South Yorkshire and Bassetlaw Integrated Care System

Hospital Services Programme

Governing Body Note Annex A: Modelling outputs

May 2019

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Workforce:

Paediatrics



Workforce: Paediatrics - Methodology

We have looked at current staffing levels on each site, and how this might be affected by changing the staffing model

In the following slides we describe:

- · How many staff are currently substantively employed at each site
- How this compares with the number of staff that would make up a sustainable workforce
- The impact that changing the clinical model would have in terms of changing the staff needed on that site, if the changed units were staffed at a sustainable level.

The impact on the system as a whole depends on where the activity would be sent to (see last section of this presentation) but an indicative analysis of the scale of reduction, at a system level, is discussed in this section on changes on 1 or 2 sites.

It is important to note that should the system be unable to afford an investment in staffing numbers to meet a sustainable establishment then changing the clinical model from the current staff in post baseline, could help reduce the demand for workforce, and support more sustainable workforce models on fewer sites.

The paediatric Clinical Working Group identified how many staff would be needed for a sustainable paeds rota



The number of consultants does not reduce if IP unit becomes an SSPAU Middle grade and junior doctors

The number of middle grade and junior doctors reduces because they need to be present on site for a shorter duration of time



The number of nurses reduces with the number of beds.

On a regional level, any reduction in the number of nurses is due to patients leaving SYB for care.

ASSUMPTIONS (FOR REFERENCE ONLY):

We asked clinicians to identity a **sustainable workforce required to meet current levels of activity.** They proposed the following assumptions:

Consultants:

Estimated using the current number of staff in post with filled vacancies

Mid Grade and Junior Doctors:

One middle grade and one junior doctor is required at all times and the required number of FTEs is calculated based on opening hours. Therefore the fewer the number of opening hours, the fewer doctors you need.

It is assumed that a mid grade/junior doctor works 25% of their time in a SSPAU, 30% of their time in an Inpatient unit, and 30% of their time in a Neonatal unit.

- **ANNP:** WTE that could reasonably substitute a Middle Grade/ Junior Doctor (*i.e. one to one substitution on wards*)
- **Nurses:** WTE per bed (*i.e.* 2 Paediatrics nurses for up to 8 beds, an additional nurse for every additional 4 beds)



Workforce: Paediatrics - Outputs

CAIC workforce in post

WTE by site, Based on 2018/19 workforce numbers as at 1 April 2019

Staff in post (+ agency and bank staff)

	Barnsley	Bassetlaw	Chesterfield	Doncaster	Rotherham	SCH
Consultant doctors	8.0	3.0 (+ 0.6)	8.2	11.8 (+ 1.9)	9.6 (+ 0.83)	8.0
Middle Grade doctors	10.5 (+ 0.3)	5.0 (+ 0.1)	8.8 (+ 0.2)	11.0 (+ 0.1)	7.5 (+ 0.66)	20.6 (+ 1.3)
Junior doctors	10.5 (+ 0.5)	4.0 (+ 1.0)	9.0	11.0 (+ 2.5)	7.5 (+ 0.47)	24.7
Nurses (Band 7+)	1.0	1.0	0.4 (+ 0.2)	2.0	1.0	10.5
Nurses (Band 5-6)	26.7 (+ 0.1)	8.2 (+ 0.5)	25.9 (+ 2.4)	33.0 (+ 0.6)	24.9 (+ 1.9)	85.7
Nurses (Band 1-4)	9.8	8.0 (+ 0.5)	8.8 (+ 0.9)	22.3	13.8 (+ 2.0)	28.9

Note: All sites, including Bassetlaw, are modelled using 2018/19 data; Baseline numbers were sent out to Trusts for validation on 08/03 and 25/03

CAIC sustainable establishment

WTE by site, Based on 2018/19 workforce numbers

Estimated sustainable establishment for an Inpatient unit

	Barnsley	Bassetlaw	Chesterfield	Doncaster	Rotherham	SCH
Consultant doctors	8.0	8.0	8.2	12.8	10.3	8.0
Middle Grade doctors	14.9	14.9	14.9	14.9	14.9	29.8
Junior doctors	14.5	14.5	14.5	14.5	14.5	29.0
Nurses (Band 7+)	2.9	1.7	2.9	4.6	2.5	7.5
Nurses (Band 5-6)	39.8	22.7	39.8	62.5	34.1	102.3
Nurses (Band 1-4)	18.0	10.3	18.0	28.2	15.4	46.2

Note: All sites, including Bassetlaw, are modelled using 2018/19 data; All assumptions were developed and iterated across six Clinical Working Groups with clinical and operational managers

There is currently a shortfall across the system for Paediatrics

CAIC workforce: Substantive vs Sustainable

WTE, Based on 2018/19 workforce numbers



Sources: Trust data returns, 2018/19; Analysis based on Trust-submitted assumptions

Moving to 1 or 2 PAUs creates a reduction in the demand for middle and junior grade staff

Illustrative workforce implications of changing Inpatient Paediatric unit(s) to a SSPAU

WTE, Based on 2018/19 workforce numbers



- Changing one or two IP Paediatric units to a SSPAU results in a small workforce change for the region, although has a big impact for an individual site.
- On average, opening 1 SSPAU saves ~7WTEs Middle Grade and Junior ("SHO") doctors. Nursing savings depends on whether any patient move out of area and any beds in SYB can be closed as a result (but Commissioner spend will remain the same under these circumstances)
- Potential establishment for 1 or 2 SSPAUs includes NNU staff cover; however, specific Neonatology
 arrangements need to be modelled for the preferred option(s) to determine the best use of workforce
 across the region.
- No assumptions were made around potential changes in clinician behaviour; impact on workforce requirements could be greater if triage becomes more rigorous resulting in a lower number of admissions and a shorter length of stay.



Workforce: Maternity - Methodology

The maternity Clinical Working Group identified how many staff would be needed for a sustainable maternity rota



required to provide care at an SMLU

doctors are not required to provide care at an SMLU

reduces with the number of births. 1 registered midwife is required for every 28 births.

On a regional level, any reduction in the number of midwives is due to patients leaving SYB for care.

ASSUMPTIONS (FOR REFERENCE ONLY):

We asked clinicians to identity a sustainable workforce required to meet current levels of activity. They proposed the following assumptions:

Consultants:

Number of Obstetricians per unit of activity (for an Obstetric led unit, assumes 1 Obstetrician per 500 births, plus the required number of Obstetricians to do the existing number of outpatient appointments and elective Caesarean sections, plus 20% extra to cover for antenatal and postnatal wards). No obstetricians are required for an SMLU.

Mid Grade and Junior Doctors:

WTE required per unit of Consultants Obstetrics: WTE required per unit of Consultants (c.1:1:1 with a requirement of a minimum of 8 WTEs at all grades to be able to form a rota). No obstetricians are required for an SMLU.

Midwives: WTE per births (i.e. 1 registered midwife:28 births)



Workforce: Maternity - Outputs

Maternity workforce in post

WTE by site, Based on 2018/19 workforce numbers

Staff in post (+ agency and bank staff)

	Barnsley	Bassetlaw	Chesterfield	Doncaster	Rotherham	STH
Consultant doctors	8.8	5.0	11.5	9.0	9.8	12.0 ₁
Middle Grade doctors	7.9 (+ 0.3)	5.0	6.6 (+ 1.5)	6.0	8.0 (+ 2.1)	12.2
Junior doctors	8.6 (+ 0.1)	5.0	8.0 (+ 0.7)	8.0	8.0 (+ 0.6)	16.0
Midwives (Band 7+)	31.2	13.9	17.8 (+ 0.2)	22.0	14.0 (+ 0.5)	39.9
Midwives (Band 5-6)	89.8 (+ 0.4)	36.6 (+ 1.2)	91.6 (+ 8.1)	103.2 (+ 4.3)	84.4 (+ 3.3)	157.3
Nurses (Band 1-4)	32.2	14.1 (+ 0.9)	32.7 (+ 4.5)	33.4 (+ 1.5)	29.9 (+ 2.3)	81.9

Note: All sites, including Bassetlaw, are modelled using 2018/19 data;

Baseline numbers were sent out to Trusts for validation on 08/03 and 25/03

1. STH Consultant doctors do not include other specialties e.g. gynaecology, so not always comparable across other trusts

Maternity sustainable establishment

WTE by site, Based on 2018/19 workforce numbers

Estimated sustainable establishment for an Obstetrics unit

	Barnsley	Bassetlaw	Chesterfield	Doncaster	Rotherham	STH
Consultant doctors	10.8	5.5	12.6	12.4	13.3	24.5
Middle Grade doctors	8.0	8.0	9.3	9.2	9.8	18.1
Junior doctors	8.0	8.0	9.0	8.9	9.5	17.7
Midwives (Band 7+)	23.0	11.9	21.3	24.9	21.4	50.9
Midwives (Band 5-6)	93.5	48.3	86.6	101.3	87.2	207.3
Nurses (Band 1-4)	37.5	19.4	34.8	40.7	35.0	83.2

Note: All sites, including Bassetlaw, are modelled using 2018/19 data; All assumptions were developed and iterated across six Clinical Working Groups with clinical and operational managers

There is currently a small shortfall across the system for Maternity

Maternity workforce: Substantive vs Sustainable

WTE, Based on 2018/19 workforce numbers



	Staff in post	Agency & Bank	Gap between staff in post and staff required to meet demand	Staff required to meet demand	Gap to Royal College Guidelines	Potential establishment under Royal College guidelines
Consultant doctors	56	0	23	79	18	97
Middle Grade doctors	46	4	13	62	14	76
Junior ("SHO") doctors	54	1	6	61	13	74
Midwives (Band 7+)	139	1	14	153	5	158
Midwives (Band 5-6)	563	17	44	624	0	624
Nurses (Band 1-4)	224	9	18	251	1	252

Sources: Trust data returns, 2018/19; Analysis based on Trust-submitted assumptions

Moving to 1 or 2 SMLUs creates a reduction in the number of obstetricians but reduction in midwifery staff can only be achieved if patients receive maternity care out of area

Illustrative workforce implications of changing Inpatient Obstetric unit(s) to a SMLU *WTE, Based on 2018/19 workforce numbers*



- Changing one or two Obstetrician led units to a SMLU results in a small workforce change for the region, although has a big impact for an individual site.
- The size of the workforce saving depends on the individual sites chosen for SMLU. Small obstetrician savings can be achieved for the region with any transition from OLU to SMLU; however, midwifery savings for SYB can only be achieved if patients move out of area for care (but Commissioner spend will remain the same under these circumstances).
- In the example above, transitioning one OLU to an SMLU results in a very small obstetrician saving since that particular site only delivers a small number of births. Transitioning two OLUs to SMLUs results in a greater saving, largely driven by patients leaving SYB for to give birth.

Sources: Trust data returns, 2018/19; Analysis based on Trust-submitted assumptions



Activity



In developing modelling around paediatrics, we have included the following

We identified how many of the children currently being treated at a hospital site would remain there, if the inpatient unit became a Paediatric Assessment Unit, and how many would move to another site to receive services





Activity: Paediatrics outputs Number of children affected by changes to the model

CAIC Activity:

The following numbers of patients would be affected by changes on specific sites

	1 BARNSLEY	2 BASSETLAW ¹	3 CHESTERFIELD	4 DONCASTER	5 ROTHERHAM
Total current Paediatric admissions	6,658	1,330	4,573	11,185	5,320
<i>Total activity lost due to patient LOS>0 days</i>	2,456	196	2,197	3,428	1,683
Total activity lost (as not eligible for an SSPAU, or arriving outside of opening hours)	- s 3,782	530	2,884	5,770	2,789
Estimated activity that is eligible for a 12 hr SSPAU and arrives within opening hours ²	2,876	800	1,689	5,415	2,531
<i>Expected transfers of patients admitted to SSPAU to neighbouring Trusts</i>	288	80	169	541	253

Note: ¹ Bassetlaw number is shown for 17/18 activity data where Paediatric services are not offered overnight to make sure that patients are not double counted against other units. If we showed 16/17 activity data, total activity lost as not eligible for SSPAU would be 1,444 p.a. instead of 530 shown. We are able to model both 16/17 and 17/18 data; ² 68-71% of patients are assumed to arrive at SSPAUs across Trusts during opening hours

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Interdependencies – CAIC:

Changes in clinical models may affect the ability to have safe interdependent services

Changes to services on a site will result in:

- For Paediatrics:
 - Changes to middle grade Paediatric training
 - Implications to children's surgery:

	1 BARNSLEY	2 BASSETLAW	3 CHESTERFIELD	4 DONCASTER	5 ROTHERHAM	
<i>Total numbers of elective Paediatric surgery currently</i>	1047	526	571	1822	1587	
<i>Total number of day case surgery currently</i>	, 967	476	430	1562	1363	
Estimated number of children's surgery that will be transferred based on current numbers of elective surgery with LoS > 0 days	80	50	141	224	260	

Key conclusions

- The smallest impact on activity lost to neighbouring sites, (assuming Bassetlaw were operating as a full inpatient paediatric unit), would be at Bassetlaw (530)
- The next smallest impact would be Rotherham (2,789), followed by Chesterfield (2,884). The largest impact across the system would be Doncaster (5,770) and Barnsley (3,782).
- Upon changing to an SSPAU, local evidence suggests changes in clinical behaviour and patient presentation means the actual number of transfers would likely to be lower in practice than the numbers modelled
- This would be particularly true if the SSPAU model was supported by an effective Hospital @ Home model and strengthened community services



Activity: Maternity methodology

In developing estimates around activity for Maternity, we have considered the following

We identified how many of the women currently giving birth on a site might both be eligible to give birth in an SMLU on that site, and would choose to do so. To do this we used patient level data, public health data on the health of women in SYB, and a clinically informed assumption of how many women may choose SMLU.

We have used Chesterfield as an example below to show our methodology:



Note: ¹ Eligibility criteria to determine low risk births takes into account age, obesity, comorbidities, induction & epidurals; ² It is estimated that, of those who ²⁶ are eligible, 30% of women will choose to give birth at an SMLU



Activity:

Number of births affected by changes to the model

Maternity Activity:

Patients may be affected by individual site changes

	1 BARNSLEY	2 BASSETLAW	3 CHESTERFIELD	4 DONCASTER	5 ROTHERHAM
<i>Total current number of births</i>	2842	1488	2719	3216	2697
High risk women not eligible for SMLU	1622	1126	1931	2526	1853
<i>Total number of births lost by transitioning fron OLU to SMLU (assuming 30% of eligible women choose SMLU)</i>	n 2516	1391	2509	3032	2472
<i>Estimated number of births if an SMLU</i>	326	97	210	184	225
<i>Expected intrapartum transfers from SMLU at site to neighbouring Trusts</i>	81	24	53	46	56

Interdependencies – Maternity:

Changes in clinical models may affect the ability to have safe interdependent services

Changes to services on a site will result in:

- For Maternity:
 - A reduction of 1 Anaesthetic rota
 - Implications to Neonatal rotas to be supported by ANNPs
- The only site which is currently experiencing significant challenges in relation to its neonatal and anaesthetics services, and where there are significant concerns in these services, is Bassetlaw
- We would suggest that any other site which was potentially changing its maternity services should be supported by a neonatal unit supported by ANNPs

Key conclusions

- We have said that we would only move from an obstetrics unit to a standalone MLU if there were significant concerns about the sustainability of obstetrics or interdependent services on a site
- We can see from the analysis above that SMLUs would be likely to be small on any of the SYB sites, and with this, brings sustainability issues
- It might be possible to increase this by actively promoting the units to women who were eligible to use them. However, these levels of usage are in line with the levels of usage that we tend to see at other SMLUs around the country



Travel times



Travel times: Methodology

We have looked at the travel times that patients would face, to get to their next nearest hospital

- One of the greatest concerns from members of the public was travel times, if services were to be provided at another site.
- We have modelled how far patients would have to travel in order to reach their next nearest site.
- It is possible that there might be a clinical decision that a partnership should be with a site other than the next nearest, in which case we would need to do a bespoke piece of modelling in the next stage. However, travel times within SYB(ND) are low by comparison with some health economies.
- The travel and transport groups, and the Clinical Working Groups, agreed that we should not set a specific travel time as 'safe', but should consider each travel time on its own merits, and compare any increase in travel time with the relative increase in quality or workforce sustainability a model could deliver.
- The following slides describe how we have modelled the travel times by public and private transport, at different times of the day.
- Blue light ambulance transfers would need to be modelled in more detail for any smaller number of shortlisted options.

One of the most important issues to consider under access (as under other criteria) is equality

- If we decide to take forward a shortlist of sites, we will do a full Equalities Impact Assessment
- At this stage, we have looked specifically at the relative impacts that changes would have on the travel times of patients in the highest and lowest income deciles, as is explained on the next slide
- The analysis suggests that in most geographical areas, the groups which would see the greatest increase in travel times are the wealthier groups: this is likely to reflect wealthier people living in affluent rural areas. Overall however the differences are relatively small.

Population level travel time analysis

Methodology

An LSOA is a Lower Super Output Area, made up of 4-6 Output Areas (used for census collection) that aggregates areas with similar social characteristics to create groups of c.1500 people or c.500-750 households.

We have pulled data on total travel times by both Public and Private transport from each LSOA to their closest, 2nd closest and 3rd closest Trust at 4 times of the day – 8am, 12 midday, 5pm and 1am, where closeness is defined by how fast a Trust is to reach.

For each time of day, we have considered the range of times it takes to reach peoples' closest trust and the incremental increases in time to reach their 2nd closest trust, if services at the 1st closest trust were no longer available. The results for maternity and paediatrics are slightly different because of the difference in travel times to Sheffield Children's Hospital and Sheffield Teaching Hospital.

We have then overlaid this data with the Index of Multiple Deprivation (IMD) level data for each LSOA that shows the relative income decile each LSOA sits in. Using this, we have compared the travel times and potential travel time increases for the most and least deprived populations to ensure that the most deprived populations are not made disproportionately worse off by any changes.











Travel times:

Outputs
Population level travel time analysis – Average Care of the Acutely Ill Child

Av. Travel Av.	Range of Resultant	t					
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Poprest 27 6 70 22	0 - 70 - 39 - 131 - 101		Public 43	4 - 178	39	1 - 90	40 - 191
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-7			Public 41	5 - 178	32	0 - 78	32 - 195
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Public 42 8 $-$ 103 3	4 2 - 77 43	- 146					
Poorest 25 6 - 57 2	5 0 - 76 14	- 114 Chesterfie	Ia				
	0 / U II						

Source: Google data extract, Deloitte analysis, 2018/19

Population level travel time analysis – 8AM Care of the Acutely Ill Child

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			S	Sheffield	•	Roth	nerham	Private Public Poorest	time 15 40 20	range 3 - 31 5 - 114 5 - 51	in travel time 15 28 26	in travel times 0 - 29 0 - 73 0 - 72	to 2nd closest trust 19 - 50 32 - 117 20 - 90
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Source: Google data extract, Deloitte analysis, 2018/19

Population level travel time analysis – 12PM Care of the Acutely Ill Child

	Av.	Trave	Av.	Range	of R	esultant								
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Drivata	1 5	2 20		time		sest trus	St			time	range	in travel	In travel	to 2nd closest trust
Privale	15	3 - 20		0 - 2		(7 - 3)			Private	16	3 - 28	15	1 - 32	27 - 41
Public	40	/ - /	1 33	1 - /	2 40	0 - 110)	Public	39	5 - 109	37	1 - 75	40 - 138
POOLESL	24	9-5/		0 - 5		9 - 94			Poorest	27	4 - 68	24	1 - 74	23 - 98
weatmest	24	5 - 54	- 28	3-6	5 2	2 - 93		لمر	Wealthiest	27	$\frac{14}{14} = 50$	27	$\frac{1}{12} - 42$	25 - 77
	~	_							weatthest	20	14 - 50	25	12 - 42	20 - 77
				Ra	rnel	0 \/					oncasi	er		
				De	11131	Ξy		(
				Av. Tra	vel	Av.	Range of	Resultant				~		
			1	travel tin	ne ind	crease	increase	travel times						
				time rar	ige in	travel	in travel	to 2nd						
			Drivata	1 - 2	20		times	closest trust						
			Privale	15 3 -	29	/	0 - 19	13 - 31						
5			PUDIIC	3/ 9-	66	24	0 - 62	36 - 84						
)		Poorest	26 6 -	66	13	0 - 48	13 - 75		Av.	Travel	Av.	Range of	Resultant
		We	althiest	18 4 -	46	24	2 - 57	1/ - //		travel	time	increase	increase	travel times
										time	range	in travel	in travel	to 2nd
	\sim		ç	Sheffiel	d 🌒	(Rotl	nerham		4.5	2 22	time	times	closest trust
	l								Private	15	3 - 32	14	1 - 26	18 - 49
		5							Public	41	6 - 1/8	30	1 - 78	42 - 195
		A	Trouble	A.,	Dongo		ultout		Poorest	20	5 - 51	28	3 - 65	19 - 84
		AV. travel	time	AV.	kange (increas	of Kes	l times		Wealthiest	20	7 - 41	32	16 - 62	24 - 89
		time	range	in travel	in trave	el to	2nd		\sim		•			
				time	times	close	st trust				Racce	tlaw		
P	Private	14	2 - 41	15	0 - 27	7 18	- 52				Dusse			
	Public	39 6	5 - 102	33	0 - 63	3 49 -	- 122	hesterfi	_ الم					
Po	oorest	21	8 - 54	24	4 - 63	3 21	- 86							
				10	4 47	10	70							

Source: Google data extract, Deloitte analysis, 2018/19

Population level travel time analysis – 5PM Care of the Acutely Ill Child

	Av.	Trave	l Av.	Ran	ige of	Resultant	t							
	travel	time	increa	inc inc	rease	travel time	es			Av	Travel	Av.	Range of	Resultant
	time	range	in trav	vel in t	ravel	to 2nd	ct	ſ		travel	time	increase	increase	travel times
Private	16	3 – 3	0 14		- 28	19 - 40	SL			ume	lange	time	times	closest trust
Public	40	4 - 8	2 34	0.	- 76	39 - 117	7	(Private	17	3 - 31	16	0 - 37	22 - 42
Poorest	26	9 - 6	1 26	0.	- 52	21 - 95			Public	43	5 - 178	38	1 - 78	42 - 191
Wealthiest	26	5 - 5	4 26	1	- 69	26 - 95		<u>_</u>	Poorest	27	4 - 81	25	1 - 72	24 - 123
	20	5 5	20	-	05	20 55			Wealthiest	30	15 - 56	21	11 - 40	26 - 77
	\sim										oncast	er	1	
					Barn	sley					oneas		5	
						-			_					
(Av.	Travel	Av.	Range of	f Resultant				~		
				time	range	in travel	in travel	to 2nd						
	5					time	times	closest trus	t in the second s					
	5		Private	17 3	3 - 29	10	0 - 29	18 – 25						
7			Public	44 9	- 178	3 26	0 - 64	32 - 109						
			Poorest	27 6	5 - 59	18	0 - 49	22 - 78		A.,	Traval	A 14	Danga of	Docultont
		We	althiest	18 3	3 - 46	25	1 - 58	20 - 78		av. travel	time	Av.	increase	travel times
									\sim	time	range	in travel	in travel	to 2nd
	\sim			Shaff	blai	• 7	Rotl	herham	2			time	times	closest trust
	ι			Shen	ieiu		1		Private	16	3 - 31	14	0 - 28	18 - 49
		5							Public	39	6 - 95	32	0 - 76	35 - 131
)		_	_	<			Poorest	22	5 - 51	23	0 - 69	20 - 87
		Av.	Travel	Av.	Rang	ge of Res	sultant		Wealthiest	18	7 – 29	34	17 - 60	26 - 84
		time	range	in trave	e incr	avel to	o 2nd				•			
				time	tin	nes close	est trust				Bacco	tlaw		
							6.2				Da33C	liaw		
P	rivate	15	2 - 50	17	0 -	33 19	- 62 /							
P	<i>Private Public</i>	15 43	2 - 50 3 - 103	17 34	0 - 0 -	33 19 74 50	- 62	Chesterfi	bld					
P Po	Private Public porest	15 43 29	2 - 50 3 - 103 9 - 56	17 34 24	0 - 0 - 1 -	33 1974 5068 23	- 62 - 131 - 92	Chesterfi	eld					

Source: Google data extract, Deloitte analysis, 2018/19

Population level travel time analysis – 1AM Care of the Acutely Ill Child



Source: Google data extract, Deloitte analysis, 2018/19

Population level travel time analysis – Average Maternity

Av. T	ravel	Av.	Range of	Resultant	t		_					
travel	time	increase	increase	travel time	es			Av	Travel	Av.	Range of	Resultant
time r	range	in trave	I in travel	to 2nd			\sim	travel	time	increase	increase	travel times
Private 15 2	_ 31	13	0 - 28	13 - 43	SU			ume	Tange	time	times	closest trust
$\frac{1}{2}$	- 97	35	0 - 20	13 - 43	<u> </u>	(Private	15	2 - 31	15	0 - 37	18 - 43
Poorest 27 6	-70	22	0 - 51	20 - 100	1		Public	43	4 - 178	40	1 - 90	40 - 191
Wealthiest 27 4	- 81	22	0 - 70	10 - 117	7		Poorest	27	4 - 81	28	0 - 86	20 - 140
	01		0 /0	15 11.			Wealthiest	30	12 - 63	24	10 - 68	25 - 122
		5			n n				oncast	er	1	
			Barr	ıslev					Uncasi		5	
						S						
(v. Travel	Av.	Range of	Resultant				~		
		tra +:	avel time	increase	increase	travel times						
		- Li		time	times	closest trust						
	F	Private	15 3 - 30) 7	0 - 25	10 - 33						
		Public 4	41 9 - 62	2 26	0 - 71	32 - 109						
	D	oorest	28 6 - 88	15	0 - 53	10 - 100						
	P	201.000			4 64	16 01		Av.	Travel	Av.	Range of	Resultant
	Wea	lthiest	29 3 - 66	23	1 - 64	16 - 81		traval	time	incrosco	incrosco	traval timos
	Wea	lthiest	29 3 - 66	5 23	1 - 64	16 - 81	\sim	travel time	time range	increase in travel	increase in travel	travel times to 2nd
	Wea	Ithiest	29 3 - 66	23	1 - 64	16 - 81 erham	\rightarrow	travel time	time range	increase in travel time	increase in travel times	travel times to 2nd closest trust
	Wea.	Ithiest S	29 3 – 66 neffield	5 23	Roth	lerham	Private	travel time 15	time range 3 - 32	increase in travel time 14	increase in travel times 0 - 29	travel times to 2nd closest trust 16 - 50
	Wea	Ithiest S	29 3 - 66 neffield	5 23	Roth	ierham	Private Public	travel time 15 42	time range 3 - 32 5 - 178	increase in travel time 14 32	increase in travel times 0 - 29 0 - 81	travel times to 2nd closest trust 16 - 50 32 - 195
	Wea	Ithiest S	29 3 – 66 neffield	5 23	Roth	lerham	Private Public Poorest	travel time 15 42 28	time range 3 - 32 5 - 178 5 - 57	increase in travel time 14 32 23	increase in travel times 0 - 29 0 - 81 0 - 72	travel times to 2nd closest trust 16 - 50 32 - 195 17 - 90
	Weal	Ithiest SI	29 3 – 66 neffield Av. Rar	ige of Res	Roth	lerham	<i>Private Public Poorest Wealthiest</i>	travel time 15 42 28 28	time range 3 - 32 5 - 178 5 - 57 7 - 66	increase in travel time 14 32 23 23	increase in travel times 0 - 29 0 - 81 0 - 72 0 - 69	travel times to 2nd closest trust 16 - 50 32 - 195 17 - 90 22 - 96
A tra tra	Av. T avel f	ravel in ange in	29 3 – 66 neffield Av. Rar crease inc	ige of Res travel	Roth	lerham	Private Public Poorest Wealthiest	15 42 28 28	time range 3 - 32 5 - 178 5 - 57 7 - 66	increase in travel time 14 32 23 23 23	increase in travel times 0 - 29 0 - 81 0 - 72 0 - 69	travel times to 2nd closest trust 16 - 50 32 - 195 17 - 90 22 - 96
Atra ti	Av. T avel r	Ithiest SI ravel time ange in	Av. Rar crease inc travel in t	ige of Res rease trave ravel to mes close	Roth	ierham	<i>Private Public Poorest Wealthiest</i>	15 42 28 28	time range 3 - 32 5 - 178 5 - 57 7 - 66 ■	increase in travel time 14 32 23 23	increase in travel times 0 - 29 0 - 81 0 - 72 0 - 69	travel times to 2nd closest trust 16 - 50 32 - 195 17 - 90 22 - 96
A tra ti Private	Av. T avel r 15 2	ravel time ange - 50	Av. Rar crease inc travel in t 16 0 ·	inge of Restrayed to mes close - 33 16	Roth	lerham	<i>Private Public Poorest Wealthiest</i>	15 42 28 28	time range 3 - 32 5 - 178 5 - 57 7 - 66 ■ Basse	increase in travel time 14 32 23 23 23 tlaw	increase in travel times 0 - 29 0 - 81 0 - 72 0 - 69	travel times to 2nd closest trust 16 - 50 32 - 195 17 - 90 22 - 96
Private 1 Public 2	Weat Weat avel f me r 15 2 44 6	ravel time ange - 50 - 111	Av. Rar crease inc travel in t 16 0 · 38 0 ·	inge of Res rease trave ravel to mes close - 33 16 - 85 50	Roth	lerham	<i>Private Public Poorest Wealthiest</i>	travel time 15 42 28 28 28	time range 3 - 32 5 - 178 5 - 57 7 - 66 ● Basse	increase in travel time 14 32 23 23 23 tlaw	increase in travel times 0 - 29 0 - 81 0 - 72 0 - 69	travel times to 2nd closest trust 16 - 50 32 - 195 17 - 90 22 - 96
Private 1 Public 4 Poorest 2	Wea Wea avel 15 2 44 6 27 6	ravel time ange - 50 - 111 - 60	Av. Rar crease inc travel in t 16 0 · 38 0 · 25 0 ·	ige of Res rease trave ravel to mes close - 33 16 - 85 50 - 80 19	Roth Roth sultant el times 2nd est trust - 62 - 144 - 118	lerham Chesterfie	Private Public Poorest Wealthiest	travel time 15 42 28 28	time range 3 - 32 5 - 178 5 - 57 7 - 66 Basse	increase in travel time 14 32 23 23 23 tlaw	increase in travel times 0 - 29 0 - 81 0 - 72 0 - 69	travel times to 2nd closest trust 16 - 50 32 - 195 17 - 90 22 - 96

Source: Google data extract, Deloitte analysis, 2018/19

Population level travel time analysis – 8AM Maternity

	Av.	Trave	el Av.	Range	of	Resultant	t							
	travel	time	increa	ise increa	ase	travel time	es			Av	Travel	Av.	Range of	Resultant
	time	rang	e in trav	vel in trav	vel	to 2nd	a b	(travel	time	increase	in travel	travel times
Private	16	2 _ 3	1 15		15 (7 Q	20 - 43	SL			ume	Tange	time	times	closest trust
Public	13	2 - 3	1 3/	0 - 2	20	20 - 43	2	(Private	17	3 - 31	15	0 - 32	22 - 43
Poorest	28	8 - 6	1 J4	0 - 0	23	-74 - 113 26 - 01			Public	44	5 - 173	36	1 - 80	47 - 191
Wealthiest	20	5 - 5	7 33	12 -	66	20 - 91 26 - 107	7		Poorest	29	4 - 69	27	1 - 76	24 - 127
Weakinese	25	5 5		12	00	20 10/			Wealthiest	32	16 - 55	21	10 - 44	27 - 86
	\sim						n n				oncasi	tor	1	
)			Ba	arn	slev					Uncas		5	
						/		S						
(Av. Tra	vel	Av.	Range o	f Resultant				~		
				travel tir	ne	increase	increase	e travel times	5					
	5			ume rar	ige	time	times	closest trus	+					
			Private	16 3 -	30	9	0 - 23	14 - 33						
			Public	38 9 -	72	28	0 - 74	36 - 92						
7			Poorest	28 6 -	64	17	0 - 45	15 - 80				/		
		W	ealthiest	19 4 -	51	36	15 - 64	1 27 - 79		Av.	Travel	Av.	Range of	Resultant
					• -					time	range	increase	in travel	to 2nd
							Pot	horham		cinic	range	time	times	closest trust
	Γ Ì	\sim		Sheffie	ld	• (RUL	nemann	Private	15	3 - 31	15	0 - 29	19 - 50
									Public	42	5 - 114	27	0 - 73	32 - 127
)				<			Poorest	21	5 - 51	25	0 - 72	20 - 90
		Av.	Travel	Av.	Rang	ge of Res	ultant		Wealthiest	31	7 - 66	28	0 - 69	27 - 96
		travel	time	increase	incre	ease trave	el times							
		ume	Tange	time	tim	avei tu ies close	st trust				D	.		
P	Private	17	2 - 46	17	0 -	32 21	- 59		/		Basse	tiaw		
	Public	44	8 - 103	37	0 -	80 50	- 143	Chaste-f						
Po	oorest	29	9 - 59	23	0 -	60 24	- 97	unestern	eia					
Mea	lthiest	29	13 - 64	22	0 -	62 25	- 100							

Source: Google data extract, Deloitte analysis, 2018/19

Population level travel time analysis – 12PM Maternity

Av. Ti	ravel	Av.	Range of	Resultant	t i		_					
travel t	ime	increase	increase	travel time	es			Av	Travel	Av.	Range of	Resultant
time ra	ange	in travel	in travel	to 2nd	at	ſ		travel	time	increase	increase	travel times
Private 15 3	- 28	12	0 - 23	17 - 37	SL			ume	Tange	time	times	closest trust
Public 39 7	- 79	37	1 - 81	45 - 127	7	ſ	Private	16	3 - 28	15	1 - 32	22 - 41
Poorest 25 9	- 57	22	0 - 47	-75 - 94			Public	39	5 - 109	37	1 - 79	40 - 157
Wealthiest 24 5	- 54	22	1 - 70	22 94			Poorest	27	4 - 68	28	1 - 86	23 – 99
	51	20	1 /0	22 50			Wealthiest	28	15 - 56	21	11 - 40	26 - 77
		5							oncast	er	1	
			Barr	nsley					oncast		5	
				-		<u> </u>						
(A	v. Travel	Av.	Range of	Resultant				\sim		
		tin	vel time	in travel	in travel	to 2nd						
				time	times	closest trust						
	P	Private 1	5 3 - 29	7	0 - 20	13 - 30						
2	1	Public 3	6 9 - 60) 25	0 - 65	38 - 88						
	Рс	oorest 2	5 6 - 60) 14	0 - 51	13 - 78		A 17	Traval	A 14	Danga of	Decultort
			~		1 - 63	16 - 77		Av.	Iravei	AV.	Range of	Resultant
	Weal	lthiest 1	8 4 - 46	5 27	1 - 05	10 - //		travel	time	increase	increase	travel times
	Weal	lthiest 1	8 4 - 46	5 27	• ·	10 - 77	\sim	travel time	time range	increase in travel	increase in travel	travel times to 2nd
	Weal	lthiest 1	8 4 - 46 offiold	5 27	Roth	erham	\sim	travel time	time range	increase in travel time	increase in travel times	travel times to 2nd closest trust
	Weal	lthiest 1 Sh	8 4 - 46 effield	• 27	Roth	herham	Private	travel time 15	time range 3 – 32	increase in travel time 14	increase in travel times 1 - 26	travel times to 2nd closest trust 18 – 49
	Weal	lthiest <u>1</u> Sh	8 4 - 46 effield	• 27	Roth	herham	<i>Private Public</i>	travel time 15 41	time range 3 - 32 6 - 178	increase in travel time 14 30	increase in travel times 1 - 26 1 - 78	travel times to 2nd closest trust 18 - 49 24 - 195
	Weal	lthiest 1 Sh	8 4 - 46 effield	• 27	Roth	herham	Private Public Poorest	travel time 15 41 20	time range 3 - 32 6 - 178 5 - 51	increase in travel time 14 30 28	increase in travel times 1 - 26 1 - 78 3 - 65	travel times to 2nd closest trust 18 - 49 24 - 195 19 - 84
	Weal	ravel	8 4 - 46 effield	ange of Res	Roth	herham	<i>Private Public Poorest Wealthiest</i>	15 41 20 27	time range 3 - 32 6 - 178 5 - 51 7 - 66	increase in travel time 14 30 28 28 28	increase in travel times 1 - 26 1 - 78 3 - 65 2 - 62	travel times to 2nd closest trust 18 - 49 24 - 195 19 - 84 24 - 89
A	Weal	ravel incange in t	8 4 - 46 effield Av. Rar rease inc travel in t	nge of Res rease trave	Roth	herham	Private Public Poorest Wealthiest	travel time 15 41 20 27	time range 3 - 32 6 - 178 5 - 51 7 - 66	increase in travel time 14 30 28 28 28	increase in travel times 1 - 26 1 - 78 3 - 65 2 - 62	travel times to 2nd closest trust 18 - 49 24 - 195 19 - 84 24 - 89
A tra tir	Weal	ravel time ange t	8 4 – 46 effield Av. Ran rease inc travel in t ime ti	nge of Res rease trave travel to mes close	Roth	herham	<i>Private Public Poorest Wealthiest</i>	15 41 20 27	time range 3 - 32 6 - 178 5 - 51 7 - 66 Basse	increase in travel time 14 30 28 28 28	increase in travel times 1 - 26 1 - 78 3 - 65 2 - 62	travel times to 2nd closest trust 18 - 49 24 - 195 19 - 84 24 - 89
A tra tir Private 1	Weal v. Tr vel t ne ra 5 2	ravel ime ange - 41	8 4 - 46 effield Av. Rar rease inc travel in t ime ti 15 0	nge of Res rease trave travel to mes close - 27 18	Roth	herham	<i>Private Public Poorest Wealthiest</i>	travel time 15 41 20 27	time range 3 - 32 6 - 178 5 - 51 7 - 66 Basse	increase in travel time 14 30 28 28 28 28	increase in travel times 1 - 26 1 - 78 3 - 65 2 - 62	travel times to 2nd closest trust 18 – 49 24 – 195 19 – 84 24 – 89
A tra tir Private 1 Public 4	Weal v. Tri vel t ne ra 5 2 0 6 -	ravel time ange - 41 - 102	84 - 46effieldAv.reaseincine150400	nge of Reserved to close - 27 18 - 71 52	Roth	ierham Chesterfie	Private Public Poorest Wealthiest	travel time 15 41 20 27	time range 3 - 32 6 - 178 5 - 51 7 - 66 Basse	increase in travel time 14 30 28 28 28 28	increase in travel times 1 - 26 1 - 78 3 - 65 2 - 62	travel times to 2nd closest trust 18 – 49 24 – 195 19 – 84 24 – 89
A tra tir Private 1 Public 4 Poorest 2	Weal v. Tr vel t ne ra 5 2 0 6 - 3 8	ravel time ange - 41 - 102 - 57	Av.Rarreaseinctravelti150400241	nge of Res rease trave travel to mes close - 27 18 - 71 52 - 63 21	Roth	ierham Chesterfie	Private Public Poorest Wealthiest	travel time 15 41 20 27	time range 3 - 32 6 - 178 5 - 51 7 - 66 ● Basse	increase in travel time 14 30 28 28 28 28	increase in travel times 1 - 26 1 - 78 3 - 65 2 - 62	travel times to 2nd closest trust 18 - 49 24 - 195 19 - 84 24 - 89

Source: Google data extract, Deloitte analysis, 2018/19

Population level travel time analysis – 5PM Maternity

Av.	Travel	Av.	Range of	Resultant	t		_					
travel	time	increase	increase	travel time	es			Av.	Travel	Av.	Range of	Resultant
time	range	in travel	times	to 2nd	et	ſ		time	time	increase	in travel	to 2nd
Private 15	3 - 30	14	0 - 28	19 - 40	St			cinic	lange	time	times	closest trust
Public 39	4 - 82	38	0 - 81	38 - 117	7	5	Private	17	3 - 31	16	0 - 37	22 – 42
Poorest 24	9 - 61	25	1 - 53	24 - 101			Public	43	5 - 178	40	1 - 82	42 - 191
Wealthiest 26	5 - 54	27	0 - 70	26 - 94			Poorest	27	4 - 81	25	1 - 72	24 - 123
20	5 5	7	0,0				Wealthiest	30	15 - 56	21	11 - 40	26 - 77
\sim									oncast	er	1	
			Barn	sley		7					5	
		_								6		
(A	v. Travel	Av.	Range of	Resultant				\sim		
		ti	me range	in travel	in travel	to 2nd						
				time	times	closest trust						
		Private 1	16 3 - 29	9	0 - 25	16 - 33						
		Public 2	15 9 - 17	8 27	1 - 70	32 - 109						
		Poorest 2	27 6 - 59	20	0 - 53	16 - 85		Δν	Travel	Δν	Range of	Resultant
	We	Poorest 2 althiest 2	27 6 - 59 40 3 - 66	20 5 17	0 - 53 1 - 64	16 - 85 24 - 79		Av. travel	Travel time	Av. increase	Range of increase	Resultant travel times
	We	Poorest Z althiest Z	27 6 - 59 10 3 - 66	20 5 17	0 - 53 1 - 64	16 - 85 24 - 79	\sim	Av. travel time	Travel time range	Av. increase in travel	Range of increase in travel	Resultant travel times to 2nd
	We	Poorest 2 althiest 4	27 6 - 59 10 3 - 66	9 20 5 17	0 - 53 1 - 64 Roth	16 – 85 24 – 79 nerham		Av. travel time	Travel time range	Av. increase in travel time	Range of increase in travel times	Resultant travel times to 2nd closest trust
	We	Poorest 2 althiest 2 Sł	27 6 - 59 40 3 - 66 neffield	20 5 17	0 - 53 1 - 64 Roth	16 - 85 24 - 79 herham	Private	Av. travel time 16	Travel time range 3 - 31	Av. increase in travel time 14	Range of increase in travel times 0 - 28	Resultant travel times to 2nd closest trust 18 - 49
	We	Poorest 2 althiest 4 Sł	27 6 – 59 40 3 – 66 neffield	9 20 5 17	0 - 53 1 - 64 Roti	16 - 85 24 - 79 herham	<i>Private</i> <i>Public</i>	Av. travel time 16 29	Travel time range 3 - 31 6 - 95	Av. increase in travel time 14 32	Range of increase in travel times 0 - 28 0 - 81	Resultant travel times to 2nd closest trust 18 - 49 35 - 142
	We	Poorest 2 althiest 4 St	27 6 - 59 40 3 - 66 neffield	20 5 17	0 - 53 1 - 64 Roti	16 – 85 24 – 79 nerham	<i>Private Public Poorest</i>	Av. travel time 16 29 22	Travel time range 3 - 31 6 - 95 5 - 51	Av. increase in travel time 14 32 24	Range of increase in travel times 0 - 28 0 - 81 0 - 69	Resultant travel times to 2nd closest trust 18 - 49 35 - 142 20 - 87
	Wee	Poorest 2 althiest 4 St Travel	27 6 - 59 40 3 - 66 neffield Av. Ran crease incr	ge of Res	0 - 53 1 - 64 Roth	16 – 85 24 – 79 nerham	<i>Private Public Poorest Wealthiest</i>	Av. travel time 16 29 22 18	Travel time range 3 - 31 6 - 95 5 - 51 7 - 29	Av. increase in travel time 14 32 24 34	Range of increase in travel times 0 - 28 0 - 81 0 - 69 17 - 60	Resultant travel times to 2nd closest trust 18 - 49 35 - 142 20 - 87 26 - 84
	Av. travel	Poorest althiest Sh Travel time range in	Av. Ran crease inct travel in t	ge of Restrayed to the second	0 - 53 1 - 64 Roth sultant el times 0 2nd	16 – 85 24 – 79	<i>Private Public Poorest Wealthiest</i>	Av. travel time 16 29 22 18	Travel time range 3 - 31 6 - 95 5 - 51 7 - 29 ●	Av. increase in travel time 14 32 24 34	Range of increase in travel times 0 - 28 0 - 81 0 - 69 17 - 60	Resultant travel times to 2nd closest trust 18 - 49 35 - 142 20 - 87 26 - 84
	Av. travel	Poorest 2 althiest 2 St Travel time in range in	Av. crease time Av. crease travel time Av. crease travel time	ge of Res rease trave ravel to nes close	0 - 53 1 - 64 Roth sultant el times 2 nd est trust	16 – 85 24 – 79	<i>Private Public Poorest Wealthiest</i>	Av. travel time 16 29 22 18	Travel time range 3 - 31 6 - 95 5 - 51 7 - 29 ● Basse	Av. increase in travel time 14 32 24 34 34	Range of increase in travel times 0 - 28 0 - 81 0 - 69 17 - 60	Resultant travel times to 2nd closest trust 18 - 49 35 - 142 20 - 87 26 - 84
Private	Av. travel time	Poorest althiest St Travel time range 2 - 50	27 6 – 59 40 3 – 66 neffield Av. Ran crease inci travel in t time tin 18 0	ge of Res rease trave ravel to nes close - 33 19	0 - 53 1 - 64 Roth sultant el times 2 nd est trust - 62	16 – 85 24 – 79	<i>Private Public Poorest Wealthiest</i>	Av. travel time 16 29 22 18	Travel time range 3 - 31 6 - 95 5 - 51 7 - 29 ● Basse	Av. increase in travel time 14 32 24 34 34	Range of increase in travel times 0 - 28 0 - 81 0 - 69 17 - 60	Resultant travel times to 2nd closest trust 18 - 49 35 - 142 20 - 87 26 - 84
Private Public	Av. travel time 17 2 45 8	Poorest althiest St Travel time range 2 – 50 – 103	27 6 - 59 40 3 - 66 neffield Av. Ran crease inc travel in tin 18 0 - 39 2 -	ge of Res rease trave ravel to nes close - 33 19 - 85 52	0 - 53 1 - 64 Roth sultant el times 2 nd est trust - 62 - 144	16 - 85 24 - 79 herham	Private Public Poorest Wealthiest	Av. travel time 16 29 22 18	Travel time range 3 - 31 6 - 95 5 - 51 7 - 29 ● Basse	Av. increase in travel time 14 32 24 34 34	Range of increase in travel times 0 - 28 0 - 81 0 - 69 17 - 60	Resultant travel times to 2nd closest trust 18 - 49 35 - 142 20 - 87 26 - 84
Private Public Poorest	Av. travel time 17 2 45 8 30 9	Poorest althiest St Travel time range 2 - 50 - 103 9 - 56	27 6 - 59 40 3 - 66 neffield Av. Ran crease inc travel in t 18 0 - 39 2 - 26 1 -	ge of Res rease trave ravel to nes close - 33 19 - 85 52 - 77 23	0 - 53 1 - 64 Roth sultant el times 2nd est trust - 62 - 144 - 99	16 - 85 24 - 79 herham	Private Public Poorest Wealthiest	Av. travel time 16 29 22 18	Travel time range 3 - 31 6 - 95 5 - 51 7 - 29 ● Basse	Av. increase in travel time 14 32 24 34 34	Range of increase in travel times 0 - 28 0 - 81 0 - 69 17 - 60	Resultant travel times to 2nd closest trust 18 - 49 35 - 142 20 - 87 26 - 84

Source: Google data extract, Deloitte analysis, 2018/19

Population level travel time analysis – 1AM Maternity



Source: Google data extract, Deloitte analysis, 2018/19

Key conclusions

- Current average travel times range from 15 minutes to 43 minutes across each site, however, there is a wide range of increases – particularly in parts of Doncaster and Bassetlaw where public transport routes are not as well connected as other parts of the region
- Travel times do increase for all sites, when part of a service is no longer offered at a site. This average increase can range from an additional 8 minutes to 39 minutes, although as before, there are some extremes where public transport connections are poor
- There is little difference between the wealthiest and poorest deciles when looking at deprivation



Financial implications

We have calculated pay costs based on the following methodology



We have focused on the pay costs associated with changing the clinical model. By making assumptions on how much different staff categories are paid, we have looked at the comparative pay bill between current staff, and the future staff under different sustainable configurations.

Non-pay costs have been modelled separately in consultation with Directors of Finance. These are not shown on the slides as differences in non-pay costs between different options are very small.





There will also be costs associated with specific options such as the costs of ambulance transfers and any capital costs, which we will model in detail when we have the shortlist of options.



Financial implications: Pay costs

CAIC Affordability:

There are financial implications of changes to 1 site

	1 BARNSLEY	2 BASSETLAW	3 CHESTERFIELD	4 DONCASTER	5 ROTHERHAM
- Current staff in post	66.5 WTEs £4.0m pay costs	29.2 WTEs £1.7m pay costs	61.2 WTEs £3.7m pay costs	91.2 WTEs £5.3m pay costs	64.3 WTEs £3.9m pay costs
Additional requirement to meet current demand (as an Inpatient unit)	+ 31.6 WTEs + £1.5m pay costs	+ 42.9 WTEs + £2.7m pay costs	+ 37.1 WTEs + £1.8m pay costs	+ 46.3 WTEs + £2.4m pay costs	+27.4 WTEs +£1.6m pay costs
Change required to change the clinical model (from a sustainable Inpatient unit)	- 57.8 WTEs - £2.8m pay costs	- 31.8 WTEs - £1.7m pay costs	- 58.0 WTEs - £2.8m pay costs	- 92.9 WTEs - £4.7m pay costs	- 51.5 WTEs - £2.7m pay costs
Total estimated change from current workforce to become a sustainable SSPAU	- 26.2 WTEs - £1.3m pay costs	+ 11.1 WTEs + £1.1m pay costs	- 20.9 WTEs - £1.0m pay costs	- 46.6 WTEs - £2.4m pay costs	- 24.0 WTE - £1.1m pay costs

Note: ¹ There is not a 1-1 relationship between WTE gap and pay cost across Trusts as this differs by grade and individual Trusts⁵¹ currently differ in their workforce make-up; ² All sites, including Bassetlaw, are modelled using 2017/18 data

Maternity Affordability:

There are financial implications of changes to 1 site

	1 BARNSLEY	2 BASSETLAW	3 CHESTERFIELD	4 DONCASTER	5 ROTHERHAM
- Current staff in post	178.5 WTEs £9.2m pay costs	79.6 WTEs £4.2m pay costs	168.2 WTEs £8.8m pay costs	<i>181.7 WTEs £9.3m pay costs</i>	154.0 WTEs £8.1m pay costs
Additional requirement to meet current demand (as an Inpatient unit)	+ 2.3 WTEs + £0.1m pay costs	+ 21.5 WTEs + £1.1m pay costs	+ 5.4 WTEs + £0.4m pay costs	+ 15.7 WTEs + £1.0m pay costs	+ 22.3 WTEs + £1.3m pay costs
Change required to change the clinical model (from a sustainable Inpatient unit)	- 161.6 WTEs - £8.5m pay costs	- 95.4 WTEs - £5.0m pay costs	- 161.3 WTEs - £8.6m pay costs	- 186.6 WTEs - £9.8m pay costs	- 163.0 WTEs - £8.8m pay costs
Total estimated change from current workforce to become a sustainable SSPAU	- 159.3 WTEs - £8.3m pay costs	- 73.9 WTEs - £4.0m pay costs	- 155.8 WTEs - £8.2m pay costs	- 170.9 WTEs - £8.8m pay costs	- 140.7 WTE - £7.5m pay costs

Note: ¹ There is not a 1-1 relationship between WTE gap and pay cost across Trusts as this differs by grade and individual Trusts⁵² currently differ in their workforce make-up; ² All sites, including Bassetlaw, are modelled using 2017/18 data



Financial implications:

Estates

We have also looked at whether shifting activity at the levels identified above would have significant cost implications for the estates

In order to calculate estates implications through shifting activity we have used the following assumptions around activity that will transfer to neighbouring Trusts:

- For an Inpatient unit: we assume that 1 bed day = 1 bed
- For an SMLU: we use the same assumption, assuming that 1 bed day = 1 bed
- For an SSPAU: we assume that 87% of patients will stay for less than 6 hours, therefore, 1 bed = 0.5 of a bed day. For the remaining 13% of SSPAU admissions we assume a 12 hour stay, so 1 bed = 1 bed day.

Metric	Unit	Implications for Barnsley	Implications for Bassetlaw	Implications for Chesterfield	Implications for Doncaster	Implications for Rotherham
PAEDIATRICS						
Current activity	No. of admissions p.a.	6,658	1,330	4,573	11,185	5,320
Change in activity as a result of changing the clinical model	No. of admissions p.a.	-3782	-530	-2884	-5770	-2789
Change in capacity (No. of beds required) ¹	No. of beds	[-14]	[-2]	[-13]	[-25]	[-11]
MATERNITY						
Current activity	No. of births p.a.	2,842	1,488	2,719	3,216	2,697
Change in activity as a result of changing the clinical model	No. of births p.a.	-2,516	-1,391	-2,509	-3,032	-2,472
Change in capacity (No. of beds required) ¹	No. of beds	[-15]	[-8]	[-14]	[-19]	[-16]

Note: ¹This shows a high level, indicative view of the impact of changes – further detailed modelling will be carried out once a shortlist of options is generated; ² 2017/18 activity data used

Capacity to absorb additional Paediatric activity: There is some space to absorb activity on current across SYB(ND)

Barnsley	Barnsley has confirmation of funding to move its PAU close to the A&E. This will free up some Paediatrics capacity so Barnsley could receive some additional activity with minimal additional cost. Furthermore, only 18 out of 22 beds are currently being used due to nursing shortages, meaning a further 4 beds could be used with the right workforce model.
Bassetlaw	Bassetlaw could conceivably relocate some additional services to generate an additional c.10% increase in capacity, with some additional cost and currently has 22 Paediatric inpatient beds that are not used.
Chesterfield	Chesterfield is facing some capacity shortfalls; is currently looking to move its own paediatrics activity into the community so absorbing additional activity would require new build.
Doncaster	Doncaster did not receive the £67m of capital funding, including for backlog maintenance, that it requested in a national process, and is looking at other ways to fund necessary changes to the women and children's hospital. Changes are likely to be needed with or without new activity. Nonetheless there are 8 Paediatric beds that could be utilised following a revamp of the wards. Capital estimates have been provided that do not account for the successful capital bid.
Rotherham	Rotherham currently has 10 Paediatric ward beds that are not used due to its community nursing efforts moving care away from the Hospital.
SCH [fixed site]	Currently refurbishing 3 wards following development of its new wards, so has some capacity to absorb more activity.
	adsord activity adsord activity adsord activity adsord activity

Capacity to absorb additional Maternity activity:

There is some space to absorb activity on current estates across SYB(ND)

Barnsley	Currently there is consideration towards a midwifery-led service. The current birthing centre has 7 birthing rooms. Local moves and refurbishment required to ensure space is functional and fit for purpose. There is provision to increase capacity by up to 40%.
Bassetlaw	Bassetlaw could conceivably relocate some additional services to generate an additional c.10% increase in capacity, with some additional cost.
Chesterfield	Chesterfield can increase capacity by up to 20%.
Doncaster	Doncaster did not receive the £67m of backlog maintenance that it required, and is looking at other ways to fund necessary changes to the women and children's hospital. Changes are likely to be needed with or without new activity. Capital estimates have been provided that do not account for the successful capital bid.
Rotherham	There is provision to increase capacity by up to 20%. The birth rate in Rotherham is falling so there may be more capacity in future.
STH [fixed site]	No capacity to absorb activity.
	Some capacity to Limited capacity to No capacity to

absorb activity

absorb activity

absorb activity

Key conclusions

- For *paediatrics*:
 - The number of beds that would transfer is relatively small and could be absorbed at several of the Trusts (particularly SCH and Barnsley) without too much difficulty
 - The capital costs would thus relate to refurbishment rather than new build
- For *maternity*:
 - The number of beds that would transfer would be significantly higher and there is limited capacity within the system to absorb this
 - The capital costs would thus relate to new build rather than refurbishment, and could be prohibitively expensive given current capital constraints



Patient flows:

Where patients would travel to, and the implications for other sites

Note that this is the first stage of a three stage modelling process so is <u>indicative only at this stage</u>



Patient flows – Methodology

The other half of modelling changes is the impact on where activity would flow to

Patient flows, the sites that patients would move to, can be modelled in a number of different ways:

- **1.** Patients travelling from their own home by private transport, and choosing to go direct to their next nearest hospital;
- 2. Patients travelling from their own home by ambulance, and being transferred to a destination determined by clinical protocols, which may or may not be the next nearest site;
- **3.** Patients travelling to their nearest hospital, and then being transferred to another site, determined by clinical protocols, which may or may not be the next nearest site. For example, a Trust might choose to form a partnership with a Trust further away, which has spare capacity or offers a more compatible range of services, rather than its nearest neighbour.

The Hospital Services team has so far modelled 1). If reconfiguration is taken forward, further detailed modelling will be done with the ambulance services to model 2), and to develop the clinical protocols for transfer for model 3).

In reality, the situation would be a mix of these, and would be further affected by patient choices – some patients may choose to travel to a hospital that is not their nearest.

Therefore the analysis of patient flows is incomplete at this point. The outputs of the modelling described below <u>could change significantly</u> depending on the clinical partnerships that emerge, and based on any assumptions made about patient behaviour.

As such, the analysis carried out so far is the first of multiple steps, and the results are not expected to represent what would happen in reality. If reconfiguration were to be agreed as the way forward, further modelling would be done, with the Ambulance Services and Trusts, building on the analysis done so far.

Patient flow analysis Methodology (2/2)

For each LSOA in SYB, we collected driving times data to each hospital in SYB at four time points during the day – 8am, 12 midday, 5pm and 1am. For modelling, the average driving time for these fours points in the day was used.

04

We assumed that if the hospital the patient was admitted to no longer provided the service, the patients would choose to go to the hospital that would be the quickest for them to get to based on Google Maps driving times.

02

For out of area hospitals, we collected an average driving time only that does not take time in traffic into account.

05

Patient behaviours and/or existing referral pathways that are already in place or may be put in place in the future, are not taken into account in travel time modelling.



Patients LSOA is taken from patient level data submitted by trusts. Where this data is not available (eg Chesterfield), we assumed that proportion of patients choosing alternative hospitals would be similar to proportion of LSOAs that are closest to those hospitals.

06

It is assumed that patients would go to the hospital that they could get to the quickest. Since the driving time data was collected for peak hours of the day, heavy traffic in certain part of the region may affect activity flow in the model.



Paediatrics

If services at Barnsley were to change, the majority of patients would travel to Rotherham and Doncaster within SYB(ND)



Source: Google data extract, Internal analysis, 2019

Note: Activity numbers based on current activity levels; The diagram shows where patients would chose to redirect themselves and does not take into account existing or future transfer protocols between Trusts

63

BARNSLEY

BASSETLAW

CHESTERFIELD

DONCASTER

ROTHERHAM

SCH

STH



Note: Activity numbers based on current activity levels; The diagram shows where patients would chose to redirect themselves and does not take into account existing or future transfer protocols between Trusts

If services at Chesterfield were to change, the majority of patients would travel to SCH and Rotherham within SYB(ND) BASSETLAW Total activity 2018: 4,573 CHESTERFIELD **Barnsley**

Rotherham

17%

Source: Google data extract, Internal analysis, 2019

Sheffield

27%

Note: Activity numbers based on current activity levels; The diagram shows where patients would chose to redirect themselves and does not take into account existing or future transfer protocols between Trusts

CHESTERFIELD

65



Doncaster

Bassetlaw

3%

- Forest Hospitals Trust COC score for Children & Young People's services: Good

BARNSLEY

DONCASTER

ROTHERHAM

SCH

If services at Doncaster were to change, the majority of patients would travel to Rotherham and Bassetlaw within SYB(ND)



Source: Google data extract, Internal analysis, 2019

Note: Activity numbers based on current activity levels; The diagram shows where patients would chose to redirect themselves and does not take into account existing or future transfer protocols between Trusts

66

BARNSLEY

BASSETLAW

CHESTERFIELD

DONCASTER

ROTHERHAM

SCH



Note: Activity numbers based on current activity levels; The diagram shows where patients would chose to redirect themselves and does not take into account existing or future transfer protocols between Trusts



Maternity



Note: Activity numbers based on current activity levels; The diagram shows where patients would chose to redirect themselves and does not take into account existing or future transfer protocols between Trusts





Note: Activity numbers based on current activity levels; The diagram shows where patients would chose to redirect themselves and does not take into account existing or future transfer protocols between Trusts

70

BARNSLEY

BASSETLAW

CHESTERFIELD

DONCASTER

ROTHERHAM

SCH



Note: Activity numbers based on current activity levels; The diagram shows where patients would chose to redirect themselves and does not take into account existing or future transfer protocols between Trusts

If services at Doncaster were to change, the majority of patients would travel to Rotherham and Bassetlaw within SYB(ND)



Source: Google data extract, Internal analysis, 2019

Note: Activity numbers based on current activity levels; The diagram shows where patients would chose to redirect themselves and does not take into account existing or future transfer protocols between Trusts

72

STH

BARNSLEY

BASSETLAW

CHESTERFIELD

DONCASTER

ROTHERHAM

SCH


Source: Google data extract, Internal analysis, 2019

Note: Activity numbers based on current activity levels; The diagram shows where patients would chose to redirect themselves and does not take into account existing or future transfer protocols between Trusts

73



Site-specific analysis:

 Workforce and pay-cost implications of changes by Trust



Site-specific analysis: Paediatrics



Changing the Barnsley inpatient unit to a 12 hour SSPAU is estimated to reduce the pay spend by c. £1.3m







Changing the Chesterfield inpatient unit to a 12 hour SSPAU is estimated to consist of c. 21 fewer WTEs



80





Changing the Doncaster inpatient unit to a 12 hour SSPAU is estimated to reduce the pay spend by c. £2.4m



Changing the Rotherham inpatient unit to a 12 hour SSPAU is estimated to consist of c. 24 fewer WTEs Overall reduction of 24 WTEs from existing Workforce implications of changing an inpatient unit to a 12 hour SSPAU establishment WTE, Based on 2019 workforce data Consultant doctors Middle Grade doctors Junior doctors Nurses (Band 7+) Nurses (Band 5-6) Nurses (Band 1-4) 21.5 91.7 2.1 10.3 6.5 7.3 1.5 1.7 5.9 0.1



BARNSLEY

BASSETLAW

CHESTERFIELD

DONCASTER

ROTHERHAM

SCH

Changing the Rotherham inpatient unit to a 12 hour SSPAU is estimated to reduce the pay spend by c. £1.2m



Source: Trust data returns, Internal analysis, 2019

BARNSLEY

BASSETLAW

CHESTERFIELD

DONCASTER

ROTHERHAM

SCH



Site-specific analysis: Maternity

Changing the Barnsley Obstetrics unit to a SMLU is estimated to consist of c. 159 fewer WTEs



Source: Trust data returns, Internal analysis, 2019

Note: *25% intrapartum transfer rate is assumed based on the Birthplace Study (2011) https://www.bmj.com/content/343/bmj.d7400 and 87 publically available data https://docs.google.com/spreadsheets/d/1kxqDkNrrEyZFmUZiPqxW_gH4iYCDnf6Hkge5S1oglvg/edit#gid=0

STH

BARNSLEY

BASSETLAW

Overall reduction of 159

Changing the Barnsley Obstetrics unit to a SMLU is estimated to lead to a pay spend of c. £0.9m

Financial implications of changing an Obstetrics unit to a SMLU

£m, Based on 2019 workforce data

Consultant doctors
 Junior doctors
 Nurses and Midwives (Band 5-6)
 Middle Grade doctors
 Nurses and Midwives (Band 7+)
 Nurses and Midwives (Band 1-4)



SCH

BARNSLEY

BASSETLAW

Changing the Bassetlaw Obstetrics unit to a SMLU is estimated to consist of c. 74 fewer WTEs



Source: Trust data returns, Internal analysis, 2019

Note: *25% intrapartum transfer rate is assumed based on the Birthplace Study (2011) <u>https://www.bmj.com/content/343/bmj.d7400</u> and publically available data <u>https://docs.google.com/spreadsheets/d/1kxqDkNrrEyZFmUZiPqxW_gH4iYCDnf6Hkge5S1oglvg/edit#gid=0</u> 89

STH

Changing the Bassetlaw Obstetrics unit to a SMLU is estimated to lead to a pay spend of c. £0.3m

Financial implications of changing an Obstetrics unit to a SMLU

£m, Based on 2019 workforce data





current configuration

90

BARNSLEY

BASSETLAW

CHESTERFIELD

DONCASTER

ROTHERHAM

SCH

Changing the Chesterfield Obstetrics unit to a SMLU is estimated to consist of c. 156 fewer WTEs Overall reduction of 156 WTEs from existing Workforce implications of changing an Obstetrics unit to a SMLU establishment WTE, Based on 2019 workforce data Consultant doctors Junior doctors Nurses and Midwives (Band 5-6) Middle Grade doctors Nurses and Midwives (Band 7+) Nurses and Midwives (Band 1-4) 15.0 1 1 0.7 173.7 1.5 168.2 12.7 12.6 11.5 -9.5 9.3 9.0 9.0 8.0 17.8 19.4 21.3 79.1 91.6 86.6 31.8

Source: Trust data returns, Internal analysis, 2019

Bank & Agency (2018)

32.7

Staff in post (2018)

Note: *25% intrapartum transfer rate is assumed based on the Birthplace Study (2011) <u>https://www.bmj.com/content/343/bmj.d7400</u> and ⁹¹ publically available data <u>https://docs.google.com/spreadsheets/d/1kxqDkNrrEyZFmUZiPqxW_gH4iYCDnf6Hkge5S1oglvg/edit#gid=0</u>

Gap between existing and

potential establishment

34.8

Potential

establisment under

current configuration

STH

BARNSLEY

BASSETLAW

CHESTERFIELD

DONCASTER

ROTHERHAM

SCH

12.5

establisment if SMLU

1.8

3.0 Potential

-161.2

Gap between current

configuration and SMLU

Changing the Chesterfield Obstetrics unit to a SMLU is estimated to lead to a pay spend of c. £0.6m

Financial implications of changing an Obstetrics unit to a SMLU

£m, Based on 2019 workforce data



BARNSLEY

BASSETLAW

Changing the Doncaster Obstetrics unit to a SMLU is estimated to consist of c. 171 fewer WTEs



Source: Trust data returns, Internal analysis, 2019

Note: *25% intrapartum transfer rate is assumed based on the Birthplace Study (2011) <u>https://www.bmj.com/content/343/bmj.d7400</u> and ⁹³ publically available data <u>https://docs.google.com/spreadsheets/d/1kxqDkNrrEyZFmUZiPqxW_gH4iYCDnf6Hkge5S1oglvg/edit#gid=0</u>

Changing the Doncaster Obstetrics unit to a SMLU is estimated to lead to a pay spend of c. £0.5m

Financial implications of changing an Obstetrics unit to a SMLU

£m, Based on 2019 workforce data



94

BARNSLEY

BASSETLAW

CHESTERFIELD

DONCASTER

ROTHERHAM

SCH

Changing the Rotherham Obstetrics unit to a SMLU is estimated to consist of c. 141 fewer WTEs



Source: Trust data returns, Internal analysis, 2019

Note: *25% intrapartum transfer rate is assumed based on the Birthplace Study (2011) <u>https://www.bmj.com/content/343/bmj.d7400</u> and ⁹⁵ publically available data <u>https://docs.google.com/spreadsheets/d/1kxqDkNrrEyZFmUZiPqxW_gH4iYCDnf6Hkge5S1oglvg/edit#gid=0</u>

Changing the Rotherham Obstetrics unit to a SMLU is estimated to lead to a pay spend of c. £0.6m

Financial implications of changing an Obstetrics unit to a SMLU

£m, Based on 2019 workforce data



BARNSLEY

BASSETLAW

CHESTERFIELD

DONCASTER

ROTHERHAM



Site-specific analysis: Summary

There are implications for each site of changing the Paediatric clinical model on that site to an SSPAU

Unit	Implications for Barnsley	Implications for Bassetlaw	Implications for Chesterfield	Implications for Doncaster	Implications for Rotherham
No. of admissions p.a.	6,658	1,330	4,573	11,185	5,320
No. of admissions p.a.	-3,782	-530	-2,884	-5,770	-2,789
No. of admissions p.a.	1,047	526	571	1,822	1,587
No. of transfers p.a.	-80	-50	-141	-224	-260
No. of beds	-14	-2	-13	-25	-11
WTE	66.5	29.2	61.2	91.2	64.3
WTE	31.6	42.9	37.1	46.3	27.4
WTE	-57.8	-31.8	-58.0	-92.9	-51.5
WTE	-26.2	11.1	-20.9	-46.6	-24.0
£m p.a.	£4.0	£1.7	£3.7	£5.3	£3.9
£m p.a.	£1.5	£2.7	£1.8	£2.4	£1.6
£m p.a.	-£2.8	-£1.7	-£2.8	-£4.7	-£2.7
£m p.a.	-£1.3	£1.1	-£1.0	-£2.4	-£1.1
	Unit No. of admissions p.a. No. of admissions p.a. No. of transfers p.a. No. of beds WTE WTE WTE WTE WTE WTE \mbox{W}	UnitImplications for BarnsleyNo. of admissions p.a.6,658No. of admissions p.a3,782No. of admissions p.a.1,047No. of transfers p.a80No. of transfers p.a80No. of beds-14WTE66.5WTE31.6WTE-57.8WTE-57.8MTE-26.2fm p.a.f1.5fm p.a.f1.5fm p.af2.8fm p.af2.8	UnitImplications for BarnsleyImplications for BassetlawNo. of admissions p.a.6,6581,330No. of admissions p.a3,782-530No. of admissions p.a.1,047526No. of admissions p.a.1,047526No. of transfers p.a80-50No. of beds-14-2WTE66.529.2WTE31.642.9WTE-57.8-31.8WTE-57.8-31.8MTE£4.0£1.7fm p.a.£4.0£1.7fm p.a.£1.5£2.7fm p.a£2.8-£1.7fm p.a£2.8£1.1	Unit Implications for Barnsley Implications for Bassetiaw Implications for Chesterfield No. of admissions p.a. 6,658 1,330 4,573 No. of admissions p.a. -3,782 -530 -2,884 No. of admissions p.a. 1,047 526 571 No. of transfers p.a. -80 -500 -141 No. of transfers p.a. -80 -50 -141 No. of transfers -80 29.2 61.2 WTE 66.5 29.2 61.2 WTE 31.6 42.9 37.1 WTE -57.8 -31.8 -58.0 WTE -57.8 -31.8 -58.0 MTE -57.8 -31.8 -58.0 MTE -57.8 -51.7 £3.7 fm £4.0 £1.7 £3.7 fm £1.5 £2.7 £1.8 fm -£2.8 -£1.7 £2.8 fm -£2.8 -£1.7 £2.8	Unit Implications for Barnsley Implications for Bassetlaw Implications for Chesterfield Implications for Doncaster No. of admissions p.a. 6,658 1,330 4,573 11,185 No. of admissions p.a. -3,782 -530 -2,884 -5,770 No. of admissions p.a. 1,047 526 571 1,822 No. of transfers p.a. -80 -50 -141 -224 No. of transfers p.a. -80 -50 -141 -224 No. of beds -14 -2 -13 -25 WTE 66.5 29.2 61.2 91.2 WTE 31.6 42.9 37.1 46.3 WTE -57.8 -31.8 -58.0 -92.9 WTE -56.2 11.1 -20.9 -46.6 $f_{p.a.}^{fm}$ £4.0 £1.7 £3.7 £5.3 $f_{p.a.}^{fm}$ £1.5 £2.7 £1.8 £2.4 $f_{p.a.}^{fm}$ -£2.8 -£1.7 £2.8 -£4.7

Note: ¹This shows a high level, indicative view of the impact of changes – further detailed modelling will be carried out once a shortlist of options is generated; ² 2017/18 activity data used

There are implications for each site of changing the Maternity clinical model on that site to an SMLU

Metric	Unit	Implications for Barnsley	Implications for Bassetlaw	Implications for Chesterfield	Implications for Doncaster	Implications for Rotherham
Current activity	No. of births p.a.	2,842	1,488	2,719	3,216	2,697
Change in activity as a result of changing the clinical model	No. of births p.a.	-2,516	-1,391	-2,509	-3,032	-2,472
Estimated number of intrapartum transfers	No. of transfers p.a.	-81	-24	-53	-46	-56
Change in capacity (No. of beds required) ¹	No. of beds	[-15]	[-8]	[-14]	[-19]	[-16]
Current total workforce	WTE	178.5	79.6	168.2	181.7	154.0
Change in workforce required to sustainably meet current demand	WTE	2.3	21.5	5.4	15.7	22.3
Change in sustainable workforce required to change the clinical model	WTE	-161.6	-95.4	-161.3	-186.6	-163.0
Total estimated change from existing workforce to sustainable SMLU	WTE	-159.3	-73.9	-155.8	-170.9	-140.7
Current total pay cost	£m p.a.	£9.2	£4.2	£8.8	£9.3	£8.1
Financial implications (pay cost) to sustainably meet current demand	£m p.a.	£0.1	£1.1	£0.4	£1.0	£1.3
Financial implications (pay cost) to change the clinical model from sustainable model	£m p.a.	-£8.5	-£5.0	-£8.6	-£9.8	-£8.8
Total estimated financial implications (pay cost) from current pay cost	£m p.a.	-£8.3	-£4.0	-£8.2	-£8.8	-£7.5

Note: ¹This shows a high level, indicative view of the impact of changes – further detailed modelling will be carried out once a shortlist of options is generated; ² 2017/18 activity data used

Summary of clinical model changes: CAIC

	BARNSLEY	BASSETLAW	CHESTERFIELD	DONCASTER	ROTHERHAM
ACTIVITY Change in activity as a result of changing the clinical model	3,782 reduction in admissions p.a.	530 reduction in admissions p.a.	2,884 reduction in admissions p.a.	5,770 reduction in admissions p.a.	2,789 reduction in admissions p.a.
WORKFORCE Number of WTE to be reassigned across SYB(ND)	26.2 WTE change in workforce	+11.1 WTE change in workforce	20.9 WTE change in workforce	46.6 WTE change in workforce	24.0 WTE change in workforce
ACCESS Increase in travel time if site is no longer available	Private transport: 13, 0-28 mins	Private transport: 14, 0-29 mins	Private transport: 16, 0-33 mins	Private transport: 15, 0-37 mins	Private transport: 8, 0-29 mins
(Average, Range)	Public transport: 32, 0-76 mins	Public transport: 32, 0-78 mins	Public transport: 34, 2-77 mins	Public transport: 39, 1-90 mins	Public transport: 25, 0-66 mins
AFFORDABILITY Pay cost decreases if clinical model changes	Financial implications (pay cost): £1.3m	Financial implications (pay cost): +£1.1m	Financial implications (pay cost): £1.0m	Financial implications (pay cost): £2.4m	Financial implications (pay cost): £1.1m
INTERDEPENDENCIES Number of children's surgery transfers	80 Children's surgery transfers	50 Children's surgery transfers	141 Children's surgery transfers	260 Children's surgery transfers	224 Children's surgery transfers
QUALITY CYP CQC score of next nearest Trust (within SYB(ND))	<i>Achieving</i> 10/10 <i>Facing the future</i> <i>standards</i>	Achieving 8/10 Facing the future standards	<i>Achieving</i> 8/10 <i>Facing the future</i> <i>standards</i>	<i>Achieving</i> 8/10 <i>Facing the future</i> <i>standards</i>	Achieving 7/10 Facing the future standards

Note: ¹ Workforce and financial implications are negative unless specified explicitly;

² Bassetlaw is modelled using 17/18 activity numbers where Paediatric services are not offered overnight

Summary of clinical model changes: Maternity

	BARNSLEY	BASSETLAW	CHESTERFIELD	DONCASTER	ROTHERHAM	
ACTIVITY <i>Change in activity as a</i> <i>result of changing the</i> <i>clinical model</i>	2,516 <i>reduction in</i> <i>births p.a.</i>	1,391 reduction in births p.a.	2,509 reduction in births p.a.	3,032 reduction in births p.a.	2,472 reduction in births p.a.	
WORKFORCE Number of WTE to be reassigned across SYB(ND)	159.3 WTE change in workforce	73.9 WTE change in workforce	155.8 WTE change in workforce	170.9 WTE change in workforce	140.7 WTE change in workforce	
ACCESS Increase in travel time if site is no longer available (Average, Range)	Private transport: 13, 0-28 mins Public transport: 35, 0-81 mins	Private transport: 14, 0-29 mins Public transport: 32, 0-81 mins	Private transport: 16, 0-33 mins Public transport: 38, 0-85 mins	Private transport: 15, 0-37 mins Public transport: 40, 1-90 mins	Private transport: 7, 0-25 mins Public transport: 26, 0-71 mins	
AFFORDABILITY Pay cost decreases if clinical model changes	Financial implications (pay cost): £8.3m	Financial implications (pay cost): £4.0m	Financial implications (pay cost): £8.2m	Financial implications (pay cost): £8.8m	Financial implications (pay cost): £7.5m	
INTERDEPENDENCIES <i>Maximum number of</i> <i>ANNPs required to support</i> <i>Neonatology rotas</i>	 Assuming 1:0.87 Middle grade to equivalent ANNP; and 1:0.84 Junior grade to equivalent ANNP (1-2-1 substitution but with different total hours worked) And assuming 30% of Middle and Junior grade doctors' time is spent in a Neonatal unit, and 8 people are required to staff a rota, there will be an additional requirement for: 6.6 Middle grade-equivalent ANNPs and 6.9 Junior grade-equivalent ANNPs 					
QUALITY CYP CQC score of next nearest Trust (within SYB(ND))	Achieving 10/10 CNST standards	Achieving 9/10 CNST standards	Achieving 9/10 CNST standards	Achieving 9/10 CNST standards	Achieving 10/10 CNST standards	

Note: ¹ Workforce and financial implications are negative unless specified explicitly