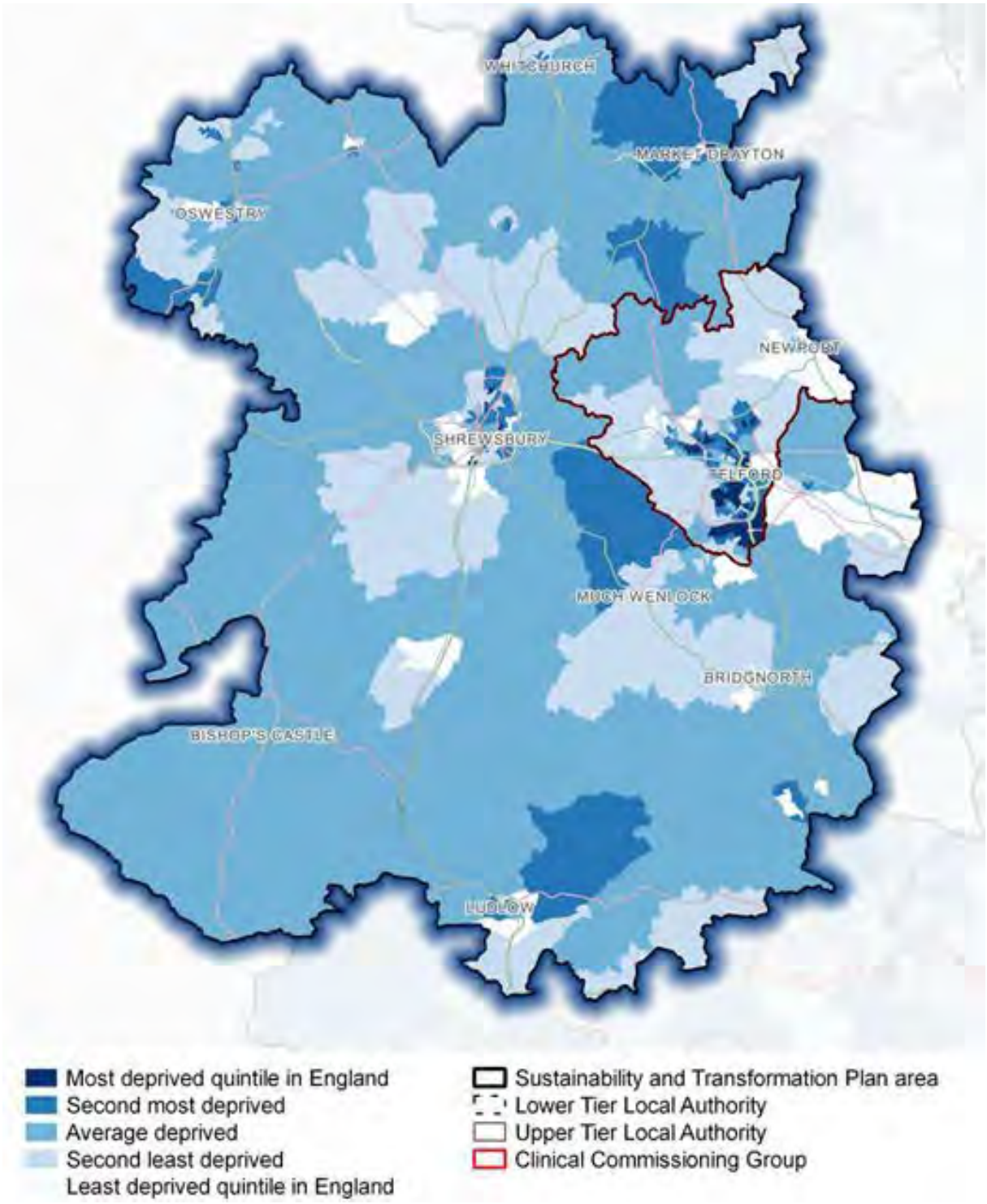
Where possible, evidence has been broken down by nine localities as advised by Local Authorities. The relevant Powys population is treated as a single area since that population is roughly one ninth of the overall programme population.

Shropshire

Locality	Area
Hadley Castle	Donnington
	Hadley
	Newport
	Oakengates & St Georges
Lakeside South	Brookside
	Dawley
	Sutton Hill
	Woodside
The Wrekin	Arleston
	Malinslee
	Newdale
	Wellington



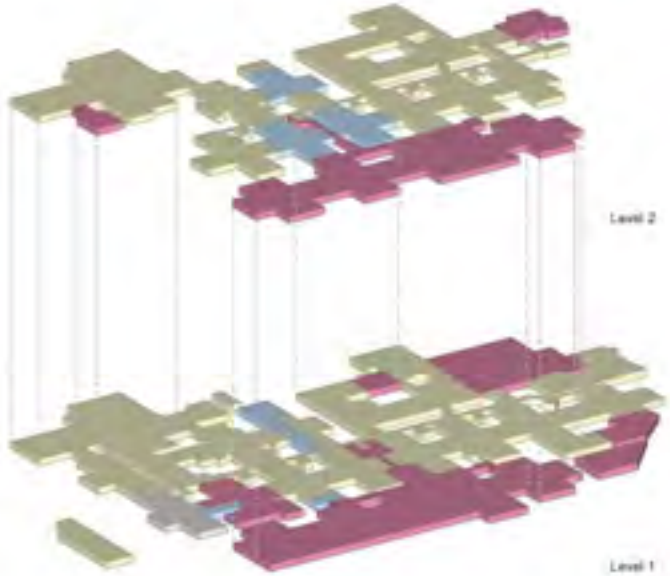
APPENDIX G – Index of Multiple Deprivation



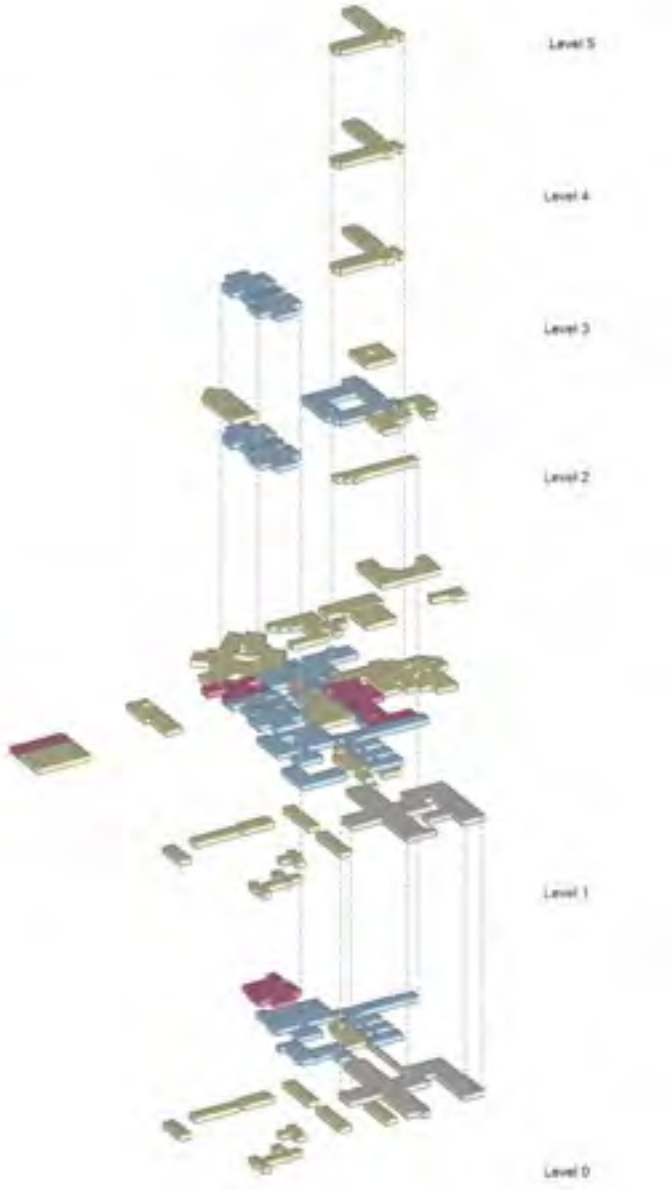
Rank	Most Deprived
1 - 191	10% most deprived
192 - 382	10-20% most deprived
383 - 573	20-30% most deprived
574 - 955	30-50% most deprived
956 - 1909	50% least deprived
	Least Deprived

APPENDIX H – Site Plans for Options

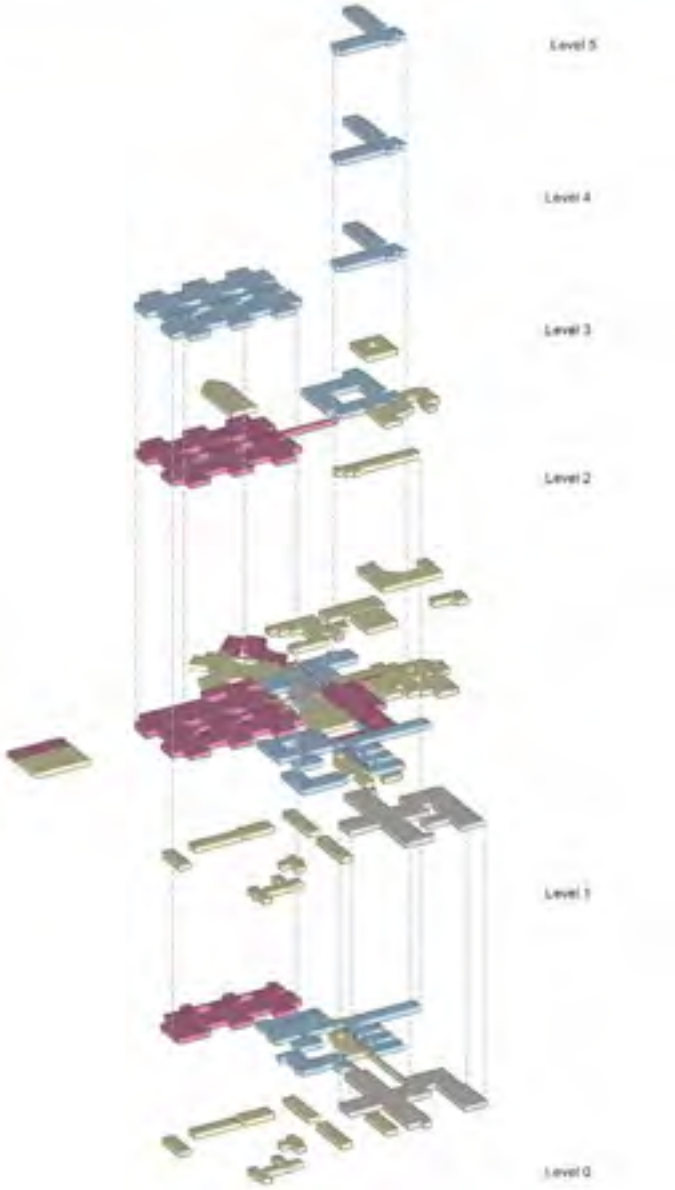
Option B – PRH – The Emergency Care Site



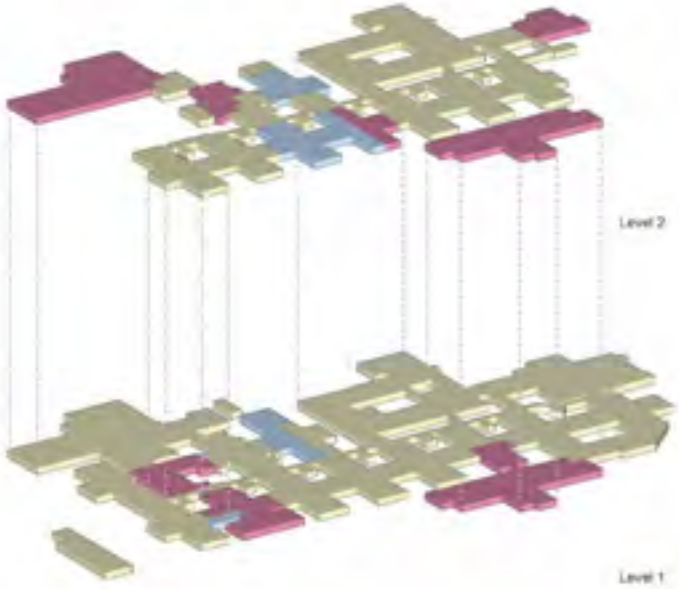
Option B – RSH – The Planned Care Site



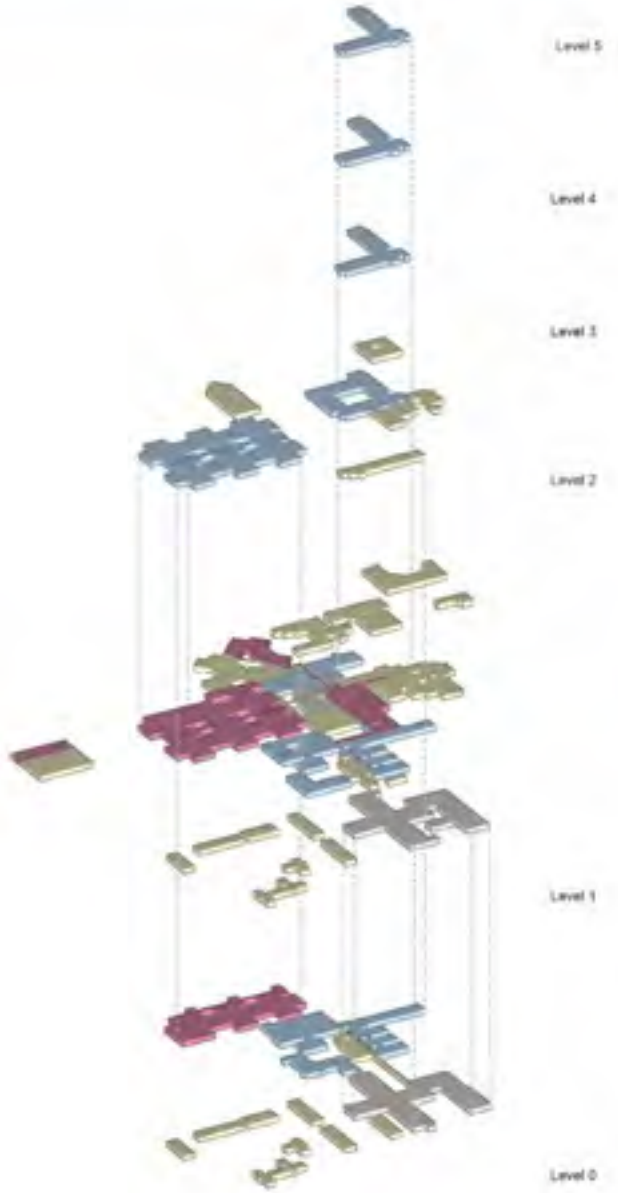
Option C1 – RSH – The Emergency Care Site



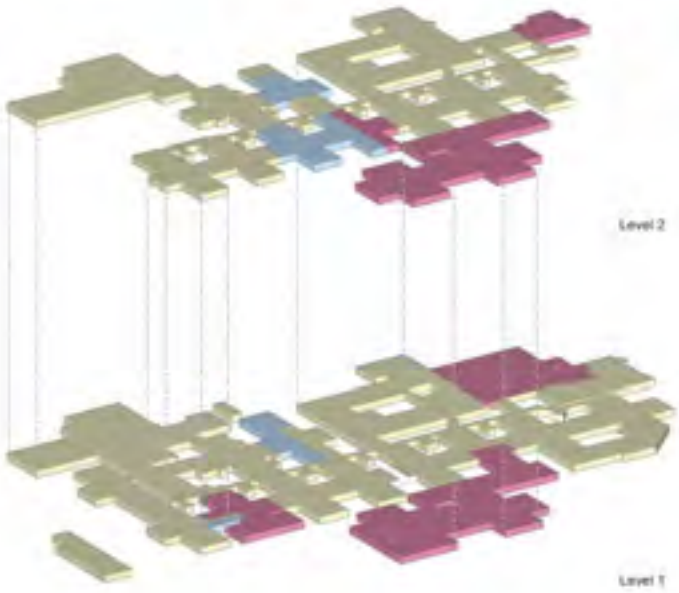
Option C1 – PRH – The Planned Care Site

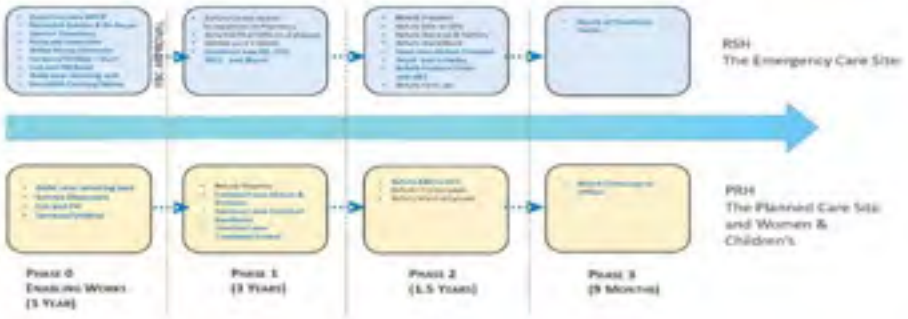


Option C2 – RSH – The Emergency Care Site



Option C2 – PRH – The Planned Care Site





APPENDIX I – Integrated Impact Assessment

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APPENDIX J – Report of Telephone Survey

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NHS Future Fit
Telephone survey 3

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Project objectives

- To explore use and reasons for use of acute hospital services by residents across Shropshire, Telford & Wrekin and mid Wales.
- To explore awareness of the NHS Future Fit programme
- To explore the extent to which the general public support the three options presented in the shortlist
- To understand how the general public rate the importance of the four non-financial criteria for evaluating the short list of options
- To understand how important the general public thinks cost is in relation to other factors

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Questionnaire structure

- Section 1 – where in Shropshire, Telford & Wrekin and east Powys is the respondent from
- Section 2 – explores the respondents recent experience and usages of hospitals
- Section 3 – views on NHS Future Fit proposals for hospital reconfigurations
- Section 4 – demographic profiling questions including disability, economic activity and residence
- Section 5 – contact details for future engagement

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Methodology

- A survey of 2,460 people across Shropshire, Telford & Wrekin and east Powys was conducted during April and May 2016.
- The sample was split equally across 9 geographic areas. The 5 former Shropshire districts, 3 Telford & Wrekin localities and the wards on the eastern boundary of Powys.
- The sample was split by geography, and then by age, gender and ethnicity to create a stratified sample frame. The quotas for each group were representative by the Census data for the 9 areas.
- To ensure characteristics (geography, age, etc.) are not overrepresented quotas are established before the surveying commences. This is known as a stratified sample frame.
- Potential respondents are contacted by telephone using a technique known as Random Digit Dialling (RDD)

Random Digit Dialling (RDD)

- Potential respondents were telephoned using RDD
- RDD is a recognised research technique used to randomly sample respondents from a given population.
- Telephone numbers are randomly generated by a computer. These are then prefixed with area codes.
- The numbers are telephoned. Respondents are asked if they would like to participate in the telephone survey.
- Screening questions are used to ensure the interviewees meet the strict criteria (geography, age, gender, ethnicity).

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Confidence in the results

- The next slides shows the confidence that can be placed in the survey results. The larger the sample, the greater the level of confidence.

- Confidence in the results is shown at the 95% confidence level. This means we are 95% sure that the result for a particular question is how the entire population would respond if asked the same question.

- The confidence interval is the number of percentage points either side of a result that it could deviate from if the entire population were surveyed. For example, our sample of 2,460 has a confidence interval of 1.97% which means that if 55% answer 'yes' to a question, we can be 95% sure it is accurate between 53.03% and 56.97%

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Between 243 and 307 interviews were completed in each area

	Survey Areas	Population 18+	No of interviews	95% Confidence Interval
Shropshire	Bridgnorth	49421	243	6.27
	North Shropshire	51617	267	5.98
	Oswestry	32594	228	6.47
	Shrewsbury	81909	275	5.90
	South Shropshire	33,009	273	5.91
Telford and Wrekin	Hadley Castle	56462	298	5.66
	Lakeside South	31209	248	6.2
	The Wrekin	41828	307	5.57
Powys	24 specified wards	37509	272	5.92
Total		415558	2460*	1.97

The smaller the sample the larger the confidence interval

*includes 49 respondents who did not specify exact area or provide postcode

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Weighting

- The quotas achieved for geography, age, gender and ethnicity were very accurate.
- However, as with all surveys young people and men are harder to encourage to complete the survey.
- Therefore, the responses presented are weighted to represent the views of the population as accurately as possible.
- The views of under-represented groups are weighted a little more heavily than the over-represented groups.

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Summary of findings

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Profile of respondents (raw data achieved)

- The survey sample is close to the profile of the combined population of the areas surveyed.
- Gender: 51% female and 47% male
- Age: under-representation of 18-24 year olds; accurate or slight over-representation of 25+ year olds.
- Ethnicity: under-representation of white British (91.5% compared to 93.5% actual) and there was under-representation of non-white British groups because 4.9% of respondents declined to disclose this information.
- The majority, 77.9% had no health problem limiting day-to-day activities and this is a slight over-representation of the overall population for the surveyed area.

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Exploring the use and reasons for use of acute hospital services by residents across Shropshire, Telford & Wrekin and mid Wales.

- Most respondents (60%) had an appointment with a healthcare professional suggesting it was some form of planned care.
- 34% were visiting a GP; 22% PRH; and 17% RSH.
- Around three quarters arrived by car.
- Total journey time was less than 30 minutes for 75% of respondents, regardless of mode of travel.

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Exploring awareness of the NHS Future Fit programme

- Respondents were asked directly whether they'd heard of NHS Future Fit.
- The majority – 85.4% - had not heard of the programme. The smallest majority was in Shrewsbury at 79.4%.
- Of those who had heard of NHS Future Fit they were asked to rate their understanding of the programme on a scale of 1 to 5. The majority had a limited understanding of the programme.
- These questions explore awareness of the programme name.
- Consequently, if respondents had not remembered of the programme name they are less likely associate the changes they have heard about (via word of mouth, TV news, newspapers etc.) to the NHS Future Fit programme.

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Exploring the extent to which the general public support the three options presented in the shortlist

Comparing the three proposals			
	% scoring 1 – 4	% scoring 5 - 6	% scoring 7 - 10
Planned operations to be based at Telford with Emergency Care and Women's and Children's services at Shrewsbury	44.9	23.9	31.1
Planned operations to be based at Shrewsbury with Emergency Care and Women's and Children's services at Telford	41.0	23.6	35.4
Planned operations and Women's and Children's services to be based at Telford with Emergency Care at Shrewsbury	45.1	26.9	28.0
1 = not at all appropriate and 10 = very appropriate			

Respondents rated each proposal between 1 and 10

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Rating the importance of the four non-financial criteria for evaluating the short list of options

- When asked to rate the four non-financial criteria there was a clear hierarchy:

  1) quality of care,
  2) attracting and keeping staff
  3) accessibility for patients and
  4) ease of delivering the option

- The first two criteria received a score of '10' by over 70% of respondents.
- There was some regional variation within the scoring but this was by less than 10 percentage points.

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Rating the importance of cost to the four non-financial criteria

- Respondents were asked to compare the four non-financial criteria against cost.

- It should be noted that it is likely this group want to take a mid way point which the 10 point scale makes impossible. The remaining percentages were spread across the scales

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NHS

Rating the importance of the four non-financial criteria for evaluating the short list of options

Comparing the three proposals

	% scoring 1 – 4	% scoring 5 - 6	% scoring 7 - 10
Quality of care,	1.1	2.9	96.1
Attracting and keeping staff	0.8	3.4	95.8
Accessibility for patients	2.4	6.3	91.3
Ease of delivering the option	7.0	21.7	71.3
The importance of cost compared with the other four criteria	21.6	26.9	51.3

1 = not at all appropriate and 10 = very appropriate

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Previous experience of healthcare services

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Respondents most recent health care experience		
	No.	%
An emergency or urgent admission	456	18.5
A planned or waiting list admission	369	15.0
An appointment with a healthcare professional	1459	59.3
Other	177	7.2
Total	2460	100.0

For most respondents their most recent health care experience was an appointment with a healthcare professional

Place used for most recent health care experience	No.	%
GP practice - doctor	842	34.2
The Princess Royal Hospital Telford	546	22.2
The Royal Shrewsbury Hospital	422	17.2
Other	246	10.0
Can't remember	128	5.2
GP practice - nurse	74	3.0
Robert Jones and Agnes Hunt Orthopaedic Hospital	56	2.3
Walk-in Centre	34	1.4
A&E / emergency department	28	1.1
Bridgnorth Community Hospital	18	0.7
Wrexham Maelor Hospital	15	0.6
New Cross / Royal Wolverhampton Hospital	9	0.4
Ludlow Community Hospital	7	0.3
Minor Injuries Unit (MIU)	6	0.3
Aberystwyth Bronglais General Hospital in Aberystwyth	6	0.2
GP out of hours service	5	0.2
Newtown Hospital	4	0.2
Whitchurch Community Hospital	4	0.2
Llandidloes War Memorial Hospital	3	0.1
Victoria Memorial Hospital in Welshpool	2	0.1
Bishop's Castle Community Hospital	2	0.1
Pharmacy	2	0.1
District of community nursing	1	0.0
999 / ambulance	1	0.0
Total	2460	100.0

Most experiences had been at their GP practice, followed by a visit to either Princess Royal or Royal Shrewsbury Hospital

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74% of respondents had travelled by car

75% of journeys had taken less than 30 minutes

Method of transport for most recent health care experience	No.	%
By car	1813	73.7
Ambulance	178	7.2
By bus/coach	46	1.9
By train	6	0.3
Other	303	12.3
Can't remember	113	4.6
Total	2460	100.0

Travel time for most recent health c experience	No.	%
Up to 10 minutes	1053	42.8
11-20 minutes	545	22.2
21-30 minutes	246	10.0
30-45 minutes	214	8.7
45-60 minutes	137	5.6
1<2 hours	70	2.9
2<3 hours	7	0.3
More than 4 hours	1	0.0
Can't remember	186	7.6
Total	2460	100.0

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A note on the tables in the following sections

- The following tables are in row percentages (so each row is 100%)
- The results are presented by the 9 areas. Only percentages are given but they are out of the total number of respondents for each area.
- The 'Area' at the bottom of the table is the total number of respondents who took part in the survey.

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

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Awareness of NHS Future Fit

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Split of respondents who have and have not heard of NHS Future Fit				
Area	Yes		No	
	No.	%	No.	%
Bridgnorth	30	12.5	210	87.5
North Shropshire	37	13.5	237	86.5
Oswestry	33	14.6	193	85.4
Shrewsbury	58	20.6	224	79.4
South Shropshire	51	18.3	227	81.7
Hadley Castle	47	15.8	251	84.2
Lakeside South	30	11.6	228	88.4
The Wrekin	48	15.5	262	84.5
Powys	19	7.6	230	92.4
Total	353	14.6	2062	85.4

20% of people surveyed in Shrewsbury had heard of 'Future Fit'

Overall 14.6% of people had heard of NHS Future Fit

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Understanding of NHS Future Fit										
	1		2		3		4		5	
Bridgnorth	8	26.7	7	23.3	10	33.3	3	10.0	2	6.7
North Shropshire	14	37.8	9	24.3	5	13.5	4	10.8	5	13.5
Oswestry	15	45.5	2	6.1	7	21.2	5	15.2	4	12.1
Shrewsbury	25	43.1	8	13.8	14	24.1	8	13.8	3	5.2
South Shropshire	19	36.5	15	28.8	7	13.5	5	9.6	6	11.5
Hadley Castle	20	41.7	11	22.9	9	18.8	3	6.3	5	10.4
Lakeside South	10	32.3	6	19.4	8	25.8	2	6.5	5	16.1
The Wrekin	14	28.6	13	26.5	9	18.4	6	12.2	7	14.3
Powys	7	36.8	3	15.8	5	26.3	2	10.5	2	10.5
Total	132	37.0	74	20.7	74	20.7	38	10.6	39	10.9
1 = very little and 5 = very much										

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

NHS

Opinions on the NHS Future Fit proposals

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Comparing the three proposals											
		1	2	3	4	5	6	7	8	9	10
B - Planned operations to be based at Shrewsbury with Emergency Care and Women's and Children's services at Telford	**No**	615	119	150	122	456	126	173	264	119	316
	%	25.0	4.9	6.1	5.0	18.5	5.1	7.0	10.7	4.8	12.9
C1 - Planned operations to be based at Telford with Emergency Care and Women's and Children's services at Shrewsbury	**No.**	648	140	183	136	460	128	179	232	86	268
	%	26.3	5.7	7.4	5.5	18.7	5.2	7.3	9.4	3.5	10.9
C2 - Planned operations and Women's and Children's services to be based at Telford with Emergency Care at Shrewsbury	**No.**	658	139	170	144	517	145	183	211	72	221
	%	26.7	5.6	6.9	5.9	21.0	5.9	7.5	8.6	2.9	9.0
1 = not at all appropriate and 10 = very appropriate											

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

NHS

This proposal was less popular with Shrewsbury residents

B - Planned operations to be based at Shrewsbury with Emergency Care and Women's and Children's services at Telford

	1	2	3	4	5	6	7	8	9	10
	%	%	%	%	%	%	%	%	%	%
Bridgnorth	14.5	2.5	5.0	2.1	24.5	8.3	9.5	17.0	5.4	11.2
North Shropshire	20.8	4.4	4.4	5.1	23.7	4.4	5.8	12.0	6.2	13.1
Oswestry	36.6	6.2	5.3	5.7	12.3	6.2	6.2	8.4	1.8	11.5
Shrewsbury	26.8	7.0	12.3	4.2	20.4	3.2	6.0	7.4	4.9	7.7
South Shropshire	26.6	7.2	6.5	6.5	17.3	5.0	7.2	13.7	3.2	6.8
Hadley Castle	21.2	3.4	4.7	6.1	16.2	4.0	8.4	9.4	6.7	19.9
Lakeside South	22.1	5.0	4.7	4.7	17.1	5.4	5.8	12.4	5.0	17.8
The Wrekin	18.1	3.5	4.2	4.5	18.1	5.2	9.0	11.0	7.1	19.4
Powys	41.4	5.6	7.6	6.0	15.7	4.8	5.6	5.6	2.4	5.2
Area	25.0	5.0	6.1	5.0	18.4	5.1	7.1	10.8	4.9	12.7

1 = not at all appropr[illegible]and 10 = very appropriate

This proposal was particularly unpopular with Powys residents

Many respondents picked 5 as the closest to a mid-way point between 1 and 10

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

NHS

This proposal was less popular with Telford & Wrekin residents

C1 - Planned operations to be based at Telford with Emergency Care and Women's and Children's services at Shrewsbury

	1	2	3	4	5	6	7	8	9	10
	%	%	%	%	%	%	%	%	%	%
Bridgnorth	22.1	3.8	9.6	4.6	26.7	2.9	8.8	12.5	3.3	5.8
North Shropshire	17.5	4.4	5.5	6.9	24.4	5.5	6.9	13.5	3.6	12.0
Oswestry	24.8	5.8	1.8	4.9	17.3	5.8	9.7	8.8	6.2	15.0
Shrewsbury	15.2	4.6	8.5	4.6	18.8	6.0	8.5	13.8	4.3	15.6
South Shropshire	16.5	6.1	8.6	6.8	15.4	8.6	8.6	11.8	4.7	12.9
Hadley Castle	38.7	5.7	11.8	5.7	13.8	2.4	4.4	6.1	1.0	10.4
Lakeside South	34.7	8.1	6.9	6.2	16.6	4.2	6.6	6.9	3.1	6.6
The Wrekin	33.2	7.7	7.1	5.8	18.7	4.8	6.5	7.1	2.6	6.5
Powys	31.2	4.4	6.0	3.6	16.4	7.2	6.0	6.0	4.8	14.4
Area	26.1	5.7	7.4	5.5	18.6	5.3	7.2	9.6	3.6	11.0

1 = not at all appropriate and 10 = very appropriate

Many respondents picked 5 as the closest to a mid-way point between 1 and 10

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

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This proposal was less popular with Telford & Wrekin residents

C2 - Planned operations and Women's and Children's services to be based at Telford with Emergency Care at Shrewsbury

	1	2	3	4	5	6	7	8	9	10
	%	%	%	%	%	%	%	%	%	%
Bridgnorth	18.5	4.9	7.8	4.1	28.4	3.7	7.8	14.8	2.5	7.4
North Shropshire	16.1	2.9	5.1	6.2	25.9	7.3	8.0	11.3	4.4	12.8
Oswestry	29.6	6.6	4.0	3.5	19.5	7.5	8.8	5.3	3.1	11.9
Shrewsbury	17.3	6.0	7.1	8.1	18.4	4.6	11.3	12.0	3.9	11.3
South Shropshire	20.1	4.3	10.8	3.2	20.8	9.7	7.5	12.2	3.9	7.5
Hadley Castle	37.1	6.7	8.7	8.0	16.4	3.3	4.3	4.3	1.3	9.7
Lakeside South	32.9	7.0	6.6	6.2	20.9	7.0	6.2	5.4	2.3	5.4
The Wrekin	34.1	8.0	4.5	6.1	20.3	4.5	7.4	5.8	3.2	6.1
Powys	32.4	4.4	6.8	6.0	19.2	6.4	6.8	6.4	2.8	8.8
Area	26.6	5.7	6.9	5.8	21.0	5.9	7.6	8.6	3.1	9.0

1 = not at all appropriate and 10 = very appropriate

Many respondents picked 5 as the closest to a mid-way point between 1 and 10

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Criteria to evaluate proposals

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Criteria for evaluating proposals																				
	1		2		3		4		5		6		7		8		9		10	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Accessibility for patients	18	0.7	9	0.4	19	0.8	12	0.5	107	4.4	48	1.9	160	6.5	398	16.2	297	12.1	1393	56.6
Quality of care,	5	0.2	4	0.2	3	0.1	14	0.6	44	1.8	28	1.1	64	2.6	209	8.5	265	10.8	1824	74.2
Ease of delivering the option	80	3.2	24	1.0	32	1.3	37	1.5	395	16.0	140	5.7	271	11.0	481	19.6	197	8.0	803	32.7
Attracting and keeping staff	13	0.5	3	0.1	1	0.0	4	0.2	50	2.1	31	1.3	65	2.7	233	9.6	253	10.5	1764	73.0
The importance of cost compared with the other four criteria	221	9.0	92	3.7	114	4.6	107	4.3	534	21.7	128	5.2	237	9.6	344	14.0	129	5.2	554	22.5
1 is not at all important and 10 is very important																				

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Accessibility was important for all respondents but most highly rated by Lakeside South respondents (T&W)

Accessibility for patients, which is travel time by ambulance, car, and bus	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
Bridgnorth	0.0	0.8	0.0	0.0	5.0	1.2	5.4	20.7	12.9	53.9
North Shropshire	0.4	0.0	2.6	0.7	2.9	2.2	6.2	13.1	15.0	56.9
Oswestry	0.4	0.4	0.9	0.9	3.1	3.5	8.8	15.0	8.0	58.8
Shrewsbury	0.4	0.0	0.4	0.0	4.2	0.7	7.1	16.6	19.4	51.2
South Shropshire	1.8	0.4	0.4	0.7	4.7	1.8	4.7	15.1	12.2	58.4
Hadley Castle	1.0	0.3	0.3	0.0	4.7	1.7	4.7	17.2	10.4	59.6
Lakeside South	0.4	0.8	0.4	0.0	4.2	3.1	6.9	12.0	10.4	61.8
The Wrekin	0.3	0.0	0.3	1.3	4.5	1.9	7.4	18.6	12.5	53.1
Powys	2.0	0.8	1.6	0.8	6.4	1.6	7.6	17.2	7.6	54.4
All respondents	0.7	0.4	0.7	0.5	4.4	1.9	6.5	16.2	12.2	56.4

1 is not at all important and 10 is very important

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

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Care quality was important for all respondents but most highly rated by Hadley Castle respondents (T&W)

Quality of care, which is about safety, effectiveness, and patient experience										
	1	2	3	4	5	6	7	8	9	10
	%	%	%	%	%	%	%	%	%	%
Bridgnorth	0.0	0.0	0.4	0.0	0.8	1.7	2.1	15.4	11.3	68.3
North Shropshire	0.0	0.0	0.4	2.9	1.8	0.7	1.5	6.5	12.0	74.2
Oswestry	0.4	0.0	0.0	0.4	2.2	0.9	3.1	6.6	8.0	78.3
Shrewsbury	0.0	0.7	0.4	0.0	0.0	0.4	4.3	9.6	15.6	69.1
South Shropshire	0.0	0.0	0.0	0.4	0.7	2.5	2.9	8.6	9.7	75.2
Hadley Castle	0.3	0.3	0.0	0.3	1.0	0.3	1.3	8.4	8.1	79.9
Lakeside South	0.0	0.4	0.0	0.4	1.9	0.8	3.5	5.4	13.1	74.5
The Wrekin	0.3	0.0	0.0	0.0	2.6	1.6	1.9	7.4	10.9	75.2
Powys	0.8	0.0	0.0	0.8	4.4	1.6	3.2	10.8	7.6	70.8
All respondents	0.2	0.2	0.1	0.6	1.7	1.2	2.6	8.7	10.7	74.0

1 is not at all important and 10 is very important

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

NHS

Ease of delivery was important for all respondents but most highly rated by Lakeside South respondents (T&W)

Ease of delivering the option, which is the time to provide the buildings required, the amount of service disruption and public acceptability

	1	2	3	4	5	6	7	8	9	10
	%	%	%	%	%	%	%	%	%	%
Bridgnorth	0.8	0.4	1.7	0.4	15.4	3.3	15.4	24.1	7.5	31.1
North Shropshire	4.4	0.4	0.7	2.9	16.1	4.8	8.8	23.1	7.7	31.1
Oswestry	1.8	1.3	0.9	0.9	20.3	5.3	11.0	16.3	5.3	37.0
Shrewsbury	1.4	2.5	0.4	1.4	14.9	8.5	10.3	18.4	9.2	33.0
South Shropshire	2.2	1.4	1.1	2.2	17.9	6.8	9.7	19.7	9.3	29.7
Hadley Castle	5.7	0.7	0.7	1.3	16.5	4.4	12.5	18.2	6.4	33.7
Lakeside South	2.7	1.2	3.1	0.8	14.7	2.7	10.1	16.7	9.7	38.4
The Wrekin	6.1	1.0	1.6	1.6	11.9	9.6	10.3	19.6	7.1	31.2
Powys	3.6	0.0	1.6	2.0	17.5	6.0	10.4	19.5	10.8	28.7
Area	3.3	1.0	1.3	1.5	16.0	5.8	10.9	19.5	8.1	32.6

1 is not at all important and 10 is very important

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

NHS

Attracting and keeping quality staff was important for all respondents but most highly rated by Hadley Castle respondents (T&W)

Attracting and keeping the required numbers of high quality staff	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
Bridgnorth	0.0	0.0	0.0	0.0	1.3	1.3	1.3	14.2	10.4	71.7
North Shropshire	2.6	0.0	0.0	0.0	1.8	0.7	1.1	9.5	10.2	74.1
Oswestry	0.4	0.0	0.0	0.0	4.0	0.9	1.8	8.4	8.4	76.0
Shrewsbury	0.0	0.0	0.0	0.0	0.0	1.8	2.5	12.1	16.0	67.7
South Shropshire	0.0	0.0	0.0	0.0	1.8	1.1	4.7	7.2	11.2	74.1
Hadley Castle	0.7	0.0	0.0	0.3	2.0	0.7	1.7	7.7	7.7	79.1
Lakeside South	0.0	0.0	0.0	0.0	1.9	3.5	2.7	7.7	8.5	75.7
The Wrekin	0.3	0.0	0.3	0.6	1.6	1.6	4.2	10.9	10.3	70.1
Powys	0.8	1.2	0.0	0.4	4.8	0.0	4.0	9.2	11.2	68.5
Area	0.5	0.1	0.0	0.2	2.1	1.3	2.7	9.6	10.5	73.0

1 is not at all important and 10 is very important

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

NHS

Cost compared to the other criteria was most highly rated by Oswestry respondents

The importance of cost compared to the other four criteria,	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
Bridgnorth	6.7	3.3	4.6	5.4	19.6	4.6	4.2	17.9	5.8	27.9
North Shropshire	12.1	3.3	5.9	2.2	21.6	2.9	10.6	13.9	4.4	23.1
Oswestry	8.4	2.2	1.8	5.7	24.2	3.5	9.7	11.0	4.8	28.6
Shrewsbury	7.1	5.3	3.6	5.0	22.1	6.4	11.7	11.7	6.8	20.3
South Shropshire	10.4	5.4	7.6	5.0	27.0	5.4	6.5	11.5	3.6	17.6
Hadley Castle	11.1	5.0	4.4	4.0	20.1	5.0	11.1	13.4	3.7	22.1
Lakeside South	7.7	3.9	4.2	4.6	23.6	4.6	8.9	12.7	6.6	23.2
The Wrekin	7.4	4.5	4.8	4.8	19.4	9.0	10.6	15.5	6.5	17.4
Powys	9.6	1.2	4.8	2.4	16.7	4.4	12.0	17.5	5.6	25.9
Area	9.0	3.9	4.7	4.3	21.6	5.2	9.6	13.9	5.3	22.6

1 is not at all important and 10 is very important

Results suggest a 43.5/56.5 balance between non-financial and financial scores

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

NHS

Profile of respondents

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

NHS

Age	Survey		Combined area populations
	No.	%	%
16-17	7	0.3	
18-24	126	5.1	10.2
25-34	343	13.9	14.0
35-44	365	14.8	15.6
45-54	464	18.9	18.6
55-64	412	16.7	16.1
65+	640	26.0	25.5
Rather not say	103	4.2	n/a
Total	2460	100.0	

Gender	Survey		Combined area populations
	No.	%	%
Male	1161	47	49
Female	1254	51	51
Prefer not to say	45	2	0
Total	2460	100	

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

NHS

Ethnicity Profile	Survey		Combined area populations
	No.	%	%
English, Welsh, Scottish, Northern Irish, British	2245	91.3	93.5
Irish	7	0.3	6.4 (any other ethnicity)
Gypsy / Irish Traveller	1	0.0	
White and Black Caribbean	5	0.2	
White and Black African	2	0.1	
White and Asian	5	0.2	
Indian	8	0.3	
Pakistani	9	0.4	
Bangladeshi	2	0.1	
Chinese	2	0.1	
African	12	0.5	
Caribbean	5	0.2	
Any other ethnic group (Specify)	36	1.5	
Prefer not to say	121	4.9	
Total	2460	100	

Languages spoken most often at home	No.	%
English	2424	98.5
Other European language	23	0.9
Asian language (such as Hindi, Gujarati, Punjabi, Urdu, Sylheti, Bengali, Chinese, Thai)	5	0.2
African language (such as Swahili, Hausa, Yoruba)	2	0.1
Other, including British Sign Language	6	0.2
Total	2460	100.0

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

NHS

Use of a car or van		
	No.	%
Yes, your own car or van	1961	79.7
Yes, a friend's / family member's car/van	129	5.2
No, I do not have use of a car/van	370	15.0
Total	2460	100.0

Domestic situation		
	No.	%
I live alone	478	19.4
I live with friends or housemates	22	0.9
I live with a partner or spouse but without children	887	36.1
I live with a partner or spouse with children	655	26.6
I live with my parents or other family	156	6.3
I live alone with my children	103	4.2
Prefer not to say	159	6.5
Total	2460	100.0

Sexuality		
	No.	%
Heterosexual or straight	2112	85.9
Gay or Lesbian	13	0.5
Bisexual	11	0.4
Prefer not to say	311	12.6
Other	4	0.2
Total	2451	99.6
System	9	0.4
Total	2460	100.0

MIDLANDS AND LANCASHIRE COMMISSIONING SUPPORT UNIT

NHS

Economic and social activity		
	No.	%
Retired	727	29.6
Employed Full Time	943	38.3
Employed Part time	322	13.1
Homemaker	78	3.2
Student	31	1.3
Out of work and looking for work	25	1.0
Out of work and not looking for work	13	0.5
Unable to work	90	3.7
Other	231	9.4
Total	2460	100.0

Day-to-day activities limited by a health problem			
	Survey		Combined area populations
	No.	%	
Yes, limited a lot	280	11.4	10.3
Yes, limited a little	256	10.4	11.8
No	1923	78.2	77.9
Total	2459	100.0	
No response	1	0.0	
	2460	100.0	