

## APPENDIX 2

<b>Name of the Document</b>	West North East Cumbria, Rapid Desktop Health Impact Assessment (v3)
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<b>Author</b>	Prepared by the Public Health Team as an independent professional assessment and does not necessarily represent County Council policy

### Summary of the Document

A Health Impact Assessment (HIA) is “a combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population” (EHP, WHO, 1999). There is no specific recognised framework for completing HIAs.

The HIA was completed during Consultation using an agreed framework; the assessment took place between September 2016 and January 2017 with final minor amendments in February 2017.

This report has attempted to methodically assess the potential health impacts of the Success Regime proposals, using a set of nationally recognised population health indicators. The assessment also takes into consideration feedback from the public consultation that was held between September and December 2016.



**Healthcare for the Future in  
West, North & East Cumbria  
Rapid Desktop Health Impact Assessment  
January 2017**

## 1. Introduction

The West, North and East Cumbria (WNE) Success Regime has been established to help create the right conditions for high quality health and social care to develop in this area. The aim is to secure improvement by introducing new care models where appropriate, developing leadership capacity and capability across the health system and ensuring collaborative working.

The vision is to position WNE Cumbria as an area recognised for its expertise in delivering integrated health and care for people living in rural, remote and dispersed communities. This will require services to be underpinned by a comprehensive approach to public health and prevention and characterised by strong clinical networks across health and social care within WNE Cumbria and beyond.

It is clear that change is needed in order to respond to the challenges of:

- An ageing population with increasingly complex needs
- National shortages of key clinical roles
- Meeting ever increasing external standards
- Significant financial pressure facing all parts of the NHS and social care.

The aim is to deliver more services within the community, protecting and enhancing primary care and strengthening out-of-hospital services, while also encouraging individuals to change their behaviour to prevent poor health and reduce overall demand. The implementation of Integrated Care Communities (ICCs) is seen as a focus for the development of community and primary care, with community hospitals playing a key part. The expectation is that ICCs will strengthen out of hospital care and reduce the need for unplanned hospital admissions. This will enable North Cumbria University Hospitals Trust (NCUHT) to focus on delivering secure, safe, stable, and high-performing acute hospital services.

A number of options detailing how services can be delivered differently in the future have been proposed across the following six areas:

- Maternity Services
- Paediatric Services
- Community Hospitals
- Emergency and Acute Medical Care, Urgent Care, Trauma & Orthopaedics and Hyper-acute stroke Services

The development of mental health services in parity to physical health services (from prevention to treatment and care) is also fundamental to the proposals. However as statutory consultation on the wider plans to transform mental health services takes place as part of a related Cumbria-wide process, it does not form part of this analysis.

The potential for the four area options to enhance or negatively impact on health (as part of a wider impact assessment that also considers equality, care quality and financial efficiency) should be analysed and understood. Therefore, this Health Impact Assessment (HIA) has been completed.

## 2. Health Impact Assessment Methodology

### What is Health Impact Assessment (HIA)?

A HIA is “a combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population” (ECHP, WHO, 1999). There is no specific recognised framework for completing HIAs.

The need to complete a HIA is normally determined by completing a screening process. A simple screening framework, when applied to the proposals confirmed that a HIA should be completed. See table 1 below.

**Table 1: Basic Screening Framework to assess need for HIA**

Question	Answer: Yes/No*
Will the proposals affect health and wellbeing in anyway?	Yes
Will there be health consequences?	Yes
Is there a trade-off to be made between good and harmful effects?	Yes
Do the proposed changes have significant financial implications?	Yes
Are people worried about the proposals?	Yes

There are three types of HIA; prospective, concurrent and retrospective<sup>1</sup>: In this instance, due to timescales, the aim was to complete a rapid, desktop prospective HIA, which considered:

- A range of public health indicators of population health across the districts within West, North and East Cumbria. Public Health England Profiles for Allerdale, Carlisle, Copeland and Eden (published in 2016) were used to provide data for these indicators<sup>2</sup>. In addition, the potential impact on informal carers is also assessed.
- Feedback from public consultation, which took place between September and December 2016. This included focus groups with protected groups. Consultation was informed by ‘The Future of Healthcare in West, North and East Cumbria Public Consultation Document’<sup>3</sup> published in September 2016

The potential health impact of the options proposed for the four service areas were assessed using the following matrix and were broken down to West – Allerdale & Copeland, North – Carlisle Area, East – Eden, as it was recognised that the impact on population health may be different across these areas. The reason for impact assessment rating is outlined as are suggested mitigations. Wider developments proposed as part of the proposals (e.g. health and wellbeing (public health) and Integrated Care Communities are considered as part of these mitigations.

High Impact	Medium Impact	Neutral or Not Applicable	Medium Impact	High Impact
++	+	N or NA	-	--
Significant positive impact on a large proportion of the population	Medium positive impact on a large proportion of the general population or significant positive impact on a small proportion of the population relevant to the health indicator	no change / no assessed significant impact on population health	Medium adverse impact on a large proportion of the general population or significant adverse impact on a small proportion of the population relevant to the health indicator	Significant adverse impact on a large proportion of the population

<sup>1</sup> [http://www.who.int/hia/examples/en/HIA\\_londonHealth.pdf](http://www.who.int/hia/examples/en/HIA_londonHealth.pdf)

<sup>2</sup> <http://fingertipsreports.phe.org.uk/health-profiles/2016/e07000026.pdf>, <http://fingertipsreports.phe.org.uk/health-profiles/2016/e07000028.pdf>, <http://fingertipsreports.phe.org.uk/health-profiles/2016/e07000029.pdf>, <http://fingertipsreports.phe.org.uk/health-profiles/2016/e07000030.pdf>

<sup>3</sup> <http://www.wnecumbria.nhs.uk/consultation-document>

### 3. Maternity services

For further information, please see the Maternity Services Section of 'The Future of Healthcare in West, North and East Cumbria Public Consultation Document'<sup>4</sup>

#### Current position

In autumn 2014 the CCG commissioned a review of Maternity Services, by the Royal College of Obstetricians and Gynaecologists (RCOG). The purpose of the review was to provide independent and expert advice on the best way to arrange high quality, safe and sustainable maternity services in the future. The review took place in November 2014 and reported in March 2015. The report made a number of recommendations and identified six options to address the ongoing issues. Of the six options only three were recommended to be taken forward subject to a detailed feasibility report exploring the cost, viability and risk associated with each one, considering working in very different ways to try and improve long term safety through different configurations and working practices of staff. As a result of the work to date, three possible service models are being considered and tested in terms of deliverability and sustainability. It is recognised that the model for maternity services must also take account of the key interdependencies with other key services, specifically paediatrics and anaesthetics, both of which are experiencing significant pressures associated with workforce availability.

#### Potential models for maternity services in WNE Cumbria:

The high-level service implications for the maternity options are summarised below (see consultation document for more detail). It is important to note that for all options, local antenatal and post-natal care will continue to be provided across WNE Cumbria.

- 1) **New ways of working** will retain a CLU at WCH with risk stratification such that women assessed as higher risk will be advised to have their intrapartum care at CIC. This option also proposes an MLU is established at WCH & CIC. Based on current estimates, between 200-300 women would be impacted by this change – specifically women expecting twins, with a BMI greater than 35, women who have had a previous section and where the expected foetal weight is over 4.5kg. If planned inductions and caesarean sections would have transferred this would further reduce the number of women delivering in Whitehaven by 30% (330).
- 2) **Partial consolidation** would consolidate a single CLU at CIC, with a midwife-led unit at WCH & CIC providing an option for women assessed as low risk and suitable for midwife- led care. Based on current data 489 births/women per year would be advised to have consultant led care, however given the geographic distance some lower risk women may choose to deliver their babies at CIC.
- 3) **Full consolidation** of all intrapartum care at CIC. All deliveries, other than home births would be provided at CIC. Based on current data this would impact on just over 1600 women a year who would receive their care at CIC rather than WCH.

Population Health Indicator	No Change			Option 1 New Ways of Working			Option 2 Partial Consolidation			Option 3 Full Consolidation		
	west	north	east	west	north	east	west	north	east	west	north	east
Ability to provide informal care	N	N	N	-	N	N	-	N	N	-	N	N
Deprivation	N	N	N	-	N	N	-	N	N	-	N	N
Children living in poverty	N	N	N	N	N	N	N	N	N	N	N	N

<sup>4</sup> <http://www.wnecumbria.nhs.uk/consultation-document>

Homelessness	N	N	N	N	N	N	N	N	N	N	N	N	N
Education	N	N	N	N	N	N	N	N	N	N	N	N	N
Violent Crime	N	N	N	N	N	N	N	N	N	N	N	N	N
Unemployment	N	N	N	N	N	N	N/-	N	N	N/-	N	N	N
Smoking	N	N	N	-	N	N	-	N	N	-	N	N	N
Breastfeeding	-	N	N	+	+	+	+	+	+	-	-	-	-
Obesity	N	N	N	-	N	N	-	N	N	-	N	N	N
Alcohol misuse	N	N	N	-	N	N	-	N	N	-	N	N	N
Under 18 Conceptions	N	N	N	-	-	N	-	-	N	-	-	N	N
Physical Activity	N	N	N	N	N	N	N	N	N	N	N	N	N
Early Cancer Diagnosis	N	N	N	N	N	N	N	N	N	N	N	N	N
Self-Harm	N	N	N	-	N	N	-	N	N	-	N	N	N
Diabetes	N	N	N	-	N	N	-	N	N	-	N	N	N
Sexually Transmitted Infections	N	N	N	N	N	N	N	N	N	N	N	N	N
Hip Fractures	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Infant Mortality	N	N	N	N	N	N	N/-	N	N	N/-	N	N	N
Killed and Seriously Injured on roads	N	N	N/-	N	N	N/-	N	N	N/-	N	N	N/-	N/-
Suicide Rates	N	N	N	N	N	N	N	N	N	N	N	N	N
Deaths from Drug Misuse	N	N	N	N	N	N	N	N	N	N	N	N	N
Under 75 Mortality Rate: Cardiovascular and Cancer	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Excess Winter Deaths	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
Ability to provide informal care	Feedback via public consultation – When women are in hospital giving birth, other family members may have increased caring responsibilities e.g. of other children or older parents. If women are transferred from West Cumbria to CIC (for complex births), the additional travel time/distance may cause more stress to carers. Therefore the impact in these instances has been assessed as potentially negative.	Community midwives and other health professionals to assess possible impact on ability to provide informal care in situations where distance between birth site and home is deemed significant. Signposting to carers organisations where appropriate.

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
Deprivation	Some evidence to suggest that women living in deprivation are more likely to have complex births <sup>5</sup> . Some wards in Copeland and Allerdale are identified as having high levels of deprivation compared to the national average. Therefore, under options 1, 2 and 3, women from west Cumbria who live in poverty may be more likely to be transferred to CIC for intrapartum care. Whilst numbers are likely to be low, transport may be a cost issue in this group. They may also be more likely to discharge themselves earlier than recommended if they feel isolated from family and friends due to the distance between hospital and home. Therefore the potential impact is assessed as negative for West.	During pre-natal care period – any affordability issues linked to additional travel to CIC should be identified. Transport options discussed.  For high risk pregnancies in women identified as living in poverty – consider developing a travel plan using health-funded transport options.
Children living in poverty	The % of children living in low income families in West, North and East Cumbria is not significantly higher than the national average; therefore the impact of any changes is assessed as neutral. This said, it should be acknowledged that 4,425 children in West Cumbria live in low income families. For these families, transport costs as detailed above may be an issue.	See box above.
Homelessness	Rates of statutory homelessness are relatively low across West, North and East Cumbria; therefore the number of homeless women giving birth is likely to be very small and the potential impact is assessed as neutral.	Not applicable
Education	Rates of GCSE's achieved are significantly lower in Copeland (compared to the national average). Low education levels are linked to poverty, which in turn, is linked to poorer birth outcomes. In contrast, women with high education levels are more likely to have babies at an older age. Older mothers may be more likely to have complications during birth. Therefore, overall, the impact of any proposals on education is assessed as neutral.	Not applicable
Violent Crime	Rates of violent crime are higher than the national average in Copeland and Carlisle, however there are no identified health impacts linked to the maternity service proposals and violent crime and therefore the impact is assessed as neutral.	Not applicable
Unemployment	Rates of long-term unemployment are significantly higher than the national average in Allerdale and Copeland (West Cumbria). Removing services from West Cumberland Hospital (WCH) (Whitehaven) may result in health workforce redundancies in the area. Whilst numbers are small, this would have a significant impact on the individuals affected, therefore the potential impact is assessed as negative for west.	Workforce modelling should be carried out to identify the possible impact of all options on workforce at WCH. Support staff to relocate to Cumberland Infirmary Carlisle (CIC), or support alternative employment opportunities locally.
Smoking	Women who smoke during pregnancy are more likely to experience adverse pregnancy outcomes. Data collection regarding smoking status at time of delivery is poor in North Cumbria. Smoking prevalence in adults is not significantly different from the England average across all districts in WNE Cumbria; however we know that on average, 1 in 5 adults smoke in Copeland. Women who smoke during pregnancy may be more likely to be transferred to CIC to give birth. During public consultation, people felt that travel to CIC may cause additional stress for pregnant women living in West	Regardless of health impact, data collection regarding smoking status at time of delivery needs to be improved.  Carbon Monoxide testing should be made a compulsory part of booking appointments, with signposting to stop smoking services offered to pregnant women and their partners if they smoke.  Any pregnant women expressing anxiety

<sup>5</sup> E.g. <http://bmjopen.bmj.com/content/2/3/e000964.full>

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
	Cumbria. Although there is no robust evidence to support the claim, this stress may result in more women smoking during pregnancy, or make it more difficult for women to stop smoking. Therefore the potential impact is assessed as negative for west. It should be noted that the Stop Smoking Service provided by pharmacies in Cumbria is not in scope to change as part of these proposals.	about additional travel to CIC should have their smoking status checked.
Breastfeeding	Breastfeeding initiation rates in Allerdale, Carlisle and Copeland are lower than the national average. Data for 6-8 week breastfeeding status is poor, so we are unable to assess the potential impact of proposals on breastfeeding continuation rates. There is some evidence that breastfeeding rates are higher in midwife-led units <sup>6</sup> , therefore any options that propose a midwife-led unit may support new mums to start breastfeeding, whilst any option that does not include MLUs are, by comparison, less likely to support breastfeeding. The impact scoring reflects this.	Regardless of health impact, data collection regarding 6-8 week breastfeeding status needs to be improved.  Trust to continue to work towards Baby Friendly Initiative (BFI) accreditation across all relevant sites.  Breastfeeding continues to be a priority of the 0-19 Healthy Child Programme
Obesity	Women who are obese may be more likely to be advised to give birth at CIC. Both Allerdale and Copeland districts have rates of excess weight in adults significantly higher than the England average. Therefore women in West Cumbria with excess weight would have to travel further to give birth than those in Carlisle or Eden. In contrast, knowledge of greater travel distances may encourage women to achieve a healthy weight prior to conceiving, or during conception. There may be a small risk that concerns over travel distance may encourage unhealthy weight-loss attempts during pregnancy, but there is no evidence to support this. Overall the potential impact is assessed as neutral for north and east and negative for west.	Primary Care professionals to consider a referral to the Tier 2 community weight management programme for women with excess weight wishing to conceive.  Public Health and Obstetrics & Gynaecology teams to explore options for safely referring pregnant women to weight management support and build into maternity pathways where relevant.
Alcohol misuse	Women who misuse alcohol during pregnancy are more likely to have pregnancy complications and be identified as 'high risk'. Hospital stays for alcohol-related harm are significantly higher than the national average in Copeland and Allerdale. Whilst numbers are likely to be small, the additional travel to CIC may be stressful and more likely to be problematic for pregnant women living in West Cumbria who misuse alcohol. Therefore the potential impact is assessed as negative for west.	Continue to ensure good links between maternity services and the Cumbria Substance Misuse Service – Unity.  Public Health Locality Managers to support healthy drinking behaviours through Health and Wellbeing Forum plans/area plans.
Under 18 Conceptions	Young people who conceive under the age of 18 are likely to be identified as 'high risk' due to their age. In 2014, 49 15-17 year-olds conceived in Allerdale and Copeland. Whilst the rates of under-18 conceptions are not significantly different to the national average in west Cumbria, for the small number of individuals living in West Cumbria, the additional travel to CIC may be stressful. This age group may not have easy access to transport (feedback from public consultation). Rates of under 18 conceptions are significantly higher than the national average in Carlisle. For these young people, the level of care they receive at CIC may be impacted on as a	Ensure travel plans are in place (ideally as part of a birthing plan) for individuals who may not have easy access to transport.  Review service provision to ensure that it can adequately support the needs of young people under the age of 18 who conceive (especially in Carlisle).

<sup>6</sup> E.g. [https://www.rcm.org.uk/sites/default/files/Maternity%20Service%20Reconfiguration%20Wales%20A5\\_2.pdf](https://www.rcm.org.uk/sites/default/files/Maternity%20Service%20Reconfiguration%20Wales%20A5_2.pdf)

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
	result of the service becoming busier. Therefore the potential impact of the proposed changes for north and west is assessed as negative	
Physical Activity	Rates of physical activity in adults are slightly lower in West Cumbria when compared to the national average, however not significantly so. There is no indication that the proposals related to maternity will negatively impact on physical activity levels, therefore the potential impact is assessed as neutral.	Not applicable
Early Cancer Diagnosis	There is no indication to suggest that the proposals relevant to maternity will impact on early cancer diagnosis rates. Detection rates across WNE Cumbria are similar to the national average. Therefore the potential impact is assessed as neutral.	Not applicable
Self-Harm	The rate of hospital stays due to self-harm are significantly higher than the national average in Copeland, Allerdale and Carlisle (significantly better in Eden). Examples of self-harm include deliberate self-poisoning using prescription medication, drugs or other substances and intentional injury. People who are at risk of self-harming are likely to be classified as 'high-risk' during pregnancy. Whilst the numbers are likely to be small, options that would result in additional travel from west Cumbria to give birth (and being further away from supportive friends and family networks) may create additional stress for vulnerable women during pregnancy, including those who self-harm. Therefore the potential impact is assessed as negative for west.	Risk of self-harm should be regularly assessed during the pre-natal care period. Hospital staff who identify self-harm in women suspected of/confirmed as being pregnant should refer to mental health services and check patient is attending routine midwife appointments.  Travel plans (ideally as part of a birthing plan) should be in place as soon as possible into pregnancy for vulnerable women.
Diabetes	Rates of recorded diabetes are significantly higher than the national average in all districts in WNE Cumbria. Whilst this may indicate that detection is better here than elsewhere, it can also indicate that prevalence of diabetes is greater in the population. Gestational diabetes (or pregnancy in women previously diagnosed as Type 1/2 diabetic) can cause pregnancy complications, therefore women from west Cumbria would have to travel further for care. Women who have gestational diabetes may be more anxious at the prospect of a longer transfer to hospital. Feedback from public consultation indicated public concerns about adverse outcomes for mother and baby in high risk pregnancies where travel distance was extended. Therefore for west, the potential impact is assessed as negative.	Travel plans (ideally as part of a birthing plan) should be in place as soon as possible into pregnancy for women diagnosed with diabetes. This can help to reduce anxiety.  Where appropriate, ensure eligible women of child-bearing age are referred to the Diabetes Prevention Programme.
Sexually Transmitted Infections	Sexually Transmitted Diseases (STIs) can cause complications during pregnancy (e.g. infections can be passed on to the baby). Rates of new STIs are significantly lower than the national average in all districts in WNE Cumbria, therefore the proposals for maternity are unlikely to impact on population sexual health and are assessed as neutral.	Not applicable.
Hip Fractures	Profile data relevant to those over the age of 65, therefore indicator not applicable to maternity service options.	Not applicable.
Infant Mortality	The most recently recorded infant mortality rates (deaths in infants <1 year of age per 1,000 live births) are not significantly different to the national average across all districts in WNE Cumbria. Between 2012-2014, there were 7 recorded deaths in Copeland (3.1), 11 in Allerdale (4.0), 16 in	Ensure any additional risks as a result of greater travel distances to give birth are assessed and mitigated against wherever possible.

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
	<p>Carlisle (4.4) and 2 in Eden (1.6) – rate shown in brackets. England average = 4.0.</p> <p>Complications during pregnancy/birth may result in poorer outcomes for infants after birth. Consultation has indicated that public concern is high regarding the potential risk to mothers and babies as a result of longer travel distances from West Cumbria to Carlisle, especially if being transferred under emergency situations.</p> <p>Whilst many studies indicate that there is not a significant risk of adverse birth outcomes related to longer travel distances, ultimately this may cause anxiety to expectant mums and their families. Therefore the risk is assessed as N/- for west Cumbria for options where transfer to Carlisle is required.</p> <p>It is also important to note that the evidence-base for links between other factors (such as smoking and living in poverty) and adverse pregnancy/birth outcomes is stronger.</p>	<p>Community midwifery and other relevant services such as the new Strengthening Families programme – encourage all pregnant women to attend regular/routine pre-natal appointments and receive support to stop smoking.</p>
<p>Killed and Seriously Injured (KSI) on roads</p>	<p>Rates for Killed or Seriously Injured on roads is in line with the national average across Allerdale, Copeland and Carlisle, however rates in Eden are significantly higher than the national average (89.3 compared to 39.3 per 100,000 of the population). Therefore across all the options, travel for pregnant women living in East Cumbria may be more dangerous. The actual maternity proposals themselves are unlikely to impact on rates of KSI in East (hence the N/- assessment), but acknowledging the data is deemed important.</p> <p>Public consultation: Concerns about the condition of the two main A roads between West Cumbria and Carlisle (A595 and A596) due to perceived number of accidents, effects of adverse weather conditions and volume of farm traffic. This data does not indicate a specific impact on health, however travel analysis between West Cumbria and Carlisle should consider different travel scenarios (sensitivity analysis)</p>	<p>Travel plans (ideally as part of a birthing plan) should be in place as soon as possible into pregnancy for all pregnant women. Where women are particularly anxious about travel, different scenario planning should be built into travel plans.</p> <p>Impact of travel delays between West Cumbria and Carlisle should be factored into travel assessments.</p>
<p>Suicide Rates</p>	<p>The average rate of suicides in England between 2012-14 was 10/100,000 population. In WNE Cumbria districts, the rates are as follows; Copeland (16.1), Allerdale (numbers too small to calculate rate), Carlisle (11.3) and Eden (numbers too small to calculate rate).</p> <p>The proposed changes to maternity services are unlikely to impact on suicide rates; therefore the impact has been assessed as neutral.</p>	<p>Not applicable.</p>
<p>Deaths from Drug Misuse</p>	<p>Deaths due to drug misuse are low across Copeland, Allerdale and Eden (the rate in Carlisle is higher at 9.6/100,000 (between 2012-2014).</p> <p>The proposed changes to maternity services are very unlikely to impact on the number of deaths due to drug misuse; therefore the impact has been assessed as neutral.</p>	<p>Not applicable.</p>
<p>Under 75 Mortality Rate: Cardiovascular and Cancer</p>	<p>Indicator not applicable to maternity options.</p>	<p>Not applicable.</p>
<p>Excess Winter Deaths</p>	<p>Indicator not applicable to maternity options.</p>	<p>Not applicable</p>

**Additional comment:**

It should be noted that clinical care improvements (as a result of consolidating services) may result in improved outcomes. If this were the case, it would help to mitigate potential impacts linked to longer travel distances, however careful planning is required to ensure CIC can cope with a greater number of normal/complex births.

## 4. Paediatric Services

### Current position

Currently NCUHT provides paediatric assessment and inpatient services at both CIC and WCH, with 38 beds across the two sites (24 beds at CIC and 14 bed at WCH) operating as 16 inpatient beds and eight assessment beds from 08.00 to 20.00 hours. The 14 beds in WCH operate as seven inpatient beds and seven assessment beds from 08.00 to 21.00 hours; they function as a 14-bed area overnight.

During the CQC inspection, NCUHT's paediatric services were rated as "good", however longer term sustainability issues in paediatrics have been noted as a challenge to the system for some time and the Royal College of Paediatrics & Child Health (RCPCH) requirements for senior assessment and emergency cover are only partially met on the two sites.

There may be significant scope to change patterns of demand for urgent and emergency care through improved integrated community children's services and encouraging and supporting self-care.

### New Models of Care

Please note, assessment of the preferred option only (against the current service model) has been carried out.

#### Preferred Option:

**Paediatric Option 1:** This option involves the development of an inpatient paediatric unit serving West, North and East Cumbria based at Cumberland Infirmary Carlisle along with a short stay paediatric assessment unit. At West Cumberland Hospital, Whitehaven there would be a short stay paediatric assessment unit for children requiring short term observation and treatment. There would also be some overnight beds at Whitehaven for children with less acute, low risk illnesses but children who needed more acute inpatient admission would be transferred to Carlisle.

Population Health Indicator	No Change			Option 1		
Option / area	west	north	east	west	north	east
Ability to provide informal care	N	N	N	-	N	N
Deprivation	N	N	N	-	N	N
Children living in poverty	N	N	N	N/-	N	N
Homelessness	N	N	N	N	N	N
Education	N	N	N	N	N	N
Violent Crime	N	N	N	-	N	N
Unemployment	N	N	N	-	N	N
Smoking	N	N	N	-	N	N
Breastfeeding	N	N	N	N	N	N
Obesity	N	N	N	-	N	N
Alcohol misuse	N	N	N	--	N	N
Under 18 Conceptions	N	N	N	N	N	N
Physical Activity	N	N	N	N	N	N

Population Health Indicator	No Change			Option 1		
	west	north	east	west	north	east
Early Cancer Diagnosis	N	N	N	N	N	N
Self-Harm	N	N	N	--	N	N
Diabetes	N	N	N	-	N	N
Sexually Transmitted Infections	N	N	N	N	N	N
Hip Fractures	NA	NA	NA	NA	NA	NA
Infant Mortality	N	N	N	N/-	N	N
Killed and Seriously Injured on roads	N	N	N	-	N	N
Suicide Rates	N	N	N	N	N	N
Deaths from Drug Misuse	N	N	N	N	N	N
Under 75 Mortality Rate: Cardiovascular and Cancer	NA	NA	NA	NA	NA	NA
Excess Winter Deaths	NA	NA	NA	NA	NA	NA

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
Ability to provide informal care	<p>Feedback via public consultation – concern was expressed that additional travel distances would cause anxiety to family carers.</p> <p>Carers with an existing high-level caring burden (due to ongoing child illness or disability) may be more likely to require inpatient paediatric services. For those families living in West Cumbria, the preferred option therefore represents possible extended travel and time away from wider support networks of family and friends.</p> <p>The impact has therefore been assessed as potentially negative for this area.</p>	<p>Community engagement elements of Integrated Care Communities: promote paediatric self-care.</p> <p>Healthcare staff to signpost carers of ill or disabled children to carers supports groups where appropriate.</p> <p>CCG to explore options for funding/provision of overnight accommodation, meals and transport assistance for family members of children admitted to inpatient paediatric Units where distance from home is identified as creating challenge</p>
Deprivation	<p>Some wards within Copeland and Allerdale are identified as having high levels of deprivation compared to the national average.</p> <p>There is some evidence to suggest that children who are part of families living in deprived areas are more likely to access A&amp;E services when ill. This may be linked to poorer parental coping skills.</p> <p>Reducing the range of paediatric services available at WCH may result in increased anxiety for families and also increased costs linked to extended travel distances.</p> <p>It is unclear whether additional travel distances may result in reductions in paediatric emergency admissions. A potential benefit might be reduced inappropriate use; however a potential risk may be that families do not seek timely support for very sick children if it is less convenient to access services (this was raised during consultation).</p> <p>Overall the impact is assessed as negative for west.</p>	<p>Community engagement elements of Integrated Care Communities: promote self-care and appropriate use of A&amp;E facilities.</p> <p>CCG to explore options for funding/provision of overnight accommodation, meals and transport assistance for family members of children admitted to inpatient paediatric Units where distance from home creates financial pressures to families on low incomes.</p>
Children living in poverty	<p>The % of children living in low income families in WNE Cumbria is not significantly higher than the national average; therefore the impact of any changes is assessed as neutral. This said, it should be acknowledged that</p>	<p>See box above.</p>

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
	4,425 children in West Cumbria live in low income families. For these families, transport costs as detailed above may be an issue, therefore the overall assessment for option 1 is N/-	
Homelessness	Rates of statutory homelessness are relatively low across WNE Cumbria; therefore the proposed changes are unlikely to impact on this health indicator (assessed as neutral).	Not applicable
Education	Rates of GCSE's achieved are significantly lower in Copeland (compared to the national average). Low education levels are linked to poverty, which in turn, is linked to greater use of emergency services by families with children. Overall however, the proposed changes to children's services are unlikely to impact on education levels, therefore the impact is assessed as neutral. Taking another viewpoint on education, community engagement opportunities via ICCs has the potential to improve people's health literacy; however children's health is not currently identified as a specific priority.	Self-care promotion through ICCs – ensure health education can be understood and adopted by people with differing levels of educational attainment.
Violent Crime	Rates of violent crime are higher than the national average in Copeland and Carlisle. If children are implicated, the preferred option for paediatric services means that children in Copeland would have further to go to access emergency inpatient care. This could delay their ability to receive timely treatment and has therefore been assessed as potentially negative. Data collected by the Trauma and Injury Intelligence Group <sup>7</sup> also indicates that the rates of paediatric accidents are higher than the national average in West Cumbria. Therefore the potential impact is assessed as negative for west.	ICC self-care approaches to support accident prevention in children, with support and advice from Public Health.
Unemployment	Rates of long-term unemployment are significantly higher than the national average in Allerdale and Copeland (West Cumbria). Reconfiguring paediatric services may result in health workforce redundancies in the West area. Whilst numbers are small, this would have a significant impact on the individuals affected, therefore the potential impact is assessed as negative for west.	Workforce modelling should be carried out to identify possible impact of all options on workforce at WCH. Support staff to relocate to CIC, or support alternative employment opportunities.
Smoking	Data collection regarding smoking status at time of delivery is poor in North Cumbria. Smoking prevalence in adults is not significantly different from the England average across all districts in WNE Cumbria, however we know that on average, 1 in 5 adults smoke in Copeland. Children who live in households where people smoke are more likely to suffer from health conditions that may result in them requiring paediatric care (e.g. asthma). The preferred option could potentially make this care less accessible due to extended travel distances. Therefore for west Cumbria, the potential impact is assessed as negative.	Stop smoking support should be included in workforce and service plans across community/primary and secondary care.

<sup>7</sup> <http://www.cph.org.uk/tiig/>

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
Breastfeeding	Breastfeeding initiation rates in Allerdale, Carlisle and Copeland are lower than the national average, however the proposed changes to paediatric services is not assessed as directly influencing breastfeeding rates. Therefore the assessed impact is neutral.	NCUHT continue to work towards Baby Friendly Initiative accreditation across all relevant sites, so mothers attending paediatric units with their babies are encouraged to breastfeed where appropriate.
Obesity	Obesity rates in children (measured at Year 6) are significantly higher than the national average for Copeland, indicating that children in this area of west Cumbria may be more likely to be overweight. Children who are overweight may be more likely to access paediatric services due to conditions such as diabetes and asthma (but numbers may be small). Therefore the potential impact on west is assessed as negative	Not applicable, however given the levels of childhood obesity, it should be a consideration across public health, primary care and acute services.
Alcohol misuse	Alcohol-specific hospital stays in those under the age of 18 are significantly higher in Copeland and Allerdale than the England average (Carlisle and Eden rates are not significantly different). Copeland has the highest recorded rate in England (104.4/100,000 between 2012-2015), although the actual count (number) equates to 42 stays during this time. Due to the high rate, the impact of changes to paediatric services in west Cumbria is therefore assessed as potentially double negative.	Further work required to understand the high rates of hospital stays for children resident in Copeland. Ensure care pathways are in place for alcohol related issues in young people and consider the need for hospital-based alcohol support services.
Under 18 Conceptions	In 2014, 49 15-17 year-olds conceived in Allerdale and Copeland. Rates of under-18 conceptions are not significantly different to the national average in west or east Cumbria, however they are significantly higher in Carlisle. Service changes do not impact on access to contraception or sexual health advice, therefore the overall impact is assessed as neutral.	Not applicable.
Physical Activity	Physical activity levels for children in west Cumbria are not significantly higher than the national average. Nationally, there is a weak correlation between physical activity levels and accidents/injuries in children (e.g. playing contact sports/using trampolines may make a child slightly more likely to suffer an injury requiring inpatient paediatric care). However, there is no evidence to suggest a particular risk as a result of service changes; therefore the overall impact is assessed as neutral.	Not applicable
Early Cancer Diagnosis	Cancer diagnosis in children is rare. There is no indication to suggest that the proposed proposals relevant to children's services will impact on early cancer diagnosis rates (unless children have less convenient access to diagnostic tests in west) . Detection rates across WNE Cumbria are similar to the national average. Therefore the potential impact is assessed as neutral.	Not applicable
Self-Harm	The rate of hospital stays due to self-harm are significantly higher than the national average in Copeland, Allerdale and Carlisle (significantly better in Eden). Examples of self-harm include deliberate self-poisoning using prescription medication, drugs or other substances and intentional injury. Young people who self-harm are a very vulnerable group, who may experience stress and less timely care as a result of extended travel	Emotional health and wellbeing in children and young people should be a priority across all relevant delivery frameworks and care pathways being developed as part of service changes. By adopting a systems approach to children's emotional health, changes to individual services will be

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
	times to access inpatient care. CAMHS and Tier 2 mental health services for young people are also oversubscribed in Cumbria. Therefore the potential impact of the proposed changes is assessed as double negative (--).	mitigated against where possible.
Diabetes	Rates of recorded diabetes are significantly higher than the national average in all districts in WNE Cumbria. Whilst this may indicate that detection is better here than elsewhere, it can also indicate that prevalence of diabetes is greater in the population. Children and young people with Type 1 diabetes may be more likely to require inpatient care (e.g. due to poorly controlled insulin levels). Whilst numbers will be small, the impact of travelling further for acute care could be significant. Therefore the potential impact is assessed as negative for west.	CCG to ensure that the needs of Children and Young People with Type 1 diabetes have been considered in service change proposals and ensure appropriate care pathways are in place.
Sexually Transmitted Infections	Rates of new STIs are significantly lower than the national average in all districts in WNE Cumbria, therefore the Success Regime proposals for Children's Health are unlikely to impact on population sexual health. There is no evidence to suggest young people use the services in scope as a route to sexual health advice, STI testing or contraception.	Not applicable
Hip Fractures	Profile data relevant to those over the age of 65, therefore indicator not relevant to paediatric service options.	Not applicable
Infant Mortality	The most recently recorded infant mortality rates (deaths in infants <1 year of age per 1,000 live births) are not significantly different to the national average across all districts in WNE Cumbria. Between 2012-2014, there were 7 recorded deaths in Copeland (3.1), 11 in Allerdale (4.0), 16 in Carlisle (4.4) and 2 in Eden (1.6) – rate shown in brackets. England average = 4.0. Whilst the numbers are small, there may be a risk that acutely ill children may experience poorer outcomes if they have to travel further for care. Therefore the potential impact is assessed as N/- Concerns about this were highlighted during public consultation.	Risk of additional travel distances to be estimated and mitigated against by CCG.
Killed and Seriously Injured (KSI) on roads	Children seriously injured in accidents in west Cumbria will need to be transferred to CIC, which means they would have a longer transfer. Public concern that this would result in poorer clinical outcomes. Therefore the potential impact is assessed as negative for west.	Not applicable.
Suicide Rates	The proposed changes to paediatric services are very unlikely to impact on suicide rates; therefore the impact has been assessed as neutral.	Not applicable.
Deaths from Drug Misuse	Deaths due to drug misuse are very low across Copeland, Allerdale and Eden (the rate in Carlisle is higher at 9.6/100,000 between 2012-2014). The proposed changes to paediatric services are very unlikely to impact on the number of deaths due to drug misuse; therefore the impact has been assessed as neutral.	Substance misuse services are not in scope for any proposed changes.

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
Under 75 Mortality Rate: Cardiovascular and Cancer	Indicator not applicable to paediatric services option.	Not applicable.
Excess Winter Deaths	Indicator not applicable to paediatric services option.	Not applicable

**Other factors highlighted during public consultation:**

People expressed concern about the immunisation status of children from the following groups: immigrants, refugees, gypsies and travelers. The concern expressed was that children may be more likely to require acute care if they became ill with a serious illness that they had not been vaccinated against. Taking into account immunisation policies, rates and herd immunity factors, there is no indication that the proposed change to paediatric services would impact on the health of children who have not received the full UK programme of childhood immunisations.

## **5. Community Hospital Inpatient Beds**

Community hospitals have a long history in the area and are strongly supported by their local communities and active League of Friends that contribute significant funds. Overall they deliver a high standard of nursing care and excellent patient experience. Community hospitals will be a significant asset in the delivery of integrated out-of-hospital care particularly in the context of the development of ICCs.

Engagement involving a wide range of health and social care stakeholders makes it clear that thriving, sustainable community hospitals can support rural communities and provide centres for the delivery of integrated health and social care with facilities for diagnostics and ambulatory care.

### **Current Position**

There are currently eight community hospitals in WNE Cumbria and an inpatient unit on the WCH site, which are operated by CPFT. The geographical position of the hospitals has, to a large extent, grown up based upon historical development rather than population health needs.

The number of inpatient beds in each hospital ranges from six (currently seven in Alston) to twenty-eight. Some community hospitals host minor injury and/or primary care assessment services as well as a range of outpatient and therapy services.

Where community hospitals have a small number of beds, there have been significant challenges associated with recruitment and safe staffing levels. Some of our units are very small and often only have 1 registered nurse on duty, recruitment and sickness issues in small units can lead to crisis situations where no registered staff are available to work which results in unplanned bed closures putting pressure on the whole system. This can lead to existing staff working long hours, double shifts for prolonged periods of time. The CQC report in autumn 2015 highlighted that staff often felt isolated and vulnerable

The cost of community hospital inpatient beds is comparatively high, with significant variation between sites ranging from £288- £454 per bed night (correct August 2015). Admission criteria is variable across sites, and there have been a number of quality and safety issues – which are a concern given the increased pressure on a depleted workforce who may not always have the most appropriate skill sets to provide optimum care depending on the complexity of need). There is considerable variation in the condition of community hospital estates and the ongoing ability to meet national standards.

### **New Models of Care proposed prior to consultation**

In considering the options for community hospital inpatient beds, it has been recognised that these must be seen in the context of the changing needs of the population and the wider changes being considered to support safe and sustainable health and care services in WNE Cumbria. While community hospitals are considered primarily as having beds, as strengthened out of hospital care is developed, they have a much broader role in the context of ICCs – acting as natural hubs to provide a focus for the delivery and co-ordination of care.

In considering the needs of the population, a review of community hospital inpatient capacity has been undertaken, which suggested that WNE Cumbria currently has a significantly higher number of community hospital inpatient beds compared to most other areas in England. (Based on a population of 330,000, and

making a presumption that the beds are used appropriately, the data would indicate the need for 84 community hospital beds, compared with 133 beds currently).

- **Option 1** - Focus the future bed bases onto fewer sites within West Cumbria, Eden and Carlisle (minimum 16 bed units)
- **Option 2** - Focus the future bed bases onto fewer sites within West Cumbria, Eden and Carlisle, with some specialisation (minimum 16 bed units)
- **Option 3** - Create capacity to deliver 102 community bed equivalents (such as through hospital at home model, commissioning capacity through nursing homes etc.)

'In relation to operational deliverability, the initial judgement regarding suitability of current community hospital sites for future sustainability is that:

- It would be prohibitive to expand two of the current sites to support the minimum of 16 beds (Maryport Community Hospital and Alston Community Hospital);
- Wigton is assessed as no longer being suitable for long-term provision of inpatient beds, with minimal scope to address current issues given the estates condition.

The remaining options pass the hurdle criteria and have been confirmed as the short list of options to be taken forward for detailed appraisal. There is recognition that the opportunity of creating 'virtual beds' capacity will need to be considered at a local level as the development of ICCs is progressed, and this therefore should be progressed differentially across WNE Cumbria.

For all options, the expectation is that the implementation of ICCs will strengthen out of hospital care and reduce the need for unplanned hospital admissions and enable a significant reduction in length of stay. As a result, the financial plans are assuming a reduction in the total number of inpatient beds across the system over time. For example, to mitigate the impact of additional travel for the three hospitals without in-patient beds (Alston, Wigton and Maryport), we are proposing to reinvest 50% of the savings to greatly strengthen local primary and community nurse and therapy teams aimed at supporting more people to stay in their own homes.'

### **New models of care proposed during consultation**

The following options were also proposed during consultation:

- **Maryport: New Option 1** – A smaller 8 bed unit running 24/7 focussing on short stay rehabilitation and Reablement.
  - Estimated cost – similar to current spend.
  - Mainly step-up.
  - Focussed on a bed avoidance unit (i.e. avoiding care home and acute hospital bed use).
  - More short and overnight stays
  - Continuing to provide palliative care
- **Maryport: New Option 2** – Hospital running 7 days a week, but no overnight stay.
  - Population health model. Focus on admission avoidance
  - Creates space for outpatient appointments
  - Improved home-based palliative care
- **Solway: A new model of place based integrated health & care provision**
  - An integrated bed base providing a wide spectrum of need
  - A hub for community health and social care services
  - Increased use of digital health and care technology
- **Alston: A new model of place based integrated health and care provision**
  - One fully integrated health and care team

- One integrated bed base providing a wide spectrum of need
- Radically increased use of digital health and care technology





Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
Ability to provide informal care	<p>Feedback via public consultation – concern was expressed that additional travel distances would cause anxiety to family carers if community hospital beds were closed. Carers with an existing high-level caring burden (due to ongoing illness or increasing frailty experienced by themselves and the person being cared for) may be more likely to require use of community hospitals.</p> <p>For those families living in areas where proposals mean facilities will close extended travel and time away from wider support networks of family and friends could be problematic.</p> <p>The impact has therefore been assessed as potentially negative for these areas.</p> <p>Census unpaid care data indicates Allerdale and Copeland have a higher percentage of unpaid carers providing more than 50 hours of unpaid care per week compared to Carlisle and Eden.</p> <p>The new proposals seek to optimise the facilities available at community hospital sites and would therefore create a more convenient ‘one-stop’ shop for carers supporting people to attend appointments. Therefore, these proposals have been assessed as having a potentially positive impact.</p>	Health and Care providers, in partnership with the public, to explore further the options for creating health and care hubs at community hospital sites.
Deprivation	<p>Some wards within Copeland and Allerdale are identified as having high levels of deprivation compared to the national average.</p> <p>There is some evidence to suggest that people living in deprived areas are more likely to access community hospital beds at present (i.e. due to poorer lifestyles/support networks). Any options that involve the closure of beds in deprived areas have been assessed as having a potentially negative impact due to the additional travel (and therefore additional costs) of attending community hospitals further away.</p>	<p>ICC proposals aim to provide improved care within people’s communities, therefore the need for community hospital beds should be reduced.</p> <p>Transforming community hospital sites into integrated health and care hubs would further mitigate travel issues for people from low income households.</p>
Children living in poverty	<p>The % of children living in low income families in West, North and East Cumbria is not significantly higher than the national average; therefore the impact of any changes is assessed as neutral. This said, it should be acknowledged that 4,425 children in West Cumbria live in low income families.</p> <p>Some community hospitals are the venue for children’s outpatient clinics. If these clinics are impacted by the proposed changes, there is a risk that families from low income households would have to travel further to attend outpatient appointments. The additional cost and inconvenience may make them less likely to attend appointments, or create financial strain for these families.</p> <p>The new proposals put forward during consultation tend to focus on improving/integrating care for older people, therefore would not impact on children. If the new proposals meant that current children’s outpatient clinics (run through community hospitals) would stop, the impact would have to be amended to negative.</p>	<p>ICC proposals aim to provide improved care within people’s communities, therefore there should be no need for families with low incomes to travel further for outpatient appointments.</p> <p>However, if the main focus of ICCs and Community Hospital proposals is older people’s care, the impact of changes to children’s clinics would need to be mitigated against by identifying other community based venues for outpatient clinics.</p>
Homelessness	Rates of statutory homelessness are relatively low across WNE Cumbria, therefore the proposed changes do not impact on this health indicator (neutral).	Not applicable.

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
Education	<p>Rates of GCSE's achieved are significantly lower in Copeland (compared to the national average). Low education levels are linked to poverty, which in turn, is linked to poorer health and increased need for outpatient appointments. Overall however, the proposed changes to community hospitals are unlikely to impact on education levels, therefore the impact is assessed as neutral.</p> <p>If community hospitals are currently providing clinics such as 'speech and language' for children and these clinics stop, it may have a negative impact on education levels (although small numbers).</p>	Identify other local community venues for these clinics.
Violent Crime	Rates of violent crime are higher than the national average in Copeland and Carlisle; however the proposed changes are not assessed as having a potential impact on rates of violent crime (neutral).	Not applicable.
Unemployment	Rates of long-term unemployment are significantly higher than the national average in Allerdale and Copeland (West Cumbria). Reconfiguring the use of Community Hospitals may result in improved employment rates, due to more sustainable healthcare jobs being available (therefore impact is assessed as potentially positive for the new proposals emerging from consultation). Numbers affected may be small however (especially if digital healthcare is also promoted).	Workforce modelling to include new community hospital proposals.
Smoking	<p>Smoking prevalence in adults is not significantly different from the England average across all districts in WNE Cumbria; however we know for example, that on average, 1 in 5 adults smoke in Copeland.</p> <p>People may access community hospital beds due to smoking related conditions such as COPD, but because the rates of smoking are not significantly higher than the national average, the overall impact of service changes that may result in consolidation is assessed as neutral.</p> <p>If community hospitals became health and wellbeing hubs, where stop smoking was a priority (e.g. all staff trained to delivery brief interventions around stop smoking), this could potentially support reductions in smoking prevalence.</p>	Ensure all community hospital sites (including buildings, grounds and vehicles) are smoke free and train staff to provide brief interventions around stop smoking where appropriate.
Breastfeeding	Breastfeeding initiation rates in Allerdale, Carlisle and Copeland are lower than the national average, however the proposed changes to community hospital beds is unlikely to impact on breastfeeding rates (unless new integrated hubs at community hospitals are BFI accredited), therefore scored as neutral.	Not applicable.
Obesity	<p>Both Allerdale and Copeland districts have rates of excess weight in adults significantly higher than the England average. People who are significantly overweight may be more likely to require community hospital services (e.g. rehabilitation due to mobility problems and inpatient beds due to Long Term Conditions). Therefore consolidation options have been assessed as having a potentially negative impact.</p> <p>If community hospitals became health hubs and offered improved weight management support, there may be a positive impact on obesity prevalence across WNE Cumbria.</p>	Both ICC and Community Hospital integration plans to prioritise healthy weight in order to improve community wellbeing.

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
Alcohol misuse	Hospital stays for alcohol-related harm are significantly higher than the national average in Copeland and Allerdale; however the proposed changes to community hospital beds are unlikely to impact on these rates. Therefore the impact is assessed as neutral.	Not applicable.
Under 18 Conceptions	Services changes do not impact on access to contraception or sexual health advice, therefore the overall impact is assessed as neutral.	Not applicable.
Physical Activity	Rates of physical activity in adults are slightly lower in West Cumbria when compared to the national average, however not significantly so. There is no indication that the proposals related to community hospitals will negatively impact on physical activity levels. If community hospitals became integrated hubs promoting amongst other things, weight management, this would include physical activity and may support increased levels as a result, hence the positive assessment.	Not applicable.
Early Cancer Diagnosis	There is no indication to suggest that the proposals relevant to community hospitals will impact on early cancer diagnosis rates (unless integrated models of working include provision of clinics offering testing/examination relevant to cancer). Detection rates across WNE Cumbria are currently similar to the national average. Therefore the potential impact is assessed as neutral.	Not applicable.
Self-Harm	The rate of hospital stays due to self-harm are significantly higher than the national average in Copeland, Allerdale and Carlisle (significantly better in Eden). The proposed changes are unlikely to impact on these rates (therefore neutral impact score given).	Not applicable.
Diabetes	Rates of recorded diabetes are significantly higher than the national average in all districts in WNE Cumbria. Whilst this may indicate that detection is better here than elsewhere, it can also indicate that prevalence of diabetes is greater in the population. People with diabetes may be more likely to require inpatient care (e.g. due to poorly controlled blood sugar levels), however integrated care community plans include actions to improve management of long term conditions in the community, which will mitigate this need if successfully implemented (therefore integrated plans may have a potentially positive impact).	Integration plans for Community Care and Community Hospital sites to include actions to improve diabetes prevention and care.
Sexually Transmitted Infections	There is no evidence to suggest young people use community hospital services to access sexual health advice, STI testing or contraception. Therefore the proposed changes to community hospitals are assessed as having a neutral impact.	Not applicable.
Hip Fractures	The rate of hip fractures in people over the age of 65 is not significantly different from the national average across all districts in WNE Cumbria. However, older people suffering injuries and fractures as a result of falls are more likely to access post-acute care via community hospitals at present (e.g. rehabilitation). Increased travel as a result of hospital bed consolidation would impact on people who have experienced a hip fracture; therefore the impact is assessed as negative. Under the new proposals, services such as bone density	Continue to work up proposals to develop community care services at Community Hospital sites (including those that support falls prevention).

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
	clinics and falls prevention classes are given as examples of possible services that could operate out of community hospitals. If this were the case, the rate of hip fractures may be reduced as a result (and a positive impact achieved).	
Infant Mortality	Not applicable to service change proposals.	Not applicable.
Killed and Seriously Injured (KSI) on roads	<p>Rates for Killed or Seriously Injured on roads is in line with the national average across Allerdale, Copeland and Carlisle, however rates in Eden are significantly higher than the national average (89.3 compared to 39.3/100,000).</p> <p>Therefore across all the options, travel for older people living in East Cumbria may be more dangerous. The actual community hospital proposals themselves are unlikely to impact on rates of KSI in East, hence the N/- assessment, but acknowledging the issue is deemed important.</p> <p>Public consultation: Concerns about the condition of the two main A roads between West Cumbria and Carlisle (A595 and A596) due to perceived number of accidents, effects of adverse weather conditions and volume of farm traffic. This data does not indicate a specific impact on health, however travel analysis between West Cumbria and Carlisle should consider different travel scenarios</p>	<p>Integrated care plans that result in reduced need for travel across all areas of WNE Cumbria would be beneficial (although may not impact directly on KSI rates).</p> <p>Travel impact assessment to consider needs of older people having to travel further for care as a result of any proposed community hospital bed consolidation.</p>
Suicide Rates	The proposed changes to community hospital beds are very unlikely to impact on suicide rates; therefore the impact has been assessed as neutral.	Not applicable.
Deaths from Drug Misuse	The proposed changes to community hospital beds are very unlikely to impact on the number of deaths due to drug misuse; therefore the impact has been assessed as neutral.	Not applicable.
Under 75 Mortality Rate: Cardiovascular and Cancer	<p>Under 75 mortality rates from cancer and cardiovascular disease are significantly higher than the national average in Copeland. There may be individuals utilising community hospital beds for palliative care and further travel distances would be stressful for patients and their carers/family. However, there is no indication that access to community hospital beds impacts on premature death rates, therefore the impact is assessed as neutral for consolidation options.</p> <p>If community hospital sites become health and care hubs, and promote prevention via improved lifestyles (e.g. stop smoking), there may be a positive impact on premature death rates as a result.</p>	Consider how to promote prevention through advice, referral and activity provision at Community Hospital sites (when developing ICC and acute care plans further).

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
Excess Winter Deaths	<p>The rates of excess winter deaths are not significantly different to the England average across all areas of WNE Cumbria; however Community Hospitals do provide a range of services to older people that support their health and resilience.</p> <p>There is no evidence however to suggest that access to community hospitals impacts directly on excess winter death rates. In this instance, the impact is assessed as being potentially negative due to public feedback. There is strong public opinion that consolidation of community hospital sites would directly impact the health of frailer older people.</p> <p>This said, if community hospitals became health and care hubs focusing on the wellbeing of older people, this could potentially support actions that reduce excess winter deaths (e.g. referral to third sector to receive support around winter fuel payments and home insulation).</p>	<p>Consider how to promote 'winter warmth' through advice, referral and activity provision at Community Hospital sites (when developing ICC and acute care plans further).</p>

## 6. Emergency and Acute Care (including hyper-acute stroke unit), Urgent Care, Trauma and Orthopaedics

### Emergency and Acute (including Hyper Acute Stroke Unit)

#### Current Position

Many aspects to improve emergency and acute medical care are being progressed as part of the commitment to continuous improvement, a number of changes have been made to develop a single-service model across the two acute hospital sites with the aim of improving outcomes for patients.

Following public consultation (undertaken since June 2013), the majority of operative trauma provision has been provided at CIC. Although the major stimulus for that change was associated with improved outcomes, an important local factor was the lack of resources to provide a robust service on both sites.

Some trauma services were maintained at the WCH site to minimise travelling as well as the burden on the ambulance service and the infrastructure at Carlisle. This comprised an on-call rota, two trauma lists per week for minor trauma procedures, new patient fracture clinics for minor injuries and local admission of patients requiring conservative management. In February 2014 a number of changes to the service at WCH were made on safety grounds. These changes reflected a clinical audit of activity undertaken between July 2013 and February 2014.

The changes resulted in the cessation of on call and inpatient trauma care at WCH. It also included a reorganisation of consultant input to fracture clinics and revised protocols in A&E. In June 2014, the decision to cease minor trauma operations at WCH was made due to extremely low numbers (1-2 per week) and consequent inefficiency.

In addition there was a review of the high-risk surgical pathways that were transferred as part of the wider changes to emergency surgery. There are three pathways that could be treated effectively and efficiently at WCH within the new WCH facility, providing care closer to home for some lower risk patients, allowing more efficient use of lists for CIC inpatient emergencies that will improve patient flow.

#### New Models of Care

Please note, assessment of the preferred option (against the current service model) only has been carried out. The preferred option was 'option 1' as presented throughout consultation.

Option 1 – New Ways of Working	
CIC	WCH
24/7 A&E with UCC streaming. Integrated emergency floor, including hot clinics. Minor increase in ICU, EAU and inpatient specialty beds. Hyper acute stroke unit and ASU. Frailty assessment unit and rehab including specialist rehab.	Integrated emergency floor with UCC streaming. Including hot clinics & day time specialty support. Selected admissions for complex patients where no advantage to transfer. Limited provision of low risk non elective surgery and trauma. A small ICU. Frailty Assessment unit and rehabilitation.

New ways of working with more emphasis on anticipatory and ambulatory care alongside innovative workforce models is a significant departure from previous attempts to work differently and solve the workforce problems, particularly at WCH. Based on current activity levels we would expect this option to affect 1092 patients each year who would have their care provided at CIC rather than WCH.

## **Hyper-acute Stroke Unit**

Stroke services are measured against a set of national quality standards. Whilst WNE Cumbria has been successful in making some improvements, they report not able to meet a number of the highest standards for stroke care due to limited access to stroke specialist staff and facilities and an inability to provide full services seven days a week on two sites.

Nationally, the NHS is centralising immediate acute stroke care in well resourced, specialist hyper-acute stroke units as research suggests a centralised model of acute stroke care, in which hyperacute care is provided to all patients with stroke, can reduce mortality and length of hospital stay. In addition there is a national shortage in stroke consultants as well as workforce challenges in a number of other key areas.

Despite great strides in improving stroke services in WNE Cumbria the view is that they are still not as good as they should be. The care of stroke inpatients in both Whitehaven and Carlisle is provided in clinical areas not dedicated to stroke, services operate for five days a week and it has proved very difficult to recruit more stroke specialists to extend the available service.

### **Current Position**

Currently patients with suspected stroke are assessed, treated for a blood clot if necessary, and admitted for acute care both at West Cumberland Hospital in Whitehaven and at Cumberland Infirmary Carlisle. Patients also receive early rehabilitation on both sites. Patients in the Carlisle can also receive early, intensive rehabilitation services that help them to leave hospital more quickly and return to their own homes in order to maximise independence as quickly as possible after their stroke.

Outside of normal working hours CT scan images for patients with suspected stroke on both sites are reviewed remotely as part of our 'telestroke' arrangements with other hospitals.

Acute stroke admissions in west, north and east Cumbria total approximately 700 per year, with 410 in Cumberland Infirmary Carlisle (CIC) and 290 in West Cumberland Hospital. Current services are reported as extremely 'fragile': if one element was to disappear (such as an individual consultant leaving), the service is at risk of collapsing.

### **Potential models for Hyper Acute Stroke services in WNE Cumbria:**

As a result of the work to date, the preferred option for hyper-acute stroke unit is:

All acute stroke cases managed in a single hyper-acute stroke unit based at Cumberland Infirmary, Carlisle. Ambulances would take possible stroke patients direct to Carlisle. Patients arriving at West Cumberland Hospital by other means would be transferred by ambulance to Carlisle. On leaving the hyper-acute stroke unit, patients living in west Cumbria would be transferred to acute stroke and rehabilitation facilities at West Cumberland Hospital if further hospital care was needed. This service would be complemented by ensuring improved, early supported discharge at both Carlisle and Whitehaven.

Please note, the potential impact of the preferred option (against the current model) only has been completed.

### **Urgent Care, Trauma and Orthopaedics**

In late 2012 a public consultation approved the transfer of high risk surgery & major trauma / hip fractures from West Cumberland Hospital to Cumberland Infirmary Carlisle and this was implemented in June 2013. In February 2014 the NCUH Trust Board took the decision to cease the on call service, inpatient admissions and minor trauma operating at West Cumberland Hospital on the grounds of safety, noting also issues of, sustainability and cost efficiency. Since putting in place these changes, monitoring of the service has shown an improvement in patient outcomes. Deaths as a result of all trauma have decreased – even for those communities living furthest from the Cumberland Infirmary Carlisle.

## **Current Position**

The current service provision for Trauma and Orthopaedics is that out-patients and elective care is delivered at both hospital sites. Fracture clinics are provided seven days per week at the Cumberland Infirmary Carlisle and five days a week at West Cumberland Hospital (by trauma consultants), advice is available to A&E in hours. Out of hours cover is provided by Orthopaedic on-call team. All non-elective (trauma) is delivered at Cumberland Infirmary Carlisle. For general surgery, all high risk non elective operating is delivered at Cumberland Infirmary Carlisle. Since the centralisation of emergency general surgery there has been a gradual increase in non-elective surgery being transferred to CIC. There is now the opportunity to review providing minor trauma surgery and some non-complex day case general surgery at West Cumberland Hospital.

## **Proposals for Emergency Surgery, Trauma and Orthopaedics in WNE Cumbria:**

The proposal is that the arrangements previously made on safety grounds are now made permanent with some further changes which allow additional emergency surgery and trauma care to take place at West Cumberland Hospital.

- Additional minor trauma surgery will take place on some days each week at West Cumberland Hospital with any displaced planned surgery being managed in an additional weekly list at West Cumberland Hospital.
- Some non-complex day case general surgery is returned to West Cumberland Hospital including key-hole gall bladder operations, surgical treatment of abscesses, and investigation of abdominal pain (with keyhole procedure if necessary).
- Single 'Professional Point of Access' communication arrangements are used to allow the referrer (often the patient's GP) to discuss directly with the hospital based surgeon the best place to see and assess individual patients.

Population Health Indicator	No Change			Emergency & Acute Preferred Option			Hyper Acute Stroke Unit Preferred Option			Emergency Surgery, Trauma and Orthopaedics		
Area	west	north	east	west	north	east	west	north	east	west	north	east
Ability to provide informal care	N	N	N	-	N	N	N/ -	N/ +	N/ +	N/ -	N/ +	N/ +
Deprivation	N	N	N	-	N	N	N/ -	N	N	N/ -	N	N
Children living in poverty	N	N	N	N	N	N	N	N	N	N	N	N
Homelessness	N	N	N	N	N	N	N	N	N	N	N	N
Education	N	N	N	N	N	N	N	N	N	N	N	N
Violent Crime	N	N	N	N/ -	N	N	N	N	N	N/ -	N	N
Unemployment	N	N	N	N/ -	N	N	N/ -	N	N	N/ -	N	N
Smoking	N	N	N	N	N	N	N	N	N	N	N	N
Breastfeeding	N	N	N	N	N	N	N	N	N	N	N	N
Obesity	N	N	N	N	N	N	N	N	N	N	N	N
Alcohol misuse	N	N	N	-	N	N	N	N	N	-	N	N
Under 18 Conceptions	N	N	N	N	N	N	N	N	N	N	N	N
Physical Activity	N	N	N	N	N	N	N	N	N	N	N	N
Early Cancer Diagnosis	N	N	N	N	N	N	N	N	N	N	N	N
Self-Harm	N	N	N	-	N	N	-	N	N	-	N	N
Diabetes	N	N	N	N	N	N	+	+	+	N	N	N

Sexually Transmitted Infections	N	N	N	N	N	N	N	N	N	N	N	N
Hip Fractures	N	N	N	-	N	N	N	N	N	-	N	N
Infant Mortality	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Killed and Seriously Injured on roads	N	N	N	N	N	N/-	N	N	N/-	N	N	N/-
Suicide Rates	N	N	N	N	N	N	N	N	N	N	N	N
Deaths from Drug Misuse	N	N	N	N	N	N	N	N	N	N	N	N
Under 75 Mortality Rate: Cardiovascular and Cancer	-	-	-	N	N	N	+	+	+	N	N	N
Excess Winter Deaths	N/-	N/-	N/-	N/-	N	N	+	+	+	N/-	N	N



Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
Ability to provide informal care	<p>Feedback via public consultation – concern was expressed that additional travel distances would cause anxiety to family carers travelling from west Cumbria to CIC to visit/support relatives who were acutely ill or having surgery.</p> <p>However, if the proposals result in better clinical outcomes for patients, this may relieve the burden of day-to-day care being provided by informal carers. In addition, ICC developments may reduce the need to access acute services.</p> <p>Overall it is difficult to assess the impact of the proposed changes on carers. Ultimately the proposals should have a positive impact, but the concerns about additional travel from west shift the assessment from positive/neutral to neutral/negative in some instances. This is further influenced by local data that indicates that emergency admissions due to stroke in Copeland and Allerdale are currently significantly higher than the national average.</p>	Very clearly communicate the potential benefits of the changes via carers groups.
Deprivation	<p>Some wards within Copeland and Allerdale are identified as having high levels of deprivation compared to the national average.</p> <p>There is some evidence to suggest that people living in deprived areas are more likely to access these types of acute services. Any options that involve the shifting of services from west Cumbria to CIC have been assessed as having a potentially negative impact due to the additional travel (and therefore additional costs) of attending hospitals further away.</p>	<p>ICC proposals aim to provide improved care within people’s communities, therefore the need for acute services should be reduced.</p> <p>CCG to explore options for funding/provision of overnight accommodation, meals and transport assistance for families where distance from home is identified as creating challenge.</p>
Children living in poverty	<p>The % of children living in low income families in West, North and East Cumbria is not significantly higher than the national average; therefore the impact of any changes is assessed as neutral.</p> <p>However, for low income families, additional travel to access acute services means additional cost.</p>	See box above.
Homelessness	<p>Rates of statutory homelessness are relatively low across West, North and East Cumbria, therefore the proposed changes do not impact on this health indicator.</p>	Not applicable.
Education	<p>Rates of GCSE’s achieved are significantly lower in Copeland (compared to the national average). Low education levels are linked to poverty, which in turn, is linked to greater use of acute services. Overall however, the proposed changes to these acute services are unlikely to impact on education levels, therefore the impact is assessed as neutral.</p>	Use ICC developments as an opportunity to promote health literacy and ensure materials are accessible to people with low levels of literacy and numeracy skills
Violent Crime	<p>Rates of violent crime are higher than the national average in Copeland and Carlisle. People who are injured as a result of crime in west Cumbria may need to travel further to Carlisle to access appropriate care.</p> <p>It may also mean that ambulance staff have to spend longer transferring potentially violent patients.</p> <p>However numbers are likely to be small, therefore the potential impact is assessed and neutral/negative.</p>	If applicable, CCG to advise Cumbria Police of the impact of any changes to acute services that may impact on treating victims of violent crime, or perpetrators who may be injured.

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
Unemployment	Rates of long-term unemployment are significantly higher than the national average in Allerdale and Copeland (west Cumbria). Reconfiguring acute services may result in reduced healthcare employment rates in West Cumbria. Therefore the potential impact is assessed as negative for west.	Workforce modelling should be carried out to identify possible impact of all options on workforce at WCH. Support staff to relocate to CIC, or support alternative employment opportunities.
Smoking	Smoking prevalence in adults is not significantly different from the England average across all districts in WNE Cumbria; however we know for example, that on average, 1 in 5 adults smoke in Copeland. People may be more likely to require acute services as a result of health conditions linked to smoking, but because the rates of smoking are not significantly higher than the national average, the overall impact of acute service changes are assessed as neutral.	Consider making all hospital sites smoke free.  Consider all opportunities to 'on-the-spot' prescribe Nicotine Replacement Therapy to smokers who receive hospital care, or are awaiting surgery.
Breastfeeding	Breastfeeding initiation rates in Allerdale, Carlisle and Copeland are lower than the national average; however the proposed changes to acute services are unlikely to impact on breastfeeding rates, therefore the potential impact is assessed as neutral.	NCUHT to support improved breastfeeding rates by continuing to work towards achieving Baby Friendly Initiative Level 3 accreditation.
Obesity	Both Allerdale and Copeland districts have rates of excess weight in adults significantly higher than the England average. People who are significantly overweight may be more likely to require acute hospital care (e.g. Orthopaedics). However, the proposed changes to acute services are unlikely to impact on obesity rates across WNE Cumbria (neutral scoring).	Support reduced obesity rates by considering incorporating weight management into pre-operative care pathways.
Alcohol misuse	Hospital stays for alcohol-related harm are significantly higher than the national average in Copeland and Allerdale. The proposed changes may result in vulnerable people having to be transferred further away from supportive family and friend networks if admitted to CIC. Therefore the potential impact is assessed as negative in these instances.	Consider the role of acute services in supporting reductions in alcohol-related harm e.g. alcohol coordination teams have been proven to reduce hospital stays due to alcohol-use.
Under 18 Conceptions	Services changes do not impact on access to contraception or sexual health advice, therefore the overall impact is assessed as neutral.	Not applicable.
Physical Activity	Rates of physical activity in adults are slightly lower in West Cumbria when compared to the national average, however not significantly so. There is no indication that the proposals related to these acute services will negatively impact on physical activity levels. Public feedback via consultation: injuries due to sports and outdoor activities requiring acute hospital admissions – people in west Cumbria would have to travel further. Concerns about clinical outcomes due to delayed care. Whilst there is public concern, there is no evidence to suggest that the numbers would be significantly high, or that outcomes would be poorer.	Not applicable.
Early Cancer	There is no indication to suggest that the proposals relevant to these acute services would impact on early cancer diagnosis rates.	Not applicable.

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
Diagnosis	Detection rates across WNE Cumbria are currently similar to the national average. Therefore the potential impact is assessed as neutral.	
Self-Harm	<p>The rate of hospital stays due to self-harm are significantly higher than the national average in Copeland, Allerdale and Carlisle (significantly better in Eden).</p> <p>The proposed changes may result in vulnerable people having to be transferred further away from supportive family and friend networks if admitted to CIC. Therefore the potential impact is assessed as negative in these instances.</p>	Due to the significant levels of self-harm in WNE Cumbria, the current service transformation plans create an opportunity for all providers to consider how best to work together to support the prevention of self-harm and ensure robust care pathways are in place for vulnerable patients.
Diabetes	<p>Rates of recorded diabetes are significantly higher than the national average in all districts in WNE Cumbria. Whilst this may indicate that detection is better here than elsewhere, it can also indicate that prevalence of diabetes is greater in the population.</p> <p>People with diabetes may be more likely to access acute services (e.g. due to neuropathy related conditions).</p> <p>People living in West Cumbria would have to travel further for services only available at CIC. This said, there is no evidence to suggest that service changes will directly impact on the rates of recorded diabetes. Therefore the impact is assessed as neutral.</p> <p>Diabetes is a risk factor for stroke. Therefore, for Hyper Acute Stroke Unit proposals, care for people with diabetes who have as stroke should be improved. As a result, the potential impact is assessed as positive.</p>	Regardless of proposed changes to acute services, integration plans for Community Care and Community Hospital sites should include actions to improve diabetes prevention and care.
Sexually Transmitted Infections	There is no evidence to suggest people use the acute services described to access sexual health advice, STI testing or contraception. Therefore the proposed changes to community hospitals are assessed as having a neutral impact.	Not applicable.
Hip Fractures	<p>The rate of hip fractures in people over the age of 65 is not significantly different from the national average across all districts in WNE Cumbria. However, older people suffering injuries and fractures as a result of falls are more likely to access e.g. trauma services.</p> <p>Increased travel for people living in West Cumbria could impact on people who have experienced a hip fracture; therefore the impact is assessed as negative.</p>	Continue to work up proposals to develop community care services at Community Hospital sites (including those that support falls prevention).
Infant Mortality	Not applicable to service change proposals.	Not applicable.

Population Health Issue	Reason for impact assessment rating	Suggested Mitigation
Killed and Seriously Injured (KSI) on roads	<p>Rates for Killed or Seriously Injured on roads are in line with the national average across Allerdale, Copeland and Carlisle, however rates in Eden are significantly higher than the national average (89.3 compared to 39.3/100,000).</p> <p>Therefore across all the options, travel for people living in East Cumbria may be more dangerous. The actual acute service proposals themselves are unlikely to impact on rates of KSI in East, hence the N/- assessment, but acknowledging the issue is deemed important.</p> <p>Public consultation: Concerns about the condition of the two main A roads between West Cumbria and Carlisle (A595 and A596) due to perceived number of accidents, effects of adverse weather conditions and volume of farm traffic. This data does not indicate a specific impact on health, however travel analysis between West Cumbria and Carlisle should consider different travel scenarios</p>	<p>Integrated care plans that result in reduced need for travel across all areas of WNE Cumbria would be beneficial (although may not impact directly on KSI rates).</p> <p>Travel impact assessment to consider needs of people having to travel further for care as a result of any proposed changes to acute services.</p>
Suicide Rates	The proposed changes to acute services are very unlikely to impact on suicide rates; therefore the impact has been assessed as neutral.	Not applicable.
Deaths from Drug Misuse	The proposed changes to acute services are very unlikely to impact on the number of deaths due to drug misuse; therefore the impact has been assessed as neutral.	Not applicable.
Under 75 Mortality Rate: Cardiovascular and Cancer	Under 75 mortality rates from cancer and cardiovascular disease are significantly higher than the national average in Copeland. The proposed Hyper Acute Stroke Unit may result in improved outcomes for people under the age of 75 who have a stroke, therefore the potential impact is assessed as positive (and by comparison, maintaining current service standards are deemed potentially negative).	Not applicable if Hyper Acute Stroke Unit is developed.
Excess Winter Deaths	<p>The rates of excess winter deaths are not significantly different to the England average across all areas of WNE Cumbria.</p> <p>There is no clear evidence to suggest that access to acute services impacts directly on excess winter death rates, however public consultation indicated that people are concerned about the impact of longer transfer times on older frailer people and those experiencing a cardiovascular event requiring emergency treatment. Therefore, for West Cumbria, options that would result in longer travel distances are impact-assessed as neutral/negative.</p>	Consider how to promote 'winter warmth' through advice, referral and activity provision at acute hospital sites and via ICC developments.

## 7. Recommendations and Conclusions

This report has attempted to methodically assess the potential health impacts of the proposed changes to health and care services in West, North and East Cumbria using a set of nationally recognised population health indicators. The assessment also took into consideration feedback from the public consultation that was held between September and December 2016.

It is recommended that the CCG:

- Acknowledge the potential impacts identified through this report and where appropriate, embed recommended mitigating actions in service development plans going forward.