APPENDIX I: **Financial Analysis**

The information contained in this Appendix has been updated since the date of the original PCBC to reflect further financial analysis and modelling and represents the most up to date position. Therefore, any inconsistencies with the main part of the PCBC are as a result of this updating. All NHS organisations believed it important that the public had the most up to date financial information available, that has been agreed by those organisations. As this continues to be updated – it will be reflected in information, available to the public, through the Success Regime website.

1 Financial analysis

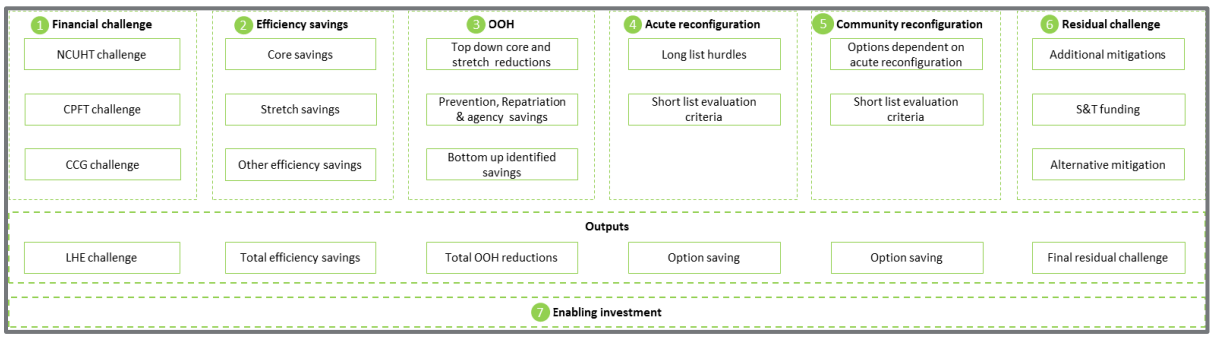
This chapter provides further detail on the financial modelling undertaken to support the PCBC. It describes the Do Nothing financial challenge in WNE Cumbria of c. £163m by 2020/21, and a range of mitigations to improve financial sustainability, including the range of options proposed to transform the way that care is delivered to patients in WNE Cumbria.

The financial modelling has been overseen by the Success Regime Finance Directors Group, including representation from NCUHT, CPFT, Cumbria CCG, NHS England and NHS Improvement. All key assumptions and outputs of the financial analysis have been agreed with this Group.

1.1 Overall financial modelling approach

The financial modelling has been developed in seven stages; the overall approach is illustrated in Figure 1.

Figure 1: Overall financial modelling approach



Source: WNE Cumbria Success Regime

The following sections discuss each stage in turn.

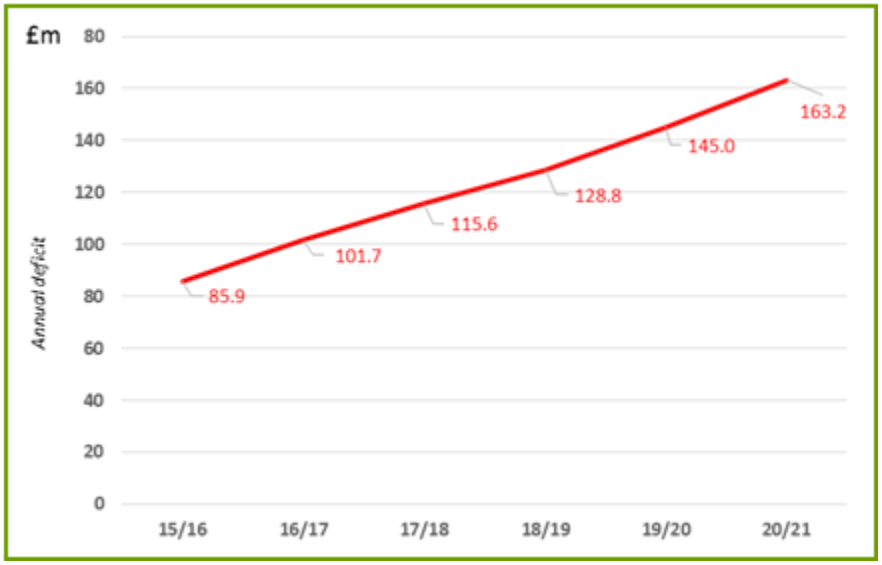
1.2 Financial challenge

In the Five Year Forward View, NHS England outlines a 'Do Nothing' national financial challenge of c. £30bn by 2020/21, based on demand growth, cost pressures and flat funding in real terms[1]. As a result, there is a national requirement for the NHS to deliver savings of c. 5% of spend per annum over the next five years. Of this challenge, c. £8bn is expected to be provided through real increases in funding, leaving a remaining challenge of c. £22bn by 2020/21. This would reduce the annual savings requirement to c. 3-4%.

WNE Cumbria is currently spending c. £86m more than it receives in funding under the system.[2] High spend on agency workforce compared to peers; operating a number of services at relative sub-scale; and other factors which could be linked to WNE Cumbria's rurality are likely to be contributory factors to this financial challenge. The financial challenge has increased significantly since 2013; investment undertaken potentially linked to recommendations from the Francis report around staffing level requirements could in part be driving this.[3]

Based on current services, by 2020/21, an estimated additional c. £163m of funding could be required above that which is likely to be available, in order to keep pace with expected increases in demand and cost pressures[4]. In particular, average increases in funding of c. 2.5% per annum are outstripped by demand growth of c. 2% per annum; cost inflation of c. 2.5%; and a c. 2% (c. £12m) cost uplift by 2020/21 to account for the cost of meeting national clinical standards such as 7 day services. Figure 2 summarises the financial challenge.

Figure 2: Do nothing financial challenge



Source: WNE Cumbria Success Regime

The £163m by 2020/21 reflects a savings requirement of approximately 6.5% per annum over the next five years to bridge the financial challenge, which is greater than the average national

[1] Source: https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf
[2] The c. £86m is the recurrent financial challenge, providing the underlying position for forecasting the 2020/21 financial challenge. It excludes non-recurrent elements and as such does not reconcile to organisations' annual accounts.
[3] Source: https://www.england.nhs.uk/tag/francis-report/
[4] For a detailed breakdown of assumptions used to estimate Cumbria's 2020/21 financial position see Appendix L.

requirement of approximately 5%.[5] The main driver of this greater than average financial challenge is the larger deficit in WNE Cumbria's 2015/16 starting position. The rate of growth in the financial challenge over five years is relatively consistent with the national trend.

Significant collaboration and joint working will be required to design the appropriate solutions to address the challenge.

The cost of delivering services in WNE Cumbria is higher than the national average as well as its peer group. For example, average reference costs for NUCHT are approximately 5% higher than the national average and approximately 15-20% higher compared to the upper quartile of acute trusts. There are a number of likely drivers of these higher costs, including:[6]

1. Spending on agency staffing – which amounts to approximately 7% of total spend at NCUHT compared to approximately 2-3% for peers;[7]
2. Running a number of services on a sub-scale basis; and
3. An ageing population which drives a more complex case mix relative to other areas.

The higher costs identified suggest that there is some opportunity to provide services more efficiently within the same clinical model through cost improvement programmes, for example targeting reductions in agency spend. These opportunities are assessed in the section 1.3 as part of the mitigations to address the financial challenge. A number of these mitigations offset the growth in the cost base that would otherwise occur in the 'Do Nothing' scenario.

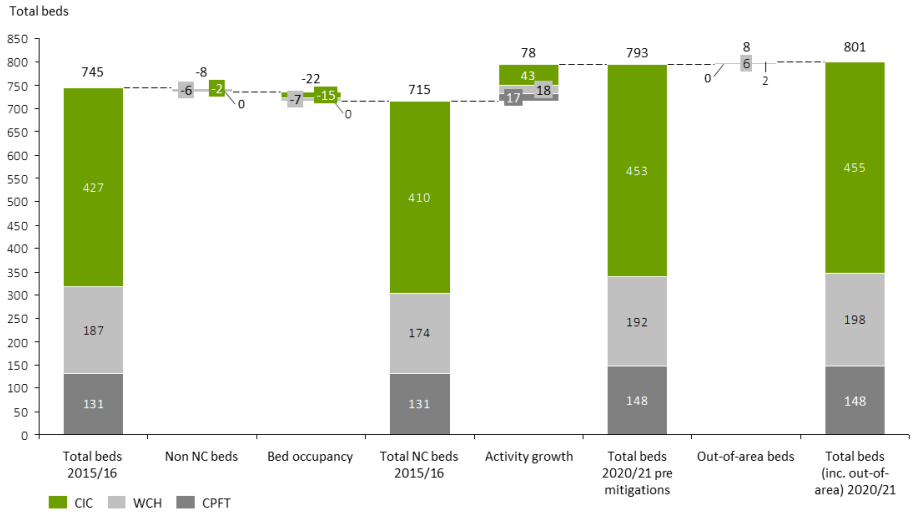
1.2.1 **The Capacity Baseline across WNE Cumbria**

There are approximately 745 beds in WNE Cumbria: CIC (427); WCH (187); and CPFT (131)[8]. Adjusting for a target bed occupancy of 85%[9] and only including beds for patients in WNE Cumbria, the total demand is estimated to be approximately 715 beds in 2015/16.

If the system were to continue to function as is, based on 2% activity growth per annum over five years, 793 beds are likely to be required in WNE Cumbria by 2020/21 to meet the additional demand. This reflects an increase of 78 on the current bed base.

[5] Source: https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf
[6] Success Regime: Key challenges and baseline facts and figures (KCBFF) document.
[7] See Appendix L for further details.
[8] Data received from Success Regime programme (NCUHT &CPFT).
[9] http://www.nhs.uk/Scorecard/Pages/IndicatorFacts.aspx?MetricId=8120

Figure 3: Do nothing bed base in WNE Cumbria



Source: WNE Cumbria Success Regime

National benchmarks indicate the potential for WNE Cumbria to reduce its activity – particularly non-elective activity – through demand management and providing more care in Out of Hospital (OOH) settings. For example, 'Right Care' indicators[10] show an estimated potential savings opportunity of approximately £14m for WNE Cumbria through reduction in non-elective activity, see Appendix L. Right Care and other indicators for opportunities to reduce activity are assessed in detail in section 1.3. These mitigations offset the growth in the bed base that would otherwise be required in the 'Do Nothing' scenario.

1.2.2 Approach to Estimating the Financial Challenge

The 'Do Nothing' 2020/21 financial challenge reflects the extent to which WNE Cumbria is expected to be spending beyond the level of funding it is likely to receive, if the current methods of delivering care continue. This is the financial position upon which the options to deliver change are evaluated from a financial perspective.

The financial modelling which underpins the estimates of the financial challenge has been overseen by the WNE Cumbria Finance Directors Group. This group includes representation from Cumbria CCG, NCUHT, CPFT, NHS England and NHS Improvement. Key assumptions and outputs from the process have been agreed by all members of this Group, for the purpose of feeding in to this document.

Data from the financial year 2015/16 collected from Cumbria CCG, NCUHT and CPFT has been used as the starting point to estimate the financial challenge. The modelling process for the financial challenge has been undertaken in three stages:

1. **Data.** A number of adjustments have been made to the underlying financial data, including, removing non-recurrent items; adjusting for the share of the financial challenge related to WNE Cumbria; and excluding areas not considered part of the 'Do Nothing' perspective (such as cost improvement plans and quality innovation and productivity plans (QIPPs)). Further detail on the data used in this analysis is included in Appendix L.

[10] See http://www.rightcare.nhs.uk/index.php/2015/07/developing-outcomes-based-indicators/

2. **Assumptions.**

   Four types of assumptions are applied to the underlying data to estimate the 2020/21 'Do Nothing' financial challenge: funding assumptions for WNE Cumbria; tariffs and payments; demand pressures; and provider cost pressures.

   Each of these assumptions have been agreed with the Finance Directors Group and aligned with the organisations involved. A breakdown of these assumptions is included in Appendix L.

   To reflect that underlying provider costs do not decrease one for one with activity, a series of cost and activity relationships are estimated. In particular, costs are split into fixed, semi-fixed and variable, and the following relationships are applied:

   - Variable costs (e.g. the drugs and consumables) change one for one with activity;
   - Semi-fixed costs (workforce) change by 70% of the activity change, for example a 10% change in activity leads to a 7% change in semi-fixed costs[11]; and
   - Fixed costs (e.g. cost of buildings and equipment) do not change with activity initially, and are estimated based on beds after all other impacts are applied.

   These assumptions have been applied in a range of business cases to estimate cost and activity relationships.[12]

3. **Outputs.** Applying the range of assumptions to the underlying data provides an estimate of the 'Do Nothing' 2015/16 financial challenge; how this could develop by 2020/21; and the drivers of this change.

A full list of assumptions underpinning the financial challenge, as well as a sensitivity on this when using the national STP assumptions is included in Appendix L.

1.2.3 Summary

As a result of this work, there is a shared understanding that, across providers and commissioners, **WNE Cumbria is currently spending approximately £86m more than it receives in funding**. Demand growth from an increasingly complex population and a range of cost pressures mean that, if the system were to continue functioning in a similar way, this gap could increase to approximately **£163m by 2020/21**.

A suite of mitigations have been developed to reduce this financial challenge. These mitigations focus on radically improving efficiency through integrated and consolidated care with WNE Cumbria aiming to be in the top decile. The following sections discuss each of the mitigations in turn.

[11] Source: cross-referenced with Department of Health study on cost elasticities and other business cases e.g. Shaping a Healthier future PCBC (https://www.healthiernorthwestlondon.nhs.uk/documents/joint-committee-primary-care-trusts-nwl/jcpcts-meeting-papers-25062012/sahf-pre)

[12] See North West London PCBC for example, https://www.healthiernorthwestlondon.nhs.uk/documents/joint-committee-primary-care-trusts-nwl/jcpcts-meeting-papers-25062012/sahf-pre

1.3 Efficiency

Efficiency savings refer to delivering the same service at a lower cost. Given its high relative cost base compared to peers, there is significant opportunity for WNE Cumbria providers and commissioners to deliver efficiency savings.

There are three components to the efficiency analysis:

1. Provider efficiencies;
2. Shared organisational arrangements; and
3. CCG efficiencies.

The following subsections take each of these areas in turn.

1.3.1 **Provider efficiencies**

Provider efficiency savings refer to providers delivering the same service at a lower cost, for example through more effective deployment of workforce.

In defining efficiency, two components of provider efficiencies are considered:

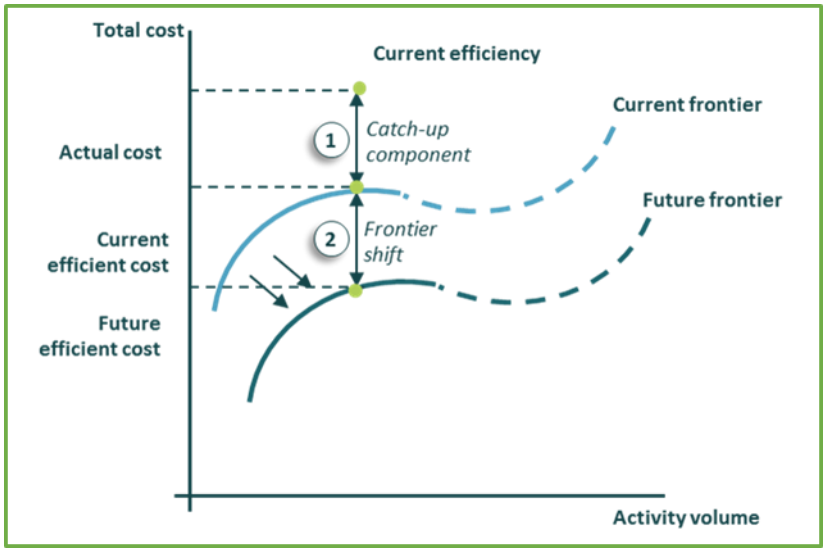
1. **Catch-up component –** this captures the savings achieved from providers increasing efficiency in line with the most efficient providers in the sector. Examples include the efficiency opportunities identified as part of the Carter Report review of opportunities, which are based on reference cost benchmarking.[13]

2. **Frontier shift –** this captures efficiency savings from the potential future sector wide productivity gains due to technological advances or service delivery optimisation. This is the forward looking component of the efficiency factors and aims to capture the dynamic nature of productivity change within healthcare services.

The sum of the two components provides an indication of the total efficiency opportunity. An illustration of these definitions is included in Figure 4.

[13] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/434202/carter-interim-report.pdf

Figure 4: Efficiency savings methodology



Source: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/317572/Supporting_document_A_-_Deloitte_Efficiency_Factor_for_publication352b.pdf

The provider efficiency analysis focusses on triangulating a range of sources to understand the potential opportunity to reduce costs, including:

- **Top down reference cost benchmarking,** through comparing unit costs with peers;
- **Further benchmarking,** for example using econometrics to understand greater detail around cost drivers and netting out some factors which could be structural;
- **High level CIPs,** to understand individual schemes which are planned to underpin cost reduction opportunities;
- **Carter Report review,** using the independent NHS England report to understand the potential for cost reduction;[14] and
- **Frontier shift,** considering evidence of the frontier shift component of efficiency.

The potential to identify peers and undertake benchmarking for CPFT has been more limited and a greater emphasis has been placed on previous CIP delivery and current CIP plans. The overall scenarios imply a greater opportunity for NCUH compared to CPFT; given the greater relative spend on agency staffing at NCUH.

Through these sources, as well as detailed discussions with Finance Directors Group, two scenarios were developed for NCUHT and CPFT around the total efficiency opportunity. These are summarised in Table 1.

[14] See Appendix L for further details.

Table 1: Summary table of efficiency savings scenarios

Efficiency assumptions: NCUHT	Core	Stretch
Yearly average	2.6%	3.5%
Total over 5 years	13.0%	17.5%

Efficiency assumptions: CPFT	Core	Stretch
Yearly average	2.0%	3.0%
Total over 5 years	10.0%	15.0%

Source: Success Regime analysis

1. Core scenario

The core scenario is intended to capture the potential cost reduction which is considered locally as relatively achievable. This scenario comprises c. 13% by year 5 for NCUH and c. 10% for CPFT and equates to c. £57m by 2020/21. Of this efficiency, 6.25% reflects the frontier shift for each organisation (1.25% per annum).[15]

2. Stretch scenario

The stretch scenario reflects a set of more ambitious efficiency targets, indicating top decile performance for WNE Cumbria providers. In particular, this scenario comprises c. 17.5% cost reductions for NCUHT and 15% for CPFT by year 5. These targets have been identified as challenging to deliver, particularly in the context of historical cost improvements achieved. Of this efficiency, 6.25% reflects the frontier shift for each organisation (1.25% per annum).

Based on discussions with local providers and commissioners, it was identified that the more ambitious cost reductions implied in the stretch scenario would only be achievable if more significant transformation (through the roll out of ICCs and the reconfiguration of services) is undertaken. This is particularly significant given that more of the structural challenges in WNE Cumbria, such as reliance on agency spend could be better addressed upon more significant transformation as part of the ICCs and consolidation of services. Based on this, the increased saving from the efficiency stretch assumptions has been linked to the level of transformation through the ICCs and hospital reconfiguration in section **Error! Reference source not found.** and section 1.5. In particular, the total increase in cost savings associated with the stretch scenario is c. £17m; of this, c. £12m is linked to the transformation in the OOH model and the remaining c. £5m is linked to the hospital reconfiguration options, with a higher share of this value potentially being achievable with greater consolidation of services.

The efficiency analysis in this section reflects the cost reduction assumptions included in the core scenario.

Work is currently ongoing to underpin these top-down targets and a range of schemes have been identified to date for the individual organisations. Table 2 summarises the efficiency plans, these show that a large proportion of the top-down opportunity has been underpinned. These schemes are front-loaded and as such look to identify significant savings in 2016/17 and 2017/18.

[15] 1.25% has been identified as a reasonable assumption based on econometric analysis using Monitor, 'Methodology for efficiency factor estimation'. A range of other sources are also being considered.

Table 2: Provider efficiencies profile

Organisation	2016/17	2017/18	2018/19	2019/20	2020/21
NCUH (£m)	-£18.2	-£14.8	-£4.2	-£3.2	-£3.1
CPFT (£m)	-£3.9	-£2.5	-£2.5	-£2.5	-£2.4
Total (£m)	**-£22.1**	**-£17.3**	**-£6.7**	**-£5.7**	**-£5.6**

Source: Success Regime analysis

Further detail on this work and the schemes underpinning it is contained in Appendix L.

1.3.2 Shared organisational arrangements

Literature highlights the potential for benefits that occur through having shared organisational arrangements.[16] Initial analysis indicates that c. £4.4m could be saved across WNE Cumbria by 2020/21 through streamlining resources including back office finance, HR and procurement. A more detailed analysis of shared organisational arrangements is included in Appendix L.

1.3.3 CCG efficiencies

There are two sources of specific CCG efficiencies:

1. **CCG cost efficiencies -** Cumbria CCG has identified a suite of actions that could mitigate its expenditure without impacting providers including improvements across running costs, continuing health care and high cost drugs spend, all of which would save an estimated £12m[17] by 2020/21.

2. **Out of area acute QIPP targets -** Part of the CCG's commissioned activity is to providers who deliver care outside of North Cumbria. As such, part of the financial challenge related to the CCG is likely to be linked to these providers. The CCG expects these providers to improve performance in line with QIPP requirements. On this basis, a total saving of £5.3m for the CCG has been estimated.[18]

As with the provider efficiencies, work is under way to provide more detail of the plans underpinning the CCG efficiencies. The profile of these can be seen in Table 3.

Table 3: CCG efficiencies profile

Organisation	2016/17	2017/18	2018/19	2019/20	2020/21
CCG (£m)	-£6.6	-£2.6	-£2.6	-£2.6	-£3.0

Source: Success Regime analysis

Further detail on the schemes underpinning this can be found in Appendix L.

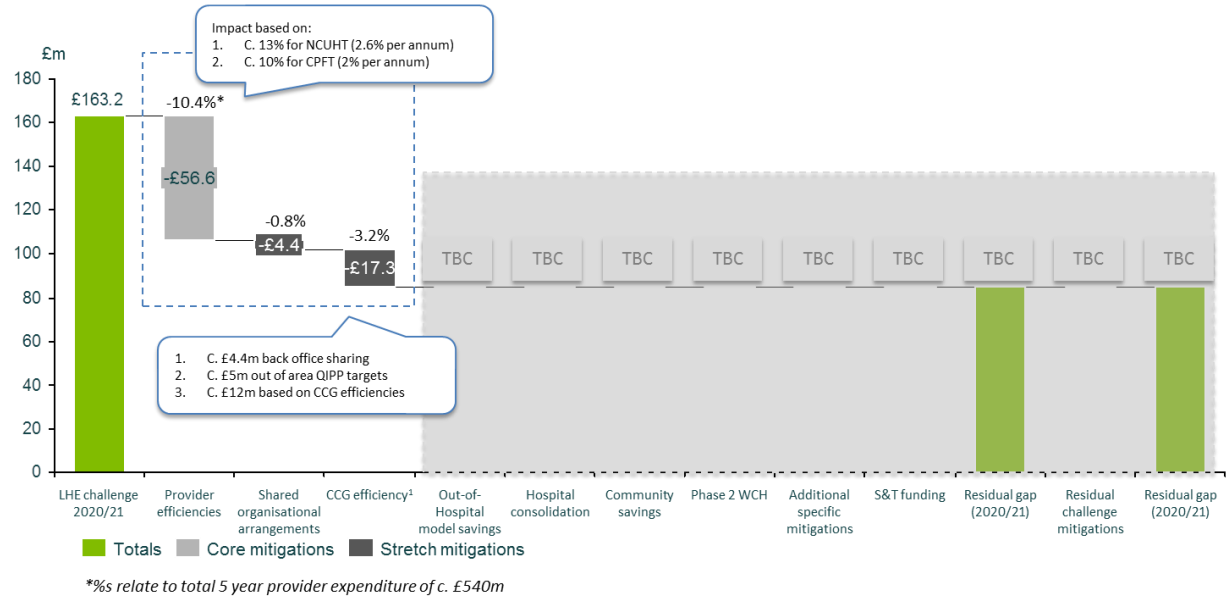
[16] Source: Quality, Innovation, Productivity and Prevention QIPP national workstream: Shared Organisational Arrangements efficiency and management optimisation (November 2010).
[17] The £12m is broken down to £6m each in 2016/17 and 2017/18- 2020/21.
[18] This reflects the out of area providers looking to re-provide care closer to home in out of hospital settings, similar to the ICCs model in WNE Cumbria.

1.3.4 Efficiencies summary

The estimated efficiency savings in 2020/21 from the mitigations outlined could reduce the challenge by c. £78m, from c. £163m to c. £85m based on the efficiency assumptions, as illustrated in

Figure 5.

Figure 5: Efficiency savings



Source: WNE Cumbria Success Regime

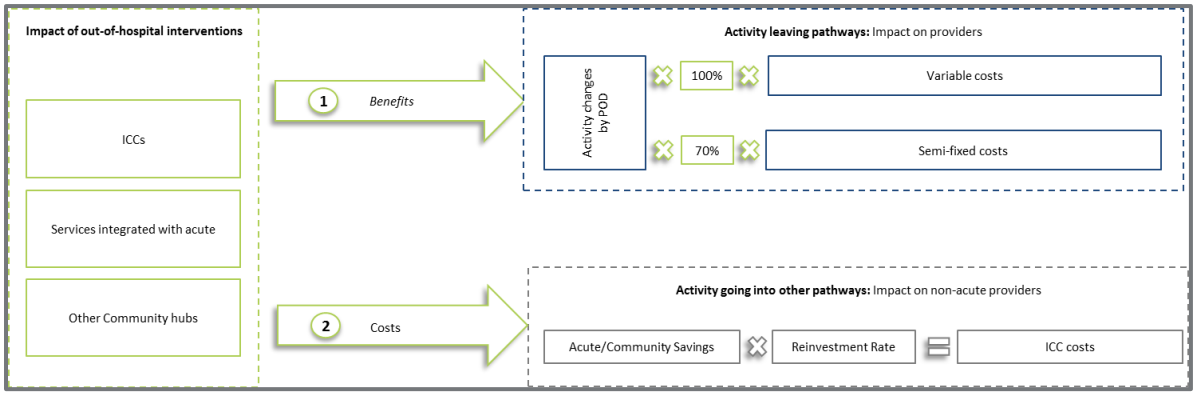
1.4 Out of Hospital

In the OOH model, pathways and activity flows are changed to shift patients to more cost effective settings of care, often closer to home. The primary mechanism by which OOH interventions will be delivered in WNE Cumbria is through integrated care communities (ICCs). The introduction of ICCs and how they function is discussed in greater detail in the PCBC. The purpose of this section is to summarise the approach, assumptions and estimated financial impact of the OOH strategy.

1.4.1 Approach

The overall approach to the OOH modelling is summarised in Figure 6.

Figure 6: Overall approach to OOH modelling



Source: WNE Cumbria Success Regime

1.4.2 Benefits

To estimate the benefit of the OOH strategy, activity and length of stay reductions in acute and community settings are applied.

Two scenarios have been developed:

- **Core scenario**, reflecting initial assumptions developed by local workstreams on the activity changes which could be possible; and
- **Stretch scenario**, reflecting a range of benchmarks indicating more ambitious assumptions in terms of activity reductions.

The stretch scenario has been developed based on benchmarking available opportunities. In particular, it has been developed based on triangulating a range of evidence including opportunities to reduce activity to top decile levels in reference costs, and assumptions implied by the Right Care opportunities for WNE Cumbria.[19]

The five year activity reduction assumptions are included in Table 4, and Table 5. For example in the stretch scenario, it is estimated that there is an opportunity to reduce non-elective bed days by c. 19% by 2020/21. A list of abbreviations is contained in Appendix L.

Table 4: Core assumptions for OOH reductions

	Acute								Community and Mental health				
	A&E	EL – IP		EL - DC	NEL - IP		NEL - DC	OP	COM - IP	COM - OP	MH - IP	MH - OP	
	Att.	Adm.	LOS	Adm.	Adm.	LOS	Adm.	Att.	Adm.	LOS	Att.	Adm.	Caseload
Core impact	-	-1.3%	-	-1.3%	-5.0%	-7.0%	-28.1%	-	-	-14.4%	-	-	-
Impact after growth	10.4%	9.1%	-	9.1%	5.4%	N/A	-17.7%	10.4%	10.4%	N/A	10.4%	10.4%	10.4%

Source: Success Regime clinical workstreams

[19] Source: http://www.rightcare.nhs.uk/

Table 5: Stretch assumptions for OOH reductions

	Acute								Community and Mental health				
	A&E	EL – IP		EL - DC	NEL - IP		NEL - DC	OP	COM - IP		COM - OP	MH - IP	MH - OP
	Att.	Adm.	LOS	Adm.	Adm.	LOS	Adm.	Att.	Adm.	LOS	Att.	Adm.	Caseload
Core impact	-6.4%	-14.8%	-	-14.8%	-19.1%	-	-	-16.2%	-19.6%	-	-1.4%	-	-
Impact after growth	4.0%	-4.4%	-	-4.4%	-8.7%	-	10.4%	-5.8%	-9.2%	-	9.0%	10.4%	10.4%

Source: Activity benchmarking based on range of sources including Right Care opportunities and Key Baseline Facts and Figures Success Regime document.

To reflect that underlying provider costs do not decrease one for one with activity, a series of cost and activity relationships are applied. In particular, costs are split in to fixed, semi-fixed and variable, and the following relationships are applied:

- Variable costs (e.g. drugs and consumables) change one for one with activity;
- Semi-fixed costs (workforce) change by 70% of the activity change, for example a 10% change in activity leads to a 7% decrease in semi-fixed costs; and
- Fixed costs (e.g. the cost of buildings and equipment) do not change with activity initially, and are estimated based on beds after all other impacts are applied.

These assumptions have been applied in a range of business cases to estimate cost and activity relationships.[20]

1.4.3 Reinvestment costs

The activity reduced (benefit) is re-provided as part of the ICCs or other OOH initiatives. In order to reflect the cost of meeting demand within the ICCs, a reinvestment rate assumption of 50% has been included. This assumption has been applied based on considering a range of evidence around the level of investment which has been applied in other business cases to deliver OOH schemes, as well as Monitor's *Moving care closer to home* report.[21]

1.4.4 Additional benefits linked to the OOH strategy

Linked to the OOH analysis, cost savings across four additional areas are considered:

1. **Prevention Benefits:**
   - Involves people living with long term conditions and aims to improve the focus on prevention and self-care.
   - High-level analysis has been undertaken to estimate potential savings. This has been approximated at c. 0.5% commissioner expenditure.

[20] For example: https://www.healthiernorthwestlondon.nhs.uk/documents/joint-committee-primary-care-trusts-nwl/jcpcts-meeting-papers-25062012/sahf-pre
[21] https://www.gov.uk/guidance/moving-healthcare-closer-to-home

- This is based on Wanless (2008)[22], where it is estimated that 1% of commissioner expenditure can be saved through prevention. A reinvestment assumption of 50% has been applied to account for the need to invest in targeted prevention strategies.

2. **Repatriation Benefits:**
   - Estimated as the potential increase in overall provider margin based on boosting income through increased demand across selected trauma and orthopaedic elective services. Further detail on the repatriation methodology is included in Appendix L.

3. **Fixed cost saving:**
   - As the OOH strategy is implemented, there could be additional savings related to reducing fixed costs. These savings have been estimated based on the number of beds reduced through the OOH strategy.

4. **Further Efficiencies:**
   - Additional cost efficiencies associated with the efficiency stretch which could be unlocked given the level of transformation included in the OOH model, and if cost savings are targeted more significantly on reducing agency spend.

1.4.5 **Overall capacity impact**

The 2020/21 estimated demand is estimated to be 793 beds across WNE Cumbria[23], however, through the OOH impacts this could be reduced to 643 beds, with a core reduction of 92 beds and a stretch reduction of c. 150 beds. This is illustrated in Figure 7.

[22] Source: http://webarchive.nationalarchives.gov.uk/+/http:/www.hm-treasury.gov.uk/media/D/3/Wanless04_summary.pdf
[23] Data received from Success Regime (NCUHT &CPFT).

Figure 7: capacity post OOH

Source: WNE Cumbria Success Regime

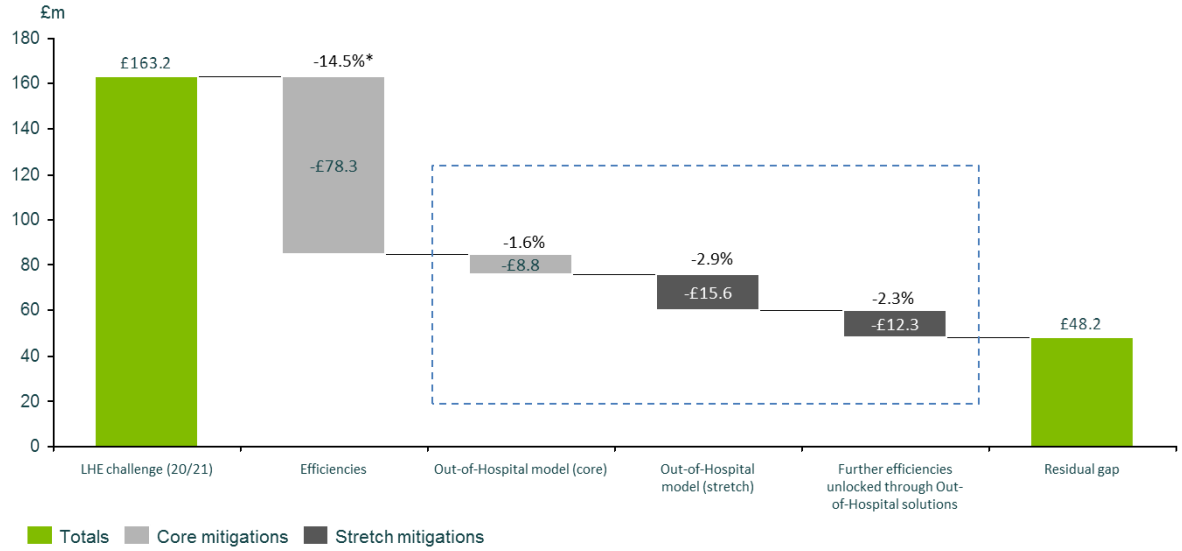
1.4.6 **Overall financial impact**

The estimated total net financial impact of the OOH strategy is estimated to be c. £42.4m by 2020/21 and comprises:

- c. £8.8m including the core OOH (c. £7.5m) and £1.3m repatriation benefits;
- c. £115.6m including the additional cost saving from the stretch OOH impacts, prevention impacts of c. £2.7m and fixed costs benefits associated with capacity impacts linked to OOH of c. £3m; and
- An additional c. £12.3m of cost efficiencies associated with the efficiency stretch which could be unlocked given the level of transformation included in the OOH model, and if cost savings are targeted more significantly on reducing agency spend.

These impacts are illustrated in Figure 8.

Figure 8: Total financial impact of the OOH



Source: WNE Cumbria Success Regime. %s are of the c. £540m provider expenditure in 2020/21.

These OOH impacts reduce the financial challenge by £36.7m, from £84.9m to £48.2m.

1.4.7 Bottom up analysis around ICCs

The financial estimates relating to the OOH model included in this document are based on the top-down benchmarks around the total opportunity that could be available to WNE Cumbria. Further bottom up analysis has been undertaken to begin to underpin these estimates by taking the ICC model in Workington as a case-study to understand:

1. Which services will be delivered in the ICCs, for example a rapid response service;
2. The estimated activity impacts that each of these interventions could have including targeting specific patient groups (e.g. patients with long term conditions) to support the benefits assumptions; and
3. The target operating models for the ICCs and specific interventions to support estimating the costs of the ICCs and the interventions delivered within them, to challenge the current assumptions around reinvestment.

An initial view of the target operating model (TOM) has been developed through engagement at a WNE Cumbria and Workington specific level; with input from across the health economy including Commissioners, Primary Care, Social Care and Secondary Care. Based on this, the services that could be offered by the ICCs has been developed and is presented in Table 6.

Table 6: Services that could be offered in the ICCs

Service	Population subgroup impacted
Early diagnosis	Cancer, Long Term Conditions
Self-management	Long Term Conditions
Use of assistive technology	Frail Elderly, Long Term Conditions, Good Health Adults
Remote access to a healthcare professional	All (excluding maternity)
Single point of contact	All (excluding maternity)

Rapid response team	Frail Elderly, Long Term Conditions, Dementia, Mental Health
Early supported discharge	Frail Elderly, Long Term Conditions, Mental Health, Dementia, Cancer, Good Health Adults
Case Management	Frail Elderly, Long Term Conditions, Dementia
Step-change in dementia provision	Dementia
End of life care	End of Life
Frailty Unit*	Frail Elderly
Paediatric short stay assessment unit*	Children and Young People

**Note that these services would be co-located at the acute site rather than provided by the local ICC.*
Source: Success Regime

Although these services are separated out, operationally these would represent the core functions of the ICC provided by a single workforce model. The services to be provided range from pro-active prevention through to end of life care, and would be targeted at specific subgroups of the population.

The impact that these services could have on the total 2020/21 activity by point of delivery (POD) is presented for acute activity in Table *7* and for community and mental health in Table 8. These are the activity reductions before the impact of activity growth. These estimates are based on relevant literature evidence as well as clinical and operational input, and have been adjusted to reflect where these services are already up and running in the Workington area[24]. The total benefit is compared to the top-down estimates to understand the share of the total benefit that is currently underpinned by the plans. This is the opportunity identified to date and further work is ongoing to underpin the remainder of the opportunity.

Table 7: Acute activity reductions by 2020/21

POD	A&E	EL-IP	EL-IP	EL-DC	NEL-IP	NEL-IP	NEL-DC	OP
Unit	Att.	Adm.	LoS	Adm.	Adm.	LoS	Adm.	Att.
Top-down	-6.4%	-14.8%	-	-14.8%	-19.1%	-	-	-16.2%
ICCs	-12.9%	-12.5%	-11.7%	-10.1%	-17.7%	-9.8%	-8.6%	-16.8%
Identified	✓	-	✓	-	-	✓	✓	✓

Source: Success Regime analysis

The activity reductions in the acute setting identified to date could underpin a significant amount of the activity shift estimated in the top-down analysis for each of the PODs.

Table 8: Community and Mental Health activity reductions by 2020/21

POD	Com-IP	Com-IP	Com-OP	MH-IP	MH-IP	MH-OP
Unit	Adm.	LoS	Cont.	Adm.	LoS	Att.
Top-down	-19.6%	-	-1.4%	-	-	-
ICCs	-0.3%	-12.7%	-3.6%	-	-	-
Identified	-	✓	✓	-	-	-

[24] This is defined as up and running in 2014/15; the year of the baseline data.

Source: Success Regime analysis

No activity impact from the ICCs has been considered against the mental health setting as this will be considered in a separate PCBC. For the community setting, the ICCs analysis has identified more opportunity that the top-down on length of stay. Further analysis is required to estimate the potential impact the ICCs could have on community inpatient admissions, an area which the top-down estimates showed significant opportunity.

An initial workforce model that could be required to deliver the ICC demand has been developed by the Workforce Repository and Planning Tool (WRaPT) Team in conjunction with local support. This is presented in Table 9 below and represents both the additional local workforce which could be required as well as clinical oversight (for example as part of a network) to manage these patients in a community setting. Evidence has been used to develop these estimates where possible, although the literature around what a fully scaled up care model in this context would look like is limited.

Table 9: Workforce model for the Workington ICC

Staff Role	Junior / Senior[25]	WTEs
Admin and Clerical	Junior	5.00
Healthcare Assistant	Junior	4.00
Health and Wellbeing Coach	Junior	1.60
Rehab Therapies	Junior	4.00
Reablement worker	Junior	4.00
Care co-ordinator / navigator	Junior	2.00
Assistant Practitioner	Junior	3.00
Social worker	Senior	2.00
District/community nurse	Senior	8.00
Occupational Therapist	Senior	2.00
Physio	Senior	2.00
Community matron	Senior	2.00
Specialist Nurse	Senior	1.00
Consultant input	Consultant	1.30
Total	**All**	**41.9**

Source: WRaPT and Success Regime analysis

Non-staffing costs have been estimated based on benchmarks from other community based services for equipment, supplies, Information Management and Technology (IM&T), transport, estates[26] and overheads.[27]

[25] Junior staff relate to Band 4 and below, senior staff relate to Band 5 and above.

[26] Where staff or services are to be co-located, it is anticipated that existing estate would be used for this.

[27] Based on Monitor (2015), 'Moving Healthcare closer to home'.

The next step is to develop a similar target operating model for each of the remaining ICCs. In order to estimate the benefits at a WNE Cumbria level at this stage, the Workington estimates are scaled-up to a high-level, in line with population size, in order to support comparison with the top-down numbers. It is recognised that there are likely to be specific circumstances in Workington which may not generalise to the other ICCs. As such, it will be important to revise the model to account for these differences as the other ICCs are developed.

Table 10 summarises the scaled-up ICC outputs for WNE Cumbria and compares them against the top-down numbers included in the PCBC. In each case, a comparison is made of the (1) total benefits (gross savings) and (2) the total costs (running costs) and therefore the implied reinvestment rate overall. A significant proportion of the top-down benefits have been underpinned by the bottom-up work to date, however further work is required to reduce the reinvestment rate.

Table 10: Comparison of OOH costs and benefits

	ICCs work	Stretch OOH
Gross savings (£m)	£31.5	£34.9
Running costs (£m)	£19.0	£17.4
Net benefits (£m)	£12.5	£17.4
Reinvestment Rate (%)	60%	50%

Source: Success Regime analysis

Work is ongoing to underpin more of the net benefits from the top-down modelling.

1. **Developing the benefits side further.** The ICCs could provide further services potentially within the current workforce model, and in addition the services already identified could impact further population subgroups and PODs.
2. **Refinement of the running costs.** The workforce model will need to refined, particularly in the context of understanding how the aggregate workforce model could look across all ICCs. This is likely to include significant sharing of resources through the network component of the model as well as further synergies through the integration of the existing OOH workforce.

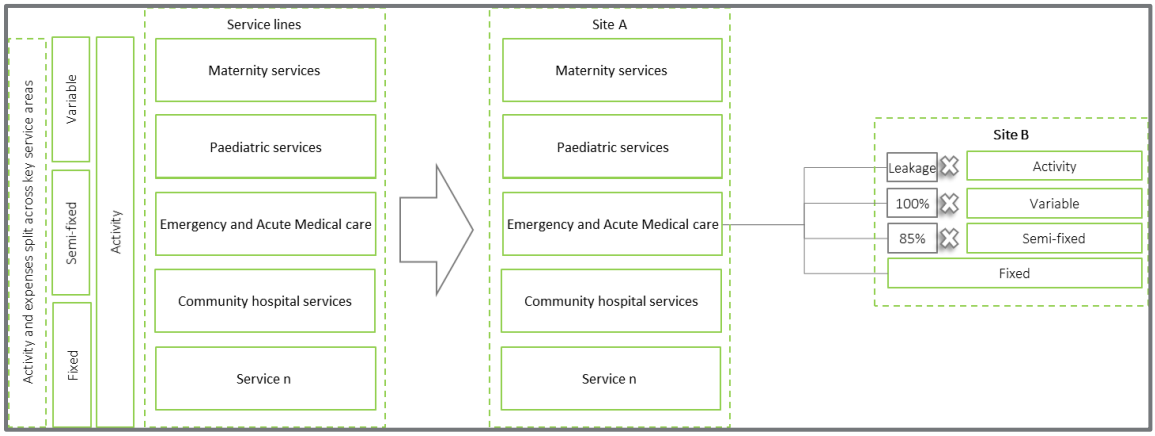
1.5 Options for acute service reconfiguration

Reconfiguration of services across acute care consists of the benefits obtained by maximising potential economies of scale across different hospital sites and redesigning the organisations' service offering.

This section provides an overview of the approach used to model the hospital transfers, as well as the process and evaluation criteria applied to support the decision around preferred options.

The overall approach to the service reconfiguration modelling is summarised in Figure 9. This approach includes reconfigurations options around community hospitals discussed in section 1.6.

Figure 9: Service reconfiguration approach



Source: WNE Cumbria Success Regime

A number of the key components in the service reconfiguration model are discussed below:

Activity shift assumptions. A range of activity shift assumptions agreed with clinical workstreams drive the modelling, for example the share of non-elective activity that could shift between CIC and WCH sites under the different options. All service line activity shifts for each option are shown in Appendix L.

Leakage assumptions. A range of additional assumptions are made to reflect the activity which, instead of flowing between the two acute sites, is likely to flow out of the WNE Cumbria catchment area. These are leakage assumptions and have been drawn from a report for Cumbria CCG around commissioner requested services – this report is based on travel time as well as other drivers.[28]

A detailed breakdown of the service line leakage assumptions taken when moving activity from one site to another, as well as the breakdown of service line transfers under the different options, is contained in Appendix L.

Cost impact assumptions. The activity shifts are translated in to estimated cost savings through assumptions around consolidation / economies of scale. In particular, 15% of the cost associated

[28] Identifying Commissioner Requested Services in North Cumbria (2014), Cumbria CCG report.

with the consolidated activity could potentially be saved, as the consolidated activity is delivered as part of a service operating at greater scale with overall lower semi-fixed (staffing) costs.

Typically, a c. 10% savings assumption to capture potential economies of scale from consolidating services has been applied in other business cases, for example North West London Shaping a Healthier Future (2012) PCBC.[29] A 15% savings assumption has been applied in WNE Cumbria based on an analysis of cost differences for granular services between hospital sites, which indicated greater cost savings, could be achieved from increasing overall volume. This higher assumption reflects the more significant subscale challenge of specific services in WNE Cumbria and therefore a greater opportunity for consolidation.

Capital cost impact. This considers a number of different elements:

- **New capacity**. The capital cost has been estimated based on the number of additional beds that would likely be required for each site. This overall capital cost has been estimated at c. £225k per additional bed required, which accounts for the building of beds but also support and facilities.[30]

- **Ambulance costs**. The incremental capital cost associated with ambulances has been estimated based on the number of additional ambulances required for the increase in transfers. This overall capital cost has been estimated at c. £220k per ambulance which includes c. £150k acquisition cost per ambulance as well as c. £70k training costs. For the purposes of the I&E, this is then capitalised assuming a five year useful life. In addition to this, additional charges relating to interest on the capital in alignment with the PDC (Public Dividend Capital) value of 3.5% are included.

Note that through discussions with the Finance Directors Group it was agreed that all capital costs, unless otherwise stated (e.g. ambulance costs) would be annualised at 10% of the capital cost.[31]

1.5.1 Acute options – short list of options

The long list of options developed in Appendix L was narrowed down to a short list based on a range of hurdle criteria and engagement, including a high level financial appraisal.

The more detailed financial evaluation described in this section is only applied to the options on the short list. The short list of options and therefore the analysis and outputs from the options analysis is presented separately for:

1. Acute and emergency medicine (including elective transfer); and
2. Women and children's services.

[29] https://www.healthiernorthwestlondon.nhs.uk/documents/joint-committee-primary-care-trusts-nwl/jcpcts-meeting-papers-25062012/sahf-pre
[30] Based on cased studies, such as North West London Shaping a Healthier Future.
[31] With the exception of ambulance costs which are capitalised based on a five year useful life

For each service area, the short list of options comprises of three options:

1. *New ways of working;*
2. *Partial consolidation*; and
3. *Full consolidation.*

The Do Nothing option is included for comparison purposes. Greater detail on the consolidation options is presented in Table 11 and Table 12 as well as in section 5 of the PCBC.

Table 11: Emergency and Acute Medical care – short list options for assessment

	Do nothing		*New ways of working*		*Partial consolidation*		*Full consolidation*	
	WCH	***CIC***	***WCH***	***CIC***	***WCH***	***CIC***	***WCH***	***CIC***
A&E	24/7 A&E	24/7 A&E	24/7 A&E	24/7 A&E	Daytime A&E	24/7 A&E	UCC	24/7 A&E
Non elective	Acute medicine	Surgery, trauma and acute medical	Reduced complexity	Surgery, Trauma I and complex medical	Ambulatory and selected GP admissions	All surgical , trauma and acute medical	Ambulatory	All acute non elective
Frail Elderly	Inpatient and rehab	Inpatient and rehab	Frailty assessment inpatient & rehab	Assessment and inpatient	Frailty assessment, step up and rehab	Frailty Assessment, inpatient and rehab	Frailty assessment, step up and rehab	Frailty Assessment, inpatient and rehab
What this means for ICCs	• Limited alternatives to admission.		• ICCs providing alternatives to admission and proactive care to those at risk of admission, and early supported discharge. • Maximising efficiency and networks with community hospital beds					
What this means for CIC	• 24/7 A&E. • Centre for surgical non elective and trauma and some complex medicine. • Hyper acute stroke care. • Inpatient beds and rehab including specialist rehab.		• 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.		• Increased capacity in 24/7 A&E with UCC streaming. • Integrated emergency floor, including hot clinics. • Increase in ICU, EAU and inpatient specialty beds. • Hyper acute stroke unit and ASU. • Frailty assessment unit and rehab including specialist rehab.		• Significant increase in capacity in 24/7 A&E to take all blue light ambulances, with UCC streaming. • Integrated emergency floor, including hot clinics. • Increase in ICU, EAU and inpatient specialty beds. • Hyper acute stroke unit and ASU. • Frailty assessment unit and rehab including specialist rehab.	
What this means for WCH	• 24/7 A&E. • Selected transfers (all emergency surgery, trauma and small number of medicine diversions). • Hyper acute stroke care. • ICU. • Inpatient beds and 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. • Small ICU. • Frailty Assessment unit and rehab.		• Daytime A&E with UCC 24/7, including hot clinics and day time specialty support • Selected blue light admissions and GP referrals during day time. • Limited provision of low risk non elective surgery and trauma. • No ICU, but day time intensivist support. • Frailty assessment, non complex admissions and rehab.		• UCC only with access to hot clinics and day time specialty support. • Ambulatory and "step up" inpatient care only, no acute admissions. • No ICU. • Frailty assessment, non complex admissions and rehab.	
Other (Tertiary)	• Strong networks with Newcastle and Northumbria		• Strong networks with Newcastle and Northumbria					

Source: WNE Cumbria PCBC

Table 12: Women and Children's services – short list options for assessment

	Do nothing		*New ways of working*		*Partial consolidation*		*Full consolidation*	
	WCH	*CIC*	*WCH*	*CIC*	*WCH*	*CIC*	*WCH*	*CIC*
Paediatrics	**Full Inpatient**	**Full Inpatient**	**14 hour SSPAU; low acuity beds**	**14 hour SSPAU and Inpatient**	**14 hour SSPAU**	**Inpatient and SSPAU**	**Outpatient only 9-5 hot clinic**	**Inpatient and SSPAU**
Maternity	**Full obstetric**	**Full obstetric**	**Low risk CLU**	**CLU and MLU**	**MLU**	**CLU and MLU**	**Ante and post natal only**	**CLU and MLU**
What this means for ICCs	• Birthing centre at Penrith. • Community midwifery service including some antenatal and post-natal care.		• Integrated child health model including paediatric nursing teams reducing need for hospital care. • Continued antenatal care provided in the community through strengthened ICC networks, IT enabled where possible.					
What this means for CIC	• Full outpatient service and inpatient paediatric services. • Consultant led obstetric service, and SCBU.		• Full outpatient service, 14 hour SSPAU and inpatient paediatric beds with some marginal increase in beds) • Consultant led obstetric service, with MLU and SCBU with marginal increase in beds		• Full outpatient service, 14 hour SSPAU and inpatient paediatric beds with increased inpatient beds. • Consultant led obstetric service, with MLU and SCBU with increase in beds and access to second theatre.		• Full outpatient service, 14 hour SSPAU and inpatient paediatric beds with increased inpatient beds. • Consultant led obstetric service, with MLU and SCBU with increase in beds and access to second theatre.	
What this means for WCH	• Full outpatient and inpatient paediatric services. • Consultant led obstetric service and SCBU.		• Full outpatient service and 14 hour SSPAU with low acuity beds. • Early pregnancy assessment unit, outpatients and "lower risk" CLU > 34 weeks.		• 14 hour SSPAU and outpatient services. • Antenatal / post natal and early pregnancy assessment unit and MLU.		• Outpatient paediatric service with 9-5 hot clinic facility. • Antenatal / post natal and early pregnancy assessment unit. Birthing centre	
Other / Specialist	• Tertiary and highly specialist paediatric and obstetric care networked with Newcastle.							

Source: WNE Cumbria PCBC

1.5.2 Short list evaluation criteria

A range of evaluation criteria have been developed to determine the framework upon which the preferred options will be identified. One area of the evaluation criteria relates to finance and efficiency. There are three components to the finance and efficiency criteria, which are discussed below.

1. Capital cost to the system

The first component of the financial assessment is the capital expenditure that would be required to deliver the option. Typically this includes the costs of new buildings, equipment, IT infrastructure or the refurbishment of existing buildings for new purposes. The key question for the evaluation is:

Which options would likely have the lowest capital costs?

The indicators used for this assessment include:

- Estimated capital costs for new capacity, based on the number of additional beds that would likely be required for each site – this overall capital cost has been estimated at c. £225k per additional bed required, which accounts for the building of beds but also support and facilities; and
- Further additional capital costs for specific elements such as increased number of ambulances supporting greater ambulance transfers.

2. Five year LHE income and expenditure (I&E)

The five year I&E position for the LHE is considered for each option, with reference to the 'Do Nothing' option. The key question for the evaluation is:

Which options generate the greatest net savings over the five year period, i.e. which would reduce the financial challenge the most?

The overall Do Nothing I&E position could be impacted by each option by a number of factors.

- **Consolidation benefits.** As services are consolidated, greater economies of scale are achieved. Across health care services, economies of scale can occur through a number of sources including greater rota efficiencies and spreading minimum staffing requirements over a greater level of activity.
- **Service delivery impacts.** In a number of the options, the actual model of delivering care is significantly altered. For example, delivering emergency services to patients through a UCC rather than an A&E. When new models are employed, this can often lead to changes in costs above and beyond those related to scale.
- **Fixed cost savings.** There are a number of costs health care providers incur which are more fixed in nature as volume increase or decrease. These costs typically include the costs of estates and some back office functions. Although fixed in the short-run, changes to the clinical model and volumes could mean there are opportunities to re-size such costs. For example, reducing the number of sites where services are delivered could allow some estates to be divested whilst potentially requiring greater capital investment at receiving sites.
- **Clinical standards costs.** The Do Nothing option included significant investment required to achieve a number of clinical requirements, including in maternity services and to achieve seven day working. The changes in service delivery implied by the options could reduce this investment. Typically, this is the case where services are refocused around a smaller number of sites.
- **Additional running costs.** The options could lead to higher costs in a number of instances. For example, the increased requirement on ambulances transferring patients between hospital sites.
- **Overall capital cost charges.** As discussed above, capital costs may be required in order to realise some of the savings set out. These costs are included in the I&E as an annualised value encompassing depreciation and capital charges.
- **Efficiency stretch.** Additional cost efficiencies associated with the efficiency stretch are discussed in section 1.4.5. These could be unlocked given the level of transformation

included in the different reconfiguration options, and if cost savings are targeted more significantly on reducing agency spend.

3. NPV

As set out in the Treasury Green Book[32], the key measure in understanding the relative economics of the different options is the Net Present Value (NPV). This measure looks at all the flow of costs and benefits over the period resulting from an option accounting for the higher value placed on more near term impacts. The NPV considered; transition costs, ambulance costs, consolidation saving and fixed cost savings amongst others. By estimating a single value for each option, NPVs allow the financial benefits (or costs) of the options to be easily compared to each other and assessed against the base case.

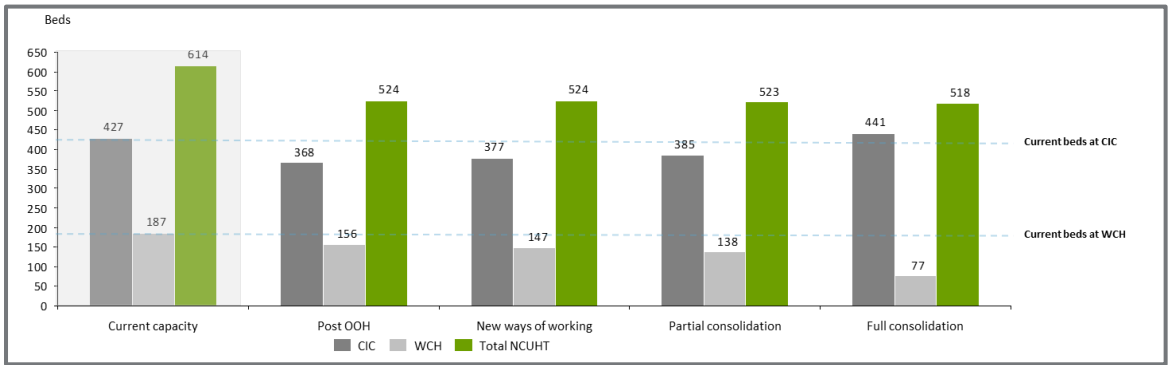
The key assumptions around the NPV are:

- A 20 year time period is assumed;
- A discount rate of 3.5% has been applied;
- Recurrent cash flows in years subsequent to year 5 have been held constant at the year 5 level; and
- After full depreciation, the value of assets is zero.

1.5.3 Options outputs – bed base

The estimated impact on total bed capacity at the two acute sites of each of the options is summarised in Figure 10.

Figure 10: Post reconfiguration bed base – acute



Source: WNE Cumbria Success Regime

The post OOH acute bed demand is 524 beds, with 368 beds at CIC and 156 beds at WCH. There is a small increase in bed demand in CIC and a small reduction in bed demand at WCH for the New Ways of Working and Partial Consolidation options. For these options neither site has a greater number of beds than the current state (427 at CIC and 187 at WCH). Therefore the capital requirement based on beds is zero for each of these options. There is a more significant shift in the bed base for each site in the Full Consolidation option, where the WCH bed base decreases to 77 and the CIC bed demand increases to 441. The increase in beds at CIC equates to a capital requirement based on an increase in beds of c. 14 compared to the current state.

[32] See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220541/green_book_complete.pdf

1.5.4 Options outputs – financial impacts

This section presents the financial outputs from the analysis of each of the options, according the financial evaluation criteria outlined.

Capital requirement

Table 13 presents the capital investment linked to each of the options for women and children's services.

Table 13: Capital requirements for each option - Maternity and children

	New ways of working		Partial consolidation		Full consolidation	
	WCH	**CIC**	**WCH**	**CIC**	**WCH**	**CIC**
Estates capital costs (£m)	-£0.0		-£0.0		-£0.3	
Maternity specific dedicated ambulance (£m)*	-£0.0		-£0.2		-£0.2	
Total cost (£m)	**-£0.0**		**-£0.2**		**-£0.5**	

Source: WNE Cumbria PCBC

The Full Consolidation option requires additional capital of around £0.5m, based on the small increase in beds and maternity specific ambulance capital costs. New Ways of Working is likely to require no capital based on the assumptions outlined; and Partial Consolidation could require some additional ambulances for maternity.

Table 14 presents the capital investment linked to each of the options for acute and emergency medicine.

Table 14: Capital requirements for each option - Emergency and acute medical care

	New ways of working		Partial consolidation		Full consolidation	
	WCH	**CIC**	**WCH**	**CIC**	**WCH**	**CIC**
Estates capital costs (£m)	£0.0		£0.0		-£2.9	
Ambulance costs (capital + recurrent, £m)	-£0.4		-£0.4		-£1.7	
Total cost (£m)	**-£0.4**		**-£0.4**		**-£4.6**	

Source: WNE Cumbria PCBC

The Full Consolidation option requires additional capital of around £4.6m, based on the small increase in beds and the ambulance capital costs. Both New Ways of Working and Partial Consolidation have the lowest capital requirements given the lower consolidation.

The capital requirements in the tables above include only the capital linked with the options for reconfiguration, rather than the total capital requirement across WNE Cumbria, irrespective of the preferred options – of which there is a significant sum. Additional items relating to the total capital requirement, and not relating to reconfiguration, are discussed in greater detail in section 1.8. In addition a consolidated list of capital costs and their associated revenue cost is included in Appendix L.

I&E impacts and NPV rank

The overall I&E impacts and NPV rank for each of the options are included in Table 15 for women and children's services.

Table 15: I&E and NPV for each option – Maternity and children

	New ways of working		Partial consolidation		Full consolidation	
	WCH	**CIC**	**WCH**	**CIC**	**WCH**	**CIC**
Consolidation savings (£m)	£0.3		£0.4		£0.7	
Service delivery savings (£m)	£0.1		£0.2		£0.2	
Fixed cost benefits inc. clinical standards (£m)	-£0.3		£0.8		£1.0	
Total benefit (£m)	**£0.1**		**£1.4**		**£1.9**	
Estates annualised capital charges (£m)	-£0.0		-£0.0		-£0.0	
Maternity specific dedicated ambulance (£m)*	-£0.0		-£0.9		-£0.9	
Total cost (£m)	**-£0.0**		**-£0.9**		**-£0.9**	
Net benefit (£m)	**£0.1**		**£0.5**		**£1.0**	
Efficiency stretch (£m) (greater agency spend reduction)	£0.1		£0.1		£0.4	
Net benefit post efficiency stretch (£m)	**£0.2**		**£0.6**		**£1.4**	
NPV rank relative to base case	**3**		**2**		**1**	

Source: WNE Cumbria Success Regime

- **Benefit** - The total benefit of each option is a combination of consolidation savings, service delivery savings and fixed costs benefits. Full Consolidation offers the highest benefit with £1.9m whilst £0.1m for New Ways of Working offers the lowest benefit.

- **Cost** - The biggest cost item for the options is specific maternity ambulances which cost £0.9m in both the Partial Consolidation and Full Consolidation options.

- **Efficiency stretch** - As discussed in section 1.3. The efficiency stretch saving is only likely to be achievable through more significant transformation, with the level of saving being apportioned to the degree of transformation. Since Full Consolidation offers the greatest transformation, it achieves the highest savings of £0.4m, whilst the other options only save £0.1m.

- **Net position** - The overall net position of each option shows Full Consolidation to offer the highest five year I&E position for Maternity and children, saving £1.4m.

- **NPV** – Full Consolidation achieves the highest NPV. For a detailed breakdown of NPV see Appendix L.

The overall I&E impacts and NPV rank for each of the options are included in Table 16 **I&E and NPV for each option – Acute Medical care services** for acute and emergency medicine.

Table 16 I&E and NPV for each option – Acute Medical care services

	New ways of working		Partial consolidation		Full consolidation	
	WCH	CIC	WCH	CIC	WCH	CIC
Consolidation savings (£m)	£0.3		£0.3		£2.4	
Service delivery savings (£m)	£0.0		£0.0		£2.3	
Fixed cost benefits (£m)	£0.0		£0.1		£1.1	
Total benefit (£m)	**£0.3**		**£0.5**		**£5.8**	
Estates annualised capital charges (£m)	£0.0		£0.0		-£0.4	
Ambulance costs (capital + recurrent, £m)	-£0.5		-£0.9		-£3.8	
Total cost (£m)	**-£0.5**		**-£0.9**		**-£4.2**	
Net benefit (£m)	**-£0.2**		**-£0.5**		**£1.6**	
Efficiency stretch (£m) (greater agency spend reduction)	£0.8		£0.8		£4.5	
Net benefit post efficiency stretch (£m)	**£0.7**		**£0.4**		**£6.1**	
NPV rank relative to base case	2		3		1	

Source: WNE Cumbria Success Regime

- **Benefit** - As with Maternity, the Acute and Emergency Medicine total benefit for each option is combination of consolidation savings, service delivery savings and fixed costs benefits. Full Consolidation offers the higher benefit with £5.8m whilst £0.3m for New Ways of Working offers the lowest benefit.

- **Cost** - The larger cost item for the options is the additional ambulance costs which could incur cost of c. £4m in Full Consolidation given the greater number of transfers.

- **Efficiency stretch** – it could unlock the Full Consolidation option offers the greatest transformation, and as such the highest savings of £4.5m.

- **Net benefit** - The overall net position of each option shows Full Consolidation to offer the highest five year I&E position for Acute, an estimated £6.1m in 2020/21.

- **NPV** – Full consolidation generates the highest NPV.

1.5.5 Combined preferred option

The overall evaluation of options identified the following preferred options:

- Partial consolidation across Maternity services, within a refined maternity model;
- New Ways of Working across Children's services; and
- New Ways of Working across acute and emergency care.

The estimated savings associated with the preferred option are £1.2m per annum, these are shown in Table 17. The overall methodology for estimating the savings associated with the preferred option remains the same, however a number of refinements have been made in light of the greater detail developed for the preferred options. These include revising the potential savings

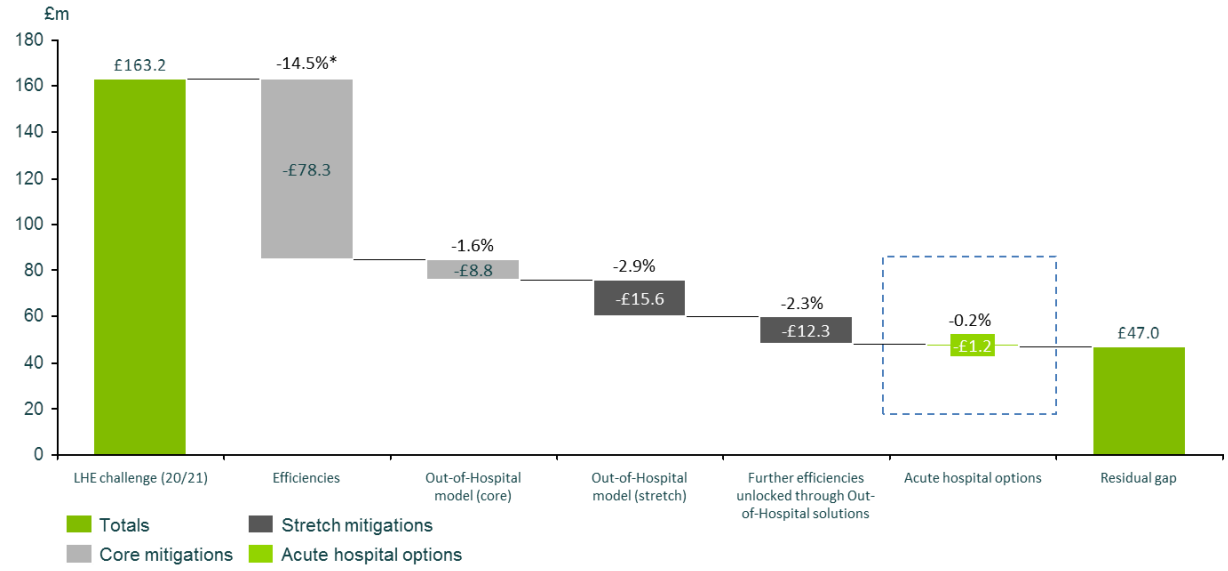
from reduced agency spend associated with the option; increasing the incremental ambulance cost requirement; and other updates.

Table 17: Preferred option impacts

	Acute		Maternity		Paediatrics	
	WCH	CIC	WCH	CIC	WCH	CIC
Consolidation savings (£m)	£0.3		£0.0		£0.0	
Service delivery savings (£m)	£0.0		£0.2		£0.0	
Fixed cost benefits inc. clinical standards (£m)	£0.1		£0.5		£0.0	
Total benefit (£m)	**£0.4**		**£0.7**		**£0.1**	
Estates annualised capital charges (£m)	£0.0		£0.0		£0.0	
Ambulance costs (capital + recurrent, £m)	-£0.9		-£0.9		£0.0	
Total cost (£m)	**-£0.9**		**-£0.9**		**£0.0**	
Net benefit (£m)	**-£0.5**		**-£0.2**		**£0.1**	
Efficiency stretch (£m) (greater agency spend reduction)	£1.3		£0.1		£0.4	
Net benefit post efficiency stretch (£m)	**£0.8**		**-£0.1**		**£0.4**	

This would contribute to closing the residual challenge in 2020/21, as illustrated in Figure 11.

Figure 11: Acute consolidation impact

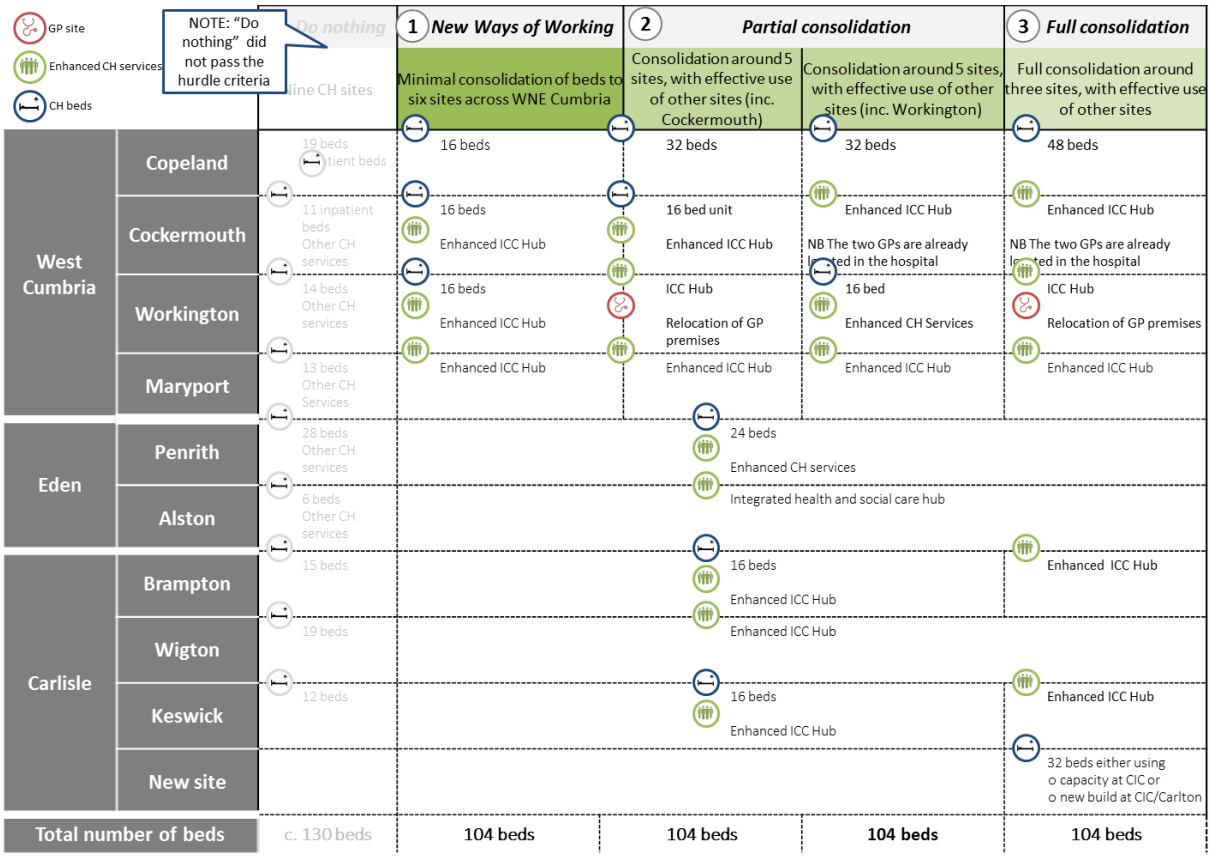


**%s relate to total 5 year provider expenditure of c. £540m*
Source: Success Regime analysis

1.6 Options for community service reconfiguration

The options around the reconfiguration of community hospital inpatient beds focus on consolidating the total number of sites the number of sites within a total bed base of c. 104. The options are summarised in Figure 11.

Figure 11: community reconfiguration options



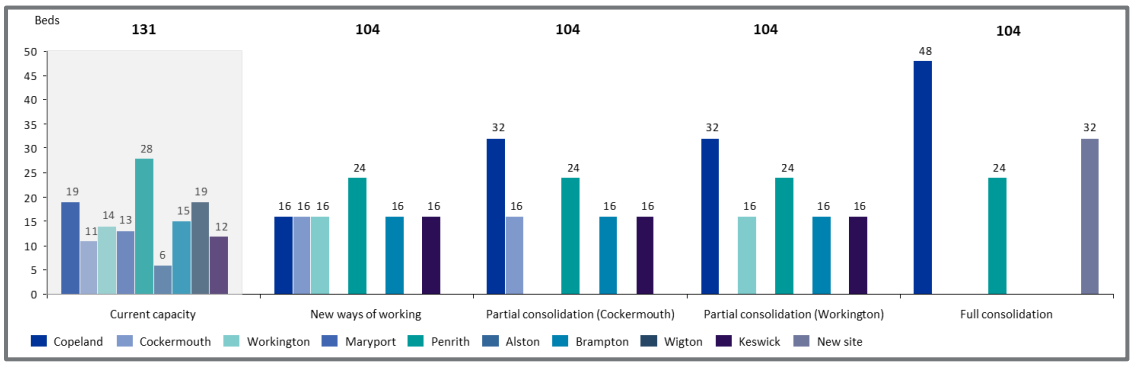
Source: WNE Cumbria Success Regime

There are two components to the savings associated with the community hospital options:

Consolidation of total beds. There are currently c. 131 community inpatient beds in WNE Cumbria. The OOH / ICCs model implies a reduction in beds to c. 119 inpatient community beds, of which there are savings included in the OOH / ICCs analysis. All options for reconfiguring community inpatient beds include a total of 104 community inpatient beds. As such, the additional saving from reducing the total number of beds from 119 to 104 is included in this analysis, including reinvesting 50% of the cost in to the ICCs to deliver bed equivalent care elsewhere, in line with the OOH / ICCs modelling methodology.

Consolidation of sites. Consolidation savings from economies of scale benefits through operating services across a smaller number of larger sites are estimated in a similar way to the acute reconfiguration modelling. In particular, 15% of the staffing cost associated with the consolidated activity could be saved. As such, greater site consolidation is associated with greater benefits.

Figure 12: Community reconfiguration options



Source: WNE Cumbria Success Regime

1.6.1 Options outputs – financial impacts

The options for consolidating community inpatient beds are evaluated using the same criteria as the acute options – capital cost to the system, five year LHE I&E and NPV.

This evaluation is considered in Table 18.

Table 18: Community options for new ways of working acute option

	Benefits area	New ways of working	Partial consolidation	Full consolidation
	Total beds post out of hospital	119	119	119
	Total beds post consolidation	104	104	104
	Number of sites	6	5	3
	Capital requirement (£m):	£2.7	£1.6 – £2.3	£0
	Bed reduction savings:	*£0.9*	*£0.9*	*£0.9*
	Consolidation savings	*£0.3*	*£0.4*	*£0.6*
	Total Benefits (£m)	**£1.2**	**£1.3**	**£1.5**
Spare capacity - CIC	Annualised Capital Charges (£m):	£0.3	£0.2	£0
	Total Net Benefit (£m):	**£0.9**	**£1.1**	**£1.5**
	NPV rank	**3**	**2**	**1**
No spare capacity - CIC	Annualised Capital Charges (£m):	£0.3	£0.2	£0.7
	Total Net Benefit (£m):	**£0.9**	**£1.1**	**£0.8**
	NPV rank	**2**	**1**	**3**

Source: WNE Cumbria Success Regime

Capital. The potential capital requirement for some of the community options is dependent on the level of consolidation of acute services. In particular:

- Full consolidation in acute and emergency medicine is likely to drive a capital requirement in Carlisle for community inpatient capacity for example at the Carlton clinic, given there is no space at CIC to provide community services;
- For New Ways of Working in acute and emergency medicine, there is likely to be some spare capacity at CIC which could be used to provide community inpatient services, given the OOH / ICCs model reduces bed demand at CIC and the level of activity transfer from WCH is relatively small; and
- Given the reduction in bed demand from the OOH / ICCs model, there is always space at WCH to accommodate the required bed demand for each option at the Copeland unit.

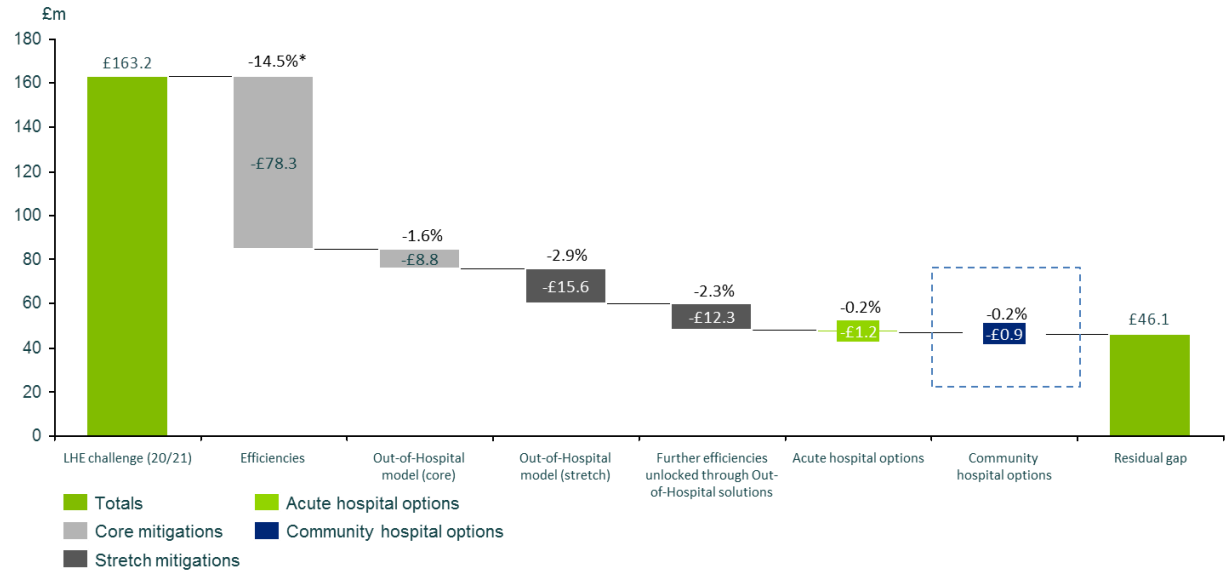
I&E and NPV. If there is spare capacity at CIC i.e. under New Ways of Working or Partial Consolidation in acute and emergency medicine, the greater the consolidation the greater the benefit and also the higher the NPV.

For Full Consolidation in acute and emergency medicine (i.e. no space at CIC post acute changes), the more significant capital expenditure at CIC or the Carlton Clinic in the Full Consolidation option in community, means the net benefit of this option and the associated NPV is lowest of the three options despite the greater level of consolidation benefits. The Partial Consolidation in this case has the highest benefit and NPV.

1.6.2 Preferred option – community

Based on the overall criteria the preferred community option has been identified as New Ways of Working. Given the preference for New Ways of Working across acute and emergency medicine, the total net benefit in 2020/21 from the preferred community option is estimated to be c. £0.9m, as can be seen in Figure 12.

Figure 12: Preferred Community Option



**%s relate to total 5 year provider expenditure of c. £540m*
Source: Success Regime analysis

1.7 Additional mitigations

1.7.1 Additional specific mitigations

It is estimated that there could be schemes and initiatives which could deliver further cost savings for WNE Cumbria and include consolidation savings through developing networks to deliver pathology services; role substitution within workforce delivery to support greater staffing efficiencies; and the potential economies of scale opportunities within GP services. These mitigations could reduce the financial challenge by c. £6m in 2020/21.

1.7.2 Greater OOH service change

Further to the OOH scenarios discussed in Section 1.4, an additional scenario was developed which builds upon the stretch scenario by:

- Increasing the number of non-elective admissions being re-provided OOH; and
- Decreasing the reinvestment rate when re-providing care as part of the ICCs.

The activity reductions in this scenario are presented in Table 19, which are the same as in the stretch scenario apart from the non-elective admission reductions increasing to 25%.

Table 19: Greater scenario activity reductions by 2020/21

	Acute								Community and Mental health				
	A&E	EL – IP		EL - DC	NEL - IP		NEL - DC	OP	COM - IP		COM - OP	MH - IP	MH - OP
	Att.	Adm.	LOS	Adm.	Adm.	LOS	Adm.	Att.	Adm.	LOS	Att.	Adm.	Caseload
Greater impact	-6.4%	-14.8%	-	-14.8%	-25.0%	-	-	-16.2%	-19.6%	-	-1.4%	-	-29.4%
Impact after growth	4.0%	-4.4%	-	-4.4%	-14.6%	-	10.4%	-5.8%	-9.2%	-	9.0%	10.4%	-19.0%

In the greater scenario, reinvestment rate has been reduced from 50% to 40% to reflect the level of ambition included in the plan. This scenario would contribute an additional c. £5.8m to closing the financial challenge in 2020/21. This would also increase the benefits to be targeted by the ICCs, as can be seen in Table 20. This is the scenario included within the finances of the PCBC as it reflects the commitment from the system to target these more ambitious savings and more detailed work underpinning these are being developed as part of the ICCs.

Table 20: OOH scenarios

	ICCs work	Stretch OOH	Greater OOH
Gross savings (£m)	£31.5	£34.9	£38.6
Running costs (£m)	£19.0	£17.4	£15.4
Net benefits (£m)	£12.5	£17.4	£23.2

Reinvestment Rate (%)	60%	50%	40%

As discussed in Section 1.4, the next steps for the ICCs will be to both develop the benefits further; and refine the running costs such that the more granular estimates from the bottom-up work underpin the savings from the greater OOH scenario.

The assumptions in this scenario across both the increased demand shift to ICCs and the lower reinvestment rate are ambitious assumptions and will be challenging to achieve. While bottom up work is ongoing to develop models to target the demand shifts and lower reinvestment rate, the pilot ICC analysis does not yet underpin these assumptions fully.

In addition, for the ICCs model:

- There will need to be a unified and strong governance structure in place for the ICCs in order to deliver the OOH benefits;
- There is likely to be some lead time required for the ICCs to acquire and train/retrain staff; and
- There may need to be some up-front investment to ensure that the ICCs have the capacity to accept the initial activity going out of hospital.

1.8 Additional planned investments

There are a number of additional planned investments which are not linked to the reconfiguration options considered. Some of these are within the scope of the financial analysis included in this PCBC; other areas are expected to be funded separately.

WCH Phase 2: Current estimates suggest that c. £20m of capital expenditure could be required in order to complete the build of the WCH site and this is the figure included in the PCBC for planning purposes. This is expected to reduce double running costs of c. £2m per annum. [33] This would also reduce the value of the backlog maintenance at NCUH by c. £10.5m. These capital costs are annualised and included for the purpose of the 5 year financial position, which results in an overall cost saving of c. £0.9m in 2020/21.

Heli-care: Applicable only for the full consolidation option, there would be commitments to roll out a Heli-care / retrieval service, implying investment of c. £2.2m per annum, benchmarked based on Scotland's EMRS model (excludes capital). As such, this is excluded from the waterfall.

There are a number of other capital expenditures, for example investment in specialised services, primary care and the Cumbria wide mental health strategy which are external to the PCBC. A consolidated list of capital expenditure can be seen in Figure 13.

Figure 13: Capital expenditure

PCBC specific capital	Value (£m)	Area included in modelling	Assumptions used in modelling	Notes
IM&T acute	7.8	Assumed flat over 5 years (benefits offset capital investment)	-	-
IM&T non-acute	9.5	Assumed flat over 5 years (benefits offset capital investment)	-	-
Capital investment acute options	0.0	Capital associated with options analysis	Annualised at 10% of the capital cost	Value varies depending on option, currently based on the options included in the I&E
Capital investment community options	2.0	Capital associated with options analysis	Annualised at 10% of the capital cost	Value varies depending on option, currently based on the options included in the I&E.
Ambulance requirements from options	0.4	Capital associated with options analysis	23.5% cost of capital accounting for 5 year renewal	Value varies depending on option, currently based on the options included in the I&E
Total	**19.7**			

Existing local pressures	Value (£m)	Area included in modelling	Assumptions used in modelling	Notes
Phase 2 WCH	20.0	Additional capital cost	Annualised at 10% of the capital cost	Benefits of £2m per annum included from reduced double running
Backlog maintenance (NCUH and CPFT)	27.3	Included in the financial challenge	Annualised in the do nothing financial challenge	Based on Eric Returns
Total	**47.3**			

Other capital pressures	Value (£m)	Area included in modelling	Assumptions used in modelling	Notes
Specialised services	35.0	Additional external capital cost	**Not included in the PCBC**	This relates to the specialised radiotherapy building which is essential for the LHE
Primary care	22.5	Additional external capital cost	**Not included in the PCBC**	Bids submitted as part of the Estates and Technology Transformation Fund (ETTF) process
Mental health	15.0	Additional county wide capital cost	**Not included in the PCBC**	Required for the reconfiguration of mental health services
Total	**72.5**			

Source: Success Regime

[33] Success Regime capital requirements.

The mental health investment is considered in section 1.11 and primary care and specialised are expected to be funded outside of this PCBC and are not included in the 5 year financial position in the PCBC.

All capital would be subject to separate business cases and have not yet been signed off.

1.8.1 **Transition costs**

Transition costs refer to costs associated with the transfer of activity; this can either be where activity includes transfers to an OOH setting or transfers between sites. These types of costs include double running and implementation support and preliminary estimates from the Finance Directors Group are presented in Table 21 below.

Table 21: Transition costs

Non-recurrent cost	16/17	17/18	18/19	19/20	20/21	Total
Implementation support	£5.0*	£5.0	£2.5	£1.5	£1.0	**£15.0**
Double running for OOH	-	£4.1	£4.1	£4.1	-	**£12.4**
Total	£5.0	£9.1	£6.6	£5.6	£1.0	**£27.4**

* This is the Success Regime funding in 2016/17

Source: success Regime analysis

The transition costs are not included in the five year financial position, given they are non-recurrent items.

1.9 Sustainability and Transformation funding

The funding allocation identified as part of the financial challenge in the PCBC uses the place based funding allocations published by NHS England.

Separate additional funding has been identified and initially held at a national level for the Sustainability and Transformation Fund (STF), and other elements of transformation such as Primary Care.

In order to support STP footprints in developing plans for the areas in 2020/21, in May 2016, NHS England has published, on an indicative basis, the total additional funding which could be available in 2020/21 from all sources. This includes a proportionate element of the sustainability fund, and of those transformation funds expected to be made available for local investment and services.

This indicative Sustainability and Transformation (S&T) funding is c. £25m for WNE Cumbria in 2020/21.

This funding is linked to investing in a number of areas, including:

- Taking forward the programs set out in the General Practice Forward View and delivering extended GP access;
- Implementing the recommendations of the Mental Health Taskforce, Cancer Taskforce strategy and National Maternity Review, including increasing capacity of children and adolescent mental health services and implementing access and wait targets for eating disorder services; and
- Consistent seven-day quality of urgent and emergency care in hospitals.

Of the c. £25m S&T funding, c. £5m is the proportion based on current funding proportions that is related to primary care and specialised services. This therefore leaves c. £20m as the indicative funding to WNE Cumbria within the scope of the financial analysis included in this PCBC.

Investment in a number of areas may in part be accounted for in the financial analysis included in this PCBC. For example, the investment required to deliver seven day services across urgent and emergency care is likely to be in part accounted for within the cost uplift included to reflect for the cost of clinical standards. However, other areas such as investment required to implement the recommendations of the Mental Health Taskforce are unlikely to have been fully accounted for. There is a Cumbria-wide Mental Health strategy which indicates a c. £15m capital requirement for reconfiguring mental health services; this has been included in the financial position to offset the S&T funding – the investment is capitalised net of c. £0.8m benefits per annum. However, there are likely to be further investments required in mental health in addition to this in order to receive the S&T funding.

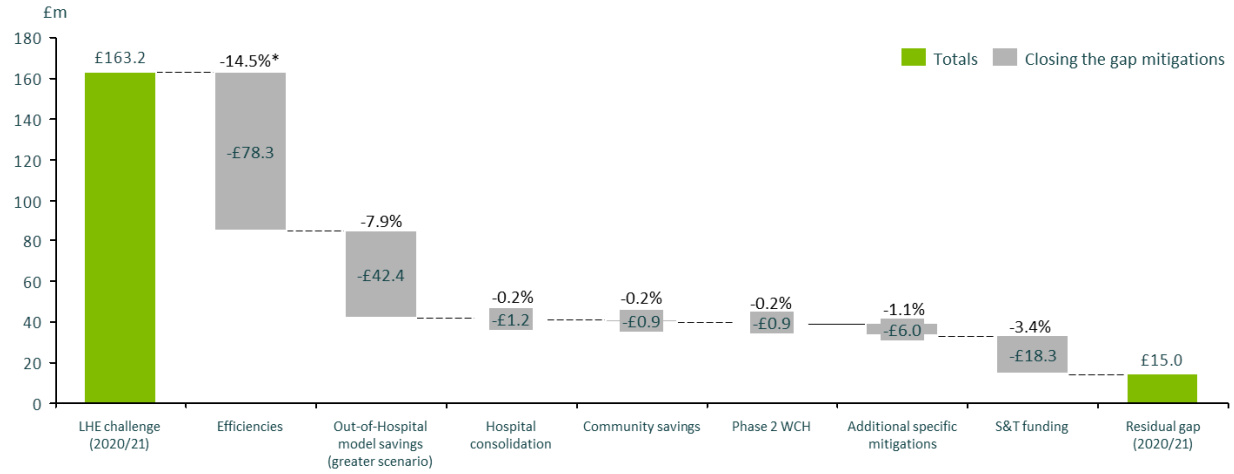
The level of investment likely to be required in each area is uncertain, but at this stage it is assumed that c. £18.3m would be available in 2020/21, or that an additional c. £1.7m of investment is required to receive the c. £20m of S&T funding.

1.10 Summary of five year financial position

The new ways of delivering care to the local population in WNE Cumbria described in the previous sections drive a more financially sustainable position. This is illustrated in

Figure 14 where the financial challenge is reduced by c. £148m from c. £163m to c. £15m by 2020/21, based on the preferred options.

Figure 14: Summary of 2020/21 position



Source: Success Regime financial analysis. %s relate to total 5 year provider expenditure of c. £540m
Revenue consequences of c. £0.3m associated with the community option are included in the out of hospital savings.

A range of potential additional mitigations are considered in the next section.

1.11 Residual financial challenge

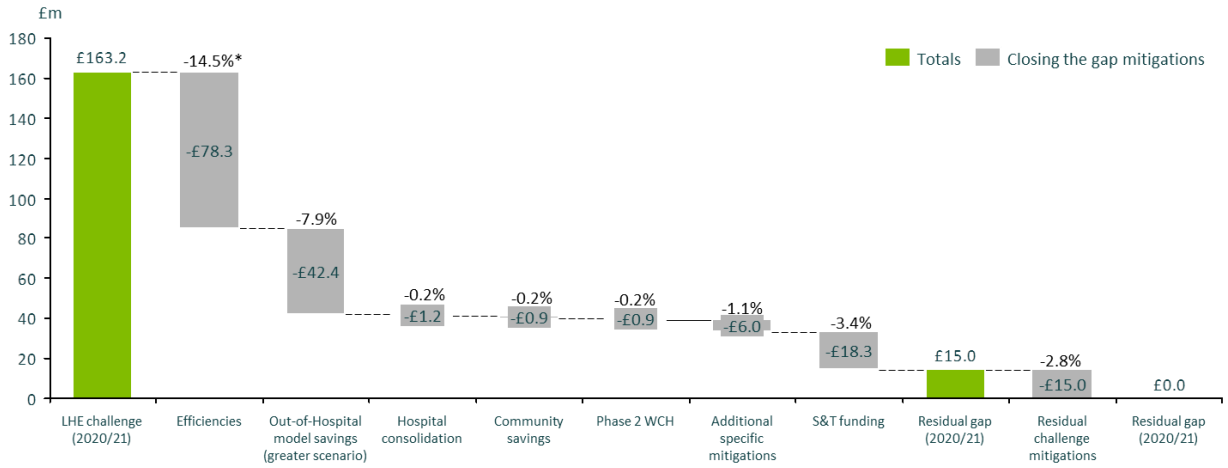
The residual gap in 2020/21 could be reduced through a number of potential measures currently being developed. This considers:

- Greater clinical efficiencies including increased bed utilisation and delivering care closer to home;
- Beginning to realise the benefits from IM&T investment;
- Improved population health, including decommissioning procedures of limited value; and
- Additional decommissioning of loss making services locally.

The system is committed to reaching financial balance. It is expected that the areas listed above would contribute to closing some of the residual challenge in 2020/21, however there are still further areas to be considered.

Realising these benefits would close the residual challenge in 2020/21, as can be seen in

Figure ***15***.
Figure 15: 2020/21 financial position after residual challenge mitigations



Source: Success Regime financial analysis. %s relate to total 5 year provider expenditure of c. £540m

1.11.1 Potential revenue support required

In addition to the residual financial challenge which remains in 2020/21 post S&T funding (and pre-S&T linked investments); further revenue support in the form of revenue support is required to account for the phasing in of the mitigations considered.

Specific phasing assumptions have been developed based on either a range of benchmarks or current financial plans, which account for:

1. **Front loaded mitigations**, reflecting mitigations where significant savings are likely to be realised in the first two years, for example the core provider efficiencies.

2. **Medium phased mitigations,** reflecting savings associated with ICCs, which are likely to be rolled out in the first couple of years but will only likely reach scale and full impact in years 4 and 5. As such, phasing assumptions reflecting a gradual phasing in of the impact over the five years are applied to the OOH benefits.

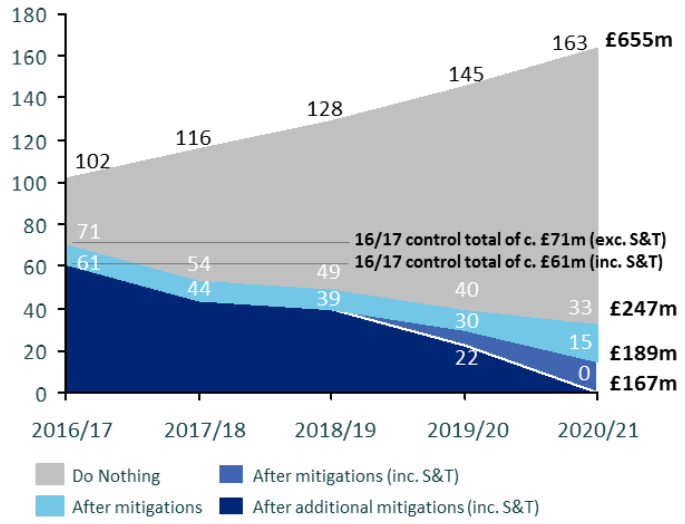
3. **Back loaded mitigations**, reflecting savings which are likely to take more significant time to achieve given the level of change, in particular the acute and community reconfiguration options and savings associated with prevention.

Four scenarios around the savings profile have been estimated:

1. **Do Nothing** – based on the financial challenge estimate before any mitigations are considered, c. £655m could be required over the five years in this scenario, in addition to c. £163m per annum on an ongoing basis.
2. **Savings after the core mitigations but excluding any S&T funding** – based on the c. £33m residual challenge by 2020/21. This scenario implies c. £247m transitional funding could be required over the 5 years in addition to c. £33m per annum on an ongoing basis, which is significantly less than the do nothing option.
3. **Savings after the core mitigations but including any S&T funding** - based on the c. £15m residual challenge by 2020/21. This scenario implies c. £189m transitional funding could be required over the 5 years in addition to c. £15m per annum on an ongoing basis, which is significantly less than the do nothing option.
4. **Including the additional residual challenge mitigations** – based on the scenario above but including the c. £15m of additional challenge mitigations. In this scenario, transitional funding of c. £167m would be required.[34]

The four scenarios are summarised in Figure 16.

Figure 16: Phasing scenarios - potential revenue support requirement



Source: Success Regime analysis

Based on the four scenarios considered, the overall transitional funding requirement could be in the region of c. £167m to £247m. The implementation funding requirement would be in addition to this.

[34] It is noted that the investment required to deliver services in the ICCs may have to occur in advance of the benefits associated with them, but the current assumptions phase costs and benefits in the same way.

1.12 Workforce

Initial workforce analysis has been undertaken to understand the levels of staffing required in the system if the plans in the PCBC were put into place. In addition, bottom up modelling of individual services has been carried out to triangulate the savings identified in the top-down financial model.

The analysis should be viewed in the context of further work being required post consultation with regards to the workforce implications of the new service models. Table 22 summarises the workforce estimates.

Table 22: Workforce impacts

	2020/21 Do Nothing	2020/21 Post mitigations	2020/21 Post ICC reinvestment
WTE	6,573	5,751	6,036
Total Pay (£m)	£326	£261	£273
Unit Cost /WTE (000's)	£49.6	£45.4	£45.2

Source: Success Regime analysis

By 2020/21 there is estimated to be 6,573 WTE if no action is taken, based on activity growth and delivering to clinical standards. If the PCBC plans are put in place, the WTEs required to deliver services could be reduced to 5,751. However, re-investment in the OOH model, particularly in the ICCs, is expected to result in the recruitment of 285 WTE. This analysis therefore suggests that staffing levels will not change significantly compared to the current state, but will be 8.3% lower compared to a scenario whereby the system takes no action.

Despite aggregate numbers potentially remaining unchanged there are a number of significant changes the WTE numbers do not highlight:

1. The plan aims to **reduce premium pay**; and
2. There will be **significant skill mix changes**.

The total pay cost is estimated to reduce by c. £53m as a result of the mitigations included within the PCBC. The current average unit cost per WTE is £44.7k in WNE Cumbria and this high average unit cost is driven predominantly by a high use of agency staff. In particular, currently 2% of WTE account for 8.3% (£28.1 million) of total pay. The unit cost per WTE could increase to £49.6k in the 2020/21 Do Nothing scenario, based on assumptions around pay inflation.

After efficiencies, OOH and other mitigations, this could reduce to £45.4k. The lower unit cost is driven by workforce efficiencies and a significant reduction in agency spend by c. £20m.

Finally, the average unit cost per WTE could further reduce to £45.2k through the re-shaping of workforce to account for the changes in skill mix from delivering greater care in OOH settings through the ICCs. In particular, 58% of the ICC staffing model comprises of junior roles compared to 40% of staff currently working in CPFT and NCUHT overall.

These changes drive a total pay cost saving of c. £53m in 2020/21 compared to the Do Nothing scenario; with c. 50% of this reduction due to agency spend. The remainder focuses on mitigating the c. 10% growth in substantive workforce between 2015/16 and 2020/21 and optimising the skill mix delivering care in the ICCs.

The c. £53m saving in staff pay would be equivalent to c. 1,180 WTEs at a benchmark unit cost of £45.2k per WTE. The reduction of c. 536 therefore reflects the significant opportunity to reduce agency spend within the system.

It is important to note that there will be other changes in the skill mix that will provide opportunities for staff to enhance their skills and develop their careers. An example of this is with acute medicine in West Cumberland. The proposals at Whitehaven outline a vision where middle grade physicians are replaced with enhanced professionals from other clinical backgrounds. This example is in line with other transformational proposals in the trust that aim to reduce agency spend and improve the efficiency of the delivery of care resulting at a lower unit cost per WTE. It is recognised that the transition to a new workforce model will take time and investment. However, detailed plans have been constructed within the clinical work streams to train staff to enable the new ways of working outlined in the PCBC.

This, combined with the wider workforce strategy, has the potential to improve staff recruitment and retention across the system. The evidence in reducing the reliance on agency staff has additional benefits, namely less fragility of clinical services and an increase in the quality of the patient care.

Despite the estimates of the workforce remaining flat over the period, it should be noted that:

1. Further work is required to identify at a service level the specific workforce changes and the outcome of this work may change the workforce profile envisaged as part of this work; and
2. The current workforce story doesn't include a number of mitigations (e.g. those to close the residual challenge of c. £15m in 2020/21). Some of these areas could have workforce implications and were these to be considered this could impact upon the workforce story.

1.13 Deliverability and risk

The WNE Cumbria system is setting itself a number of challenging targets to get closer to financial sustainability. As such, both core and stretch savings may prove to be particularly difficult to unlock given a suite of deliverability challenges, such as:

1. **Changes in leadership**. Across recent periods, the local health economy has witnessed significant change within the leadership positions of its key organisations.

2. **Governance structure**. Achieving significant transformational change in a short period of time requires a well-structured and fast paced governance approach which may be difficult to achieve within the local context.

3. **Challenging track record**. The health economy has delivered limited improvements against its efficiency targets over the past years (e.g. CIPs).

4. **Immediate pressures**. Local pressures may inhibit the ability to deliver transformational change in a fast and efficient manner.

1.14 Limitations to the financial analysis

Due to the overall timelines, there are a number of limitations to the financial analysis underpinning the PCBC:

1. **Top-down opportunity analysis**. The analysis around the efficiency and activity opportunities available which feeds the efficiency analysis and OOH impacts has been undertaken based on available information (Lord Carter, Right Care and other benchmarking work). Further work has been undertaken to begin to underpin this opportunity with more granular plans and analysis and is outlined in Appendix L.

2. **Organisation level impacts**. The financial analysis focusses on understanding the financial, activity and clinical impacts of the overall model of care at an overall health economy level. Whilst initial organisational level impacts could be developed, these would likely change as pricing and organisational form questions remain to be answered.

3. **Estates and IM&T**. Analysis around space and capital changes often requires significant time, expertise and a considerably developed clinical strategy (e.g. granular locational information). At this stage, a set of high level assumptions around fixed costs and capital costs have been applied, detailed estates space analysis it expected to be completed after the PCBC.

4. **Costs back in the system from OOH**. Simplifying assumptions have made around the reinvestment rate to estimate the cost of running services in the ICCs in the top-down modelling, however as noted in Section 1.4, further bottom-up work is being undertaken to underpin this.

5. **Travel time analysis**. Travel time analysis has been undertaken as part of a separate workstream to support an understanding of the patient flow dynamics in the local health economy. This travel time analysis uses the same activity inputs as the financial modelling.

6. **Other mitigations**. A range of mitigations related to areas such as prevention, Shared Organisational Arrangements and pathology consolidation have been considered in a simplified way only, for example based on applying simple benchmarks.

7. **Capacity impacts**. Capacity has been analysed in terms of total inpatient beds only, given these are the most material areas in terms of overall space requirements.

8. **Patient transfers**. Given the potential implications for the overall options appraisal, the cost of patient transfers has been considered in a simplified way based on assumptions around capacity and average cost of ambulance teams.