Success Regime

West, North & East Cumbria

Acute Hospitals Travel Impact Analysis

Date: 17TH October 2016

Version: 0.8

Report Specification

Reader note

It is important to note that this appendix to the Pre-Consultation Business Case does not take account of reductions in acute hospital attendance that will result from the development of Integrated Care Communities across West, North and East Cumbria, nor does it reference travel times related to the possible shift of elective care from Cumberland Infirmary Carlisle to West Cumberland Hospital, or from either site to other locations closer to patients' homes. Both of these developments would involve significant reductions in travel time for residents affected particularly for those living in West Cumbria.

Recipients

Success Regime West, North & East Cumbria.

Data Source

Sources

Data was supplied by North Cumbria University Hospitals NHS Trust and is based on A&E attendances for the period 1 April 2015 to 31 March 2016 and inpatient admissions where the person was an inpatient at any time between 1 April 2015 to 31 March 2016, including those still hospital at the end of the period.

Reference is made to the Department for Transport research paper 'Analysis of travel times on local 'A' roads, England: 2014' https://www.gov.uk/government/statistics/analysis-of-travel-times-on-local-a-roads-england-2014.

Travel distances are calculated using data made available by the Ordnance Survey (OS OpenData) https://www.ordnancesurvey.co.uk/business-and-government/products/os-open-roads.html

Geography

This report covers patients with a recorded address within the geographical boundaries of Cumbria CCG.

Period

Data was supplied in April 2016.

Production

This report has been produced with collaboration and input from NHS Cumbria CCG and North Cumbria University Hospitals Trust. No part of this report should be reproduced or shared in any form or by any means without reference to NECS Clinical Commissioning Intelligence. Please ensure this information is not taken out of context

Completion Date

17 October 2016. Updated to allow re-presentation of the data to align with the options proposed in the pre consultation business case and data and information supplied by North Cumbria University Hospitals NHS Trust relating to hyper acute stroke services and Trauma and Emergency General Surgery.

Success Regime: Acute Hospitals Travel Impact Analysis

Introduction

An initial travel impact analysis was undertaken to model the effect of possible changes in the configuration of acute hospital services in Cumberland Infirmary and West Cumberland Hospital. Following further initial engagement and assessment of options, the West, North and East Cumbria Success Regime has refined the options for reconfiguration. This report seeks to reflect new assumptions supplied.

Scope and approach

The analysis is based on activity data relating to the location of patients who have used specified NHS services. Data used has been supplied by North Cumbria University Hospitals NHS Trust and is based on:

- A&E attendances for the period 1 April 2015 to 31 March 2016 and
- Inpatient admissions where the person was an inpatient at any time between 1 April 2015 to 31 March 2016, including those still in hospital at the end of the period.

The postcode area, district, sector and first digit of unit of the recorded address of the person attending hospital has been used to calculate the distance by road to the hospital attended. Following this, work was undertaken to model the impact on travel of options to transfer specified services based on activity assumptions / rules supplied.

Modelling assumptions

It has been assumed that patients have travelled to hospital from their home. It is likely in some cases that the person will have travelled to hospital from another location (such as their place of work). Similarly, trauma cases related to road traffic accidents would be assumed to occur away from a person's home and therefore the person is likely to be taken to the hospital closest to the accident, which may not be the closest to that person's home.

For reasons of confidentiality, we did not have access to patients' home addresses, so truncated postcodes have been mapped to the nearest travel node (usually within 400 metres).

Some emergency attendances / admissions will arise while a person is travelling far away from their home (for example while on holiday). For this reason, analysis was restricted to patients with a recorded address within the geographical boundaries of Cumbria CCG.

It is assumed that all roads are available for travel and that the shortest routes are taken.

No account has been made for patients travelling to hospitals other than Cumberland Infirmary and West Cumberland Hospital. Similarly, no allowance has been made for patients choosing to not visit hospital at all following reconfiguration of services.

The number of neonatal spells is low. There is a higher number of Consultant Episodes within a hospital spell but a relatively low number of records with valid postcodes within Cumbria, making modelling assumptions less reliable.

Specific modelling assumptions were provided by Deloitte on behalf of the Success regime:

- Non-complex activity is assumed to make up 85% of activity except for A&E and maternity where additional assumptions are applied.
- Gynaecology is split 59:41 complex to non-complex. As the scenarios supplied do not include gynaecology but this is a major area of activity, assumptions have been made based on corresponding groups within that option. For example, if 100% of non-elective complex inpatients will transfer, 59% of non-elective gynaecology inpatients also transfer (the proportion deemed to be complex). Similarly, 5% of elective inpatients and day cases are assumed to transfer from Cumberland Infirmary to West Cumberland Hospital as with other elective inpatient and day-case groups.
- 69% of West Cumberland Hospital A&E activity is assumed to be non-complex. Varying proportions are then transferred.
- For maternity, 70% is assumed to be non-complex and 30% complex.

As specific rules have not been defined to agree which patients would be classed as complex, it is not possible to pinpoint which individuals would transfer to a different hospital.

It should be noted that Deloitte assumptions were based on 2014/15 position; a number of pathway changes agreed in 2015 and since implemented are also included within assumed shifts in activity.

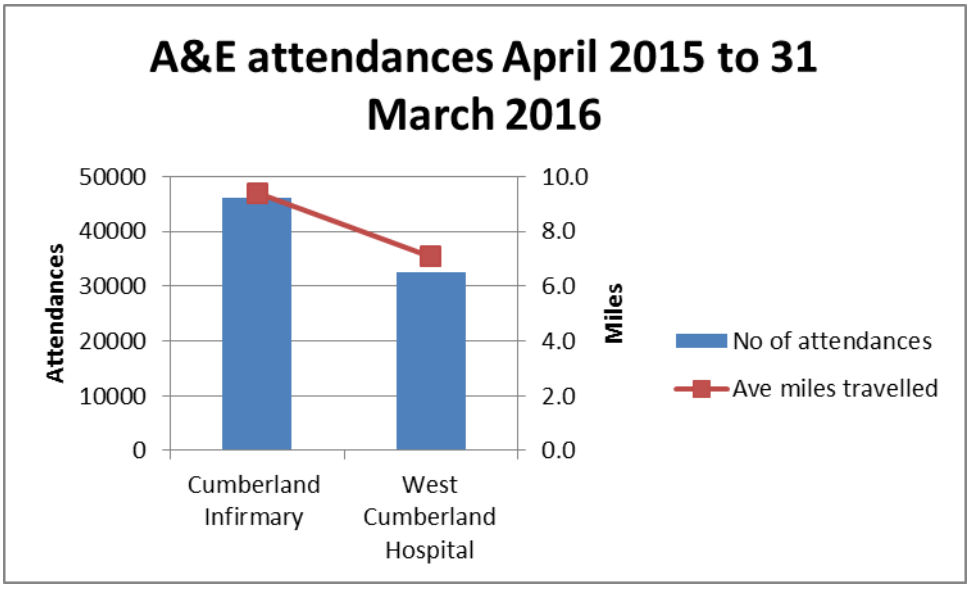
Due to the lack of reliable data on road speeds to calculate travel times, distance to travel in miles is provided as the main focus. An estimate of additional travel time based on an average speed of 35 miles per hour is provided. This speed is based on a very small random sample of journeys (12) tested on Google maps which averaged 34.7mph. Reference to the Department for Transport research 'Analysis of travel times on local 'A' roads, England: 2014' found that "In 2014, the average speed of vehicles on urban local 'A' roads is estimated to be 19.3 mph and on rural local 'A' roads is estimated to be 37.2 mph". This should be considered as a very broad estimate. Further work could be undertaken to better estimate travel times at a later date if required.

BASELINE POSITION

Accident & Emergency
There were 85,101 A&E attendances in 2015/16. 78,486 (92.2%) of these related to people whose usual place of residence was recorded as within Cumbria.

Cumberland Infirmary received the majority of these attendances (46,015 or 58.6%). Patients attending Cumberland Infirmary A&E travelled 9.3 miles on average from their home address if they lived in Cumbria.

32,471 people visited West Cumberland Hospital, travelling an average of 7.1 miles from within Cumbria.

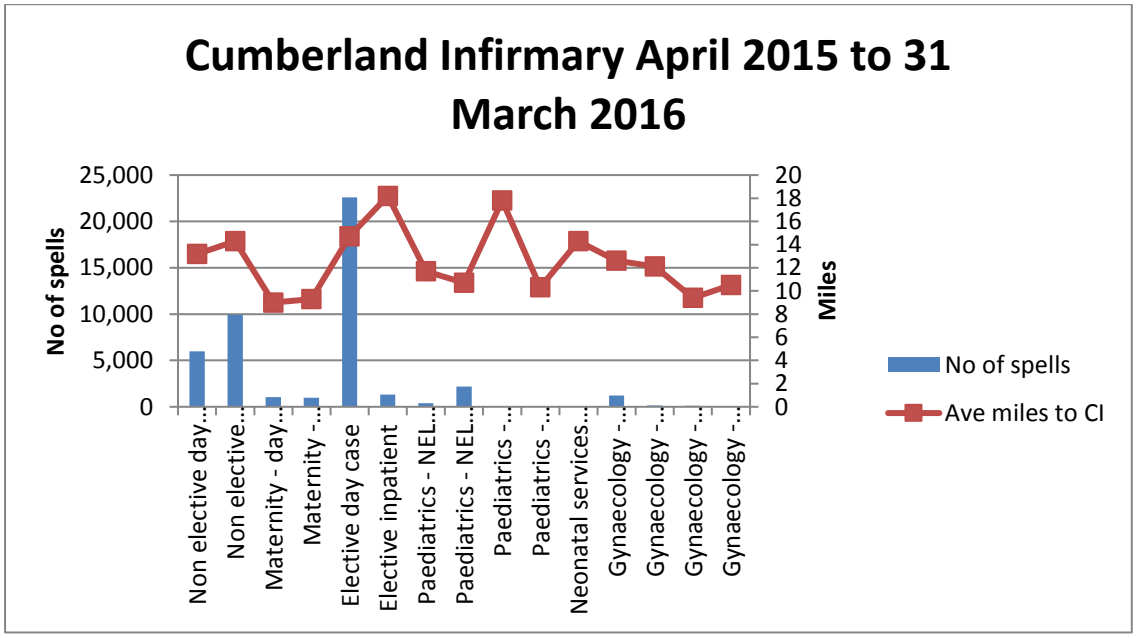


INPATIENTS

Cumberland Infirmary April 2015 to 31 March 2016

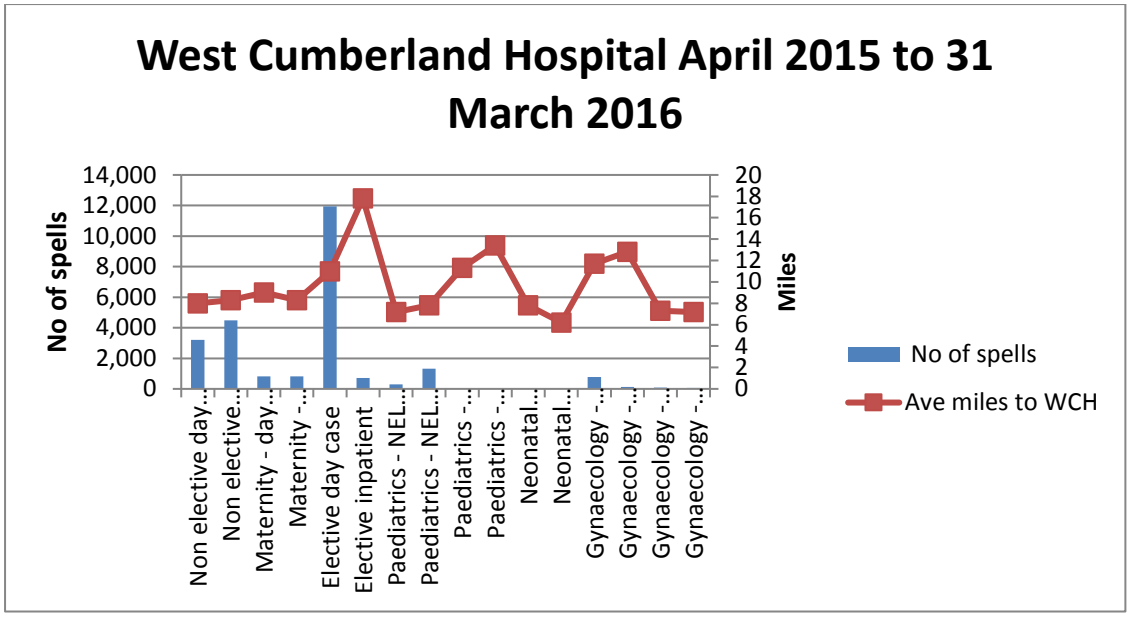
POD	No of spells	Ave miles to CI
Non elective day cases	5,997	13.2
Non elective inpatient	9,937	14.3
Maternity - day case	1,051	9.0
Maternity - inpatient	969	9.3
Elective day case	22,584	14.7

POD	No of spells	Ave miles to CI
Elective inpatient	1,314	18.2
Paediatrics - NEL inpatient	397	11.7
Paediatrics - NEL day case	2,200	10.7
Paediatrics - elective inpatient	14	17.8
Paediatrics - elective day case	68	10.3
Neonatal services inpatient	31	14.3
Gynaecology - elective day case	1,225	12.6
Gynaecology - elective inpatient	156	12.1
Gynaecology - NEL day case	128	9.4
Gynaecology - NEL inpatient	92	10.5



West Cumberland Hospital April 2015 to 31 March 2016

POD	No of episodes	Ave miles to WCH
Non elective day cases	3,201	8.0
Non elective inpatient	4,480	8.3
Maternity - day case	815	9.0
Maternity - inpatient	813	8.3
Elective day case	11,937	11.0
Elective inpatient	710	17.8
Paediatrics - NEL inpatient	291	7.2
Paediatrics - NEL day case	1,323	7.8
Paediatrics - elective inpatient	11	11.3
Paediatrics - elective day case	53	13.4
Neonatal services inpatient	32	7.8
Neonatal services day case	3	6.2
Gynaecology - elective day case	783	11.7
Gynaecology - elective inpatient	136	12.8
Gynaecology - NEL day case	95	7.3
Gynaecology - NEL inpatient	67	7.2



In the following tables, RNLAY is used as the code for Cumberland Infirmary and RNLBX refers to West Cumberland Hospital.

PROPOSALS

Maternity services

Maternity Option 1

This option involves a full range of antenatal and postnatal care at both Cumberland Infirmary and West Cumberland Hospital and the continued option of giving birth at the Penrith Birthing Unit or at home. However, the reduced availability of paediatric expertise at West Cumberland would mean that some higher risk births would take place in Carlisle. These patients would travel a further 26 miles on average, incurring a further 45 minutes travel time at a mean speed of 35mph.

The table below models additional travel time based on the data for 2015/16 and assuming up to 30% of cases (489) are deemed to be complex or have the potential to be complex. In fact we would expect that only the most complex of these cases would need to take place in Carlisle. We cautiously estimate this to be between 100 and 200 births per year, though the actual figure may be lower.

	Site	Ave. miles to WCH	Ave. miles to CIC	Extra miles to CIC	No. of people affected (move to CIC)	Total additional miles travelled to CIC (ave)	Est additional travel time per journey @35mph	Est total additional travel time to CIC @35mph in hours
Maternity - Complex (CLU) day case	RNLBX	9.0	34.7	25.8	245	6314.0	00:44:11	180.4
Maternity - Complex (CLU) inpatient	RNLBX	8.3	35.0	26.6	244	6502.5	00:45:41	185.8

Maternity Option 2

Option 2 involves the provision of a consultant-led maternity unit, an alongside midwife-led maternity unit and a special care baby unit at Cumberland Infirmary Carlisle along with a full range of antenatal and postnatal care. At West Cumberland Hospital, it would involve a standalone midwife-led maternity unit for low risk births, open 24 hours a day 365 days a year, with antenatal and postnatal care delivered by both consultants and midwives and with consultants on site between 8am and 8pm. It is anticipated that between 300 and 400 women a year would use the stand alone midwife-led maternity unit at West Cumberland Hospital. National evidence indicates that each year, 25% of women in labour would transfer from a midwife-led unit to a consultant led unit.

A further 219 women would transfer to Cumberland Infirmary compared to Option 1, just under 2 patients per day. This equates to an additional 5,836 miles travelled compared to Option 1. 203 emergency caesareans, would move to Cumberland Infirmary. Looking specifically at the locations of patients requiring emergency caesareans in 2015/16 (largely time critical), these women would have travelled an additional 27 miles on average if they were to travel to Cumberland Infirmary instead of West Cumberland Hospital. Four women lived over 60 miles from Cumberland Infirmary. The maximum full journey would take almost 1 hour and 45 minutes for one person if travelling at an average speed of 35 mph. Effective transport arrangements would be required for this group in particular.

In total, 18,653 miles would be travelled by women moving from West Cumberland Hospital, taking a further 533 hours travel time at an average speed of 35mph. Approximately two additional patients per day would travel to Cumberland Infirmary.

	Site	Ave. miles to WCH	Ave. miles to CIC	Extra miles to CIC	No. of people affected (move to CIC)	Total additional miles travelled to CIC (ave)	Est additional travel time per journey @35mph	Est total additional travel time to CIC @35mph in hours
Maternity - Complex (CLU) day case	RNLBX	9.0	34.7	25.8	245	6314.0	00:44:11	180.4
Maternity - Complex (CLU) inpatient	RNLBX	8.3	35.0	26.6	463	12338.8	00:45:41	352.5

Maternity Option 3

Option 3 involves the provision of a consultant-led maternity unit, an alongside midwife-led maternity unit and a special care baby unit at Cumberland Infirmary Carlisle along with a full range of antenatal and postnatal care. There would be no births at West Cumberland Hospital but consultants and midwives would give antenatal and postnatal care at this site.

Based on the data provided, this would lead to 1,058 cases moving to Carlisle, just under 3 patients per day. These patients would travel a further 26 miles on average, incurring a further 45 minutes travel time at a mean speed of 35mph. in total, this equates to 27,980 additional miles travelled, incurring 799 hours additional travel time at an average speed of 35mph.

	Site	Ave. miles to WCH	Ave. miles to CIC	Extra miles to CIC	No. of people affected (move to CIC)	Total additional miles travelled to CIC (ave)	Est additional travel time per journey @35mph	Est total additional travel time to CIC @35mph in hours
Maternity - Complex (CLU) day case	RNLBX	9.0	34.7	25.8	245	6,314.0	00:44:11	180.4
Maternity - Complex (CLU) inpatient	RNLBX	8.3	35.0	26.6	813	21,666.2	00:45:41	619.0

Children's services

Children's Option 1

This option involves the development of an inpatient paediatric unit based at Cumberland Infirmary Carlisle along with a short stay paediatric assessment unit. At West Cumberland Hospital, Whitehaven there would be a short stay paediatric assessment unit for children requiring short term observation and treatment. There would also be some overnight beds at Whitehaven for children with less acute, low risk illnesses but children who needed more acute inpatient admission would be transferred to Carlisle.

It is estimated that 15% of Paediatrics non elective inpatient cases are complex and all of these would transfer to Carlisle. In addition, 80% of the remaining non elective inpatients and 80% of elective inpatients would transfer to Carlisle. Neonatal services have also been included within this option. 80% of these cases would transfer to Carlisle.

This would lead to a total of 279 cases moving to Carlisle, less than 1 patient per day. The majority of patients would travel a further 27 miles on average, incurring a further 47 minutes travel time at a mean speed of 35mph. In total, this equates to 7,467 additional miles travelled, requiring 218 more hours travel at 35mph.

	Site	Ave. miles to WCH	Ave. miles to CIC	Extra miles to CIC	No. of people affected (move to CIC)	Total additional miles travelled to CIC (ave)	Est additional travel time per journey @35mph	Est total additional travel time to CIC @35mph in hours
Paediatrics - NEL inpatient Non Complex	RNLBX	7.2	34.7	27.5	198	5444.7	00:47:08	155.6
Paediatrics - NEL inpatient Complex	RNLBX	7.2	34.7	27.5	44	1209.9	00:47:08	34.6
Paediatrics - elective inpatient	RNLBX	11.3	31.9	20.6	9	41.3	00:35:22	5.3
Neonatal services inpatient	RNLBX	7.8	35.1	27.5	26	714.9	00:47:08	20.4
Neonatal services day case	RNLBX	6.2	34.0	28.0	2	55.9	00:47:56	1.6

Children's Option 2

This option involves the development of an inpatient paediatric unit based at Cumberland Infirmary along with a short stay paediatric assessment unit. At West Cumberland Hospital – as with option 1 – there would be a short stay paediatric assessment unit for children requiring short term observation and treatment but there would be no overnight beds at Whitehaven for children. Any child who needed inpatient admission would be admitted to Carlisle.

All paediatric and neonatal inpatient services would transfer to Carlisle. This option affects 337 patients in total, again just under 1 patient per day, but a further 58 compared to Option 1. Patients would travel an additional 27.3 miles on average, taking 46 minutes and 46 seconds travelling at 35mph. This equates to 9,193 additional miles travelled (263 hours at 35mph).

	Site	Ave. miles to WCH	Ave. miles to CIC	Extra miles to CIC	No. of people affected (move to CIC)	Total additional miles travelled to CIC (ave)	Est additional travel time per journey @35mph	Est total additional travel time to CIC @35mph in hours
Paediatrics - NEL inpatient	RNLBX	7.2	34.7	27.5	291	8002.0	00:47:08	228.6
Paediatrics - elective inpatient	RNLBX	11.3	31.9	20.6	11	227.0	00:35:22	6.5
Neonatal services inpatient	RNLBX	7.8	35.1	27.5	32	879.9	00:47:08	25.1
Neonatal services day case	RNLBX	6.2	34.0	28.0	3	83.9	00:47:56	2.4

Children's Option 3

This option involves the development of an inpatient paediatric unit based at Cumberland Infirmary along with a short stay paediatric assessment unit. At West Cumberland Hospital, there would be paediatric outpatient services only and no short stay paediatric assessment unit.

A substantially greater number of children would be affected by this option – 1,713 compared to 337 with Option 2. This equates to almost 5 patients per day. 45,385 additional miles would be travelled in total, taking 1,297 hours at an average speed of 35mph.

	Site	Ave. miles to WCH	Ave. miles to CIC	Extra miles to CIC	No. of people affected (move to CIC)	Total additional miles travelled to CIC (ave)	Est additional travel time per journey @35mph	Est total additional travel time to CIC @35mph in hours
Paediatrics - NEL inpatient	RNLBX	7.2	34.7	27.50	291	8002.0	00:47:08	228.6
Paediatrics - elective inpatient	RNLBX	11.3	31.9	20.63	11	227.0	00:35:22	6.5
Paediatrics - NEL DC	RNLBX	7.8	34.4	26.61	1,323	35211.5	00:45:38	1006.0
Paediatrics - EL DC	RNLBX	13.4	31.9	18.51	53	981.2	00:31:44	28.0
Neonatal services DC	RNLBX	6.2	34.1	27.96	3	83.9	00:47:56	2.4
Neonatal services IP	RNLBX	7.8	35.3	27.50	32	879.9	00:47:08	25.1

Emergency and acute care

Emergency and Acute Option 1

Option 1 involves a 24/7 A&E at Cumberland Infirmary Carlisle along with acute medical inpatient services, including for the most complex cases. There would also be a 24/7 A&E at West Cumberland Hospital along with acute medical inpatient services and rehabilitation. There would also be a small intensive care unit. Some of the most seriously ill patients would be transferred to Carlisle if it was felt they would benefit from the extra support available there. However, much of this transfer in activity already occurs with decisions made by consultants on an individual patient's basis.

This option involves reducing complexity at this site. It is estimated that 15% of the most complex inpatient cases would be treated at Cumberland Infirmary rather than West Cumberland Hospital. Gynaecology is included separately to reflect a different split between complex & non-complex activity (59:41). Hyper acute stroke services are excluded from this option as they are considered further in another option below.

839 people are affected in total, approximately 2.3 people per day. This would involve travelling an additional 19,766 miles in total, requiring an estimated 565 hours travel at an average speed of 35mph.

	Site	Ave. miles to WCH	Ave. miles to CIC	Extra miles to CIC	No. of people affected (move to CIC)	Total additional miles travelled to CIC (ave)	Est additional travel time per journey @35mph	Est total additional travel time to CIC @35mph in hours
Non elective inpatient Complex	RNLBX	8.3	34.6	26.3	612	16123.7	00:45:10	460.7
Elective Complex inpatient	RNLBX	17.8	28.6	10.8	107	1157.7	00:18:33	33.1
Gynaecology - elective inpatient	RNLBX	12.8	30.5	17.7	80	1,415.26	00:30:20	40.4
Gynaecology - NEL inpatient	RNLBX	7.2	33.9	26.7	40	1,069.43	00:45:50	30.6

Emergency and Acute Option 2

Option 2 involves a 24/7 A&E at Cumberland Infirmary and acute medical inpatient services with extra capacity at night and for more complex cases. There would be assessment and inpatient beds for the frail elderly, as well as specialist rehabilitation. The number of inpatient beds and intensive care beds would increase, as would the number of emergency assessment unit beds.

At West Cumberland Hospital, there would be a daytime only A&E service and a 24/7 urgent care centre which would see patients overnight with less serious injuries and conditions. Selected patients would be admitted by emergency ambulance and through referral from their GP during the day. There would be no intensive care unit at Whitehaven but there would be support from specialist clinicians for any very sick patients in order to provide immediate care prior to transfer. There would a number of assessment and in-patient beds including beds for the frail elderly who are medically stable and for rehabilitation.

For modelling purposes, it has been assumed that A&E will operate at West Cumberland Hospital between 8am and 6pm and deals with the same cases during that time as with option 1. Approximately 57.8% of A&E attendances occurred during these times in 2015/16. According to one document quoted (Fin v6.1WCH Med Staff Clin Strategy Props'n.doc), if there was no A&E at WCH, 69% of attendances would still take place at WCH via a minor injuries / illness unit. Therefore, 31% of A&E is deemed complex and this proportion of attendances are moved from those taking place between 6pm and 8am.

This option affects 6,964 patients in total, 19 patients per day. This is 2,878 more than in Option 1 due to the reductions in provision of A&E. This leads to 191,073 additional miles travelled in total, a further 80,493 miles compared to Option 1, and taking an estimated 5,459 additional travel hours at an average speed of 35mph.

	Site	Ave. miles to WCH	Ave. miles to CIC	Extra miles to CIC	No. of people affected (move to CIC)	Total additional miles travelled to CIC (ave)	Est additional travel time per journey @35mph	Est total additional travel time to CIC @35mph in hours
A&E Type I	RNLBX	7.1	35.1	28.0	6,125	171307.1	00:47:57	4894.5
Non elective inpatient Complex	RNLBX	8.3	34.6	26.3	612	16123.7	00:45:10	460.7
Elective Complex inpatient	RNLBX	17.8	28.6	10.8	107	1157.7	00:18:33	33.1
Gynaecology - elective inpatient	RNLBX	12.8	30.5	17.7	80	1,415.26	00:30:20	40.4
Gynaecology - NEL inpatient	RNLBX	7.2	33.9	26.7	40	1,069.43	00:45:50	30.6

Emergency and Acute Option 3

Option 3 involves a significantly expanded 24/7 A&E at Cumberland Infirmary equipped to care for all patients brought in by emergency ambulance. It would also care for the majority of GP referrals. The number of emergency assessment unit, inpatient, and intensive care beds would increase to manage all acutely ill patients in this area.

At West Cumberland Hospital there would be no A&E unit and no intensive care unit but there would be a 24/7 urgent care centre which would see patients with less serious injuries and conditions. The urgent care centre and outpatient services for those not requiring admission would be supported by specialist clinicians in the daytime but there would be no overnight care for acutely unwell patients. Medically stable frail elderly patients could be admitted as inpatients, and there would also be assessment services for the frail elderly along with rehabilitation beds.

This option affects 13,854 patients, approximately 38 people per day. These patients would travel an additional 379,632 miles, incurring an additional 10,846 hours of travel at an average speed of 35mph. This represents an increase of 6,890 patients affected and an additional 188,599 miles compared to Option 2.

	Site	Ave. miles to WCH	Ave. miles to CIC	Extra miles to CIC	No. of people affected (move to CIC)	Total additional miles travelled to CIC (ave)	Est additional travel time per journey @35mph	Est total additional travel time to CIC @35mph in hours
A&E Type I	RNLBX	7.1	35.1	28.0	10066	281531.0	00:47:57	8043.7
Non elective day case	RNLBX	8.0	34.7	26.7	1601	42719.6	00:45:45	1220.6
Non elective inpatient (non-complex)	RNLBX	8.3	34.6	26.3	1904	50162.6	00:45:10	1433.2
Elective Complex inpatient	RNLBX	17.8	28.6	10.8	107	1157.7	00:18:33	33.1
Gynaecology - elective inpatient	RNLBX	12.8	30.5	17.7	80	1,415.26	00:30:20	40.4
Gynaecology - NEL DC	RNLBX	7.3	35.5	28.2	56	1,576.44	00:48:15	45.0
Gynaecology - NEL inpatient	RNLBX	7.2	33.9	26.7	40	1,069.43	00:45:50	30.6

Hyper-acute stroke services

There were 628 admissions for stroke in 2015/16. 260 of these people started treatment at West Cumberland Hospital.

Hyper-Acute Stroke Option 1

Option 1 would largely maintain services as they are now but the service would be enhanced by ensuring improved, early supported discharge in both Carlisle and Whitehaven. This option has no travel impact.

Hyper-Acute Stroke Option 2

Option 2 would see all acute stroke cases managed in a single hyper-acute stroke unit based at Cumberland Infirmary, prior to moves into a stroke unit for further treatment and rehabilitation (both sites).

260 patients from West Cumbria would move their care from West Cumberland Hospital to Carlisle under this option (0.7 patients per day). This is based this on actual strokes and does not include those patients who show symptoms like stroke but turn out not to have had a stroke. It also excludes the impact of those who later on in their care were identified as having had a stroke. These people lived 8.1 miles from West Cumberland Hospital on average. Receiving first treatment at Cumberland Infirmary involves a further 26 miles' journey on average, taking just under 45 minutes additional time travelling at 35 mph. In total, this option leads to 6,815 additional miles travelled per year, taking approximately 195 hours at a speed of 35mph.

	Site	Ave. miles to WCH	Ave. miles to CIC	Sum of Miles to WCH	Sum of Miles to CIC	Extra miles to CIC	No. of people affected (move to CIC)	Total additional miles travelled to CIC (ave)	Est additional travel time per journey @35mph	Est total additional travel time to CIC @35mph in hours
Grand Total	RNLBX	8.1	34.3	2101.4	9945.1	26.2	260	6815.0	00:44:56	194.7

Trauma and Emergency General Surgery

The travel impact has not been modelled as these pathways are already in place. However for reader information, the volumes of transfers from West Cumberland Hospital to Cumberland Infirmary Carlisle in 2015/16 were as shown below. The category 'other' includes patients with problems where the speciality inpatient beds have always been in Carlisle (e.g. inpatient renal and range of other specialist services) plus those patients where an individual decision has been made that they would benefit from transfer to Carlisle. It is noted that for trauma and emergency general surgery some activity can now be safely returned to the West Cumberland Hospital – this is expected to be approximately 150 trauma and 200 new general surgery cases, and will have a positive impact on miles travelled.

Cardiology	234
GI Bleed	67
Respiratory	12
Trauma	517
Emerg. general and other surgery (e.g. ENT, Maxillofacial)	548
Other	461
Total	**1839**

In the proposals some non-complex trauma and general surgery is being 'returned' to West Cumberland Hospital. For these 364 anticipated cases each year, journeys and miles travelled will be **reduced** from current as a result.

Elective activity

The consultation proposes that some further non-complex day case and inpatient surgery can be returned to West Cumberland Hospital. If, for example, the 5% of people who lived closest to Whitehaven and treated as day cases at Cumberland Infirmary were treated at West Cumberland Hospital, this would lead to reduced travel for 1,020 people saving a total of 36,812 miles. It is unlikely that all of these patients would transfer to West Cumberland Hospital as it may not be appropriate to do so in all cases.

Similarly, there is significant outpatient activity at the Cumberland Infirmary which provides care for patients living in West Cumbria postcodes (more than 30,000 attendances per year). In the proposals it is expected that a proportion of outpatient care will be provided in more local settings including West Cumberland Hospital, Community Hospitals, and Health Centres, with some activity being managed in different ways which prevents the need to attend hospital.

Whilst this is not within scope of this travel impact analysis, once it can be modelled and taken into account, the impact overall would be expected to be significantly positive.