Viability and Impact of the Success Regime's Proposals for the Reorganization of Hospital Based Healthcare in North, West and East Cumbria

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Background and Purpose

With the proposals to downgrade maternity services in West Cumbria by the Success Regime and a lack of data on which they were basing their proposals, I felt a necessity to conduct my own research into birthing patterns in the area served by West Cumberland Hospital (WCH) and the difficulties of the extra travel to Cumberland Infirmary Carlisle (CIC). In order to gather data, a survey was launched in later August 2016. With the launch of the Consultation Document in late September it was apparent that other drastic cuts in services at West Cumberland Hospital were planned and I felt that the implications of these also needed to be researched.

Methods

Patterns on birthing were gathered from a survey launched on the internet. The survey was filled in by women who had given birth in the area in the last 5 years, gained over 1200 answers for each relevant question, making the sample roughly equivalent to one year's births. Other information about pregnancy and labour was gained from various medical literature with some input from a midwife.

All population figures come from Office of National Statistics figures from the 2011 census. Distances were gained from Google directions, most driving times were taken from actual journeys. Altitudes (around Alston) were taken from maps. Road accident data was taken from crashmap.co.uk which gets its data from the ONS.
Information on Public transport was gained from timetables and phoning transport providers.

Other specific data is gained from medical studies referenced in that section.

Conclusion

Both the closure of services at West Cumberland Hospital thus placing more patients in Cumberland Infirmary Carlisle, and the centralisation of community hospital beds will reduce the number of visits to patients. This will increase their sense of isolation, increase separation anxiety and stress whilst decreasing stimulation, all of which will impede their recovery and lengthen their stay in hospital.

Families of patients will suffer considerably from the extra travel needed, this will be particularly difficult for the elderly, young children and people with certain existing health conditions.

The delay in getting the treatment needed will, in some cases, result in poorer medical outcomes which may result in longer times in hospital, permanent health consequences, and some deaths.

There will be a huge impact on the ambulance service with many more journeys being needed. This will require extra ambulances and staff. Nationally ambulance services are already struggling to recruit enough staff. Recruitment problems are not going to be helped by the extra responsibilities incurred by transporting more patients for the WCH to CIC journey.

Recruitment at WCH is already affected by the downgrading of services (the Success Regime state this, as have local staff), any further downgrading will make it even harder to recruit and is likely to create a downwards spiral in the services that can be given.

Contents

Travel Issues for Patients, Family and other Visitors.

Both the distance to Cumberland Infirmary Carlisle (CIC) from West Cumbria and the poor transport infrastructure have a significant affect on patients, their families and other visitors. These affect medical outcomes directly in the time taken to get treatment. They also affect stress to the patient due to isolation from their support structure which will then be detrimental to their overall health. The stress caused to the family due to the journey, cost and separation from the patient may have an adverse impact on their own health.

Most distances in this report were recorded in light traffic, daytime and good weather conditions. Any delays at roadworks were subtracted from times. The driver was a highly experienced driver with extensive experience on those roads. The exceptions are the times from Workington to Maryport and up the A596 to Carlisle, which were taken from Google directions and the time from the Woolpack in Eskdale which was researched from local sources.

Overview of the road network

Appendix A shows the major roads, the postcode areas and the population centres within each postcode area in West Cumbria.
The main road through the area is the A595, between Workington and Cockermouth this road becomes the A66 but will be referred to as the A595 unless that section is referred to specifically. South of Calderbridge (Sellafield) the road is of a standard that would be considered a C road in most of the country. It is narrow, hilly and twisting. Between Calderbridge and Whitehaven, only some of the road is poor with more sections that have been modernised, a few sections even have 2 lanes for each, or either direction. However, this section is subject to horrendous traffic jams due to Sellafield traffic southwards for around 3 hours in the morning and northwards for 3 hours in the evening. These periods see delays of upwards of an hour to normal journey times and the delay extends to the north of Whitehaven. Going north from Whitehaven the narrow section between Parton and the dual carriageway will soon need to be rebuilt due to slippage and the work is expected to take 12 months. This will result in a temporary road. Then there are 3 miles of dual carriageway into Lillyhall. The road from there to the other end of the A66 section and up to the Papcastle roundabout is a good road. Once past that, the road deteriorates to twisting, hilly, narrow roads although not to the same extent as the southern section. The substructure of most of this section is very poor which has resulted in many potholes, cracks in the road surface and a patchy surface due to previous repairs. The only decent substructure on the road is the Moota section as it is a Roman Road.

The hills and dips mean that numerous sections of the road are prone to flooding and surface water. For much of the road, the edges are grass verges, hedges and trees meaning that drains are often blocked with leaves and other debris. This means that there is a problem with surface water with even moderate rain. The surface water creates the extra hazard of concealing potholes and making it impossible to see the road edge in places.

Very little of the road has street lighting. It should also be noted that mobile phone coverage on the whole route is patchy, with many sections having no coverage or a very poor signal. As mobile phones use radio signals and the poor coverage is due to the

topology of the area, those areas without mobile coverage tend to be the ones that also have no coverage for the emergency service radios.

The A596 is similar in standard to the northern half of the A595, with a reasonably good section between Workington and Maryport and a road north of Maryport which is similar to the section of the A595 north of Papcastle, until it joins with the A595 at Thursby. However, it has the additional problem of coastal flooding in times when high tides and high winds combine.

From Egremont passing through Cleator and Frizington and joining the A66 south of Cockermouth is the A5086. This is a country back road equal to the poorer sections of the A595 and more likely to have farm traffic. From Keswick up to the A595 at Bothel is the A591 which is of a similar standard to the A5086.

These conditions mean that driving on the roads takes a high degree of concentration as for much of the road you can not see a decent distance ahead. It also means that there are few sections where the ambulances can overtake vehicles even with blues and twos, as they can not overtake unless they can see that the road ahead is clear. Also, there are long sections where there is no space for vehicles to pull over to let an ambulance past. It should also be noted that the nature of the road means that larger vehicles move slower than they would on a better road and also there are often tractors using the road.

Both the A595 and A596 are prone to accidents, with even a minor accident likely to completely block the road. If the road is blocked by an accident or by flooding there are few other options for bypassing the blockage. For the northern parts of the A595 you need to get over to the A596 which can only be done by small country lanes which are even more likely to be flooded, under snow or blocked by fallen trees in bad weather. As the A596 joins the A595 at the Thursby roundabout, an accident at this location can block both roads with few opportunities to bypass it. There were 9 accidents involving 23 cars from 2011-2015 within 50 metres of the roundabout [1].The southern section is even more poorly served by alternative roads with very long detours along country roads south of Egremont. Egremont can get to the A66 via the A5086 but this is more prone to blocking in bad weather than the A595. On occasions when the Carlisle bypass gets blocked due to an accident the main roads into Carlisle (and hence the roads to the hospital) reach gridlock in the morning peak traffic times. Where an incident on the A595 blocks (or partially blocks) the road for some 10 miles north or south of Whitehaven during the periods of heavy traffic, all the north/south routes become gridlocked with traffic only at crawling speed. Appendix B shows the number of accidents on main roads between towns in the north west of Cumbria and CIC.

Whilst Google directions put the time from West Cumberland Hospital (WCH) to CIC at 48 minutes with no traffic, this is a theoretical time and regular drivers on the road put the time of the Whitehaven to Carlisle journey at closer to one hour with the journey time exceeding that regularly. North West Ambulance Service have stated that the bed to bed transfer time is 1 hour 40 minutes.

The Success Regime's consultation document states that the additional journey time for patients from West Cumbria to Carlisle would be an “average additional journey time of 45-48 minutes”. They provide no basis for this statement. It appears that they have seen Whitehaven and Workington as being the centre of the area and taken the Google direction time from Workington and Whitehaven as being representative and calling it an “average”. This is the minimum additional time from Whitehaven and Workington. The actual journey times, considering traffic, weather, night-time are likely to be longer. Whilst

those in Maryport, Cockermouth and Keswick have less additional time, it is still additional time and the road between Keswick and the A595 affords fewer opportunities to overtake and more farm traffic than the road to WCH. Those around the Frizington and Cleator Moor area have a similar additional time to Whitehaven but on worse roads.

Those further south will have the same additional time as Whitehaven, however, as some of these have already had significant travel to get to Whitehaven the deterioration in the patient becomes more significant. It should also be noted that having to concentrate for such a high degree for far longer also has a considerable impact on safety. The additional stress of having a loved one seriously ill or in pain will impact on the levels of concentration and this stress will amplify with time thus increasing the risk of accidents. In addition to that, many of those living south of Whitehaven are familiar with the roads to Whitehaven as they will often travel into Whitehaven for work, shopping etc. They will be less familiar with the roads further north. The poor roads on route to WCH will be those near their home, with which they will be more familiar.

The journey time, (with no traffic) to WCH from Wasdale Head is 41 minutes and from the Woolpack in Eskdale is 56 minutes. Whilst these are towards the extreme of journey times they are representative of the problems of many outlying properties that have a significant travel to the nearest A-Road. Whilst the people in these locations have accepted the issues of living far from towns and hospitals, they have accepted that on the basis of having all but the most specialist of services in Whitehaven.

In several places in the consultation document it cites the need for a robust ambulance transfer service to transfer patients from WCH to CIC when needed. Even if the necessary additional ambulances and crew can be provided, the road system they would have to travel on is anything but robust. That means that the provision of a robust ambulance service would be impossible without major upgrades to the road system.

Appendices C and D show the distances and travel times to WCH and CIC from each postcode area as graphics, Appendix E is a table showing distances and times to WCH and CIC and population for each postcode area. All the travel times are virtually the best time that can be expected with only light traffic and good road conditions. Actual times can far exceed this.

Appendix F shows the travel times as one graph and highlights the extra travel times needed in relation to the size of population of that area. The population in this graph however is taken from the numbers who filled in the survey on births and so may more accurately reflect the numbers who would normally travel to WCH from those areas.

Poor Resilience of Cumberland Infirmary Carlisle

During the floods in December 2015 it was impossible to reach CIC from West Cumbria for most of December 5th. Many of the staff for the hospital also could not get to work prompting the hospital to make a public appeal for all off-duty staff that could reach the hospital to phone in to see if they were needed. These staffing problems lasted for some days. In addition to this the local electricity supply failed due to the flooding and the hospital had to rely on back-up generators for days. This back up supply could not power either the CT scanner or MRI scanner meaning that patients requiring these services (including hyper-acute stroke patients) would have to be diverted to other hospitals. West Cumberland Hospital is on high ground and has never been directly affected by flooding. Also, most of the area for some miles around the hospital is not affected by flooding to an extent that staff and patients would have problems getting to hospital even in the worst weather.

Public Transport

Currently visiting times vary from ward to ward, but if we assume that all visiting times could be altered to tie in with public transport, the following is an analysis of how difficult it is to visit when people do not have their own transport.

Buses from Whitehaven to Carlisle are infrequent and the journey takes about 1 hour 50 minutes. There is a walk of 0.4 miles to the hospital entrance. For an afternoon visit getting the bus from Whitehaven town centre at 13:05 you would get to the bus stop in Carlisle at 14:50 then have a 0.4 mile walk to the hospital entrance. Presuming that you don't want to walk straight back out to catch the bus back, the next bus is 16:15, getting back to Whitehaven at 18:02. For an evening visit you could leave Whitehaven at 16:05 getting to Carlisle at 17:50, getting the bus back at 19:15 and getting back to Whitehaven at 20:52. Prices start at £5.90 for an adult and £3.90 for a child, but these increase at peak times, including the early evening. Adult prices are £10:80 at some times. These are one way prices, no return tickets are available.

The train is a quicker journey to Carlisle but the time and difficulty of getting across the city centre reduces much of the benefit. For an afternoon visit you could leave Whitehaven at 13:10 and get to Carlisle at 14:26. The walk from the platform to the station entrance is around a tenth of a mile. The walk is 1.38 miles from the platform to the hospital entrance, so around a half hour walk for a fit adult. To get the bus you have 0.1 mile walk from the station entrance then get a bus at 14:46 reaching the hospital at 14:56. There is a 0.2 mile walk to the return bus which leaves at 15:51 and takes 10 minutes, the next train is 16:31 arriving at Whitehaven at 17:39. For an evening visit you could leave Whitehaven at 16:12 getting to Carlisle at 17:28, the bus gets you to the hospital at 17:56. Leaving the hospital just after 8pm you get to the station at 20:37 and get into Whitehaven at 21:47.
The train costs £9.70 for the return journey, and the bus across the city is £2 for an adult return, 70p for an under 16 single and under 5's go free. A taxi from the station to the hospital will cost £5 to £6.

So by bus the afternoon visit lasts about 1 hour 5 mins yet takes around 5 hours. By train the visit lasts around 45 mins and takes around 4.5 hours. For the evening visit the round trip by bus is around 4 hours 45 mins and the train is around 5.5 hours. Each giving around an hour of a visit. Whilst it would be possible to have a longer visit, this is made more difficult by the long travel times. At WCH most people visit for 2 hours. In addition to this, currently where young children are visiting and find 2 hours (or even an hour) too long it is more practical for a grandparent, or other friend or relative to take them home after half an hour. This becomes far less possible with the travel times to Carlisle. With shorter distances there is more chance of those without cars getting a lift from friends or neighbours, that is far less likely for a trip to Carlisle.

Note, that this doesn't include any time getting to the start of the Whitehaven journey or getting home afterwards. The times are weekdays and vary slightly on a Saturday. There is far less choice on a Sunday. Workington and Maryport have the same transport links but with shorter times. Areas south of Whitehaven not only have longer times but the the last train south of Whitehaven on a weekday leaves Carlisle at 17:37 and there are no trains south of Whitehaven on a Sunday. Those from south of Whitehaven would have to get a separate bus to get to Whitehaven. Those east of Whitehaven would have to get a bus into Whitehaven. Whilst the bus journey from Keswick or Cockermouth is about an hour taking a direct route there are fewer buses, with a 2 hour wait between each. The alternative is to take two buses which then puts the time up by one hour. For the evening journey, Cockermouth people have to go to Workington and up from there and Keswick people

have to go to Penrith. That said the service to Whitehaven isn't good either due to having to change buses in Workington.

Implications of travel difficulties for ambulances

The bed to bed transfer time has been stated by North West Ambulance Service to be 1 hour 40 mins. On top of this there will be times where ambulances are delayed by farm traffic, accidents, flooding and other problems on the road. There is a limit to the extent to which they can treat and monitor a patient whilst the ambulance is moving and it is not safe to pull over on large stretches of the road due to numerous bends and hills which obscure view for approaching motorists. If they have a midwife or other specialist on board that person will have to stay with the patient for a time at CIC. So either the ambulance waits, meaning that it is not available for WCH for longer, or the specialist is left there. This then means that some way needs to be found of getting that member of staff back to WCH. This would incur an extra cost and also mean that member of staff is unavailable for longer. It would mean that with each transfer the ambulance would be not available for another transfer for about 2 hours 40 minutes. Whilst a member of hospital staff is unavailable to WCH for even longer.

It should also be noted that in times of extreme weather, many routes tend to be blocked, not just one, the Air Ambulances can't fly if the weather is too bad and during flooding Mountain Rescue, Coastguard and Air Sea Rescue are all working flat out to rescue people trapped by rising flood water. During Storm Desmond, Mountain Rescue teams deployed over 500 team members with many working for 48 hours non-stop.[2]

As both acute stroke patient and mothers in labour will need to be transferred, it should be noted that there is a disproportionate need to transfer these patients in the early morning. This means many transfers happening in the dark and just as the Sellafield traffic heading southwards is building up. There would also be a higher chance of ice before sun-up. Also, there is more freight and farm traffic on the roads before it gets busy with cars.

There have been comparisons to the system operating in Wales between Withybush and Glangwili. However, whilst the general area has some similarities, the road between the two hospitals does not. The road between Withybush and Glangwili, once outside the urban areas is wider than most of the A595, it is largely flat and the few bends are gradual. There are many sections where there is an overtaking lane in one direction or the other, which gives many chances for ambulances to overtake. The last 10 miles is a dual carriageway. The Dedicated Ambulance Vehicle is costing £600,000 per year. Ambulance crews have voiced concerns about having to drive past Withybush A&E in order to take children to Glangwili.

It should also be noted that there are vastly different accident rates. The number of accidents between WCH and CIC in 2015 was 52 involving 113 vehicles and 69 casualties, the number of accidents between Withybush and Glangwili in 2015 was 25 with 60 vehicles involved and 42 casualties.[1]

Implications for non-ambulance travel for patients

The prime time for women reaching the point of active labour is the few hours before dawn. This is shown on the graph in Appendix G. This means that where women are driven to hospital by a partner (or friend or relative) they will largely be having to drive in the dark at a time when they have just woken up. The roads between Maryport, Workington and Whitehaven are generally good and mostly lit. Those between Frizington, Cleator Moor, Cleator etc. only have short sections unlit and any driver from the area will

be very familiar with the roads. So if women need to be driven to Carlisle, it is not simply a matter of increased distance, but driving on poorer roads with no lighting for much of the journey.

Whilst there is less of a problem during daytime, the northern sections of both the A595 and A596 have poor uneven surfaces, sharp bends and hills. This is going to be very painful for any patient for whom movement increases pain. For children, who are often less used to long journeys, this will be very distressing and for them there is the added problem of travel sickness.

For people to have to drive so far, on bad roads with a loved one in pain or other distress, the driver will also become very stressed and therefore more likely to have an accident.

Implications for visitors

With the majority of families with cars having around an hour extra on the journey in order to visit, that means around 2 hours extra time needed to make each visit. For children visiting a mother and possibly a new sibling in Carlisle, that will make a very tiring journey, especially for young children. The cost in a car will be around £15 for fuel, but there would be additional charges for parking. For those south of Whitehaven it can mean facing an additional hour on top of what is already a very lengthy journey. Having to concentrate on driving so much and a difficult road will add extra stress to the separation and worry of having a loved one in hospital.

There are a greater number of elderly people who are not able to drive, partly because there was less need for it when they were younger so many never learnt to drive, partly because they have become unable to drive due to health. Of those that can drive, fewer of them would be able to drive the additional distance due to the extra time for which they would need to concentrate and the poorer roads. More elderly people will find it too hard to drive on unlit roads at night. Additionally, the strain on their health of such a long journey may cause a deterioration in their own health which may mean them needing medical care or being unable to care for a partner when they are discharged.

The problems become greater when the visitors rely on public transport. Not only is the journey time longer and cost greater, but it will often mean having to get more than one vehicle, waiting in the cold and rain, walking between different vehicles, vehicles and the hospital and vehicles and home. The walking should not be a problem for healthy people but visitors may also have health problems. Public transport usually has less comfortable seats than private vehicles, which can make long journeys very uncomfortable and tiring especially for those not of average height and can be unbearable for elderly people with arthritis and other muscular-skeletal problems. For elderly people with diabetes, sitting for extended periods of time in uncomfortable seats may lead to circulation problems.

The extra travel will put a huge financial strain on families, as well as being a strain on their health. They will also have to depend on other people more to care for children who can't visit in cases where one parent visits another. If a parent has to make an afternoon visit it would be necessary to find someone else to collect children from school.

The long journey times make it less likely that patients will get two visits a day, or that they will get visits from anyone other than the closest of friends or family. For the elderly and for children this will be particularly stressful and may impede their recovery. In fact for elderly people with dementia, even in the very early stages the stress and separation from their familiar surroundings coupled with fewer or no visits from family and friends may

dramatically increase the level of their dementia. It is less likely that children will not be able to visit mothers or siblings which could cause great stress for both parties. Various studies have shown that children can suffer both anxiety and depression by being separated from their mothers or siblings for short periods of time, with the mental health issues continuing long after that time.[3] Increasing the separation by making it so difficult for children to visit mothers or siblings will increase the short term and long term mental health problems. In addition to lack of visits by the child, if the father visits, they will also be away from the home and other children for extended periods of time thus causing further stress. Schools are prohibited from allowing children time off school to make hospital visits which would mean that they could only visit in the evening. The extra travel will mean them getting home quite late at night, and if they rely on public transport the time they get home will be extremely late for young children.

If a child or elderly person has been in CIC for a length of time with fewer visits (or no visits), or they have had someone close to them suffer in that way, there may be an increased risk of them not reporting symptoms that they feel might result in them having to go back to hospital. This problem will be particularly bad in children as they are less able to judge what needs treatment and what does not, and which things that need treatment might only require a GP or nurse and can be treated locally. In elderly people it becomes a problem due to two factors. Many elderly people may feel various problems are “just getting old” and so do not report them, or if they have some level of dementia they may be less capable of logically weighing up the necessity versus the isolation. Many elderly people also have a fear that if they go into hospital they will not be to return home ever again and this will be an even greater fear with a hospital much further away. For pregnant women with young children, they may be reluctant to go to the doctors with concerns about their pregnancy in case they are taken into CIC and will not be able to see their children for some time. For conditions such as pre-eclampsia this could be particularly dangerous and endanger the lives of both the woman and the baby.

For a pregnant woman with a condition such as pre-eclampsia or placenta previa which may need a stay in hospital for some time. There would be considerable stress if that means that she is separated from young children with only very occasional visits. This could further cause medical complications for her and mental health problems for the children.

The lower number of visits may also make it more difficult for families to organise the return home of their loved one as they will have less contact with staff and the relatives to make the necessary arrangements. Whilst some of this may be arranged by phone, that is often more difficult than a face to face discussion on what is needed, where more than one family member needs to be involved in the discussion it needs to be face to face. This may then mean a longer stay in hospital. Additional patient transport is also likely to be needed as in many cases people will not be able to travel by public transport.

It should be noted that in the report into the issues caused by the Withybush and Glangwili Hospital restructure the problems in returning medical staff, patients and relatives from Glangwili was noted and it was recommended that an integrated system of transport should be provided.

Summary

There has been no proper assessment of the travel implications by the Success Regime, either for the ambulance service or for visitors. They have estimated travel times by distance whilst not assessing the actual state of the roads. There has been no assessment of the poor public transport infrastructure. The extra time taken for the ambulance to get

people to CIC in emergencies will adversely affect the medical condition of the patient and some deaths will be inevitable. There will be a number of extra ambulances and crew needed for the increase in transfers, with costs at around £600,000 per year per ambulance with crew. No provision seems to have been made for dealing with patients should adverse weather conditions or road accidents make the roads impassable. The Air Ambulance can not fly in bad weather and will be needed to deal with casualties in a serious road accident. There will be an immense strain on families trying to visit which could adversely affect both the patient and family and result in more medical care being needed for either.

Notes:
1. www.crashmap.co.uk (taken from ONS statistics)
2. Source: News and Star 6 April 2016
3. Tiffany Field, Attachment and Separation 1996 (numerous other studies have been done on the subject)

Maternity

Following proposals to downgrade the Consultant Led Maternity Unit (CLU) at West Cumberland Hospital (WCH), a survey was launched on the internet and circulated through social media to assess the patterns of birth in the area and consequentially how they would be affected by the various proposals. The survey was launched on 22nd August and ran until 11th September 2016. Women were asked to fill in the survey if they had given birth in the area during the last 5 years, they were asked to fill in a separate survey for each birth. There were 1501 total submissions but some of these had only answered the first 3 (or less) questions which left 1253 useful answers. This is most likely due to people feeling that they didn't have time to do the survey at that point and so completed it later. However, a very small percentage of remaining submissions did not have all the answers needed to be used for all analysis, this causes some small discrepancies in numbers. Geographical data was as expected for the population areas and locations. Dates and times of submissions and the distribution of answers showed no abnormal activity. The number of births expected at West Cumberland Hospital annually is 1200, therefore the data represents approximately 20% of the target group, which is an extremely high percentage for survey data and far in excess of the minimum that would be considered to be a statistically viable sample. However, numbers for areas of Keswick, Cockermouth and the LA postcodes are lower than proportional for the total population, and it is impossible to ascertain how much of this is due to some of that population using other hospitals through choice, and how much is due to less take up of the survey in those areas. It is likely to be a combination of both.

There were only a small number of births in Ravensglass and Beckermet (both under 5), so in order to diminish unrepresentative data that can occur in such small samples they were merged with the most appropriate neighbouring area. Ravensglass being merged with Holmrook and Beckermet merged with Egremont. Travel distances and times for the merged areas were averaged between the two weighted for the number of submissions. Broughton-in-Furness also had a small number of births. It would be expected that most women from this area would go to Barrow-in-Furness. Some may have chosen not to go to Barrow because of the well known problems at Barrow's maternity unit. It is also possible that they may have been unable to get to Barrow due to blocked roads at that time. It was not felt appropriate to merge these results with a neighbouring area due to the different geography of the nearest area and the travel time between them.

Appendix G shows the distribution through the hours of the day when women started active labour. This does not show those admitted to hospital in advance. Clearly most women start active labour outside “office hours”, with 66% of women starting active labour between 8pm and 8am. This has implications for those travelling to hospital. They are more likely to need to travel in the hours of darkness. The roads around the area between Maryport, Egremont and Frizington are largely lit with short stretches of unlit roads. Whilst those travelling from the southern section of the area will have to travel for distances on unlit roads to WCH, most will be reasonably familiar with those roads and it will be in the early part of the journey. If they have to travel to Carlisle, they will all have a long stretch of the A595 north of Cockermouth or the A596 north of Maryport both of which are unlit and twisting country road. This road will be less familiar to most people and will be longer into their journey and hence closer to the birth. Whilst there are fewer cars on the road before 6am, there is more freight on the road and more farm traffic, both of which are travelling at lower speeds and causing more delays.

Appendix H shows the time from active labour starting to actually giving birth and all medical procedures completed. 1.9% give birth in the first hour, with another 9 % in the hour after that and 8.8% in the third hour. It should also be noted from Appendix J that 1.4% of women who intended to go to hospital gave birth before they could get there. The travel time between WCH and CIC is usually around an hour but can be longer and rarely shorter. This means that with around 58% of the population living around Whitehaven or south of there, that 58% of people will have around an hour extra on their journey. Another 35% live in the area around Workington and Maryport where the additional journey will only be a few minutes less than it is from Whitehaven. So that would mean, in the region of 8-9% of women who would travel to hospital as they start the active labour phase, giving birth before they get to hospital if all births were at CIC. (This number is further refined below by looking at each case individually.) However, that assumes that there is no difference in the transport available. Currently if no private car is available it may be possible to get a taxi, but it is unlikely that taxis will risk the long journey to Carlisle with a woman in labour and many people would not be able to afford the fare.

It may be suggested that women are told to get to hospital earlier in their labour in order to counteract the longer journey time. However, this causes other problems. For many this is more likely to mean travelling even earlier in the morning, when a driver is likely to have had little sleep and the body clock will mean they are less able to stay awake. If they get there late evening or early in the night, this means having to find a bed for an overnight stay. The earlier in labour a woman is admitted the greater the variation in when she will actually give birth. This would result in more beds being needed as most women would have to stay longer.

Appendix I shows where women gave birth who didn't get to hospital in time. These are women who planned to go to hospital, and are not planned home births. 16 women fell into this category. 10 gave birth at home, 2 outside, 2 in an ambulance and one each in a private vehicle and a medical building other than WCH or CIC (such as a doctors surgery or community hospital). From the postcodes for these births, most do not represent births from areas significantly south of Whitehaven. From the times these women were in labour, and the postcodes, it appears that most had a short time between active labour starting coupled with a lack of available transport, whilst only a small number had a long labour time. The few with long labour times were from areas where it may have been difficult for them to get to hospital. A significant number of those with short labour time had a Whitehaven postcode.

Appendix J shows the place and nature of the birth. The red shows the 1.4% of total births that make up the births in Appendix I. The green is the majority and shows those admitted when active labour started. The light blue shows planned caesarian. Dark blue shows those admitted in advance to be induced because of a prior risk being identified. Purple shows those admitted in advance due to other risks that did not fall into the previous two categories. The 54.8%, or roughly 657 births per year plus the 1.4% or 16 births per year represent those who have to get to hospital by their own means once they reach the stage of active labour. That is 673 women per year. Option 3 of the proposals would mean them all having to travel to Carlisle whilst in active labour.

Appendix K shows results from the final question on the survey which asked about the outcome of each birth and whether what was expected to be a normal birth had unforeseen complications. Of those that planned a home birth, and hence had been classed as having the lowest risk, just under half needed a consultant (although it should be noted that this was a small sample). This was 0.88% of the total births. 0.83% were born on route and needed a consultant on arrival. Of those expecting a normal birth in

hospital 20.9% needed a consultant. That would mean around 250 women per year needing a consultant unexpectedly during labour. Under option 2 that is the number of women that would need transferred from WCH to CIC.

Appendix L shows the amount of time after the consultant being notified of a problem until procedures were finished. Due to the great variation in procedures and impossibility of asking more precise questions on every one, the longer times probably represent times after the baby was born and ongoing care under a consultant was needed, or problems arose after the birth. 32% of procedures were complete within the first hour of a consultant being notified. Whilst this doesn't necessarily mean that those procedures needed to be finished in that hour, it does suggest that many complications have a high degree of urgency.

The implications on home births also need to be considered. Currently many women feel safer giving birth in hospital due to a consultant being available should things go wrong. However if there are no consultants available this advantage is diminished. As more and more portable monitoring equipment is also available, the difference in going to an MLU is further diminished. One has to consider women from the areas such as Workington, Cockermouth and Maryport. They have to travel south to Whitehaven, then if there are complications have to be transferred north to CIC, from further south than their home. They may consider it better to stay at home and be transferred straight from there should the need arise. This is even more the case for those from the Keswick area who have further to travel to Whitehaven. Those who will struggle more to get to hospital will be more likely to opt for a home birth. The need for more midwives to travel to homes, some of which will be remote, needs to be considered when considering any hoped for financial savings.

There is likely to be a reduction in the numbers from the Keswick and Cockermouth areas travelling to WCH, more will opt to go to CIC even where there is no prior risk identified.

With all births requiring a consultant carried out at CIC the following are the annual figures that can be predicted from these results. These are presuming that home births stay the same, whilst this is unlikely, the probable figures can't be predicted. These figures are arrived at by looking at the travel time, type of birth and labour time (where relevant) of each birth in the survey.

Those giving birth on route to WCH[1]	16
Those giving birth at WCH without then being transferred	232
Those due to give birth at WCH but needing an emergency transfer[2]	236
Those due to give birth at WCH but needing an emergency transfer and not getting to CIC on time[3]	4-10[4]
Those due to give birth at CIC and giving birth on route[3]	4-12[5]
Those due to give birth at CIC and reaching it in time	703-(4-12)

If the MLU at WCH was closed, there would be an extra 4 to 25 women who would not reach CIC on time, additional to those stated above.

So for an MLU at WCH there would be a total of between 8 to 22 extra births on route. It should be noted that of the 16 births on route expected without changes, most of them gave birth at home, due to a rapid birth or being unable to get to transport in time. The

extra births on route which we would see from the survey would be literally on route, ie. on the road, many would be in private vehicles.

For no MLU at WCH there would be 12 to 47 births on route in addition to the current situation. With the vast majority of them being in private vehicles.

It should also be noted that both the A595 and A596 have patchy mobile phone coverage, and as this is due to the topography, radio communications are often poor in the same locations that mobile signals are poor. These are often also the less inhabited areas so there is less of a chance of a nearby property to use a land line phone.

Summary of complications during labour which have implications for the proposals

- Some cases of cephalopelvic disproportion and placenta previa can be detected before labour, but not all of them. Both these need an obstetrician and in some cases treatment needs to be urgent.
- In some cases where the labour isn't progressing forceps or vacuum extraction is needed, these both need a registrar. This is usually done where the baby's head is in the vagina, but it isn't coming any further. This would be a very uncomfortable situation for the woman to be transported in and furthermore the baby can go into cardiac distress if in this position for too long.
- Shoulder dystopia is where the babies head has entered the vagina but the shoulder is lodged in the womb, essentially jamming the baby inside. This needs to be dealt with by a registrar.
- Nuchal cord is where the cord wraps around the babies neck prior to the birth. Some of these resolve themselves as the baby moves around in the womb but around half do not. It happens in 1 in 4 pregnancies with around half of those being resolved before labour. Some of those still a problem during labour can be resolved by the midwife but some need an obstetrician and in those cases the need is quite urgent because it can restrict blood flow to the baby's brain.
- Cord prolapse is where the cord descends before the baby. This means that the baby presses on the cord as the baby starts to progress into the vagina, thus cutting off its own blood supply. This needs an obstetric registrar and paediatrician. This is an emergency.
- Pre-eclampsia can happen at any stages in pregnancy and has to be dealt with by a registrar. Depending on severity and the stage in pregnancy it may be necessary to induce the labour.
- Meconium Aspiration happens in about 5% of labours, when the baby has a bowel movement in the womb, which happens as a result of the difficult labour. If some of the faeces gets into the baby's mouth and gets breathed in as the baby comes out and it starts to breath it can cause complications. This needs a paediatrician.
- Amniotic Fluid Embolism is rare but is when the amniotic fluid enters the mother's bloodstream during birth which causes an allergic reaction which can be fatal to the mother.
- Placental abruption can happen at any time after 20 weeks and is when the placenta separates from the uterus before the baby is born. It happens in around 1 in 150 pregnancies. It can be quite minor which needs monitoring in hospital or it can be major, which could result in enough bleeding that it endangers both mother and baby. If it is major then a urgent caesarian section is needed.

Many of these situations need to be dealt with urgently. With both cord prolapse and nuchal cord, the blood supply to the babies brain will become restricted. In the cases where the baby is stuck the baby's heart rate can drop or rise dangerously and this is

rather like a heart attack in an adult. If these complications aren't dealt with quickly it can result in the death of the baby but can also result in brain damage leading to long term disability.

The mother can also suffer seriously from complications. They can suffer from excessive bleeding, Amniotic Fluid Embolism, sepsis, and kidney or liver damage due to eclampsia. All of these can be fatal if not treated quickly. They can also suffer from damage to the womb or vagina, which may increase the chance of complications for future births. The incidence of near fatal maternal complications is around 1% of total births. So that would be around 12 per year from the WCH area that would need urgent treatment only some of which could be predicted as a risk in advance.

Implications of lack of visits on mothers and siblings

For the more complicated births the mother may be in hospital for some time. Even if they are only away for a couple of days this can be stressful for both the mother and any other children. The length of journey, especially by public transport means it will be difficult for children to visit. Younger children will find the journey difficult and it may only add to the feelings of separation that they realise how far away their mother is. School age children would not be allowed to visit in school hours, so could only visit in evenings, which would often mean them being tired in school the next day. This may mean some children will not be able to visit their mother and their new sibling. The introduction of a new baby to the home can be quite strenuous for the older child, so if separation from the mother caused by that baby is added to the changes there are more likely to be problems. The length of time the father will also be absent from the home in order to visit will increase the stress on other children. In some cases, the time needed, the cost of transport and the need to get childcare may mean that some fathers can't visit at all. This will lead to a great strain for the mother and may increase the chances of post-natal depression.

Transporting the baby home

Recent research by Prof. Peter Fleming's team at Bristol showed that when babies in car seats at a 40 degree angle subject to vibrations which simulated car travel on city roads, very young babies suffered from cardio-respiratory stress.[6] Their recommendation was that new born babies should not travel for more than 30 minutes in a car seat. Most car seats hold the baby at 40 degrees because they need to be upright for the harness to be effective in an accident. However, this requires the baby to be able to hold its head up to some extent. The movement of the car, even on level city roads, makes this difficult. So for a drive of upwards of 30 mins even to Cockermouth and Keswick, around an hour to Whitehaven and Workington and over an hour further south all on twisting, hilly, bumpy roads, it is clearly a very real risk to the health of the babies. There is now a car seat that holds the baby at 25 degrees but no research has been conducted into how much this will improve the situation. It should also be noted that this costs around £360, which will be out of the range of many families.

Summary

Any downgrading of maternity services at WCH will see more women giving birth in transit with the extra risk that poses. There will be an increase in women needing emergency treatment that will not get treatment in time to prevent damage to the mother or baby or the death of the mother or baby. There will be a considerable impact on families due to the difficulties in travelling to Carlisle and this will especially impact those with other young children and those who are less well off financially. There will be more babies born with brain damage due to decreased oxygen or blood supply due to not getting to CIC on time.

In addition to the considerable impact on the family, this will have a cost impact on the NHS, social services, schools and society in general.

Notes:
1. Taken on current figures and not considering that they may have to travel to CIC due to prior risk.
2. Calculated on figures for those admitted on active labour with no risk identified but then needing a consultant.
3. Calculated on figures for those admitted on active labour with a prior risk identified but giving birth in a time that would not have allowed them to get to CIC from their postcode.
4. Based on survey figures, 4 women due to be admitted on active labour **with no prior risks** identified but complications arising would not have made it to CIC before giving birth as they gave birth within the hour. A further 10 gave birth within the next hour and had over an hour to travel, but the survey does not indicate whether they gave birth in the early part of that hour or the late part. Also, the time is that for the birth and all medical procedures being finished so they would need to be in hospital prior to the end of that hour. These are calculated using travel times in good conditions and allowing 5 mins to get into the car, but importantly do not allow for time to be admitted to WCH and transferred back out to start the extra journey.
5. Based on survey figures, 4 women due to be admitted on active labour **with prior risks** identified would not have made it to CIC before giving birth as they gave birth within the hour. A further 12 gave birth within the next hour and had over an hour to travel, but the survey does not indicate whether they gave birth in the early part of that hour or the late part. Also, the time is that for the birth and all medical procedures being finished so they would need to be in hospital prior to the end of that hour. These are calculated using travel times in good conditions and allowing 5 mins to get into the car, however do not allow times for getting from the car to the maternity ward.
6. Is the infant car seat challenge useful? A pilot study in a simulated moving vehicle, Renu Arya, Georgina Williams, Anna Kilonback, Martin Toward, Michael Griffin, Peter S Blair, Peter Fleming, October 2016

Paediatric Care

The various proposals by the Success Regime are for various downgrading of paediatric care at West Cumberland Hospital (WCH) and relying on Cumberland Infirmary Carlisle (CIC) for more for paediatric care. The proposals for WCH vary from having daytime care only for the more serious cases, to daytime care only for any children, to no paediatrics at WCH at all. It should also be noted that no paediatrics at WCH also means no maternity, as there would be no-one available to deal with babies born with medical issues. However, they fail to explain how this works in a practical sense. What happens in the hour before “daytime” when those from Copeland and some of Allerdale have the choice between waiting for WCH to open or taking the child for a drive of around an hour or more to CIC. What happens where a child is involved in an accident in West Cumbria, do they go to the nearest A&E to be stabilised before being transferred to CIC, does it depend on the injury or will they be taken directly to CIC regardless of circumstances.

Logistics

45 mins before the necessary service opens at WCH, a family in Workington with a sick child would have the choice of travelling to WCH and getting there probably before it opens and having to wait, or travel to CIC taking around an hour. Likewise a family in Whitehaven will have the choice of waiting at home until just before WCH opens, going there and waiting in the hospital or travelling an hour to CIC. Those from south of Whitehaven may have the dilemma of getting to Whitehaven with a child in a worsening condition before WCH opens and having to make the decision of whether to wait at the hospital or travel on to CIC. Those from far south of Whitehaven are more likely to drive to hospital themselves due to the longer ambulance response times. GP's or ambulance crews attending sick children will have similar, although more medically informed, decisions to make. It is likely that WCH will have a number of frantic parents turning up outside hours with sick or injured children demanding that someone see their child. This will put doctors in the position of having to see the child and organise a transfer.

There is a similar problem at the other end of the day. What happens when a child arrives at hospital before the services shut but there will not be enough time to see them and do the necessary treatment before the service is due to stop. Will they be examined then transferred, or just transferred directly without being seen. Will someone essentially have to triage and decide if some treatment can be given and transferred on for further treatment, or if they will have to be transferred immediately.

In the case of accidents the situation will also be difficult. Do we have a situation where any child with an injury has to be taken to CIC? So a child that requires a few sutures in a cut to the hand has an extra hour to travel before they can be treated. Or do we have the situation where families or ambulance crews are going to have to decide how serious the injuries are before deciding where to take them. Will we have situations with road accidents where a family is split up and taken to different hospitals with the parents at WCH and the children at CIC?

Effects of Separation

Children can find staying in hospital very stressful. It is a very alien environment for them and they don't always understand why they are there or why they are receiving certain treatments or examinations. If children stay in WCH for some of the day but are too unwell to stay the night in a downgraded unit they will find the trip to Carlisle more stressful, they will have the journey and have to settle into a new ward, with a different layout and different staff. Family from West Cumbria will find it far harder to visit a child in CIC and it is unlikely that they would be able to visit more than once a day. In many cases there will be other children in the family. The journey to Carlisle would be quite a trek for younger children and where public transport is relied on it may be too expensive for siblings to visit. If siblings can not visit then care needs to be provided for them at home. This may mean one parent staying at home to care for siblings. Even if a bed for one parent is provided with the child, that means one parent being separated from other children at home and the other being separated from the child in hospital. Where the parent is caring alone for more than one child either through being a single parent or because a partner is working away, they may have to leave the well child with a friend or relative or if that support is not available, they may not be able to visit.

This stress of separation on the child patient will adversely effect their recovery and could result in a longer stay in hospital. In addition to this, children may be less likely to report illness or injury to their parents for fear of being sent to Carlisle. This is more likely for those who have been in hospital themselves, or had siblings or friends in hospital. Children are especially incapable of judging the seriousness of any symptoms they may have. This means that they may not report relatively minor things which would not require them going to CIC, but these problems may then become more serious. They may also fail to report more serious things which need prompt treatment which could then result in further complications. This will become a particular problem where a child has an ongoing or recurring condition that needs a number of stays in hospital. On top of the stress caused by the illness itself, there will be the additional stress of fearing the separation from family caused by the next visit. In some cases children may also blame themselves for the stresses being put on the family by the travel to visit them.

The strain and costs to a family of having to travel to CIC could mean families having to chose between visiting and food or rent. As hospital admissions are often not planned it may mean families have to borrow money so that they can visit their child. If they can not borrow off friends or family, they may have to borrow from loan sharks as other forms of credit will take too long. This could then mean them getting into further debt through high interest payments. Children of poorer families are far more likely to be involved in accidents than those of more well off families. Poorer families are less able to provide safety equipment around the home such as safety gates on stairs, houses are usually smaller meaning that children have to play outdoors and rented property is often not well maintained, meaning that gates from a garden or yard on to the street may not be secure. Poorer children are also more likely to be walking and having to cross roads. The fatal accident rate for children from poorer backgrounds in the UK is 12 times higher than their more well off counterparts[1]. Those suffering non-fatal accidents are likely to have a similar, if not higher rate. This means that the majority of parents needing to visit children in hospital will come from these poorer backgrounds and therefore be less likely to have private transport available or be able to afford the fuel money.

Summary

Young children are less able than adults to accurately relay their symptoms, meaning that the severity of their condition can be hard to assess. Any delay in getting them treatment can therefore be more critical than it is with an adult. The extra distance of travelling to CIC will mean that some children's conditions will deteriorate significantly and may result in some deaths. Only having paediatrics at CIC, even if only for some of the day will adversely affect the patients of an age when they are most likely to be affected by being separated from their family, and in some cases are too young to comprehend why they have been removed from their home and family. This could have severe consequences for the physical and mental health. Many families will find it very hard to visit as much as they would be able to closer to home, and the financial burden of extra travel could make it impossible for some to visit and cause extreme stress on families that may already be struggling.

Notes:
1 World Health Organisation report December 2008
Rates of fatal accident are 12 times higher amongst poor families than those whose parents are in professional roles.

Community Hospitals

Community Hospitals provide places for people that need a lower level of medical treatment than is available in the main hospitals, they also allow people to be closer to their own community, thus benefiting the patient and the visitors.

The consultation document makes much of providing more help for people in their homes so that they don't need community hospital beds, or need them for a shorter time. However, in many cases this just isn't possible or practical whatever level of resources are put into it. Also, many of the services that would be needed for increased home care are already stretched.

Community hospitals cater for four main types of situation.

- Those who have been in main hospitals and no longer need that level of care, but need a short stay at a community hospital before going home. Sometimes this happens when people are discharged from the main hospital late in the day or at a weekend, where they need to have care in place at home but that can not be arranged at that time. In other cases they may need monitoring for 24 hours before they are considered well enough to be discharged. In these circumstances they free up beds in the main hospital that are needed for other patients.

- Those who have been in main hospitals but need a period of rehabilitation before they can go home. In many cases, they need physiotherapy to enable them to be able to get around and care for themselves. Having them in a community hospital allows access to equipment that would not be available in their homes. The only alternative to having them in hospital would be to provide transport to get them to hospital which may be difficult in our rural area due to the distances the transport would need to travel. There may also be exercises that they need to do themselves and in a community hospital nurses would be able to check that patients are doing the right exercises regularly. This is particularly important with elderly people who may be more forgetful.

- There are patients (particularly elderly ones) who have a number of long term conditions which vary in severity from time to time. These can sometimes be cared for at home but may also need short stays in hospital when their health is worse. These people may be in and out of hospital a few times in a year and having them in a community hospital allows for a better continuity of care between their hospital care and home care as the community nurses are more able to visit them and the hospital staff even if they don't actually have an office in the hospital.

- Some people near the end of life can not be cared for in their homes. But would not benefit medically from being in a main hospital. A community hospital serves their medical needs and also allows them to be closer to their families and friends and thus allows a better quality of life in their final days.

Difficulties in improving care at home

Many of the properties in this area are older properties and most of the people in community hospitals are elderly with more chance of their homes not having modern improvements. When an elderly patient is going to be discharged from hospital an

Occupational Health specialist visits the home to ensure it is suitable and says what changes need to be made before that person can be discharged.

Many older properties have steep, narrow stairs and it is not possible to put in a stair lift. This means that some elderly people have to sleep downstairs either because joint problems mean that they can not get upstairs or because they suffer from dizziness (common in many older people) which makes it risky for them to go up or down stairs.

With many elderly people not having central heating, the downstairs heating is often an open fire, solid fuel stove or gas fire. None of these are considered suitable on safety grounds for a room in which someone is going to sleep and a patient would not be discharged until the old fire was removed and an electric heater or central heating was provided. Even with the simpler option of an electric heater, it can take some time to provide something suitable. It has to be either a radiator or fan heater, it has to be capable of providing enough heat for the room and has to have controls that are easy to operate. In many cases that means the controls have to be on the top as the person can not bend down to floor level, knobs and switches can't be small and fiddly (common on modern appliances due to a desire to make things look neat and streamlined) and writing (heat settings, “On”, “Off”) need to be of a good size and easy to read. There may also be time needed for the family to get the money together to get something suitable and for many this can be a big problem. It may also be necessary to get extra sockets installed or existing ones moved so that they are in a place where they are accessible.

There will be a need to provide an extra bed downstairs (usually needing a single bed as a double will not fit or it is not suitable for a spouse to also sleep downstairs). Again this may take time for the family to get the money. It is likely that a reclining bed is needed which would be an extra cost. Then there is the cost of bedding on top of that. There will also be a need to re-organise storage, moving things out of the living room and putting in storage for medicines, clothes etc.

There may also be a need for a downstairs toilet which may be considerable work and cost if a suitable location in the house is not available. This is common with smaller, older properties.

With most of Cumbria being hills, many properties have stairs or steps even without going up to a higher storey. The ground floor often has a step or two between the front and back, there are often steps up to outside doors. All these have to have handrails fitted if the person is in danger of falling due to being unsteady on their feet.

Much of this requires tradespeople and there is a shortage of reliable tradespeople that can do the skilled work required, meaning that they often have long waiting lists. This can not be speeded up by any NHS policy to improve the provision of care at home. So with the best will in the world, there are many circumstances where people will have to stay in hospital for a time simply because their home is not suitable for them to be discharged.

There is a further problem of trying to provide the medical treatment that is needed in the patient's home. There may be situations where a patient's partner or family might cause problems for the giving of that care. Family may try to give the person a life that they consider to be as normal as possible such as giving them what they consider to be good food when it isn't suitable for them. They may even feel the person needs a beer, or other drink when it could react badly with other medicine. Where an elderly partner of the patient suffers from dementia, even at a low level, they may get distressed about their loved one having tubes sticking out of them and try and remove them. They may try to feed solid

foods to someone who can only consume liquids, or try to give people other foods that would normally be healthy but would cause them medical problems. In some cases a partner or other family members may be hostile to strangers coming into their home to give care or telling them what to do, as they feel that they know best and any outside help is government meddling. There may also be situations where a professional carer may feel that their safety is at risk by going to certain properties. With our rural area, the cost of having a community nurse or other carer travelling to some properties could be considerable. There may be times, due to adverse weather conditions when it becomes impossible to reach patients and the patients would have to be rescued by Mountain Rescue Teams at times when they would already be in high demand, so that the patient could be taken to somewhere where they could get the care they needed.

So whilst it may be possible to speed up a return home, or keep people in their own home longer in some situations, this is already done as much as possible. It is doubtful that even with extra resources from the NHS and social services that any considerable improvement could be made. It is likely that any attempt to cut the number of beds overall would only result in people staying in the main hospital for longer and hence costing more. It should also be noted that social services are already overstretched.

Difficulties in centralising community hospital beds

The consultation document also suggests centralising beds in a smaller number of units to varying extents. This will mean a greater number of patients will be further away from their homes and their friends and family. With most of the patients in community hospitals being elderly this can be devastating for both themselves and their partners. Where people have dementia, even in the very early stages, being separated from friends and family can cause a huge deterioration in their mental capacity. Elderly patients will often have partners who are also frail (mentally or physically) or have their own health problems. Longer travel can be very strenuous for these people. Also, elderly people often can not drive, meaning a reliance on public transport or getting lifts from others. In any given area transport is more common to locations which are central to that area, locations that have the main shops, post office, workplaces etc. For instance, people from Cockermouth don't often travel to Workington or Keswick because Cockermouth has most things that they need. People from the area around Cockermouth, however, regularly travel into Cockermouth for shopping, work, banks etc. Not only does public transport follow normal patterns of travel, but also there is more chance of getting a lift from a neighbour or friend if they are travelling to that location for other things. So moving community beds out of one town to another is not just a matter of distance, it is also moving it away from usable transport routes. This makes it much more difficult for people to travel to visit.

It is inevitable that centralising beds will reduce the number of visits a patient gets. It will reduce both the number of visits and the number of different people visiting. It is particularly likely to reduce visits from a partner that they have spent the vast majority of their lives with. This is likely to lead to a deterioration in the mental condition of the patient which will have a knock on effect on their physical health. It will lead to a number of patients spending longer in hospital, having to return to hospital sooner or needing far more care on discharge. In addition to this, the separation may lead to their partner suffering from mental health difficulties which may also impact on their physical health, and may necessitate that person needing more medical care. The risk of being placed somewhere so far from their home and loved ones may also lead to people being reluctant to report a worsening medical condition, meaning that they deteriorate to a point where they need treatment at a main hospital and a longer stay in hospital.

As some of the patients in community hospitals are reaching their end of life, there is obviously a high number of deaths in the hospitals. Moving them away from their local communities will mean a greater number of families can not get to the hospital in time if their loved one takes a turn for the worse, thus leaving families unable to say goodbye. This will cause stress and could be devastating for elderly partners who will also be the ones having the greatest difficulties in getting to the hospital.

Whilst the NICE guidelines recommend at least one registered nurse for every 8 patients, and it is sensible to have two nurses on duty at any one time, it should be remembered that this is a minimum level and that with some patients requiring more care than others it is not appropriate to over-ride other considerations by making each facility have the “perfect” number of patients. Furthermore, the type of patients in community hospitals are often vulnerable to infections. If there is a case of C.difficile or norovirus on a ward it can spread to a number of patients before it is detected. So centralising community beds to a smaller number of hospitals may lead to more deaths from infections. Also, once there is an outbreak, that ward is closed to further admissions, so even if only one patient has such an infection, it may mean that no other people can be admitted from the community or from main hospital wards.

The consultation document says we need 84 community hospital beds based on a population of 330,000 plus 18 for end of life care. They do not state what area they are covering in this, nor do they state what formula is being used or the source of this formula. The ONS has statistics for population by district councils and postcode areas. Neither of these fit the figures exactly, but the population for Allerdale, Carlisle, Copeland and Eden on the 2011 census was 327113, this seems to be the closest figure. However, virtually all patients in Community beds are elderly and the proportion of people over 60, in the population in those areas is nearly 5% above the average for England and Wales, which would suggest that we need more beds than the figures for the average population suggests. There seems to have been no analysis done on how often the community beds are empty. Basing the number of beds needed by applying an unstated formula to population figures rather than looking at actual usage lacks efficacy.

Appendix M shows a map of where the proposed cuts and increases are for each option. It is clear from this that no thought has gone into the travel distances from population areas losing beds to those which are gaining beds. Both Penrith and Alston lose beds in all options with Alston loosing all beds and it seems it would be necessary to move people from those towns to Cockermouth and Keswick in all but option 4.

Cockermouth Community Hospital

Options 1 and 2 of the consultation document suggest increasing the beds at Cockermouth Community Hospital by 5. It is not clear where they intend putting these beds. The current ward has 11 beds in individual rooms with their own bathroom, arranged in a crescent so that all rooms can be seen from the nurses station. Any additional beds would either have to be put where the current physiotherapy room is, thus out of sight from the nurses station or put in the ward where the seating areas are. These seating areas allow patients somewhere to sit in a seat to eat food and talk to visitors. These are currently very important in helping in rehabilitation. There is another area adjoining the ward that is used for treatment rooms that could also be used but again that would mean them being off the ward and out of sight.

Cockermouth Community Hospital has also had a number of outbreaks of norovirus and clostridium difficile. There may be a number of reasons for this which are related to design issues in the building which are not easily rectified. The food being brought in from the

kitchen uses the same entrance to the ward as the visitors, as do the nursing staff coming on and off duty. Even if both kitchen staff and visitors use alcohol gel on their hands, this is not effective in killing C.difficile spores[1] and only 90% effective against norovirus. Furthermore, these are only figures for hands clean of organic debris, which may not apply to all visitors. Hand creams and dirt will both reduce the effectiveness of alcohol gels. Hand washing can remove both but needs to be done correctly with most visitors being unlikely to get areas between the fingers and the back of hands.

As both C.difficile and norovirus can stay on clothing and surfaces, cross contamination can occur from the kitchen staff opening doors then pushing the cart through unless they wipe the cart handle with suitable disinfectant as well as cleaning their hands. They can even be transferred through clothing brushing up against the walls and doors.

The possibility of visitors having infections on them is made worse by the visitors often using the toilet inside the main entrance prior to visits. This is the toilet that is also used by patients going to the two very busy GP's surgeries, and hence being used by lots of sick people.

The building also has an inadequate air conditioning system which often forces patients to open external doors to their rooms in summer, and leave windows open even at night. This level of heat is not healthy and may cause health problems for patients that are already fragile. Patients with dementia may have lost the ability to understand why they feel uncomfortable, ie. they are too hot, but don't know what to do about it or can't even express what is wrong. Other patients may not be mobile enough to open windows or doors, or close them where necessary and have to rely on medical staff to do this.

There is an additional problem for some elderly visitors that the entrance is on the first floor and ward is on the ground floor. Whilst there is a lift, some elderly people have a fear of lifts due to have been stuck in a lift for hours at some point in their lives. This forces them to use the stairs which they can find difficult due to joint problems.

The hospital does have a lot of spare room however. A large area of the downstairs was supposed to be rented out to a dental practice, but the treatment rooms were made too small to fit the treatment chairs in. So this area is currently not used. Likewise the ultrasound and X-ray suites on the same side of the building as the dental rooms are also not used. I believe these suffered from the same design problem as the dental surgery in that they were built too small for the equipment. Whilst these areas are not used, they still require a certain amount of heating, they still need cleaned periodically and still need security to patrol them. They also still require occasional maintenance. As all lights work on movement sensors, they also use a certain amount of lighting. So unless there has been a reduction in the cost of the building to the NHS due to the design flaws making these areas not fit for purpose, they are still a cost.

Whilst the building was built to be energy efficient, it is doubtful that the design elements put in place to save energy actually do. It has lots of glass to provide natural heat, however it gets far too hot on even a mild sunny day. This means that air conditioning is often working on full, and on hotter days additional portable fans have to be used. All the lights work on movement sensors, which means they come on in bright daylight when they are not needed. They also come on in areas that have shutters closed when people walk past on the other side of the shutters and at night when security are patrolling. Also, due to sensors or switching malfunctioning some lights are on continually. If window vents are left open when rooms aren't in use in order to reduce the excessive heat, the draught makes the window blinds move and turns the light on. The cost of installing this lighting system

was far more than using lights with switches and in order to replace one faulty light, the housing and the transformer also have to be replaced with parts believed to cost £200 per light. Which is obviously far more than the cost of changing a light bulb.

So whilst Cockermouth Community Hospital is a new build, that does not mean that it is superior in design to the older community hospitals. Whilst some of the older hospitals do need work to be done on them, it may be that Cockermouth Community Hospital may actually cost a similar amount to maintain in the long term.

Alston

There are only 4 A-roads going into Alston and one B-road. The few lesser roads are mostly local links between the A-roads. Outside Alston itself the population is sparse. The A686 reaches an altitude of 580m altitude on one side of the town and 471m on the other. The A689 reaches 627m altitude on the east of the town and runs through a valley between 272m and 237m on the north side. The B6277 runs along the side of a valley over 500m altitude for many miles and reaches over 600m in places. This makes them very prone to being blocked by snow, and hazardous due to ice in winter. It should also be noted that all roads have steep sections which make any frosty conditions extra hazardous. This may mean that people are unable to visit patients that are transferred out of the town for hospital. It seems the closest community hospitals to Alston are Brampton and Penrith which are both around 19 miles away. Yet the proposals do not show increased beds in these units (only 1 extra at Brampton and 4 less at Penrith)

Summary

Whilst it may be possible in some cases to care for more patients in their own homes, this requires more work from other government agencies, families and from commercial businesses. Any beds which may be freed up by caring for more people in their homes may equally be filled by moving more patients out of higher cost main hospital beds sooner. Centralising beds may increase the spread of C.difficile and norovirus. Centralising beds will reduce the number of visitors and the number of people that can visit. This is likely to increase the mental stress on the patient and increase the chances of depression and severely worsen any dementia. This will make recovery less likely and delay recovery thus taking up the bed for longer. Where elderly partners (and other elderly relatives) are less able to visit or have a prolonged or difficult journey, their own health could be adversely affected meaning that they may be unable to care for their partner when they would otherwise be able to leave the hospital, they may also end up in hospital themselves.

Notes:

1. Effectiveness of alcohol-based hand rubs for removal of Clostridium difficile spores from hands. June 2010 Jabbar U et al.

A&E and Trauma Services

The various proposals by the Success Regime are to make the current temporary downgrading of emergency care permanent, reduce some services at West Cumberland Hospital (WCH) to daytime only and even to have no A&E at WCH at all. These are currently having a huge impact on people needing treatment which requires an anaesthetic or emergency CT scan and any further downgrading will mean that there will be no chance of most people from Copeland and Allerdale getting to hospital within an hour.

The Current Position

There have already been cuts to the emergency medicine available at WCH. Currently only simple fractures are dealt with at WCH, if the patient requires an anaesthetic they are often sent home and told to wait until Cumberland Infirmary Carlisle (CIC) calls them. In some cases patients have waited up to 5 days and then have to travel up to Carlisle, sometimes having to use public transport. In more serious cases patients will have to be transported by ambulance to Carlisle where the journey is likely to be extremely painful and certainly won't help the condition of the fracture. The majority of these patients will be elderly people with hip fractures. There is no longer emergency surgery at WCH, that has to be done at CIC. There are no emergency CT scans, meaning that if someone has a head injury that requires a CT scan they must be taken to CIC. There are no emergency blood tests, meaning that samples have to be sent up to Carlisle, meaning an extra hour (at least) in getting results that may determine the type of treatment to be given. This means that people suffering from acute problems with potassium or sodium levels, or people suffering from acute infections are having their treatment delayed which may be critical.

All these cuts jeopardise patient safety in delaying emergency treatment. Sending patients home with more serious fractures can result in them having a more serious accident due to their disability, the pain they are in, or the effects of the painkillers they are needing to take. This substandard treatment of patients is frustrating and stressful to staff and jeopardises the long term future of emergency medicine at WCH.

A&E without Obstetric and Paediatric Support

In the consultation document, neither the sections on Maternity or Paediatrics nor the sections on A&E and emergency surgery, trauma and orthopaedic services mention the impact that reduced maternity and paediatric services at WCH will have on the provision of emergency services for pregnant women and children when they are involved in an accident. In some cases if a pregnant women or a child is involved in an accident they will not need treatment from an obstetrician or paediatrician. However, in other cases they will and in some cases the level of injury and the type of treatment needed may not be immediately apparent. The procedure used in south Wales with no paediatrician at Withybush, is that children involved in accidents are taken straight to Glangwili even if that means driving past the A&E at Withybush. Ambulance crews have already stated that they are not happy doing this.

There are several possibilities.

1. Any child or pregnant women receiving an injury that needs A&E would be taken straight to CIC.
2. Ambulance crews would have to assess severity of injury or likelihood of needing specialist treatment and decide where to take them.

3. All are taken to the nearest A&E and then the decision is made from there.

All these have problems.

If all are taken straight to CIC it would mean a child or pregnant woman that only needs a few sutures, or has a suspected fracture that is only minor or isn't fractured would have the long journey to CIC for a procedure that could easily be done at WCH. The family may have difficulty getting them there and there may be a tendency to avoid going to hospital if they think the injury is only minor. This could lead to additional problems such as a cut finger being treated at home when the tendon is damaged as it has been seen as nothing more than a cut finger.

If some are taken straight to CIC and some not, then it may delay the ambulance crews as they need to make an assessment. They may be unhappy having to make that judgement as their normal training is to stabilise and get to the nearest A&E. It may be that at the lower end of the severity they can be treated at WCH and at the more serious end they need to get to WCH to be stabilised before being transferred to CIC. With pregnant women there may be circumstances where getting them to WCH will save the mother but probably lose the baby, whilst getting them to CIC could save the baby but lose the mother. Ambulance crews should not be put in the position of having to make that judgement. If some cases are treated at WCH and some at CIC it would also put families in the position of making that judgement when an ambulance is not needed or it is too far away. It should be noted that with our rural situation people often find it quicker to get someone to hospital themselves.

With the third option, it may mean pregnant women and children from north of WCH being taken to WCH and then transferred to CIC for the treatment they need, thus delaying treatment. It would also mean ambulances having to deliver someone to WCH and then standby until they are told whether or not they need transferred to CIC.

There is also that problem that families involved in a car accident may be separated. If a mother and father end up at WCH and the children at CIC, it will be much harder to get consent for tests and treatment. It will also be harder to get updates on the conditions of other family members from one hospital to another, thus increasing the stress already caused by the separation and the accident. Meanwhile family members who are not involved in the accident (or not injured) may have to visit two different hospitals.

One of the ongoing themes of the consultation document is that it is difficult to recruit and maintain staff for hospitals where only a limited service of their specialism is given. However, this would also apply to A&E in WCH if paediatrics and maternity were at CIC. A&E staff would not get the experience of dealing with pregnant women and children and working alongside those specialists. The staff are already under considerable strain due to the number of services that support A&E that have already moved to CIC.

Issues with different levels of services at different times

Option 2 of the consultation document is to only have A&E at WCH open during the day (hours are not given) but have a 24/7 unit for less serious injuries and conditions. This proposal causes two problems on top of the obvious need for people to travel to Carlisle. Where people are not calling for an ambulance and travelling to hospital courtesy of family or friends, it requires them not only to understand what services are at which hours, but also to diagnose themselves. This is a particular problem for those living north and east of WCH who may travel to WCH only to be told they need to go to CIC when it would have been quicker if they had gone there in the first place. The second issue is what happens in

the time just before WCH A&E opens and what happens just before it shuts. In the early morning people will have to make the decision of waiting until WCH opens or travelling to CIC and possibly getting there after WCH has opened. Either way their condition could have significantly worsened by the time they get seen. Towards the end of the day there may be cases where people get to WCH only to be told they won't get seen before the unit closes and will have to travel on to CIC. It should also be noted that with most violent assaults taking place on Friday and Saturday evenings, this option will have a significant impact on the police.

Impact on patients of the extra travel if A&E closes

With emergency medicine the sooner the patient gets treatment the better. Whilst paramedics can provide a good level of treatment they can obviously not provide the level of treatment that is available in a hospital. What is more the treatment they can provide whilst travelling is much more limited. The length of the journey to CIC is around an hour, that means one hour when the treatment that can be given is limited. This journey time is increased at times of high traffic (also the time when most road accidents happen), and can be further delayed by roads blocked due to accidents and adverse weather. In many cases this extra time will result in the patient's condition worsening which may mean them dying, needing more treatment once they reach hospital or having poorer health permanently than they would have done from more prompt treatment. Nowhere in the consultation is there any estimate of the extra ambulance journeys needed, the number of extra ambulances or crew or the expense incurred to the ambulance service. Figures from Withybush are that the one extra ambulance and crew needed to provide a dedicated ambulance vehicle and crew for maternity transfers costs £600,000 per year.

Impact on the police

The police often need to interview people in hospital and the more people going to CIC for treatment following road accidents or attacks, the more police time will be lost in travelling to interview them. In some cases, some people in a case may be at CIC and some at WCH, this would also make it harder to re-interview someone for clarification due to something that another witness has said. It will not only mean the loss of an officer's time but also the vehicle to transport them. It may also add to overtime whilst the police wait at CIC to interview someone as it would not be practical to return to West Cumbria and then travel back. If a police officer has travelled to CIC with a victim in an ambulance and then the need for them to stay there is over, transport will be needed to get them home.

In some cases the police need to accompany a person to hospital. This happens when someone is a victim of an attack, also when they are a violent person or other criminal that has sustained injuries or is under the influence of drink or drugs. In the case of violent offenders, normal procedure would be to have one officer in the ambulance with another following behind in a vehicle or both officers travelling in the ambulance (depending on assessed threat level). It would also be normal to have two officers to guard the prisoner at hospital until they are well enough to be discharged. As Carlisle is in a different division to WCH, it would mean that where an incident happened in West Cumbria, officers would need to travel up from West Cumbria to guard the prisoner or would need to negotiate for Carlisle police to provide guards.

Summary

The current position of sending patients from WCH to CIC for any surgery or CT scans is an unacceptable impact on patient welfare. Any further reduction in facilities and services for emergency medicine at WCH is unacceptable for an area of this population. It will result in people not receiving treatment in a suitable time and thus have a long term impact on

their medical welfare. The extra strain on the ambulance service will not only require recruiting more paramedics and buying more ambulances, but will make recruitment harder as paramedics will be under great pressure having to keep patients alive for much longer until they reach hospital. The downgrading of services will also impact the recruitment of medical staff to A&E as many will be unwilling to work in a department that is not a fully functioning A&E.

Stroke treatment

Option 2 of the consultation document is to treat all stroke patients in the hyper-acute (very early) stage at Cumberland Infirmary Carlisle (CIC), then transfer them to West Cumberland Infirmary (WCH) once they are past the hyper-acute stage. The theory is that although a few people will miss the window to get thrombolysis, this will be outweighed by the greater number of patients that will get better care from a centralised unit. However, it is unclear how much of this “improved” treatment they will get before being transferred back to WCH.

The consultation document says “there could be a very small number of people in West Cumbria – we estimate one or two a year – who would be affected by missing the time window for thrombolysis”, it also describes thrombolysis as a high risk treatment. Neither of these statements explain that currently there is a 4.5 hour window after the onset of the stroke when thrombolysis can be given. The reason for this time frame is that it is of greatest benefit and least risk, the earlier it is given. At the 4.5 hour point is where the risk nearly equals the benefit. So any delay in a person getting the treatment reduces its benefits and increases its risk.

It is also unclear how they arrive at these figures. From statistics on strokes from the Stroke Association, there are 152,000 strokes per year in the UK so that would be 227 per 100,000. 85% of those are ischaemic strokes (clotting rather than haemorrhage, so can be treated by thrombolysis). The population of Allerdale is 96,422 and Copeland is 70,603. So there would be expected to be 194 ischaemic strokes in Allerdale and 142 in Copeland. Factor in that thrombolysis can only be given to people under 80 then you can still expect 128 in Allerdale and 94 in Copeland. However, there are other big factors in preventing people from getting treatment. 14% of strokes happen whilst the person is asleep so the time when they happened can not usually be determined. Another 22% of strokes can not have their onset time determined.[1] That still leaves 142 for the two districts. So it would seem that our current record of getting people to hospital, getting them diagnosed, assessed and getting them the thrombolysis treatment that they need must be poor.

Research into how to improve the number of patients receiving thrombolysis[1] showed that by improving the speed at which people got to hospital and got treated could have a huge benefit on that person's future life and that these improvements saved money in the long run. Tactics they used were to increase public awareness of strokes and the symptoms, impress upon people the urgency in calling an ambulance rather than a doctor, and various ways of speeding up diagnosis by medical professionals. Their conclusion was that the steps they had taken would save around £30,000 per 100,000 of population and gave patients an average of 3.3 years of better life than they would have had. The report concluded “These results suggest that any strategy that increases thrombolysis rates will result in cost savings and improved patient quality of life. Healthcare commissioners could consider this model when planning improvements in stroke care.”

It is likely that each patient from West Cumbria would only spend 2 or 3 days in CIC before being moved to WCH. So there would be no long term separation from their family where visits to CIC could not be managed. However, that would be a time of significant crisis for both them and their family. The extra stress put on the patient of being separated from a partner who can not manage the journey would be severely detrimental to their condition. The early treatment of strokes is vitally important, the more treatment given in the first few

hours and the first few days is the most significant in recovery. So having treatment available 24/7 is important and lack of resources at either location that make this more difficult is an issue. However, it is also important that patients receive stimulation by interacting with people, especially people that are familiar to them and can talk to them about familiar things.

As the incidence of stroke increases with age, many stroke patients will have elderly partners. The stress of someone they have spent most of their lives with suddenly being taken seriously ill and being removed from the home can be devastating. To increase this stress by putting their loved one at a distant hospital which takes around 2 hours to get to on public transport would be terrible for many people. This additional stress of separation and strain of the journey if they can manage it, could be severely detrimental to their own health and thus impact on their healthcare costs. It could also mean that they would not be fit to care for the stroke patient when their condition improves enough to be discharged.

Summary

Moving the treatment of hyper-acute stroke cases from WCH to CIC will result in more patients being more disabled from the stroke. This will have an ongoing affect on their quality of life and impact the level of care they need long term. Improving the speed at which stroke patients are got to WCH and speeding up the assessment of whether they can have thrombolysis treatment, will actually save the health service money. The strain of having to travel to CIC for elderly visitors will adversely impact on the health of both the patient and their visitors and may result in significantly more medical care being used.

Notes:
1 Cost-Effectiveness of Optimizing Acute Stroke Care Services for Thrombolysis Maria Cristina Penaloza-Ramos, MA; James P. Sheppard, PhD; Sue Jowett, PhD; Pelham Barton, PhD; Jonathan Mant, MD; Tom Quinn, FRCN; Ruth M. Mellor, PhD; Don Sims, MBChB; David Sandler, MBChB; Richard J. McManus, FRCGP August 2013

Effect on Industry, Business and Services in West Cumbria

NuGen's proposed development at Moorside proposes to build three new reactors. The construction phase is expected to last around 5 years, starting towards the end of this decade. At its height it will employ 6500 staff, most of whom will be construction workers which is an industry with a high accident level. With the rate of accidental injuries which are severe enough to be reported of 3050 per 100,000 in the construction industry[1] , we could expect that project to have around 200 accidents needing hospital treatment each year. The construction workers will be working shifts, so any downgrading of A&E at any time of day will have an adverse affect on the medical care needed to deal with any accidents. NuGen also propose to build accommodation for around 4000 people that will be temporary housing for their workers from outside the area. Although they are unclear on whether this is 4000 workers plus their families or 4000 people in all. Either way, this will add a large number of extra people in Whitehaven and Egremont, which will add numbers to those that the NHS need to cater for. Whilst this is still just a proposal, it does not seem to have been considered anywhere in the consultation document. West Cumbria Mining are hoping to employ 500 in Whitehaven, many of whom will be working shift patterns.

It is possible that these developments may be affected by any downgrading of A&E and trauma care. Future developments of other heavy industry may also be jeopardised if the local medical care needed is not going to be available.

Other businesses and public services do need to attract people from outside the area for certain roles and keep the employees they have. One of the things people assess when considering moving to an area is the provision of hospital services. The proposed downgrading in services at WCH will make the area less attractive as a place to live, both for those that are considering moving here and for those currently living here. This will make it harder for businesses and public services to attract people to work here and harder to retain good staff who may be offered work elsewhere. This may mean some businesses relocating to other areas, schools having difficulty attracting teachers, GP surgeries have difficulty in attracting doctors, social services having difficulty in attracting social workers etc. The proposed downgrading will have a knock on effect in West Cumbria that will will see a gradual decline in business and services in the area.

Notes:
1 HSE statistics

Recruitment

A repeating theme in the consultation document is that of difficulties in recruiting staff. However, many of the problems in recruiting or managing staff are due to the previous cuts, proposed cuts and management treatment of staff.

For over a decade there have been repeated threats to close various departments at West Cumberland Hospital (WCH). There have also been various services that have moved to Cumberland Infirmary Carlisle (CIC), (some temporarily). It will be very hard to recruit quality staff when the department you're trying to recruit them to is under threat of closing. It will also be harder to recruit staff where departments do not cover the full range of conditions that would be normal for that speciality or where related services are not available at that hospital. The Success Regime are stating that this is a problem in recruitment whilst at the same time they try to use that as a reason to close more services, rather than reverse the downgrading of WCH and put the resources into making it into a fully functioning hospital.

Patient records have already moved to Carlisle. This has already resulted in operations and appointments being cancelled at WCH because the records haven't been brought from Carlisle. It obviously causes more problems for emergency medicine if the patient's records aren't available in an emergency. Pathology is also now only at Carlisle and there is no out-of-hours testing of bloods at WCH. These are vital services which impact on other care and the ability of medical staff to do their jobs effectively. It is very hard to convince medical staff that they are working in a modern hospital when there are no medical records or access to pathology on site. It makes the hospital seem more like a rural health clinic in a developing country.

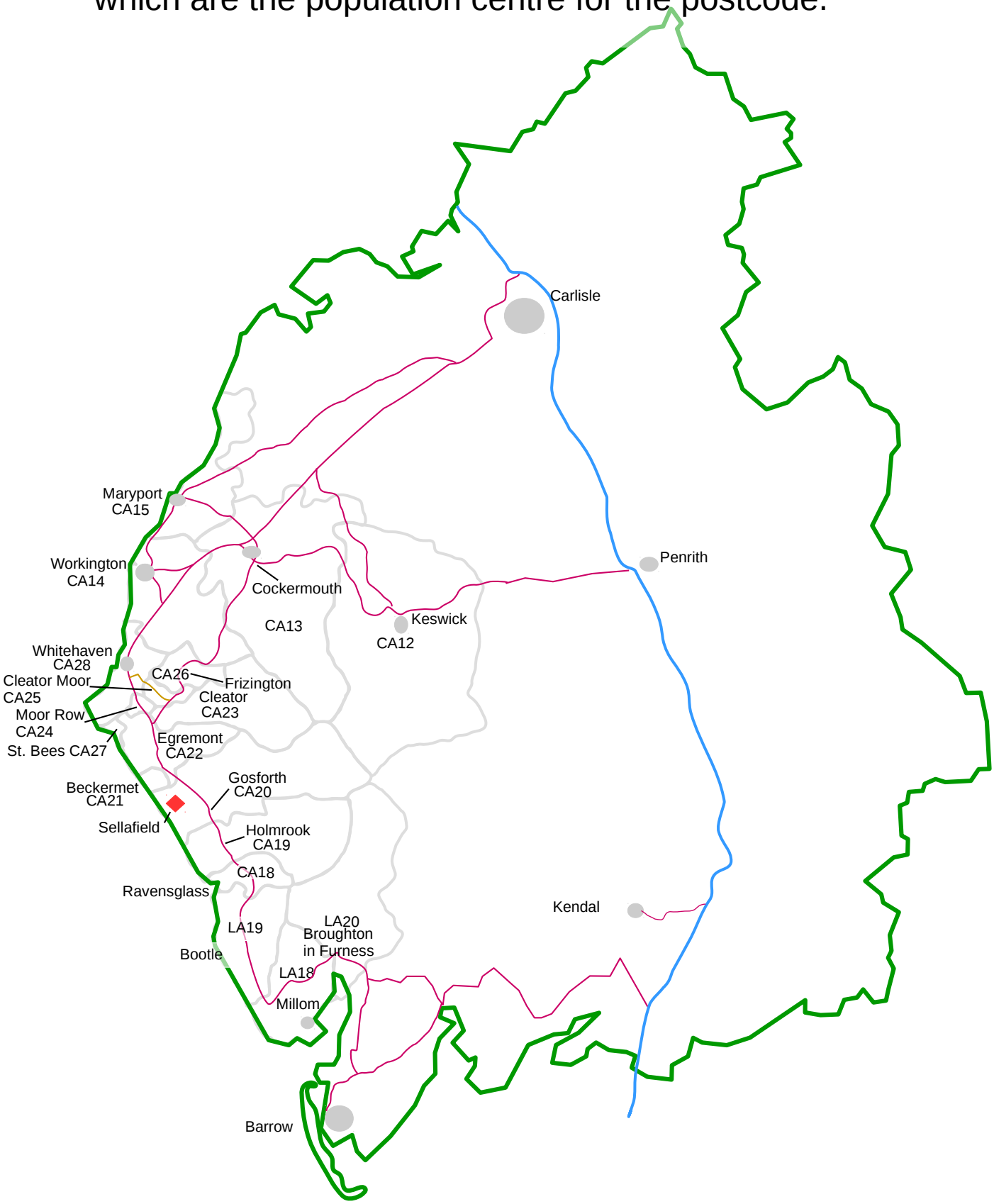
There have been numerous reports from staff, made in confidence to local councillors or campaigners, or made to relatives or friends of a bullying and intimidating attitude towards medical staff from management. Staff have reported of being threatened with disciplinary action for raising concerns about patient welfare when management try to put costs or targets before the needs of patients. Staff have also been warned not to post their concerns on social media and only go through official channels. However, this means that medically qualified staff are not allowed to explain the medical implications of the cuts to the public. Yet when staff do try and raise their concerns through the correct channels, their views are dismissed. At a meeting in September where the midwives voiced their concerns about the proposals Stephen Eames said that they were being over-emotional.

Despite there being many vacancies at both hospitals, there are very few jobs advertised on the NHS jobs site. Looking at the posts advertised on one day, currently the only ones for Whitehaven are one consultant radiologist, one specialist doctor, one bank nurse (casual) and one pharmacist. Whilst the North Cumbria NHS Trust site does have some information about the area, it could be far better. There are links to more information about Whitehaven and Carlisle but they are sites aimed at tourists. It does mention the low house prices but there are no example properties. It does not mention the low crime rate (8th lowest county in the country). Also, whilst its own information about Cumbria does extol the beauty of the Lake District it does tend to make it sound like a rural backwater by omitting information about the towns and doesn't mention the coast and the two marinas. It should be possible for the North Cumbria NHS Trust to get together with other employers and the County Council and put together a website that promotes Cumbria as a place to live and has useful information for those thinking of settling here.

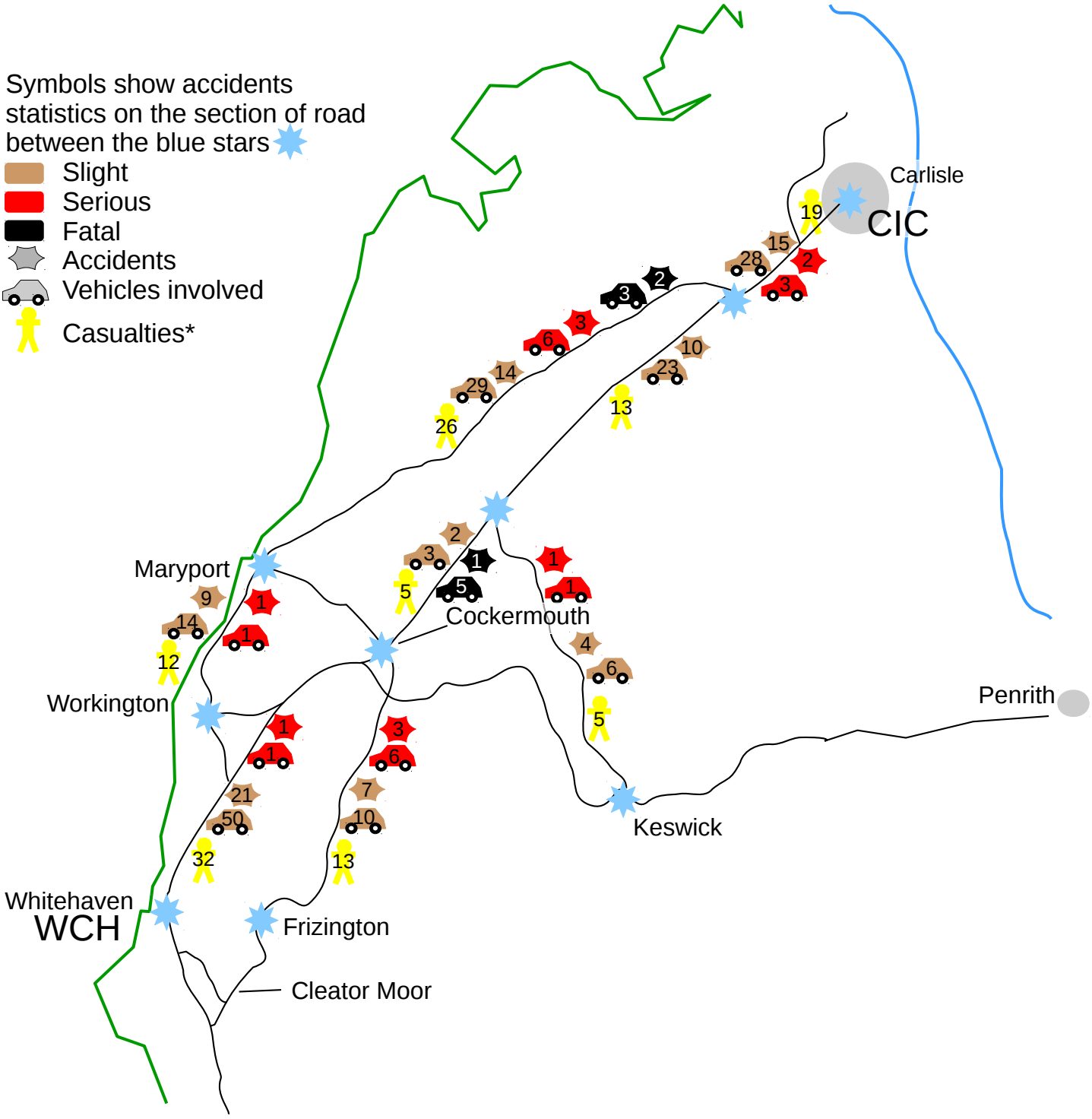
Summary

Whilst it needs to be recognised that the NHS as a whole is facing recruitment problems, the problems in this area are largely due to the way that management of North Cumbria NHS Trust treat the staff, the incessant threats to close parts of the service and the closures that have already happened. Any further closures, or reductions in services, or a failure to reverse those cuts already made will cause a downwards spiral in recruitment and hence what services can be offered. Recruitment will only be improved by providing secure employment with a 10 year plan aimed at improving all services at both WCH and CIC.

Appendix A
A-roads with West Cumbria postal areas and towns/ villages which are the population centre for the postcode.



Appendix B
Road accidents on major roads used to travel to CIC in 2015

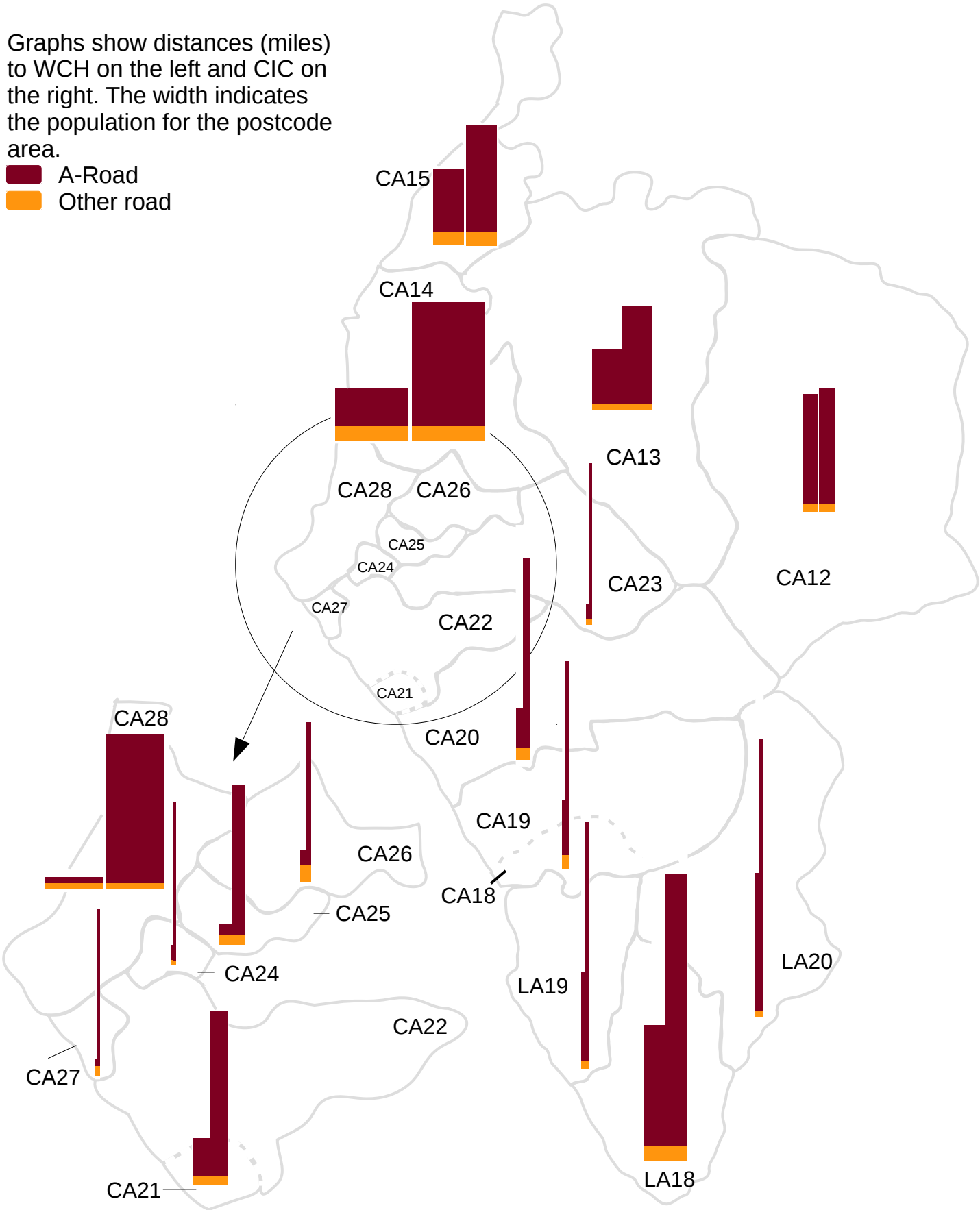


Statistics gathered from ONS via crashmap.co.uk
*Each accident has at least one casualty of that severity but whilst the total number of casualties for each accident is available, the number of each severity is not.

Appendix C
Travel distances from postcode areas weighted by population

Graphs show distances (miles) to WCH on the left and CIC on the right. The width indicates the population for the postcode area.

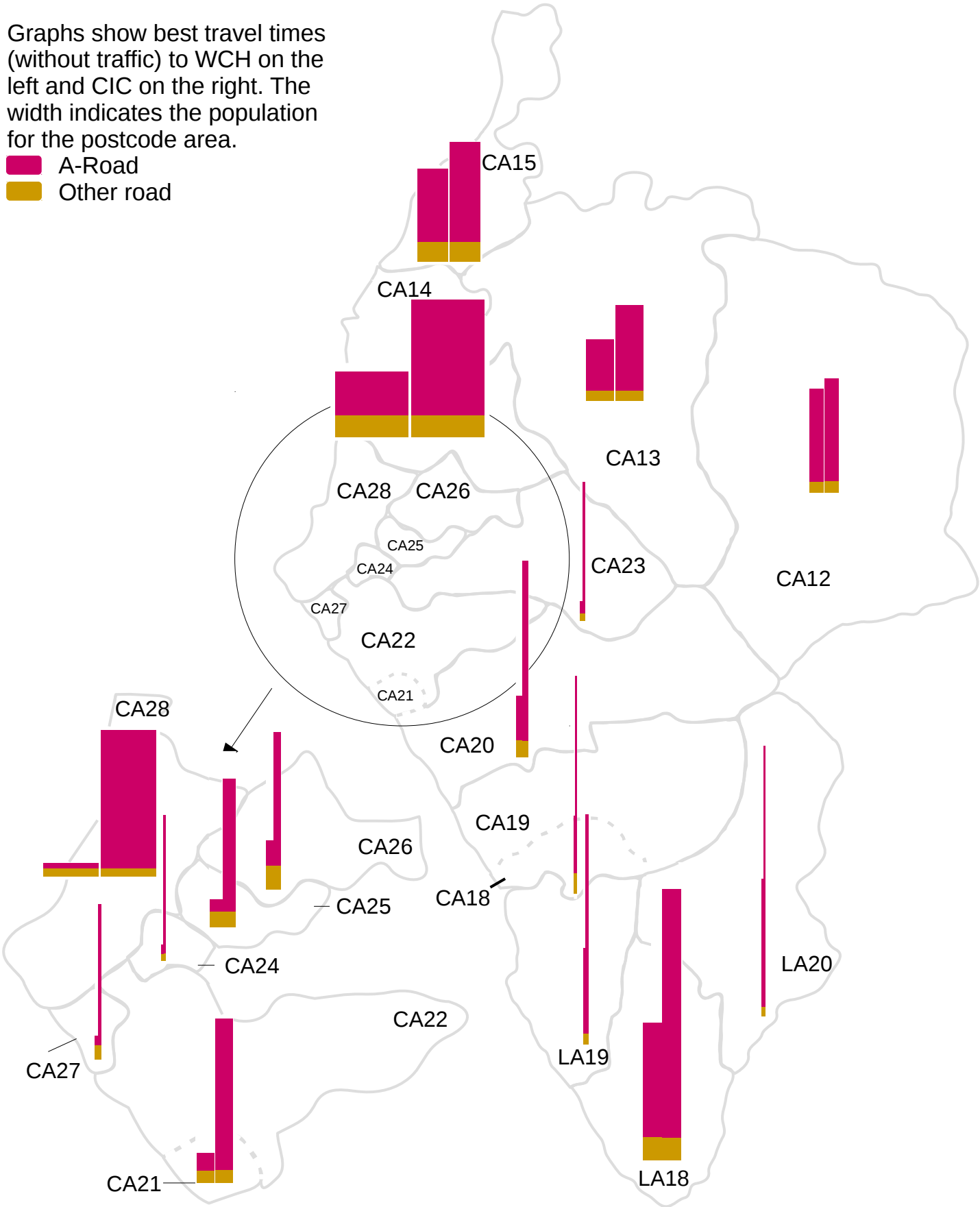
A-Road
Other road



Appendix D
Best travel times from postcode areas weighted by population

Graphs show best travel times (without traffic) to WCH on the left and CIC on the right. The width indicates the population for the postcode area.

A-Road
Other road



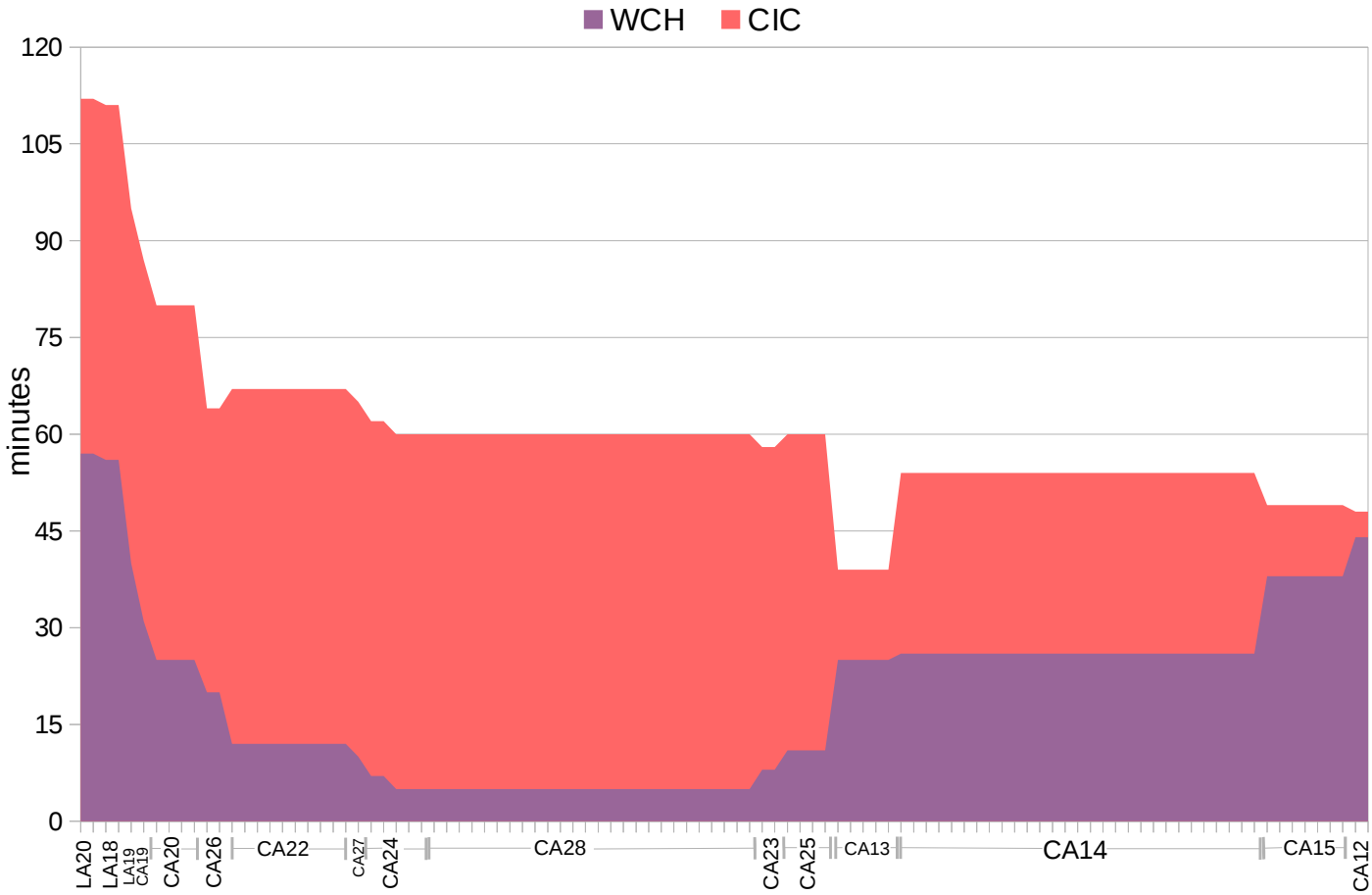
Appendix E
Travel Distance and Time and Population Figures by Postcode Area for West Cumbria

	CA12	CA13	CA14	CA15	CA18/19	CA20	CA21/22	CA23	CA24	CA25	CA26	CA27	CA28	LA18	LA19	LA20
Travel																
Miles on minor roads	2.0	1.7	3.6	3.5	3.5	2.9	2.2	1.4	1.2	2.6	4.1	2.5	1.3	3.9	1.9	1.6
Miles on A-roads to WCH	28.0	14.0	9.5	15.7	13.8	10.2	9.7	3.7	3.7	2.7	4.0	1.8	1.5	30.6	23.0	34.3
Total miles to WCH	30.0	15.7	13.1	19.2	17.3	13.1	11.9	5.1	4.9	5.3	8.1	4.3	2.8	34.5	24.9	35.9
Miles on A-roads to CIC	29.3	25.0	31.6	26.7	48.9	48.6	42.1	39.8	39.8	38.7	36.8	40.1	37.6	69.0	61.4	67.5
Total miles to CIC	31.3	26.7	35.2	30.2	52.4	51.5	44.3	41.2	41.0	41.3	40.9	42.6	38.9	72.9	63.3	69.1
Time to WCH	44	25	26	38	31	25	12	8	7	11	20	10	5	56	40	57
Time to CIC	48	39	54	49	87	80	67	58	62	60	64	65	60	111	95	112
Population																
Female	4083	7635	18207	8226	676	1647	4998	686	602	3092	1965	790	14350	4349	497	578
Male	3943	7371	17592	7992	721	1708	4906	738	664	3091	1903	854	14242	4721	475	581
Total	8026	15006	35799	16218	1397	3355	9904	1424	1266	6183	3868	1644	28592	9070	972	1159

Notes:
Miles on minor roads taken as an average of answers from the maternity survey.
Miles on A-roads from Google directions
Time on minor roads calculated by distance and expected speed for that area.
Time on A-roads timed in light traffic with the exception of times from Maryport and Workington which were taken from Google directions.
Population figures from Office of National Statistics from 2011 Census.

All times are virtually the best times possible and do not allow for traffic or adverse weather.

Appendix F
Travel time to WCH and CIC from postcode areas with width to show population*

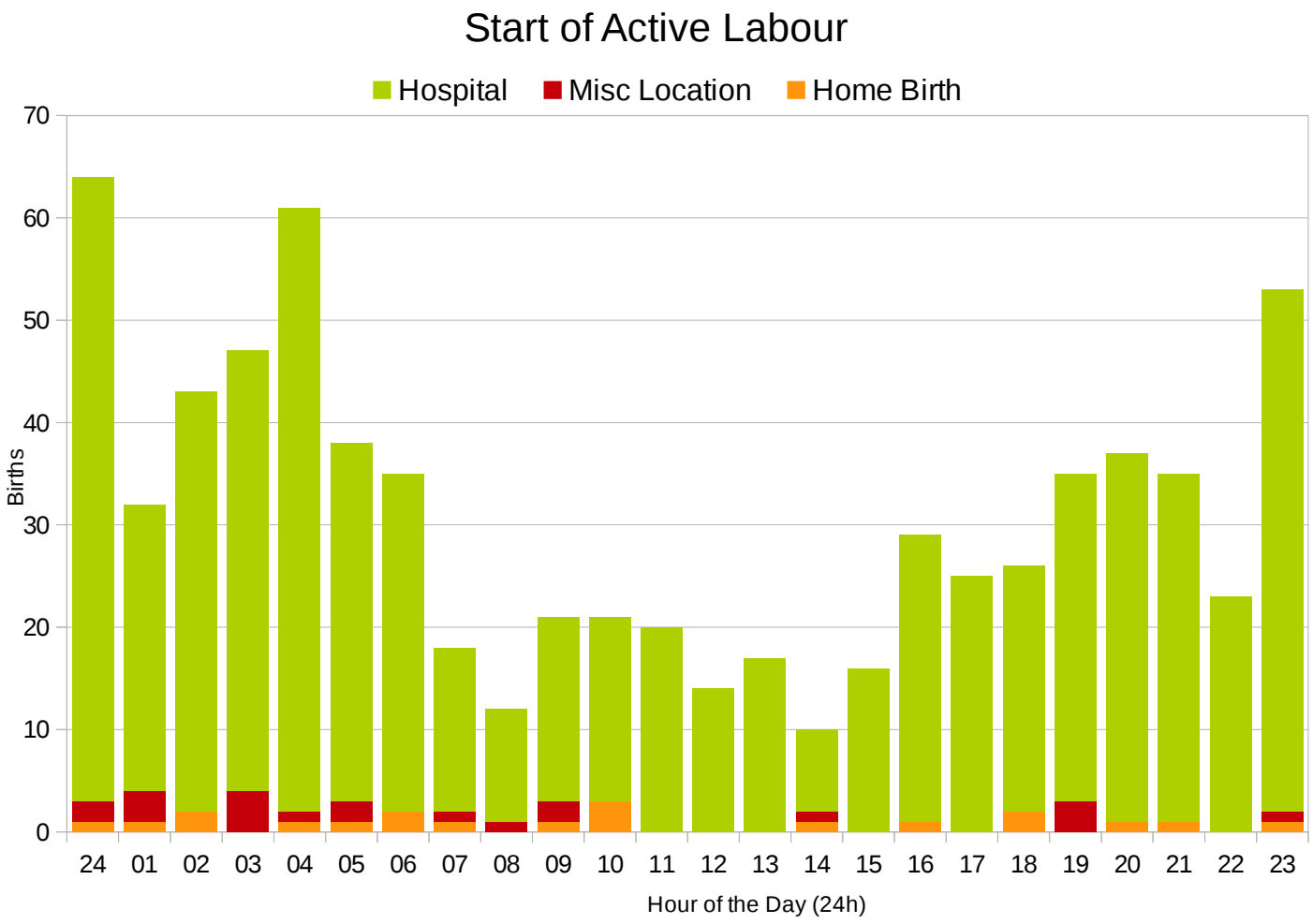


Note: The figures only reflect road time in best conditions, averaged for the area. They do not reflect delays caused by poor weather conditions or anything other than light traffic. They do not reflect time to get from house to car, or car into hospital.

The area in pink represents the extra travel that would be needed by mothers being admitted to hospital to give birth should maternity services at WCH be closed.

* population by births reported in survey

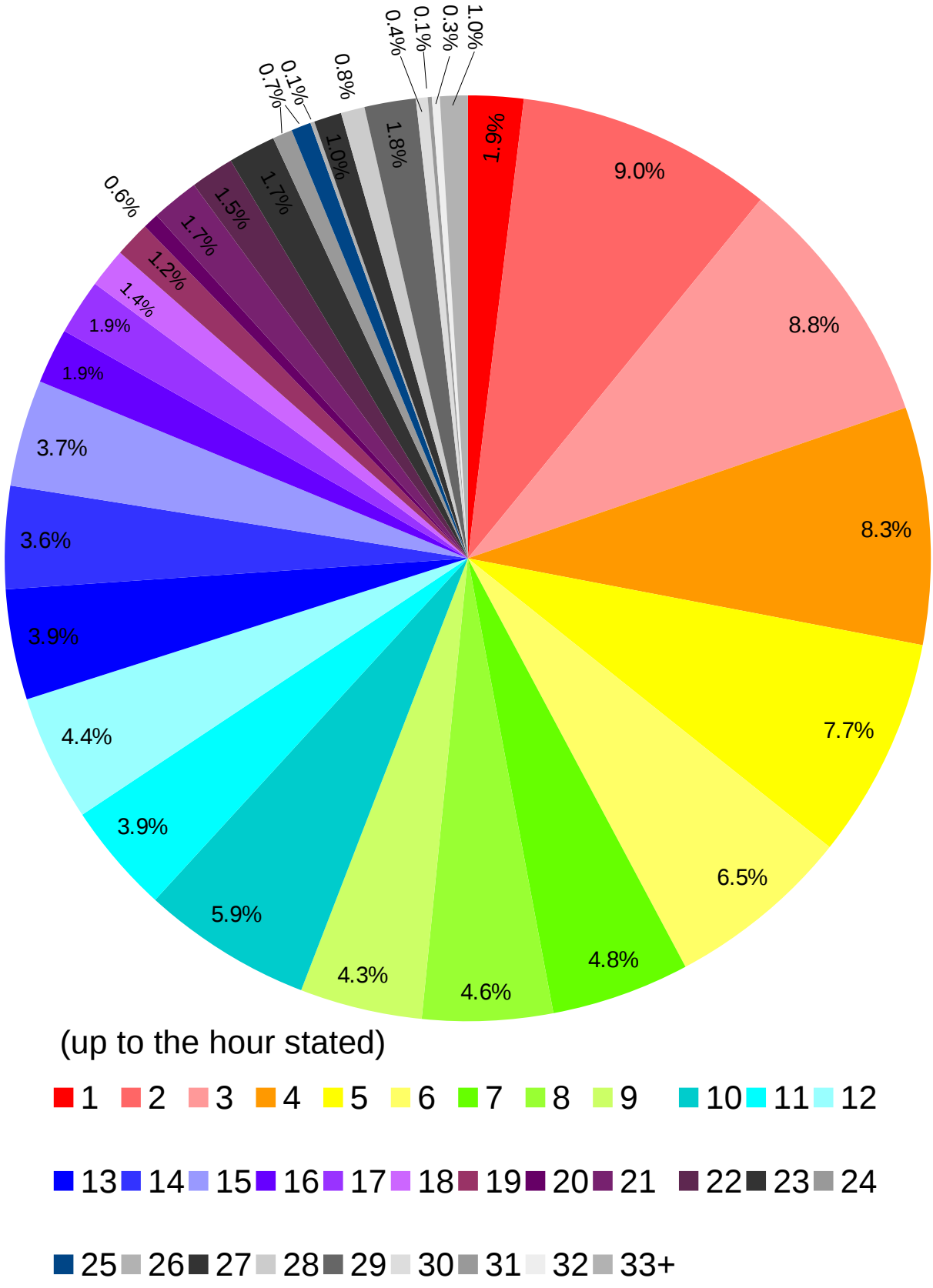
Appendix G
Hour of the day women entered active labour



This only covers those who were not admitted ahead of active labour.
The colours indicate the place of birth

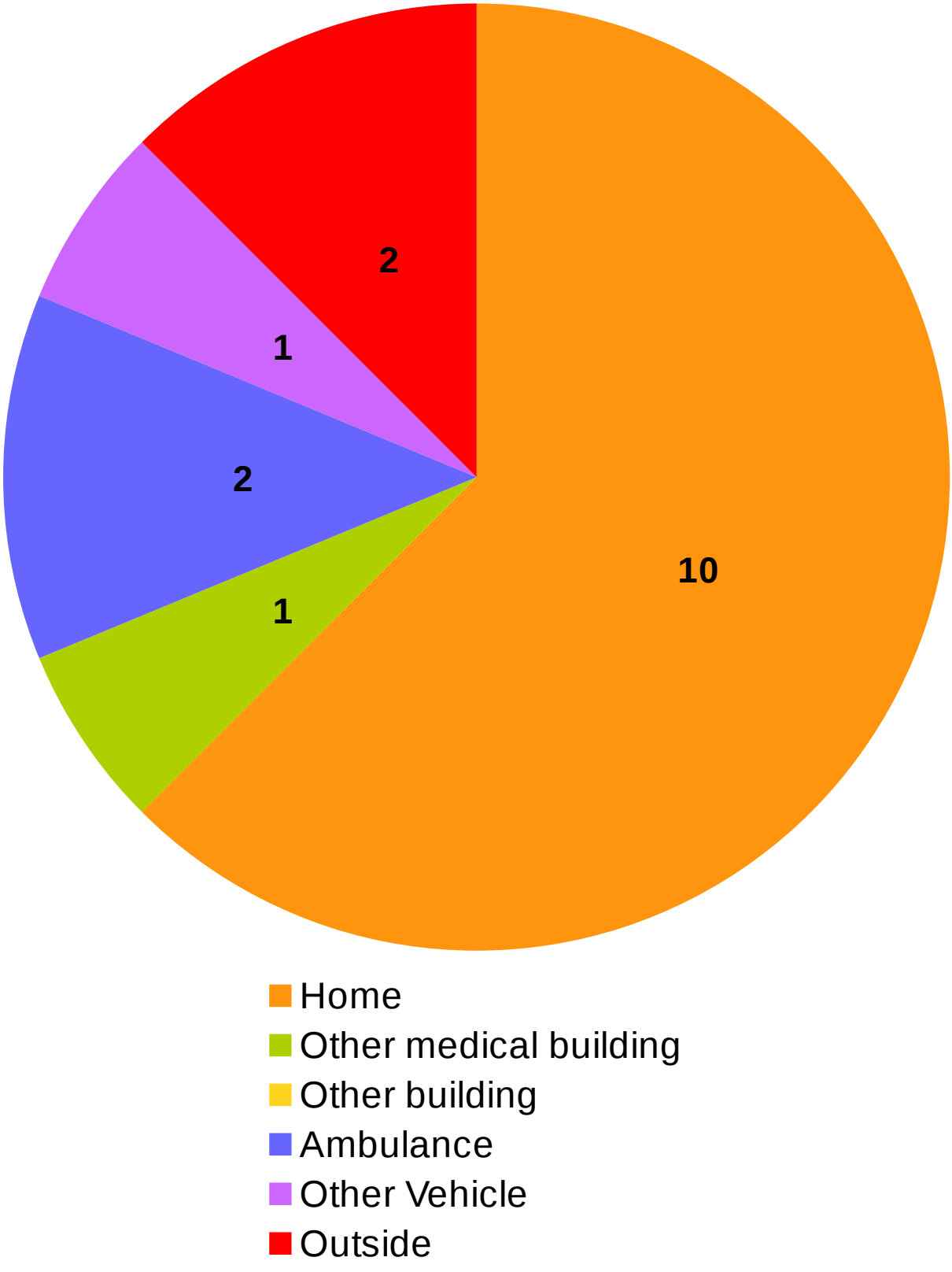
As can be seen, the majority of women enter active labour during the night and early hours of the morning. This means anyone driving them to hospital is likely to be driving in darkness and at a time when they are would normally be asleep. The A595 north of Cockermouth has long unlit sections which make it more hazardous at night than the A-roads around West Cumbria.

Appendix H
Time from onset of active labour to birth complete

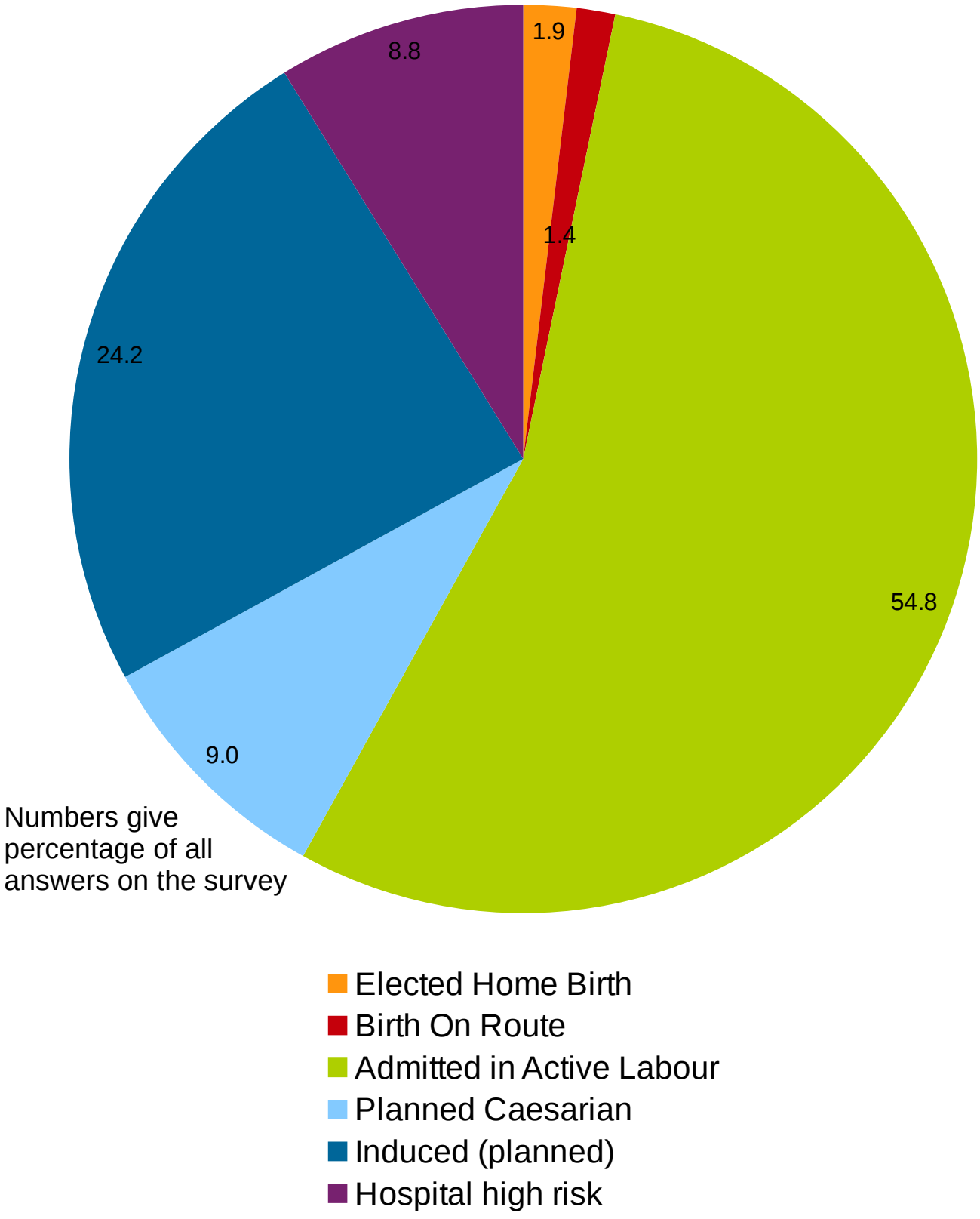


10.9% of women (who were not admitted to hospital in advance) gave birth within 2 hours of the onset of active labour, meaning that they would really need to get to hospital some time before that.

Appendix I
Location of births outside the hospital
other than planned home births

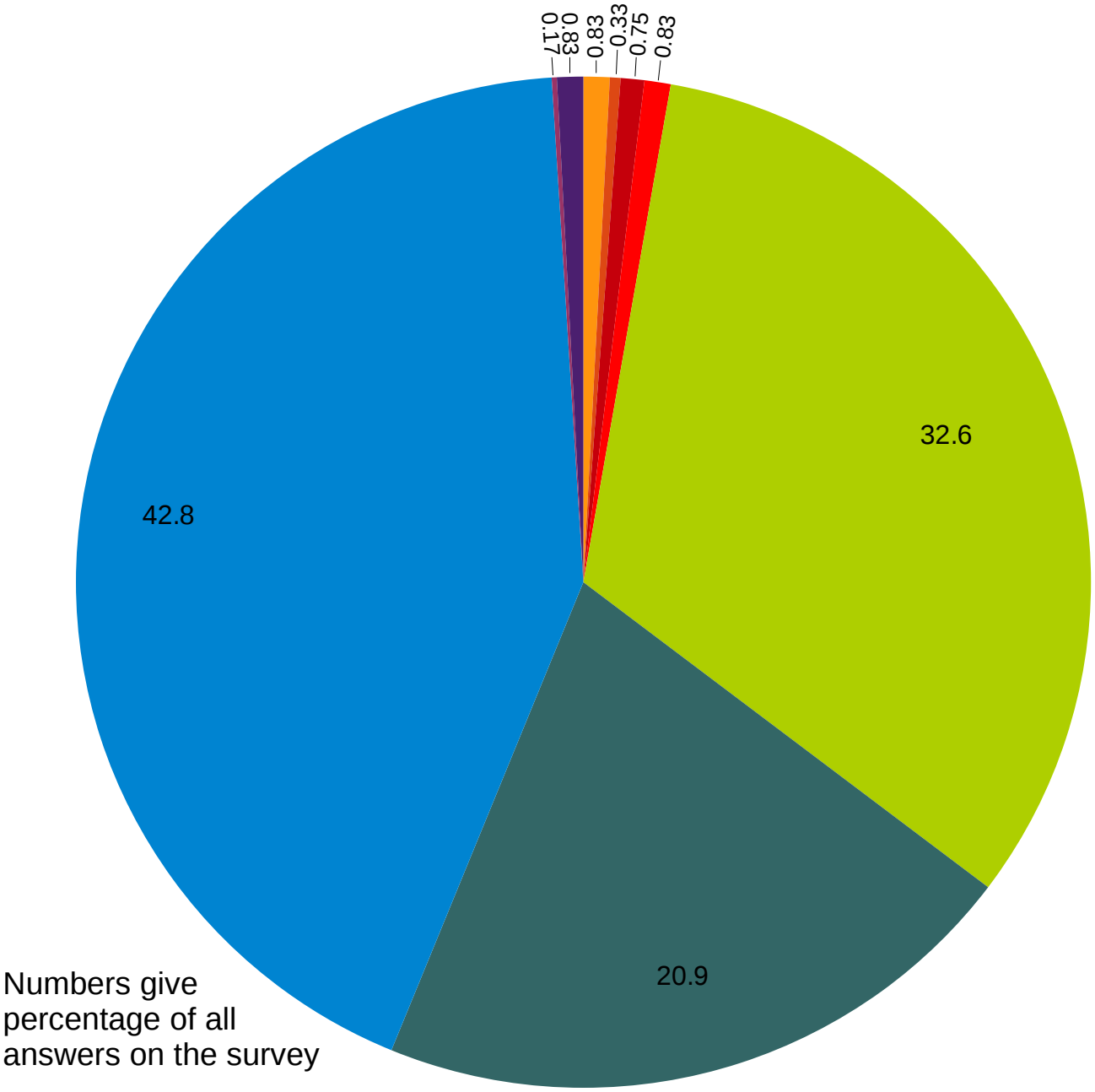


Appendix J
Location and type of birth

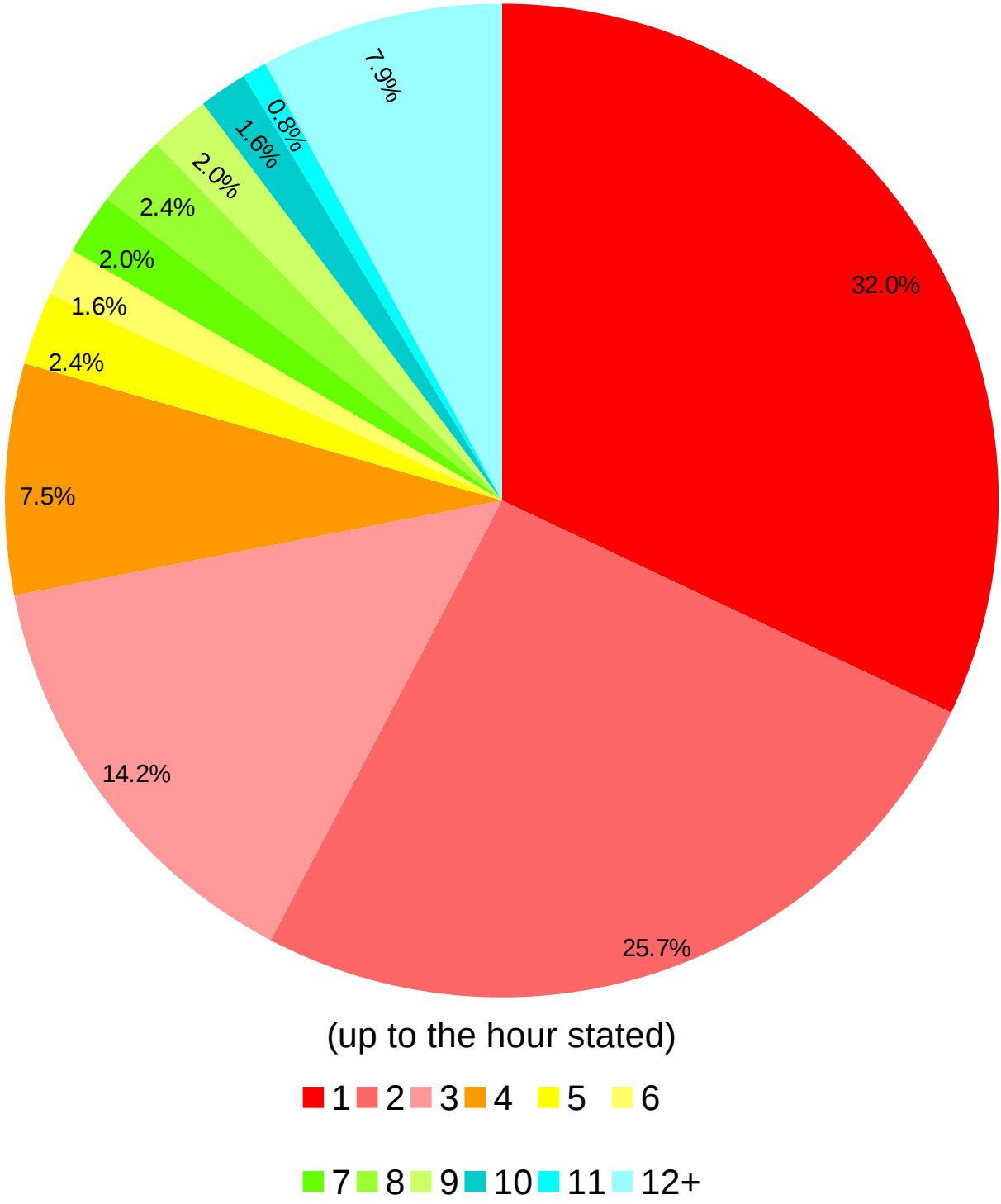


Appendix K
Birth outcomes

Around 21% of births were expected to be low risk but needed a consultant.



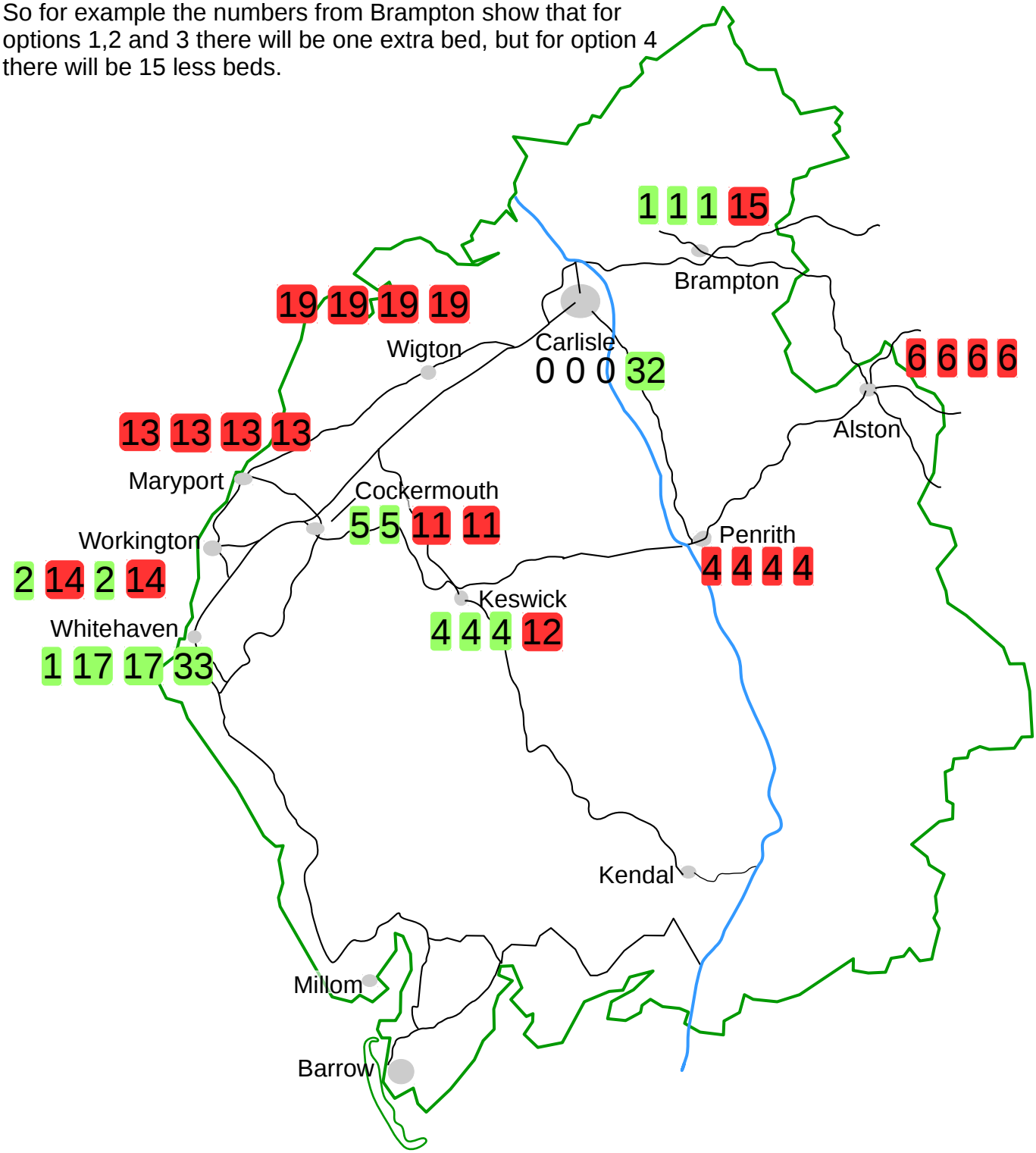
Appendix L
Time from consultant being notified to procedures complete (where no prior risk was identified)



Most of the higher numbers probably indicate follow up procedures or procedures that were necessary due to complications after the birth, rather than lengthy procedures.

Appendix M
Cuts and additions to Community Hospital Beds

Each separate number is for each of the proposed options.
Numbers backed in green show additional beds.
Numbers backed in red show the number of beds to be cut.
So for example the numbers from Brampton show that for options 1,2 and 3 there will be one extra bed, but for option 4 there will be 15 less beds.



The proposals are for all beds to be closed in Maryport, Alston and Wigton, with two options closing all beds at Workington. The proposal 4 is for the building of a new unit at Carlisle for 32 beds.

The Maternity Survey

The following are the questions used on the maternity survey. Due to the different circumstances of the births, the answer to the third question directed women to certain sections so that they only got questions that were relevant to them.

What was the first part of the postcode for the area you were living at the time of the birth?

CA12	*CA20*	*CA26*
CA13	*CA21*	*CA27*
CA14	*CA22*	*CA28*
CA15	*CA23*	*LA18*
CA18	*CA24*	*LA19*
CA19	*CA25*	*LA20*

About how far did you have to travel to your nearest A road?

Less than a mile
1 to 2 miles
2 to 4 miles
4 to 6 miles
6 to 8 miles
8 to 10 miles
over 10 miles

Which of these best describes the lead up to the birth?

1. *I decided to have a home birth (still select if you needed to go to hospital due to complications).*
2. *I intended to go to hospital but didn't get there in time.*
3. *I was admitted to hospital once in active labour.*
4. *I was admitted to hospital before labour started due to needing a caesarian that was known about in advance.*
5. *I was admitted to hospital prior to labour starting to be induced.*
6. *I was admitted to hospital due to expected complications.*

The answer to the above question determined which questions were asked subsequently. The numbers in brackets after each question show which of the above answers directed to those questions.

At what hour of the day did you start active labour? (1, 2, 3)

midnight to 1am	*6am*	*12am*	*6pm*
1am	*7am*	*1pm*	*7pm*
2am	*8am*	*2pm*	*8pm*
3am	*9am*	*3pm*	*9pm*
4am	*10am*	*4pm*	*10pm*
5pm	*11am*	*5pm*	*11pm to midnight*

If there were complications that needed a consultant, at what time of day did this become known? Note: If you started birth one day and needed a consultant the next day you need to go to the bottom of the list to get hours in the next day. (1, 3, 5)

midnight to 1am	*6am*	*12am*	*6pm*	*midnight to 1am the next day*
1am	*7am*	*1pm*	*7pm*	*1am the next day*
2am	*8am*	*2pm*	*8pm*	*2am the next day*
3am	*9am*	*3pm*	*9pm*	*3 am the next day*
4am	*10am*	*4pm*	*10pm*	*4 am the next day*
5pm	*11am*	*5pm*	*11pm to midnight*	*5 am the next day*
				6am the next day
				7am the next day
				after 8am the next day

If you needed a consultant did you get to hospital in time to prevent major problems, if not what was the approximate time in getting to hospital? (1)
Yes
No, but it took less than 15 mins to get to hospital.
No, it took over 15 mins to get to hospital.
No, it took over 30 mins to get to hospital.
No, it took over 30 mins to get to hospital.
No, it took over 45 mins to get to hospital.
No, it took over an hour to get to hospital.

At what hour of the day did you give birth and all medical intervention was complete? Note: If you started birth one day and gave birth the next day you need to go to the bottom of the list to get hours in the next day. (1, 2, 3, 4, 5, 6)

midnight to 1am	*6am*	*12am*	*6pm*	*midnight to 1am the next day*
1am	*7am*	*1pm*	*7pm*	*1am the next day*
2am	*8am*	*2pm*	*8pm*	*2am the next day*
3am	*9am*	*3pm*	*9pm*	*3 am the next day*
4am	*10am*	*4pm*	*10pm*	*4 am the next day*
5pm	*11am*	*5pm*	*11pm to midnight*	*5 am the next day*
				6am the next day
				7am the next day
				after 8am the next day

Did you need to see a consultant after the birth? (2)
No.
Yes.

In what type of place did you give birth?
I gave birth at home.
I gave birth in a community hospital or GP's surgery.
I gave birth at work, friends house, other building.
I gave birth in an ambulance.
I gave birth in a private vehicle or on public transport.
I gave birth outside.

Were there risks identified in advance that meant you were likely to need a consultant? (3)
Yes.
No.

At what hour of the day was the operation started? (4)

midnight to 1am	*6am*	*12am*	*6pm*
1am	*7am*	*1pm*	*7pm*
2am	*8am*	*2pm*	*8pm*
3am	*9am*	*3pm*	*9pm*
4am	*10am*	*4pm*	*10pm*
5pm	*11am*	*5pm*	*11pm to midnight*

At what hour of the day were you induced (or started labour if that happened before they induced you)? (5)

midnight to 1am	*6am*	*12am*	*6pm*
1am	*7am*	*1pm*	*7pm*
2am	*8am*	*2pm*	*8pm*
3am	*9am*	*3pm*	*9pm*
4am	*10am*	*4pm*	*10pm*
5pm	*11am*	*5pm*	*11pm to midnight*

At what hour of the day did you start active labour or were induced? (6)

midnight to 1am	*6am*	*12am*	*6pm*
1am	*7am*	*1pm*	*7pm*
2am	*8am*	*2pm*	*8pm*
3am	*9am*	*3pm*	*9pm*
4am	*10am*	*4pm*	*10pm*
5pm	*11am*	*5pm*	*11pm to midnight*

Which of these best describes the medical care you needed during the birth?
I planned to have a home birth and all went well.
I planned to have a home birth but had an emergency transfer to hospital due to needing a consultant.
I gave birth before I could get to hospital and did not need a consultant.
I gave birth before I could get to hospital and needed a consultant on arrival.
I gave birth at WCH and did not need a consultant.
It was expected to be a complicated birth and needed a consultant.
It was not expected to be a complicated birth yet a consultant was needed.
Complications meant that I was transferred to Carlisle.
Complications meant that I was transferred to a hospital outside Cumbria.