Hospital Services Review
South Yorkshire and Bassetlaw, North Derbyshire and Mid Yorkshire: Stage 2 Report
May 2018
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1 Foreword by the Independent Review Director

It is an honour to present this review of acute hospital services in South Yorkshire and Bassetlaw, Mid Yorkshire and North Derbyshire (SYB(MYND)) in the 70th anniversary year of the founding of the NHS.

The National Health Service is one of the most loved public institutions in England. It provides care for millions of people every year, at birth, and death, and some of the most difficult moments in between. For many of the hundreds of thousands of staff who work in it, being a part of the NHS is more than just a job; it is a vocation.

In South Yorkshire and Bassetlaw, and its neighbouring health economies of Mid Yorkshire and North Derbyshire, we are fortunate to have some excellent services. Staff from all professional backgrounds are dedicated and skilled, and do their best to deliver high quality care in the face of tremendous pressure.

But the NHS is facing enormous challenges. Within SYB(MYND), demand is increasing faster than ever predicted. There are major workforce shortages, leading to an increased reliance on temporary staff. Staff across specialties have told me that the system is stretched to breaking point.

Part of this comes from resource shortages, but part of it is the consequence of a system that was set up to meet one kind of health need trying to adapt to a changed world. The system must change to meet these new needs.

This Review was set up to look at what those changes need to be, to put the acute hospitals onto a sustainable footing. In doing this, I have been guided by two principles:

The first principle is that the hospitals in SYB(MYND) need to work together. For too long, NHS organisations have worked in silos, competing for staff, and even for patients. But the greatest efficiencies, as well as the best patient care, only come from hospitals working together. Only in this way will we give all patients access to the best care, reduce inequalities, and make the best use of the resources we have.

The hospitals in SYB(MYND) have a long history of working collaboratively. The HSR lays out how we can build on this. It proposes ways to address workforce shortages, and unwarranted variations in care, by working together.

The second principle was that SYB(MYND) needs to continue to provide care as close to home as possible. No District General Hospitals are being closed: all of them will continue, and most patients will receive most of their hospital-based care in their local DGH.

But the Hospital Services Review (HSR) has looked at ways in which we can strengthen this by focusing the most specialised care on more specialist sites. The HSR focuses on five services which are particularly challenged across the health economy, and going forward we believe that SYB(MYND) should continue along this path.

The SYB(MYND) healthcare system is on a journey. This report marks the “end of the beginning” of this journey. Much further work will be required to implement the recommendations, and put SYB(MYND) onto a sustainable footing for the future.

Christopher Welsh, Independent Review Director
2 Acknowledgements

I would like to thank members of the public, patients and NHS clinicians and staff for their time, commitment and energy in working with me on this review. Your expertise, advice and challenge has been invaluable, and the recommendations that we have developed for the future of acute hospital services in South Yorkshire and Bassetlaw, Mid Yorkshire and North Derbyshire reflects the breadth and depth of the experiences that you have brought to this important task.

I am very grateful to Alexandra Norrish for managing the review process, and to the members of the Hospital Services Review team.

Christopher Welsh
Independent Review Director, Hospital Services Review
3 Executive summary

This chapter summarises the key themes and recommendations in the report.

3.1 Introduction

The South Yorkshire and Bassetlaw (SYB) region is in the process of becoming one of the first Integrated Care Systems (ICS) in England. The Hospital Services Review’s (HSR) vision for acute services is to support and build on this transformation journey by putting forward recommendations and a plan for action for creating sustainable hospital services that are part of a truly integrated healthcare system.

While the region already has some excellent hospital services and a history of shared working, the system is under great strain from mounting demand and workforce pressures. This impacts on the quality of care that patients receive, and can lead to significant inequalities across the region in patients’ access to and outcomes of care.

Over the last ten months, the HSR has therefore engaged with clinicians, patients and the public to identify the ways in which services could be improved. Three main themes from this work emerged which build the organising structure for the report: changing the ways that organisations work together; transforming the way that services work; and reconfiguring services where necessary.

Whilst services will need to change to adapt to future demands, the HSR has been clear since its inception that every Place in South Yorkshire and Bassetlaw, Mid Yorkshire and North Derbyshire (SYB(MYND)) will continue to have its own hospital. The HSR does not propose the closure of any hospitals. To provide more equitable access to high quality care, hospitals will work together across boundaries and build on each other’s strengths, complementing the local care offer by making it easier to access specialist services at other organisations. Additionally, the HSR seeks to grow and strengthen the workforce in SYB(MYND) through collaboration with Health Education England (HEE). We need all the staff we have; we do not anticipate that there will be any redundancies resulting from the HSR.

The HSR has focussed on five hospital based services which were identified during Stage 1A of the Review as being significantly challenged (the comprehensive analysis that led to the prioritisation of the services is available in the Stage 1A report). The five services are: urgent and emergency care (predominantly focussed on the Emergency Department), maternity, care of the acutely ill child, stroke, and gastroenterology and endoscopy. Besides the services addressed in this report, significant challenges were also identified in some other services, both elective and non-elective, which should be considered in any future work.

Whilst the HSR’s focus is on hospital-based services, it recognises that these services cannot exist and operate in isolation. The HSR has therefore engaged other system stakeholders across the entire continuum of care. This will ensure that its recommendations build on related work currently under way, and recognise system-wide interdependencies. It is recognised that acute hospital services are highly dependent on primary, community, mental health and social care services, which have been considered throughout this report.
### 3.2 Outline of the report

The HSR has taken an evidence-based approach. It provides a comprehensive account of the specific challenges that hospital services face across SYB(MYND) and highlights opportunities to do things differently in the future.

The system faces various workforce challenges and unwarranted variation in clinical outcomes. It is also slow to adapt to changes and roll-out value-adding innovations. The HSR proposes transformation of services in line with these themes.

The HSR concludes that to address challenges identified and improve the long-term service sustainability, providers will need to work together more closely.

This guiding principle is aligned with and builds on the system’s current efforts to establish the shadow ICS. Hospitals should lead the way and cooperate as part of an integrated system of providers and commissioners across different organisational levels. The structures that underpin system-wide cooperation however will need to move beyond the primarily voluntary approach that has prevailed up to now.

The collaborative structures put in place by the Working Together Vanguard have had a measure of success but have been hampered by a lack of sufficient authority or accountability. The HSR therefore defines a clear hierarchy of structures for each organisational level and describes the interaction between these levels.

Figure 2: Structure of HSR recommendations

Figure 1 below illustrates the different integration levels and the interaction across the levels, transformation themes and clinical services covered as part of the HSR.

![Figure 1: Axes of service transformation across SYB(MYND)](image)

These new structures are pivotal for the success of the system overall.

#### 3.2.1 Integration at Place level

Hospitals play a vital role in serving the acute care needs of their local populations. They are part of a Place-based system that provides a continuum of care across different levels of acuity. As such acute providers need to integrate into and play an enabling role for other health and care providers in their local areas. These Place-based integration aspects are beyond the scope of the HSR, but this report highlights the links between hospitals and primary, community, mental health and social care, via the Place Plans and integration agreements.
3.2.2 Integration at service level

Acute trusts should provide the same high quality of care across the region. The HSR considers they will be best able to do this if they organise in service-specific Hosted Networks. The Hosted Networks will provide the necessary authority and capability to address challenges around workforce, unwarranted variation, and problems that could be addressed through innovation.

The HSR anticipates that each of the SYB trusts – provided that it is able to meet agreed standards – will host one of the networks for the system. Hosted Networks can operate with three degrees of integration between members at the host trust:

Basic Hosted Network

This model is suited to services where coordination of resource allocation is not required, or is proposed to be delivered through specific pairing arrangements\(^1\), such as for stroke. Authority is delegated to one trust (with participation from all) to lead on a number of functions across the three transformation themes:

- **Workforce**: the host trust will have responsibility for developing functions such as a standardised approach to recruitment and retention, and a streamlined approach to designing job roles for alternative workforce groups (e.g. Advanced Clinical Practitioners or Physician Associates).
- **Clinical variation**: the host trust will coordinate prioritisation, agreement, implementation, and monitoring of shared clinical protocols across all trusts that are part of the network.
- **Innovation**: the host trust will be responsible for planning and executing the roll-out of innovations to address identified challenges across all trusts.

These functions are only a selection of examples and a more complete list can be found in the relevant chapter for each service. Note that these changes will not require formal public consultation to implement, however both patients and the public have been engaged in developing solutions.

Coordinated Delivery Unit

This model is suited to specialties where complex flows of resources and patients would benefit from a coordinated approach to service delivery at individual trusts. In this case, the host trust is responsible for coordinating all the functions included in the basic Hosted Network but also takes responsibility for managing further elements of service delivery such as coordinating capacity across trusts. The HSR recommends that urgent and emergency care (UEC) and gastroenterology and endoscopy services adopt this model.

Single service model

This model is suited to specialties where one trust has particular expertise in delivery of a service. In this model the lead trust takes a more active role in providing services on some or all other sites. This is applicable for specialties where there is a clear unique area of expertise and the HSR considered that services providing care of the acutely ill child would be most applicable for this model.

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\(^1\) For the HSR definition of pairing see the Glossary
3.2.3 Integration at system-level

The HSR considers that there are some functions that should be undertaken and delivered once across the entire system. These functions will need to be delivered and supported by a set of shared capabilities to enable both service-specific and system-wide transformation. The HSR considers that the ICS should build on existing infrastructure where possible and deliver these system-wide functions through two planned organisations:

**The SYB(MYND) Health and Care Institute**

The Institute will be responsible for delivering system-wide functions related to workforce and clinical variation. This will include – amongst other functions – the delivery of a comprehensive workforce strategy and assuring the system-wide adherence to a standardised approach to developing and implementing shared clinical protocols.

**The SYB(MYND) Innovation Hub**

The Hub will be responsible for taking forward a system-wide innovation strategy which should include a mechanism for identifying innovative solutions to challenges, assessing their costs and benefits and proposing ways to scale them across the system.

3.2.4 Service transformation

Each of the transformation themes applies to each of the services and specific recommendations have been developed through engagement with stakeholders. The HSR recommends service transformation to address current challenges by: strengthening the workforce; reducing unwarranted variation; and introducing innovation to tackle complex challenges. This transformation will be supported through the Hosted Networks and system-level organisations described in this report.

3.2.5 Service reconfiguration

With growing workforce shortages and constrained resources, all five advisory Clinical Working Groups (CWGs) believed that it is not possible to continue to provide all the services on all the sites that currently provide them, with the current workforce. The HSR tested this, and looked at the likely availability of workforce over the next 5 years in South Yorkshire and Bassetlaw and North Derbyshire (SYB(ND)). Mid Yorkshire was excluded from this piece of work because it has already been through a reconfiguration.

The modelling showed that in some areas the scale of the challenges is so great that the HSR does not believe that they can be met by transformation alone. The HSR has considered the need for service reconfiguration for all services and came to the following conclusions:

- **Urgent and Emergency Care** (Emergency Departments): the HSR recommends maintaining all 6 consultant-led EDs with the proposition that these would be the front door to different ranges of services on different sites.

- **Care of the Acutely Ill Child**: The HSR recommends that every site in SYB(ND) should have facilities to care for children, including all EDs being equipped to receive children (unless there is a specialised paediatric ED nearby), and all sites having a Paediatric Assessment Unit. However, the Review has confirmed that the current configuration of inpatient paediatric units in SYB(ND) is not sustainable. Further consideration should be given to how the system makes the best use of the paediatric consultant and middle grade workforce, and consider a reduction in the number of inpatient units.
• **Maternity:** The maternity system in SYB(ND) does not meet the requirement, laid out in Better Births, to offer a wide range of choices to women. The HSR has looked at how SYB(ND) might improve choice for women and support the sustainability of maternity services as well as their interdependent services.

The Review recommends that every DGH should provide maternity services, and every Place should offer a home birth service.

On consultant led services, the HSR has confirmed that staffing levels in SYB(ND) are currently sufficient to meet the minimum guidelines for consultant presence. However, the design of maternity services in SYB(ND) should recognise the high level of risk amongst the SYB(ND) population, which may make it appropriate to move to larger consultant led units with a higher level of consultant presence. The configuration of maternity services also needs to support the design of a sustainable paediatrics service, since paediatrics and obstetric services are interdependent. In this context, the Review recommends that commissioners consider how the system makes the best use of the obstetric and midwifery workforces, in particular to a potential reduction in the number of consultant led units alongside potential changes to paediatrics.

• **Stroke:** the HSR recommends a pairing approach for sites with HASUs to share consultant rotas with those without.

• **Gastroenterology:** the HSR recommends consolidating services for urgent gastrointestinal bleeds out-of-hours onto a smaller number of sites.

These options focus on improving the way services are configured through sharing the available workforce across sites and providing patients with equitable access to specialist care wherever they may enter the SYB(ND) healthcare system.

### 3.2.6 Organising care across the health economy

To successfully implement the recommendations of the HSR, organisations within SYB(MYND) will need to work together as part of an integrated system of providers and commissioners. Achieving this will require a change in mind-set – from one focused on the objectives of sovereign organisations, to one focused on the objectives of the system as a whole.

The current arrangements between providers are unlikely to be fit for purpose when considering the scale of change that is included in this report. It is not the role of the HSR to design the future working arrangements of the provider and commissioner sectors in SYB(MYND). However, the effectiveness of these arrangements will impact how successfully the HSR recommendations are implemented.

### 3.2.7 Conclusions

Outcomes for patients, and ensuring equal outcomes for patients, could be significantly improved if hospitals work together more closely. The HSR presents an important opportunity to leverage the benefits of working together across organisational boundaries. As SYB begins to establish itself as an Integrated Care System, the HSR will build on the opportunity to overcome its challenges as an integrated system and deliver the high-quality healthcare that patients deserve.
3.2.8 Next steps

Carrying forward the recommendations from this report will require meaningful change in the way organisations work, which is a challenging task. To help drive change at pace, the HSR has set out next steps to carry forward each of its recommendations. These fall into two main categories:

- Transformation: Actions to carry forward transformation recommendations that can be instigated immediately since they do not require changes to patient care
- Reconfiguration: Further modelling and development of the business case, leading to public consultation

In addition, a high-level milestone plan for the next 12 months will help SYB ICS and SYB(MYND) organisations to plan resources to support implementation of recommendations.

3.2.9 Recommendations

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<td><strong>Place</strong>²</td>
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<td>The vision for each Place is that as many patients as possible are treated in the most appropriate care setting. This means many patients who currently attend acute hospitals may be better treated in the community. For those that do require acute care, the majority will be provided in their local District General Hospital (DGH).</td>
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| 1   | The scope of the Integration Agreements between SYB ICS and each Place should include the recommendations of the HSR that are taken forward by commissioners. This should mandate each Place and SYB ICS to implement the changes outlined in this report. |

| 2   | There should be a defined range of services that are moved out of the acute hospital setting, in line with existing Place Plans already underway. These services should be supported by the appropriate workforce model (e.g. GPs, community staff, and hospital staff) and estates solutions to support moving services into the community. The HSR has identified areas of opportunity for further investigation. |

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<td><strong>Hosted Networks</strong></td>
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<td>The vision for Hosted Networks is to have a host organisation for each service, to minimise barriers between organisations, make the best use of expertise and skills across SYB(MYND), support shared decision making, and enable quick progress on issues.</td>
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| 1   | Each service should establish a basic Hosted Network, Coordinated Delivery Network, |

² See the glossary for the HSR definition of Place
or Single Service Model with agreed strategic objectives that align to the wider SYB ICS vision.

2 The Hosted Network should have a defined scope and remit. A suggested scope has been included in the service-specific recommendations in chapters 10-14. The scope should include functions to address elements of workforce, clinical variation, and innovation.

3 Each Hosted Network should operate within an agreed organisational form, which may build upon existing structures where relevant (see service-specific recommendations in chapters 10-14). The form should include:

- A host organisation for each service
- The appropriate resourcing, financial and governance model to support it
- Contracts between each member organisation and the host organisation that define the roles and responsibilities of each party as part of the Hosted Network

4 Commissioners should be responsible for defining ICS-wide commissioning specifications across SYB(MYND) against which organisations within Hosted Networks deliver services and outcomes. Commissioning arrangements could be supported either by a lead commissioning arrangement or an ICS-wide commissioner.

5 Each Hosted Network should be accountable to the SYB ICS for the delivery of its agreed functions. This includes delivery against measurable goals and performance metrics, which are monitored by the SYB ICS.

6 Each Hosted Network should be established recognising the relationships between relevant stakeholders. This includes local organisations within Place structures, central bodies such as NHS England and NHS Improvement, and existing regional networks.

7 Each Hosted Network should engage with patients, the public and clinicians to ensure their views are encompassed in the design of the Hosted Network.

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<td><strong>System-level integration</strong></td>
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|     | The vision for system-level integration is to deliver system-wide analytical and planning functions to support SYB(MYND) providers, commissioners and the Hosted Networks implement recommendations of the HSR. This should support service transformation in the following three themes:

- **Workforce**: The vision for workforce is to build on the significant workforce planning that has already been undertaken, and to exploit the benefits that an ICS can offer to SYB(MYND) through the consistent roll-out of workforce solutions across the region. |
Reducing unwarranted variation: The vision for reducing unwarranted variation is to reduce health inequalities by ensuring that patients receive the same quality of care wherever they live.

Innovation: The vision for innovation is to address challenges through a SYB(MYND)-wide approach to identifying and prioritising problems, horizon-scanning for innovative solutions, and diffusing and adopting innovations at scale across all organisations and services.

SYB(MYND) should work with the planned SYB(MYND) Health and Care Institute to ensure the required functions and capabilities are provided to support service transformation through Hosted Networks.

It should have the appropriate authority to carry out its remit which should include the delivery of a comprehensive workforce strategy and assuring the system-wide adherence to a standardised approach to developing and implementing shared clinical protocols.

The SYB(MYND) Health and Care Institute should include representation from local higher and further education institutions and the regional office of Health Education England (HEE). It should consider how existing forums, such as the Local Workforce Action Board (LWAB) and the HR Directors Forum, can contribute to and support the workforce functions.

The SYB(MYND) Health and Care Institute should act as a central intelligence function for collecting and analysing data on unwarranted variation, and should be the primary vehicle for engaging with national initiatives such as Getting It Right First Time (GIRFT), Model Hospital, and Right Care.

This should include representation from NHS England and NHS Improvement regional teams.

SYB(MYND) should develop a system-wide innovation strategy, which should include a mechanism for identifying innovative solutions to challenges, assessing their costs and benefits and proposing ways to scale them across the system. Ultimately this should lead to the establishment of an Innovation Hub that includes representation from the Academic Health Sciences Network and should be linked with existing structures such as local test beds and local academic partners, as well as the UK Life Sciences or Industrial Strategy.

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<td><strong>Urgent and emergency care (Emergency Department)</strong></td>
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The vision for UEC is to ensure that patients can access preventative care in the community to reduce their need to use Emergency Departments. All patients in SYB(MYND) should have access to urgent care in their local hospital. Every Place should have a hospital with appropriate facilities and workforce complement to diagnose, stabilise, resuscitate and, if necessary, onward transfer to high quality treatment within the SYB(MYND) network.
1. SYB(MYND) should establish a Hosted Network with the scope and remit of a Coordinated Delivery Network, as outlined in the specification recommended in chapter 10.3.1.

The Hosted Network should be appropriately linked to existing networks such as the Trauma Network, the UEC Board, the ED Delivery Board and local Place Boards.

2. SYB(ND) should retain all six Emergency Departments, with the ability to deliver the core functions (assessment / diagnosis; resuscitation / stabilisation / treatment; transfer).

The role of the District General Hospital

1. SYB(ND) should continue to have a DGH in every Place.

2. There should be a defined range of services that are moved out of the acute hospital setting, in line with existing Place Plans already underway.

   These services should be supported by the appropriate workforce model (e.g. GPs, community staff, and hospital staff) and estates solutions to support moving services into the community. The HSR has identified areas of opportunity for further investigation.

3. Each DGH will have its own unique service portfolio (core and specialist offer) and work in a networked way across SYB(ND).

4. SYB(ND) should develop models for the transformation and reconfiguration of elective services to support the improvement in outcomes, as well as support changes to non-elective flows.

Elective care
The vision for elective care is to address the sustainability challenges in a number of elective services and explore the scope to consolidate activity and / or separate flows from non-elective care.

1. SYB(ND) should develop models for the transformation and reconfiguration of elective services to support the improvement in outcomes, as well as support changes to non-elective flows.

Care of the acutely ill child
The vision for paediatric services that all children receive high quality care at all times, wherever they interact with the health system, be that at hospital or in the community, for both physical and mental ailments. SYB(MYND) should leverage the specialist expertise of Sheffield Children’s Hospital and the system’s dedicated staff to improve care for all.

Each Place will be able to accept, assess and stabilise acutely ill children- all EDs should be able to receive children. Those children who require longer-term observation or specialist treatment will have equitable access to specialist services...
within the SYB(MYND) network.

1 SYB(MYND) should develop the Acute Paediatrics Managed Clinical Network (MCN) into a Hosted Network, led by Sheffield Children’s Hospital, with the scope and remit of a Single Service model, as outlined in the specification recommended in chapter 11.3.1.

2 Further consideration should be given to how the system makes the best use of the paediatric consultant and mid-grade workforce, and consider a reduction in the number of inpatient units.

3 Those Places which potentially do not have an inpatient unit should each have a part-time SSPAU, supported by robust referral and patient transfer protocols to ensure the children are able to access the care they need out-of-hours.

### Maternity

The vision for services in SYB(MYND) is that all mothers receive personalised care before, during and after birth, close to home, and should be able to choose from a variety of safe and high-quality birth options.

SYB(MYND) should optimise the use of the expertise held by the dedicated maternity and obstetrics staff in the system to ensure that wherever women chose to give birth, safe high-quality care is provided.

1 SYB(MYND) should develop the Local Maternity System (LMS) into a Hosted Network with the scope and remit outlined in the specification recommended in chapter 12.3.1. The LMS Hosted Network should adapt and utilise existing structures such as the Clinical Governance Task & Finish Group.

2 The HSR has confirmed that the current configuration of consultant led obstetric units in SYB(ND) meets the guidelines for minimum levels of consultant presence. However, the high level of risk in the population of SYB(ND) may make a higher level of consultant presence appropriate, and the configuration of obstetric led maternity services needs to recognise the interdependencies with paediatrics services. Commissioners will wish to consider how the system makes the best use of the obstetric and midwifery workforces, and the Review recommends that the configuration of maternity services should support and enable sustainable paediatrics services.

3 SYB(ND) should consult with the public on whether stand-alone Midwifery Led Units are an appropriate way to ensure choice and care close to home for lower risk pregnancies, on sites where consultant-led obstetrics services are not provided.

4 SYB(ND) should undertake further due diligence into innovative models of care such as part-time elective caesarean services to support MLUs and provide greater choice to mothers in areas where no full-time consultant-led obstetrics services are provided.

### Stroke

The vision for stroke services in SYB(MYND), is that patients can access the care they
need in a timely manner, in accordance with national guidelines.

Patients’ care should follow a consistent end-to-end pathway, with seamless transition between providers from hyper-acute services through to ongoing rehabilitation in the community.

The workforce should be sufficiently skilled and staffed to deliver a sustainable stroke service whilst offering attractive career opportunities across SYB(MYND).

*Note – all proposals relating to Acute Stroke Units will take effect in the event that the ongoing business case on the Hyper Acute Stroke Units is implemented.*

1. SYB(MYND) should establish a Hosted Network with the scope and remit outlined in the specification recommended in chapter 13.3.1.

2. SYB(ND) should adopt a pairing approach for sites with HASUs to share consultant rotas with those that have ASU-only services.

**Gastroenterology and endoscopy**

The vision for services in SYB(MYND), is that each patient has access to high quality acute and elective gastroenterology care\(^3\) regardless of where they live in SYB(MYND). Care should be standardised to ensure equitable access across the region, and the workforce better supported to empower doctors and nurses to deliver the best care possible to patients.

Each patient should have access to high quality routine diagnostics and elective endoscopy services at their local DGH during the day, and faster and more equitable access to a specialist doctor at night and at the weekend for emergency gastrointestinal bleeds.

1. SYB(MYND) should establish a Hosted Network, with the scope and remit of a Coordinated Delivery Network, as outlined in the specification recommended in chapter 14.3.1.

2. SYB(ND) should consolidate overnight GI bleeds services onto three or four sites, supported by robust patient transfer protocols. All sites that currently offer daytime GI bleeds and elective endoscopy should continue to do so and provide where possible additional daytime capacity on weekends to reduce demand overnight.

<table>
<thead>
<tr>
<th>Ref</th>
<th>HSR recommendations</th>
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<tbody>
<tr>
<td><strong>System architecture</strong></td>
<td>The vision for system architecture is to successfully implement the recommendations of the HSR. To do this, organisational barriers must be broken down and the system must be able to make collective decisions quickly that are based on patient benefit and not organisational interest.</td>
</tr>
</tbody>
</table>

\(^3\) NB the scope of the HSR focuses on elective endoscopy and acute gastrointestinal bleeds.
1 The current arrangements between providers are unlikely to be fit for purpose when considering the scale of change that is included in this report. SYB(MYND) should review current governance arrangements and ensure these enable rapid decision making at pace to support the successful implementation of the recommendations in this report.

### Transport

The vision for transport in SYB(MYND), is to support a networked model of care across the hospitals in SYB(MYND) with agreed protocols for drive-by policies, referral and acceptance criteria, patient transfer protocols, and adequate provision of non-emergency transport for efficient patient transfers.

SYB(MYND) should establish a Transport Reference Group (TRG) with a remit to develop a system-wide transport strategy and the specific functions to support and deliver it. This should include representation from acute trusts, commissioners, Yorkshire Ambulance Service and East Midlands Ambulance Service, local transport authorities, patients and the public.

Emergency and non-emergency transport should be commissioned appropriately to enable the clinical model outlined in this report.
4 Approach of the Hospital Services Review

This chapter lays out the approach of the Hospital Services Review, specifically:

- The vision for acute hospital services in SYB(MYND)
- The challenges the healthcare system is facing
- Design principles underpinning HSR recommendations
- The approach for developing solutions to these challenges

The vision for acute hospital services in SYB(MYND) is to keep people well for longer and keep people’s care as close to home as possible. Acute services will part of one of the most integrated acute healthcare systems in the country, as part of the shadow Integrated Care System.

By working together, the acute trusts will strengthen their workforce, building on existing expertise to improve quality of care for patients, enhancing the reputation of our hospitals. We will work creatively with schools and universities to attract new entrants to healthcare professions, as well as those who wish to return to clinical practice. We will become a leading innovative system, identifying and adopting new approaches to healthcare to solve some of our most complex challenges. We will make SYB(MYND) into a place where people want to come and work.

Every Place in SYB(MYND) will have an acute hospital. The trusts will work together to ensure that patients have access to the right services in the right place at the right time – whether these be common, frequently used services in their nearest hospital, or highly specialised support for people with more complex needs accessed through a network. Alongside this, the acute hospitals must play their part in the wider healthcare system. They need to support moves to allow patients to stay healthy in their own homes wherever possible.

The Hospital Services Review focuses on how the acute hospitals can best play this role and can best work together to deliver consistently high-quality care for the people of SYB(MYND).

4.1 The vision for acute hospital services in SYB(MYND)

4.1.1 South Yorkshire and Bassetlaw Integrated Care System (SYB ICS)

One of the main opportunities to transform healthcare in SYB lies in the Integrated Care System (ICS). SYB has been named as one of the first areas in the country to be an ICS – putting the region at the forefront of providing joined up, better coordinated care by
breaking down the barriers between GPs and hospitals, physical and mental healthcare, social care and the NHS. The ICS will be launched in shadow form from June 2018.

The SYB ICS vision focuses on people staying well in their own neighbourhoods, by improving coordination between services and having staff work in the best way to meet people’s needs.

Alongside reshaping and strengthening primary and community services, by working as a network of 25 partners, access to specialist hospital care will be improved. The acute trusts will work together so that no matter where people live, they have excellent, high quality care and experiences.

4.2 Context

The NHS is at a turning point. Since the NHS’s inception 70 years ago, healthcare has been revolutionised. Advancements in medical science have widened the number of conditions we can successfully treat; new procedures and approaches to delivering care are increasing life expectancies.

However, our society is also changing and we are faced with new challenges that fundamentally impact the demand for healthcare and the way in which it is delivered.

As people live longer, chronic diseases such as type II diabetes, or illnesses associated with ageing such as dementia, are replacing traditional morbidities. Frail and elderly people make up an increasing proportion of patients. At the same time, healthcare can now treat increasingly complex acute illnesses with ever more personalised and intensive therapies.

These changes in the patterns of illness demand different kinds of treatment: on the one hand more care for chronic conditions in people’s own homes or in the community; on the other, an ever more specialised and complex range of care for acute illnesses.

However, our healthcare system has, in places, been slow to respond to changes in society and healthcare needs.

The traditional model of the District General Hospital (DGH), in which most services were provided in every acute hospital, is becoming more difficult to sustain as modern medicine becomes ever more complex. Every hospital cannot do everything.

We need to change the way in which we deliver care to reflect the ways that medicine is changing. At the same time, we need to do this in a way that reduces health inequalities. There are significant inequalities in health outcomes in the population of SYB. Part of addressing these inequalities is ensuring that all patients, wherever they live, can access the highest quality specialist care.

The future of healthcare in the NHS thus lies in acute hospitals working together, to make sure that the as many patients as possible are treated close to home while giving all patients equitable access to complex care, concentrating the most specialist staff.

There are many other challenges that healthcare is facing which can be tackled through joint working. A lack of collaboration between organisations in different parts of the health and care system means care can be disjointed and there is a history of trying to find discrete solutions for interconnected, system-wide problems.

Most of the hospitals across SYB(MYND) and nationwide face acute staff shortages, forcing them to rely on expensive locum and agency workers to provide care. There is also
unwarranted variation in the way that services are delivered across hospitals which leads to differences in performance, outcomes and experience of care.

Healthcare systems around the country are finding that not every hospital can provide every service in a safe and sustainable way. At the same time, system leaders are trying to find ways to work together to provide access to the best care available to their local populations.

The healthcare organisations in SYB(MYND) are facing the challenge of maintaining acute hospital services into the next 10 years: services that can respond to changing needs for care and provide consistent quality for all patients, supported by a sustainable and appropriately skilled workforce. This challenge extends to commissioners as well, who hold equal responsibility for the future shape and sustainability of services.

### 4.3 Design principles

Making hospital services fit for the future means ensuring they are both sustainable and responsive to the changing needs of the population. To achieve this, organisations must rethink the way they work together.

#### 4.3.1 HSR design principles

The HSR has based its work around two main principles:

- **The hospitals in SYB(MYND) need to work together.** Patients and the public have told the HSR that they want to see providers and commissioners working together to deliver the best care. Clinicians agree that increased collaboration can support better clinical outcomes for patients through sharing of best practice and working towards common goals.

- **SYB(MYND) needs to continue to provide care as close to home as possible.** From the beginning, the HSR has been very clear that it is not recommending closing any DGHs: all of them will continue, and most patients will receive most of their hospital-based care in their local DGH.

  However, this does not mean that the precise services offered on each site will remain unchanged. The HSR has looked at ways in which more specialist services can be delivered in a network to the highest quality.

Underpinning all of this, we know that one of our greatest challenges is the availability of staff. We need all the staff we have; we do not expect that the HSR will give rise to any redundancies.

#### 4.3.2 Patient and public expectations

Based on the two principles identified above, the HSR engaged with patients, the public and staff to gather their expectations of the system.

They agreed that hospitals should work together so that:

- Every patient is cared for by fully qualified staff, who have time to care
- Every patient has equitable access to specialist care
- Every patient receives the same quality of care
- Every patient benefits from advances in medical care
• Every patient knows that the hospitals are working together in the interest of patients, not organisations.

And services should be designed so that:

• Every person in SYB(MYND) receives care close to home

• Every patient who needs hospital based care in SYBMND accesses most of their care in their local DGH in each Place

Patients and the public emphasised that acute care is only one part of the system. Equally important are primary care, community care, mental health services, and social care, which all need to work together.

4.4 Approach to developing solutions

Over the last ten months, the HSR has engaged with clinicians, patients and the public to identify the ways in which services could be improved. Recommendations on improving services are structured around three axes: the level at which organisations collaborate; the themes for service transformation; and the five services in scope for consideration.

![Figure 2: Structure of HSR recommendations](image_url)

4.4.1 Levels of organisational collaboration

To successfully implement the recommendations of the HSR, organisations within SYB(MYND) will need to work together as part of an integrated system of providers and commissioners.

Achieving this will require a change in mind-set – from one focused on the objectives of sovereign organisations, to one focused on the objectives of the system as a whole. This change will need to be supported by transforming the underlying system architecture to align incentives.

The seven acute trusts included in SYB(MYND) are well-placed to take work together more closely. Over the last three years the trusts have worked together through the Working
Together Partnership Vanguard. This has supported cooperation across organisations to deliver joined-up services in SYB(MYND), such as children’s surgery and radiotherapy.

The HSR is therefore recommending actions for each of the three organisational levels identified within the report: system, service and Place-level. This approach will ensure that all parts of the system are moving into the same direction.

In developing and delivering proposals around shared working, the HSR has given due regard to NHS procurement rules, and these will be followed going forward.

4.4.2 Themes for service transformation

The HSR has spoken to many staff as well as patients and members of the public about their concerns. Three major themes emerged as concerns that could be addressed through shared working:

- Strengthening workforce
- Reducing unwarranted clinical and operational variation
- Introducing innovation to tackle complex challenges

The HSR recommends actions and enabling structures to be set up at each of the organisational levels described to ensure collective alignment around a set of common goals.

4.4.3 Services under consideration by the HSR

The HSR is focused on five acute services, for which it offers recommendations for transformation. Beyond transformation, the HSR has considered reconfiguration options for services in those cases where the evidence suggests that transformation alone will not go far enough to address challenges.

Reconfiguration options focus sharing the available workforce across sites and providing patients with equitable access to specialist care wherever they may enter the SYB(MYND) healthcare system.

The HSR has only considered reconfiguration options where transformation solutions may not go far enough to solve service challenges.

4.4.4 The role of the District General Hospital

The DGHs are an integral part of the healthcare system and are the principal setting in which patients access acute care in their local area.

The HSR’s recommendations directly impact the service portfolio of DGHs and their future role in a Place-based health economy.

DGHs provide services along a spectrum from low acuity and complexity through to higher acuity and complexity. HSR recommendations have been developed based on the principle that some higher complexity services may benefit from consolidation within a network, due to concentrations of workforce and expertise. Similarly, lower complexity services should be delivered as close to home as possible so that DGHs continue to deliver the majority of care a patient needs.

Therefore, for the five acute services within the scope of the HSR, recommendations have been made around which service components are required everywhere and which could be
provided on a smaller number of sites for quality or efficiency reasons. This approach should be expanded to consider elective services and how they could be organised to improve standards by increasing specialisation. Future phases might also include other non-elective services.

4.4.5 Care outside of hospital

The Sustainability and Transformation Partnership (STP) plan for SYB laid out a direction of travel that enables patients to stay as close as possible to their own homes. Proposals are already being developed through Place Plans.

Place Plans across SYB(MYND) have highlighted options to move care from hospitals into the community. These community-based models have the potential to reduce hospital attendances and admissions, but crucially depend on having sufficient capacity and capability in the community to deliver. Building upon this, the HSR has examined service components that are currently provided on acute sites but could be delivered elsewhere.

However, careful consideration must be given to interventions that transition service components out of the hospital setting. They must be safe, benefit patient outcomes and experience, and must not destabilise DGH-based services. The HSR has also recognised that additional investment may be necessary to build the required capacity in out-of-hospital settings.

4.4.6 Commissioning

Throughout the development of solutions across different levels of organisational collaboration, transformation themes and services, the HSR has considered the role played by commissioners. Increased integration and collaboration between providers should be supported by a coherent commissioning strategy. This may be best achieved through a single commissioning voice for the system on designated issues, however it is not within the scope of the HSR to recommend specific commissioning design structures.

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*Please refer to the Glossary for the HSR’s definition of Place Plans*
5 The Hospital Services Review

This chapter sets out the process that has been used to develop recommendations of the HSR:

- The HSR’s scope
- Engagement with the public
- Previous reports published by the HSR

The HSR was launched in June 2017, with a remit to develop proposals to put the acute sector in South Yorkshire and Bassetlaw, Mid Yorkshire and North Derbyshire on a sustainable footing.

A more detailed account of the methodology of the HSR is in the Annex A.

5.1 Scope

The HSR is independent, and was commissioned by South Yorkshire and Bassetlaw Integrated Care System (SYB ICS). Commissioners, in discussion with providers, will wish to discuss the report and identify which elements they wish to take forward for the system as a whole.

The HSR covers trusts within South Yorkshire and Bassetlaw: Barnsley Hospital NHS Foundation Trust; Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust; Sheffield Teaching Hospitals NHS Foundation Trust; Sheffield Children’s Hospital NHS Foundation Trust; and The Rotherham NHS Foundation Trust. In Mid Yorkshire it includes the Mid Yorkshire Hospitals NHS Trust, and in North Derbyshire, Chesterfield Royal Hospital NHS Foundation Trust.

These organisations have all been partners in the Working Together Vanguard. However, they also sit across several different footprints for Sustainability and Transformation Plans (STPs). The five SYB trusts sit within the South Yorkshire and Bassetlaw STP while Mid Yorkshire is part of the West Yorkshire and Harrogate STP and Chesterfield Royal Hospital is a member of the Derbyshire STP.

As a result, Chesterfield and Mid Yorkshire hospitals sit within the strategic direction and vision of their respective STPs, so in some cases the recommendations of the HSR will not apply to them.

On the transformation solutions, both Chesterfield and Mid Yorkshire are invited to participate in the Hosted Networks, which are proposed as a vehicle for joint working. They will not initially be eligible to be hosts of the networks, but might become so in the future pending agreement by the relevant commissioners and providers. Discussions should be taken forward with Chesterfield and its commissioners (North Derbyshire and Hardwick CCGs) and Mid Yorkshire and its commissioners (Wakefield and North Kirklees CCGs) as the networks are developed.

On the reconfiguration solutions, Chesterfield is included in all proposals. Mid Yorkshire is not since it has already been through a reconfiguration process.
5.2  Engagement

The HSR has worked extensively with patients, the public and clinicians.

In summary, the HSR has been supported by a Clinical Working Group (CWG) for each of the five services. These groups, including consultants, nurses, Allied Health Professionals, GPs, commissioners, community services, mental health services and the ambulance services from all the providers in SYB(MYND), have each met for four in-depth workshops, and a further session in which they heard about the conclusions of the HSR. The membership and attendance of the groups is available in Annex F, and the notes of workshops 1-4 are published online5.

The HSR has also engaged with the public and patients, including representatives of seldom heard groups6. This has included three large engagement events open to any member of the public, a telephone survey of 1,000 people selected to reflect the makeup of the population, and in-depth discussions with 96 representatives of seldom heard groups such as young carers and BME groups. The engagement process was thus designed in order to reflect and inform the Review’s focus on reducing health inequalities. Detailed write-ups of the engagement processes and the outcomes of the engagement are published online7.

Content from these engagement processes has been used extensively in generating the proposals laid out in the report. Ultimately the report is independent, and so while it has drawn on a wide range of input from health professionals and members of the public, the views expressed are the views of the Independent Review Director and the HSR.

A more detailed description of the methodology underlying engagement during the HSR is in the Annex A of this report.

5.3  Work to date

The HSR has already published two reports:

**Stage 1A report:** Published October 2017, this laid out the issues with sustainability in all the acute trusts in SYB(MYND) and identified five core services to focus on (urgent and emergency care, maternity, care of the acutely ill child, stroke, gastroenterology and endoscopy).

**Stage 1B report:** Published January 2018, this laid out the clinical case for change in each of the five services, laying out the challenges and concerns that had been identified by clinicians and the public.

The current report lays out the work done between January and April 2018 to work up and test solutions to the challenges identified in the 1B report.

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5 Available at: [https://www.healthandcaretogethersyb.co.uk/what-we-do/working-together-future-proof-services/looking-athospital-services](https://www.healthandcaretogethersyb.co.uk/what-we-do/working-together-future-proof-services/looking-athospital-services). The fifth workshop was used to feed back the findings of the Review so the notes were not published.

6 Please refer to the Glossary for the HSR’s definition of seldom heard groups.

7 Available at: [https://www.healthandcaretogethersyb.co.uk/what-we-do/working-together-future-proof-services/looking-athospital-services](https://www.healthandcaretogethersyb.co.uk/what-we-do/working-together-future-proof-services/looking-athospital-services)
Section A: Organisational integration

This section sets out the rationale and recommended approach for organisations to work together more closely to improve healthcare services and outcomes. It covers:

- Case for change
- Place-level integration
- Service-level integration
- System-level integration
6 Case for change

This chapter sets out some of the challenges currently being faced by services in SYB(MYND) as well as potential opportunities:

- Challenges and opportunities identified by clinicians
- Feedback from patients and the public
- Working together to address challenges

Over the last decade, the NHS provider landscape has evolved into c.250 separate organisations, each working independently and, in many cases, in direct competition with each other for capital and workforce.

This approach has created unintended consequences for how providers work together. First, different organisations have taken markedly different approaches in response to similar challenges. This has resulted in wide-scale variation between providers, reflected in their ways of working, culture and patient outcomes. This variation acts to exacerbate existing inequalities in population health. Secondly, it has created entrenched organisational silos, where providers feel compelled to focus on the benefit and cost to their own institution, over and above the benefit to patients and to the wider system.

With healthcare services under increasing pressure organisations must change the way they operate services to ensure they remain safe, sustainable and high quality. Whilst some changes can indeed happen within organisations, others can only be achieved by working together as a system.

The HSR has engaged with clinicians, patients and the public to identify the key challenges facing services in SYB(MYND), as well as potential areas of opportunity that can be explored to improve the way services are delivered. These challenges and opportunities are grouped into three themes: workforce, the reduction of unwarranted variation, and harnessing innovation.

6.1 Workforce

The main service challenges highlighted by clinicians, patients and the public were relating to workforce. Clinicians talked about problems with recruiting staff, and having to rely on temporary and locum staff to the detriment of the service. Patients and the public highlighted the need for staff to have time to spend with patients. There was a particularly strong theme around providing new ways into training for young people who cannot afford a degree course.

6.1.1 Challenges

Most hospitals struggle to attract and retain sufficient numbers of appropriately skilled staff in the services under review.

Staff shortages exist for medical and non-medical staff, across all grades and staff groups, and challenges persist throughout the entire workforce lifecycle:

- **Recruitment**: there are not enough applicants to roles. The reasons cited by clinicians tend to include low starting salaries, perceptions of limited career development, high levels of responsibility, a lack of financial support, and a perceived lack of attractiveness of SYB(MYND) and the wider region.
• **Retention:** existing staff are leaving to pursue opportunities in other vocations or geographies. Reasons for this include high levels of stress, insufficiently supportive working environments, lack of flexible working options, more attractive employment packages elsewhere, and lack of training and development. SYB is a net exporter of trainee doctors to other regions of the NHS and abroad, meaning it is less able to benefit from the training investment in the long term.

• **Retirement:** nationally, large proportions of staff in post are due to retire over the coming 5-10 years. Whilst this issue applies to medical as well as non-medical staff, it is most pronounced for nursing staff, for example at national level over 30% of midwives are over the age of 50.

6.1.2 **Impacts**

These workforce challenges manifest themselves in several ways.

Gaps in rota s are often filled with locum staff which can impact quality, and continuity of care. Competition for staff (permanent or locum) has also been identified as increasing pay rates, thereby putting further strain on constrained budgets of NHS trusts. For example, in UEC the locum spend across SYB trusts was £11.9m in FY2016/17, primarily on middle grade doctors and band 5-6 nurses. Additionally, more senior clinicians often have to act down to fill gaps for more junior staff.

Besides cost, a high reliance on locum and agency staff can reduce the sustainability of a service by making it more difficult to establish and preserve cultures and ways of working. An under-resourced service can also place additional pressure on remaining staff, leading to lower retention rates.

A full consideration of workforce challenges in each service is set out in the Stage 1B report.

6.1.3 **Opportunities**

The HSR has worked with clinicians to identify opportunities to improve workforce sustainability. The proposed functions are described in chapter 8.2 and for each service in chapters 10 to 14. Key themes include the development and recruitment of alternative roles to support the clinical workforce, as well as service-wide approaches to recruitment, retention and professional development.

Some workforce functions may be best undertaken individually by each organisation, but would benefit from overall coordination of approach between organisations. For example, local volunteer engagement in each Place. However, most identified workforce functions require collaboration across acute providers in order to be developed and implemented successfully.

6.2 **Unwarranted variation**

Clinical variation occurs for a wide range of reasons: the condition, complexity and preference of patients; the provision and availability of healthcare; and the decisions made by individual clinicians. Some variation is warranted on clinical grounds or simply unavoidable due to specific operational constraints.

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8 Available at: [https://www.rcm.org.uk/sites/default/files/SoMS%20Report%202016_New%20Design_lowres.pdf](https://www.rcm.org.uk/sites/default/files/SoMS%20Report%202016_New%20Design_lowres.pdf)
9 Trust data returns
However, where variation is unwarranted, it can lead to sub-optimal clinical outcomes and inequalities in patient access and care experience.

6.2.1 Challenges

Specific challenges around unwarranted clinical and operational variation have been identified by clinicians. These, along with sources of evidence and potential solutions, are detailed in Annex C.

The key challenges identified in each service by clinicians include:

- In **UEC**, the CWG identified that variations in approaches to triage could result in different health outcomes (e.g. from risk grading) as well as inefficiencies and disruption in patient pathways through the ED. Additionally, inconsistent referral and patient transfer protocols make the flow of patients between sites and services difficult.

- The **Care of the Acutely Ill Child** CWG reported variation in GP training, skills and knowledge in dealing with paediatric issues. Specialist training in pediatrics is not a required part of GP training, so levels of confidence in treating children differ. This can translate into differing referral rates to acute services.

- In **Maternity**, CWG members identified that different clinicians have different approaches to risk, and different preferences around interventions. Different clinicians for example may have different thresholds for intervention (e.g. inducing labour).

- The **Stroke** CWG reported considerable variation in the provision of stroke rehabilitation services and Early Supported Discharge (ESD) in each Place: some Places do not have a stroke-specific rehabilitation service specification, while others do not offer ESD. There is also variation in the degree that organisations are meeting seven-day guidance.

- The **Gastroenterology and Endoscopy** CWG said that some trusts are managing to staff a 24/7/365 Gastrointestinal (GI) Bleeds rota, whilst others are not. Furthermore, there is no unified protocol used by all trusts for patient transfers. This causes inequitable access to safe and sustainable gastroenterology services across SYB(MYND).

- All five CWGs reported that trusts all operate different IT systems, which are not compatible. In some cases, there are different systems even in the same trust. When trusts are on the same system, there is often variation in the functionality and deployment of the same software package.

Variation can occur due to a number of different reasons:

- **Commissioning specifications**: across SYB(MYND), there is variation in the services that are commissioned as well as the scope and specification set out by commissioners. For example, there are differences in the length of stroke rehabilitation care commissioned in different Places.

- **Infrastructure**: variation in equipment, technology, and transport can lead to unwarranted variation. For example, IT systems are not interoperable across services and organisations.

- **Processes and protocols**: variation in clinical and operational processes can lead to poorer outcomes for some patients, by not following evidence-based best practice, or making it more difficult to provide consistent care for each patient.
6.2.2 Impacts

Unwarranted clinical variation can impact patient outcomes both directly and indirectly. Where there is deviation from evidence-based best practice, such as for specific clinical procedures, the clinical outcome is likely to be sub-optimal. For example, where there is a defined package of care that is known to deliver the best patient outcomes, such as for higher risk mothers, that is not consistently applied it can result in inequality of outcomes.

Indirect impacts generally relate to inefficiencies generated by unwarranted variation in process. For clinical processes, this can result in patient outcomes not being optimised due to a lack of practice in a certain technique for example. Elsewhere, it can add time and cost into treatment pathways, such as patient transfer processes being liable to delay and accompanied by erroneous or missing information.

6.2.3 Opportunities

The HSR has worked with clinicians to identify opportunities to reduce clinical variation. The proposed functions are described fully in each service transformation section in chapters 10 to 14, and in chapter 9 on cross-system working.

Standardisation of processes to reduce unwarranted variation presents the opportunity to benefit patients both directly and indirectly, as well as secondary benefits in time and cost efficiency.

In direct terms, aligning clinical procedures to evidence-based best practice means that the optimum outcome is more likely to be achieved for each patient. Similarly, standardising processes such as clinical evaluation protocols support greater equality of access to care, such as ensuring that expectant mothers with the same risk profile are assessed consistently and referred to appropriate care, regardless of where they live in SYB(MYND).

Indirectly, patient experience and outcomes can be improved by using protocols to generate more consistent practices, giving clinicians and patient’s certainty on procedures. Further secondary benefits such as cost efficiency can be realised through standardisation in areas such as equipment, reducing the training burden and allowing for centralised procurement.

6.3 Innovation

6.3.1 Challenges

Besides specific challenges around workforce and unwarranted variation, clinicians also identified a number of processes involved in the delivery of care that are cumbersome, repetitive, and take time away from the direct care of patients.

Throughout the CWGs, participants highlighted the pivotal role of technology in the delivery of modern, high-quality care. However, clinicians noted that their current experience with IT systems in the care process was often negative. Systems were reported to be non-intuitive and sometimes duplicative, adding time to the care process without an apparent patient benefit.

Another issue that was repeatedly highlighted was the repetitive and administrative nature of some elements of the care pathway. Some aspects of the care pathway require staff to undertake repetitive processes, using standard data and completing rules-based tasks that often required only limited clinical knowledge. This includes taking patients’ details such as addresses and current medication, logging observations, requesting diagnostic tests or referrals based on patient information or core parameters, and coding of clinical activity.
6.3.2 Impacts

The challenges identified above reduce the amount of time available for clinicians to care directly for patients, due to necessary but time-intensive tasks and processes. This affects the quality of care and experience the patients receive, as an already stretched clinical workforce is diverted to non-clinical tasks.

6.3.3 Opportunities

The HSR has worked with clinicians to identify opportunities to improve workforce sustainability. The proposed functions are described in chapter 8.2 and for each service in chapters 10 to 14.

There is an opportunity to use innovative solutions to make processes more efficient in two main ways:

- **Disruptive technology**: this includes innovation in hardware and software to dramatically alter the way a process is carried out. It is important to ensure that solutions are developed as a response to identified challenges, as opposed to employing disruptive technologies for their own sake.

- **Continuous quality improvement**: this refers to incremental process improvement through innovation, such as redesigning the way that data is captured to make it more intuitive, efficient, and take less time.

The CWG gave several examples of value-adding, innovative solutions being developed in SYB(MYND). But these may have limited widespread adoption and are not being linked to day-to-day problems. There is an opportunity to re-examine such innovations for suitability to address identified challenges, then roll them out at wider scale across SYB(MYND).

Additionally, a large number of stakeholders are involved at various points in the innovation lifecycle. These include academic research groups, such as the Academic Health Science Network and other nationally funded forums, and organisation-specific teams. Failure to adequately join up and coordinate the efforts of the various groups could risk duplicating work, failing to utilise system-wide capabilities to their full extent, and failing to ensure solutions tackle the real problems staff are facing.

6.4 Patient and public feedback

During engagement with patients and the public, they put forward a case for changing the way services are delivered, to ensure they are sustainable, as local as possible and high quality. The key themes that emerged from conversations with patients and the public were:

- **Keeping most care local, but giving access to specialised care.** There was a diversity of views on how hospitals should be organised, and which services should be provided locally. Some people felt that all care should be available locally, while others thought that this was unrealistic and that they would be prepared to travel to get the best care.

  “People want to be treated at home or as near to home as is feasible; they also want the best possible treatment”
  - CCG Patient Reference Group attendee
This Review has responded to these concerns by exploring these issues at length. The recommendations made by the HSR seek to find a balance between these two points of view.

- **The vital importance of the workforce.** Many patients had nothing but praise for the care and empathy shown by staff, and gave many examples of outstanding care. But the theme which came up repeatedly was that staff were overworked, or that reliance on temporary and locum staff meant that patient care suffered. Members of the public had many ideas around how to attract staff and make working in the NHS a more rewarding career.

The Review has responded by making some of these ideas, in particular the focus on non-traditional entry routes into the NHS, into recommended areas for the Hosted Networks to take forward in the Review.

- **Waiting times and response times.** Patients said that ambulance services needed to reach them as quickly as possible, and that waiting times needed to be reduced throughout the system.

The Review has responded to this concern about ambulance times by modelling ambulance times.

- **Integrated system and communication.** Patients wanted to see a system in which there is communication and joined-up working between primary care, community care, mental health services and social care. Many patients talked about the role of IT in facilitating this. Communication was a concern for people from the seldom heard groups, who wanted to see better communication with deaf patients and patients for whom English is not their first language.

Better integration of systems is a major theme of the Review and informed in particular the recommendations around innovation and workforce.

### 6.5 Developing solutions to meet challenges

Some of opportunities to address challenges in each of the three themes can be taken forward in individual organisations. For example, trusts can work internally to improve recruitment and retention through new policies.

However, most challenges can only be adequately addressed at a cross-organisational level. There are several reasons for this:
• **Distribution of costs and benefits:** Some transformation functions, if undertaken individually by one organisation, may come at a cost to neighbouring organisations. For example, if one trust drives recruitment but new staff come from neighbouring trusts, there is no net benefit to the system and quality of care to patients may suffer.

• **Efficiency of investment:** Where transformation functions require considerable time or cost input, it is more efficient and therefore of greater benefit to each organisation to do it once across the system. For example, development of clinical standards and protocols requires an investment of clinician time so should be done once across all organisations.

• **Scaling benefits:** Some transformation functions deliver greater benefit the more organisations are involved. For example, developing a flexible workforce that can be deployed across the system in response to changes in capacity and demand would be more effective with a greater pool of resources.

• **Equality of outcomes for patients:** the Review aims to give all patients in SYB(MYND) access to the same standards of care, with equal access to specialised care wherever they live. Shared working to reduce differences between organisational processes and standards is essential for this.

There are numerous additional benefits to collaborating across organisations, which are discussed further as part of individual solutions.

The HSR recommends that organisations across SYB(MYND) work together on several organisational levels, supported by the appropriate structures to facilitate collaboration. The following chapters (7, 8 and 9) describe HSR recommendations for transformation in workforce, reducing unwarranted variation, and innovation at Place, service and system level.
7 Place-level integration

This chapter summarises integration at a Place level:
- Integration agreements
- Moving care out of hospitals

7.1 Rationale for Place-level cooperation

One of the design principles of the HSR refers to patients receiving care close to home, which involves providing as much care as possible in their Place. Designing collaboration in Places is not the focus of the HSR, however, this shared working is a vital element of the entire system and the proposals developed for acute providers must fit into this wider architecture. More information about Places, including portraits, is available in Annex D.

For patients to be able to access the care they need, providers in each Place need to work together. Greater levels of collaboration between acute and non-acute providers will support smoother patient transitions along care pathways, for example early supported discharge (ESD) into community rehabilitation as part of stroke recovery. In addition, closer collaboration can enable providers to identify services that could be better delivered outside the hospital setting to benefit patient experience and outcomes.

Closer working between providers requires support from commissioners, for example through a single set of commissioning standards for ESD across the region.

7.2 Functions which need to be exercised at a Place level

The specific transformation functions that are undertaken at a Place level will vary by Place and service, depending on local conditions and needs. The functions to be carried out should be tailored to address identified challenges in each Place and agreed between local stakeholders.

The HSR has identified a number of example high-level functions that should be carried out at a Place level, in collaboration between acute trusts and other local providers, commissioners and relevant stakeholders.

<table>
<thead>
<tr>
<th>Example transformation functions to be carried out at a Place level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Workforce</strong></td>
</tr>
<tr>
<td>Develop and implement rotational schemes</td>
</tr>
<tr>
<td>Opt-in rotational schemes for staff in specific services</td>
</tr>
<tr>
<td>wishing to experience working in other care settings, to</td>
</tr>
<tr>
<td>build knowledge and confidence in dealing with a</td>
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<tr>
<td>broader range of conditions. For example, rotations for</td>
</tr>
<tr>
<td>acute paediatric staff to provide support to a GP-led</td>
</tr>
<tr>
<td>community paediatric hub.</td>
</tr>
<tr>
<td>Commission shared training and</td>
</tr>
<tr>
<td>Shared training between clinicians in acute hospitals and</td>
</tr>
</tbody>
</table>
education

Clinicians in primary and community settings to build skills and help reduce avoidable admissions by treating patients adequately in the community. For example, joint training for assessment and treatment of acute episodes in long-term conditions such as asthma.

Reduction of unwarranted variation

Develop and implement clinical protocols

Joint development and implementation of protocols for clinical processes that interface between acute and non-acute providers, in collaboration with Hosted Networks. For example, protocols for patient preparation, information transfer, and equipment arrangements to support delivery of an SYB(MYND)-wide standard for early supported discharge (ESD) in the stroke pathway.

Research and innovation

Implement innovative solutions

Identifying and disseminating innovation throughout the various organisations in the Place locality, including acute, community and mental health trusts, primary, and social care, where appropriate. For example, implementation of teleconsultation to support GPs with real-time access to acute consultants for advice.

7.3 Integration Agreements

Each of the five Places in SYB is in the process of developing an Integration Agreement which lays out how the different organisations in the system will work together.

The Integration Agreements cover a wide range of organisations (including primary, community, acute and social care, mental health, and the voluntary sector). The Places are taking different approaches to developing these, depending on the existing working agreements between organisations. All agreements will help to shape closer working between providers from different sectors, and enable the shift of services closer to people’s homes.

In addition to the Integration Agreements, the ICS is beginning to look at how services in each Place need to be supported, to ensure that the services within SYB are joined up. This work will be ongoing over the coming months.

7.4 Moving care out of hospitals

By working together, there is an opportunity for acute and non-acute providers in each Place to reassess the setting in which care is delivered, to ensure it is most appropriate for patient needs and is sustainable. There are several service components that are currently delivered in acute hospitals that may be better provided for in a community setting.

This change is driven by enabling factors such as technological improvements, for example the use of teleconsultation to provide expert acute consultant advice to primary clinicians to diagnose and potentially treat a wider variety of conditions. Changes in demographic
factors such as greater life expectancy mean more people are living with frailty and long-term conditions that require a different approach to care from acute admission.

The HSR has identified areas of opportunity for further investigation to move care provision out of the acute hospital setting. These are outlined in each service transformation chapter.

Some of the recommendations refer to services which may be better provided in a primary or community care setting with input from acute specialists. Others refer to services which should be delivered entirely by primary and community care. However, the HSR recognises that no further activity can be expected to shift from the acute sector to other providers without the necessary resources and capacity being in place. Modelling of the capacity and resource requirements to support out-of-hospitals shifts will be part of the next phase of work.

7.5 Recommendations

<table>
<thead>
<tr>
<th>Ref</th>
<th>HSR recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place</td>
<td>The vision for each Place is that as many patients as possible are treated in the most appropriate care setting. This means many patients who currently attend acute hospitals may be better treated in the community. For those that do require acute care, the majority will be provided in their local District General Hospital (DGH).</td>
</tr>
<tr>
<td>1</td>
<td>The scope of the Integration Agreements between SYB ICS and each Place should include the recommendations of the HSR that are taken forward by commissioners. This should mandate each Place and SYB ICS to implement the changes outlined in this report.</td>
</tr>
<tr>
<td>2</td>
<td>There should be a defined range of services that are moved out of the acute hospital setting, in line with existing Place Plans already underway. These services should be supported by the appropriate workforce model (e.g. GPs, community staff, and hospital staff) and estates solutions to support moving services into the community. The HSR has identified areas of opportunity for further investigation.</td>
</tr>
</tbody>
</table>
8 Service-level integration

This chapter sets out:

- The rationale for why organisations should work together at a service-level
- A spectrum of organisational forms these arrangements could take in practice, ranging from lower to higher levels of integration
- The components and functions within each different organisational form

8.1 Rationale for closer collaboration on a service level

By working together at a service level, organisations can unlock benefits to patients and staff that would not be possible without collaboration. Namely, by working together providers can:

- Make better use of scarce resources by pooling, sharing and using resources more flexibly
- Drive up quality and efficiency through economies of scale
- Reduce variation in care quality and in outcomes
- Learn from one another by accessing a broader pool of knowledge and experiences

This will result in better outcomes for patients and staff, and a more financially sustainable NHS.

Case Study: Greater Manchester Stroke Operational Delivery Network

The Greater Manchester Stroke ODN consists of 9 trusts using a standardised approach for end-to-end stroke treatment.

Background & Approach: There were previously gaps in access to stroke care across Greater Manchester, with each trust adopting a siloed approach to treatment. Individual trusts often lacked the expertise and resources to effectively handle patients presenting with hyper-acute and acute stroke.

The solution was a combined approach to reconfigure HASU services and to implement the Operational Delivery Network (ODN). The ODN is a non-statutory agreement that makes use of resources across the network and adopts a uniform approach to financial management. The ODN is led by Salford Royal NHS FT.

Through this approach the ODN has:

- Standardised patient flows and care pathways
- Standardised training, education and employment models
- Implemented best practice evidence-based processes across all sites
• Aligned the commissioning of services to delivery and patient flows

The benefits: All trusts in the network have realised improvements in outcomes in recent years to achieve Level A SSNAP scores, which rate among the highest nationally.

8.1.1 The case for collaboration in SYB(MYND)

There is a strong history and culture of collaboration in SYB(MYND), which has been and remains the bedrock of system working in the region. However, the system is not immune to the challenges experienced elsewhere. Indeed, many of the challenges identified in the CWGs are, or have been, exacerbated by a lack of cooperation amongst trusts:

• **Workforce:** CWGs highlighted that trusts regularly compete with one another for a small number of staff (both permanent and temporary). In the current situation, this leads to poaching of staff, relative increases in pay rates, including for agency staff, and a constantly fluctuating workforce.

• **Unwarranted variation:** Differences in care outcomes across services remains an issue that all CWGs noted as being a challenge. Variances in the interpretation and application of clinical protocols across different sites was highlighted as a key driver of variation.

• **Innovation:** Individual trusts often create genuinely innovative solutions to persistent service-level problems. However, in the absence of clear structures to identify, grow and scale innovative solutions, many organisations continue to operate in silos, potentially duplicating efforts or in the worst case failing to benefit from the innovation at all.

To address these challenges and reduce inequalities, trusts need to work together more closely. The system must reduce organisational barriers and make best use of the strengths of individual providers, drawing on expertise and skills for the benefit of all patients in SYB(MYND). At each organisational level formalised arrangements are required to facilitate cooperation (see Figure 3).

8.1.2 Challenges of working together

At present, the collaborative working between the trusts is largely based on goodwill, and on a legacy of shared trust developed over a period of years. However, this informal
approach to system working has limitations, such as when members come across difficult issues on which there is no agreement. In such instances, informal collaborations tend to break down as member organisations revert to internal and self-interested decision-making.

These challenges are commonplace across the NHS and are the reason that traditional clinical networks are often ineffective at driving fast-paced transformation.

To remain clinically and financially viable, organisations in SYB(MYND) must continue to pursue collaborative solutions to these challenges.

8.2 Hosted Networks

The transformation solutions proposed by the HSR all require organisations in SYB(MYND) to work more closely together, and some of these opportunities are best explored on a service-wide level. To achieve this, the HSR is recommending the implementation of clinical networks for each of the five services – referred to as Hosted Networks.

A fundamental principle in the design of the Hosted Networks is that they should be led (hosted) by a single organisation on behalf of the system. Other organisations within the network (the network members) will delegate a degree of responsibility to the host organisation for performing certain functions on behalf of them all. For example, the host may provide service-specific training and education for all clinical professionals within the network, regardless of organisation or site.

The benefit of a designated host organisation is twofold:

- It simplifies the decision-making process and line of accountability by giving one organisation the authority and influence it needs to effect change at pace.

- It allows SYB(MYND) to make the most of the expertise and brand value that exists in individual organisations across the region. The potential role of Sheffield Children's Hospital in a future paediatric model is an example of this (explained in chapter 11.3.1).

Host organisations would be selected to lead a Hosted Network based on, amongst other things, their clinical and managerial expertise in this area. As a principle, the HSR would expect a fair and equitable distribution of hosts across SYB organisations, subject to the proposed host being able to meet a set of agreed criteria, with the aim of ensuring that any organisation that is hosting a network is able to dedicate the necessary management time and focus to it. Clinicians engaged to design and run the network could come from a variety of organisations, and not just the host.

Within the concept of a Hosted Network, there are three levels of integration between members and the host:

1. **Basic Hosted Network**: The network (through the host organisation) takes delegated responsibility for fulfilling certain functions on behalf of all organisations within the network. These functions are focused on growing and developing the workforce, reducing unwarranted variation and spreading innovation.

2. **Coordinated Delivery Network**: Fulfils the role of a basic Hosted Network, but may also play a role in managing and coordinating system-wide capacity and resources. For example, the host organisation may become responsible for redirecting patients to sites with spare capacity or for coordinating the real-time allocation of staff resources.
3. **Single Service Model:** For some services, on some sites, the host organisation could play a more influential role in supporting, or directly delivering, clinical services. This could range from professional advice and support, through to the host organisation managing and delivering clinical services on another site(s). The benefit of this model would need to be agreed by both the host and the receiving trust.

Figure 4: Types of Hosted Networks

**Basic Hosted Network:** responsible for standardised approach to workforce functions; reducing **clinical variation** through setting agreed protocols; and rollout of specific identified **innovations**. Backed by agreed delegated decision making powers, accountability and monitoring.

**Co-ordinated Delivery Network:** Functionality of a basic Hosted Network, plus co-ordinating role for host in identifying shortfalls of capacity and staff, and moving resources to meet demand.

**Single service model:** Functionality of a basic Hosted Network, plus the host may play a role supporting the delivery of services on other sites. This arrangement is unlikely to cover every site in the network and would only occur if the support was requested by the receiving site.

### 8.3 Types of Hosted Networks

The HSR is proposing that the functions in scope should define each of the three levels of integration described above. These functions span several domains and are set out for each of the three levels below.

#### 8.3.1 Basic Hosted Network

A Hosted Network is an organisational form to support service design through collaboration and adoption of common guidelines and standards, but where each organisation remains independently responsible for implementation.

Example functions included in a Hosted Network are set out below. However, this list is not exhaustive; there are additional functions that could be taken forward as part of individual Hosted Networks. These are identified in the service-specific sections (see chapters 10 to 14) and Annexes B and C.

Each Hosted Network should agree for each function which elements are delivered service-wide by the network, and which continue to be delivered within each organisation. For example, a Hosted Network may decide that the network should carry out overseas recruitment campaigns on behalf of its members, but each trust should retain the flexibility to recruit staff from other channels under an agreement not to poach from other members.
The HSR has suggested the level at which many functions should be carried out, informed by CWG members, but the ultimate decision lies with each Hosted Network as they plan functions in detail.

### Core functions proposed to be included in a Hosted Network

#### Workforce

Develop the workforce strategy and longer-term planning for the specialty covered by the network, including:

- Developing a multi-year workforce strategy for the specialty, covering all providers in network and areas laid out below, particularly
  
  a. the vision for the service, key objectives and a roadmap to recruit, train and retain a workforce of the right size and with the right skill set and capabilities.
  
  b. elements of and mechanisms for flexible working to recognise that staff have interests and commitments outside of work.

- Working with the Health and Care Institute to build the workforce data for the specialty.

- Leading on service-wide workforce modelling and planning, to understand upcoming workforce needs and prepare for them.

The Hosted Network should make sure the strategy is adopted and implemented uniformly across organisations in the system.

<table>
<thead>
<tr>
<th>Develop a service-wide approach to recruitment, including:</th>
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</thead>
<tbody>
<tr>
<td>- Lead on approaches to recruitment on behalf of the service, for example through</td>
</tr>
<tr>
<td>- Shared overseas recruitment campaigns</td>
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<tr>
<td>- SYB-wide domestic recruitment campaigns, for roles where there is a clear need to recruit multiple staff across sites, with a single panel undertaking interviews and assessment on behalf of all trusts</td>
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</tbody>
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<table>
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<tr>
<th>Improve retention, including:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Develop policies and approaches around flexible working, such as self-rostering, part-time working and annualised or compressed hours</td>
</tr>
<tr>
<td>- Support training opportunities as below</td>
</tr>
<tr>
<td>- Work with the system-wide HR structures to develop other good practice in HR</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Develop workforce roles and job descriptions, including:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Design and develop a standardised, service-wide approach to job roles and planning for alternative workforce such as Advanced Nurse Practitioners, Advanced Medical Practitioners, Physician Associates and other service-specific roles</td>
</tr>
<tr>
<td>- Develop approaches to incentivise flexible working across sites, such as exploring approaches to pay incentives</td>
</tr>
<tr>
<td>- Develop existing job roles to allow more flexible working across sites and care settings, on an opt-in basis for staff</td>
</tr>
<tr>
<td>- Monitor a standardised approach to bank and agency staff (this would need to be</td>
</tr>
</tbody>
</table>
Develop a service-wide approach to training, including:

- Develop a service-wide approach to training across sites, developing voluntary rotational schemes, placement programmes and secondments for staff to learn through working on other sites
- Develop specialty-specific training programmes which can be supported through sharing of expertise rather than additional funding
- Develop a service-wide approach to professional support, supervision and guidance for specialty roles, such as a shared professional development programme

Develop leadership capacity, including:

- Undertake succession planning for senior leadership, including considering where future job descriptions might include increased elements of joint working across trusts (for roles covered by the Hosted Network)

**Commissioning and patient flows**

Work with commissioners to:

- Agree common specifications for the service
- Agree common patient pathways

**Clinical standards**

Develop standardised clinical protocols, including:

- With input from all partner organisations, prioritise a shortlist of clinical protocols to identify which ones to focus on first. Initial suggestions for each service are included in Annex C
- With input from all partner organisations, develop an agreed set of evidence-based best practice clinical protocols to improve outcomes for patients
- Support the implementation of these protocols across all sites, through shared learning (and funding if system-wide transformation funding is available)
- Monitor the implementation of these protocols across all sites to ensure that they are being taken forward
- Report to the ICS on the implementation of these protocols

Develop interoperability across organisations, including:

- Prioritise the most important areas to support interoperable working across organisations
- Agree standardised approaches with input from all partner organisations
- Support the implementation of these protocols across all sites, through shared learning (and funding if system-wide transformation funding is available)
- Monitor the implementation of these common processes and protocols to support interoperable working across organisations to ensure that they are being taken forward
Research & innovation

Promote research and innovation to address service-specific challenges, including:

- Identify key challenges that could be addressed through technology
- Work with the Academic Health Science Network, and ultimately with the Innovation Hub, to identify service-specific innovations to address them
- Work with partners to roll-out these innovations across all organisations

The HSR believes that the functions identified above should be carried out at a service level, in order to accommodate the nuanced challenges of each service, as opposed to those functions which could be carried out at a system level. A full description of workforce functions and suggested organisational level at which they should be carried out is in Annex B. A full methodology and initial list of priority processes to address for unwarranted variation is in Annex C.

Figure 5 below provides a worked example for how a Hosted Network (in the case of stroke) could operate and the functions it would include in its scope.

Figure 5: Example responsibility split for lead and network members in a Hosted Network
8.3.2 Coordinated delivery network

In addition to the functions outlined above, in some networks members may choose for the host organisation to play a greater role in coordinating the delivery of services. In doing so, the host organisation is responsible for identifying shortfalls in capacity and staff across the network, and moving resources to meet them. This capability must be supported by appropriate contractual arrangements between partner trusts and the host organisation. Each trust would still be accountable for the delivery of safe care on its own site, and clear and agreed minimum staffing standards would need to be in place to ensure this.

In some networks, such as UEC, this capability may be developed to become a real-time function that is able to load-balance resources to meet spikes in demand across the network. To achieve this, the network must develop and implement supporting clinical protocols and the necessary technologies to enable the lead organisation to analyse demand and coordinate resources.

This model is not appropriate for all services. For example, the HSR believes that resource allocation for stroke services are better managed through individual site pairing arrangements. In such situations, a basic Hosted Network is likely to be sufficient to fulfil remaining transformation functions.

8.3.3 Single Service Model

For some services the host organisation may play a more influential role in the direct delivery of clinical services on some, but not necessarily all, sites.

This model (often referred to as a single service model) involves the host organisation developing bilateral agreements with individual trusts to support, manage and deliver clinical services on their site(s). The specifics of this arrangement would need to consider the most appropriate employment model, clinical governance arrangements and service level agreements (SLAs) for interdependent services.

Single service models can harness the benefits of the host organisation’s expertise and branding, but cross-organisational governance must be carefully designed to ensure equitable distribution of risks and benefits. The worked example below shows the relationships of a single service model for paediatrics (Figure 6).

Importantly, the HSR does not envisage that all sites would become part of a single service model. This model would only apply to a small number of sites where both the host organisation and the receiving trust agree that pursuing this model this would lead to an improvement in the quality of patient care.
### 8.3.4 HSR services

The three types of Hosted Network are suitable for different services. The table below outlines the recommendations of the HSR for the five services.

<table>
<thead>
<tr>
<th>Service</th>
<th>Network Type</th>
<th>Rationale</th>
</tr>
</thead>
</table>
| UEC                            | Coordinated Delivery Network                      | In UEC, there is value in system-wide cooperation on functions covering growing and developing the workforce, reducing unwarranted variation and innovation (i.e. the basic Hosted Network).  
In addition, there is value in managing resources across the system to enable better matching of capacity to demand. The HSR therefore concludes that a coordinated delivery network is the best model for UEC. |
| Maternity                      | Basic Hosted Network                               | In maternity, there is value in system-wide cooperation on functions covering growing and developing the workforce, reducing unwarranted variation and innovation (i.e. the basic Hosted Network). |
| Care of the Acutely Ill Child  | Hosted Network with option for Single Service Model for some sites | In paediatrics, there is value in system-wide cooperation on functions covering growing and developing the workforce, reducing unwarranted variation and innovation (i.e. the basic Hosted Network).  
In addition, there is an opportunity for Sheffield Children’s Hospital to play a role in |
the direct delivery of services at other sites (i.e. the single service model) – unlike the Hosted Network this would not apply to all sites and would be at the request of the receiving site.

<table>
<thead>
<tr>
<th>Service</th>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke</td>
<td>Basic Hosted Network</td>
<td>In stroke, there is value in system-wide cooperation on functions covering growing and developing the workforce, reducing unwarranted variation and innovation (i.e. the basic Hosted Network). The recommendation of the HSR is that resources for stroke are managed across pairs of sites (see chapter 13), rather than through the network model.</td>
</tr>
<tr>
<td>Gastroenterology and endoscopy</td>
<td>Coordinated Delivery Network</td>
<td>There is value in system-wide cooperation on functions covering workforce design, reducing unwarranted variation and innovation (i.e. the basic Hosted Network)</td>
</tr>
</tbody>
</table>

Additional detail on the recommended model for each service is outlined in the relevant service chapters.

### 8.4 Governance of the Hosted Networks

#### 8.4.1 The role of other organisations

In addition to the acute providers, we expect that other organisations would play a key part in Hosted Networks, namely:

- **Commissioners:** Some functions of Hosted Networks will have an impact on commissioning in the region and could only develop with the full backing of all CCGs. Any model should therefore be developed working alongside CCGs. The Joint Committee of the CCGs (JCCCG) in SYB(MYND) provides a forum within the region to do this. The success of the Hosted Network is also dependent on a single commissioning voice interfacing with the Hosted Network. This may be through lead commissioner arrangements or the ICS acting as a single commissioner.

- **Non-acute providers:** For some services, the scope of the Hosted Network could be expanded to cover aspects of services that are provided in the community, staff groups that are employed by non-acute providers, or to cover other areas such as the voluntary sector. In particular, the networks would need to include the Yorkshire Ambulance Service (YAS) and other transport providers such as EMBRACE for paediatrics.

- **Academic institutions:** The host organisation for each Hosted Network should work with local academic institutions to develop more coordinated service-specific approaches to education, research and innovation, and workforce development.
8.4.2 Accountability

The CEO and Board of the host organisation will hold overall accountability for enabling, overseeing and managing the performance of the network. The host will be accountable through the SYB ICS governance, which is likely to hold local regulatory functions in the future. The decision to appoint a host organisation should rest within the ICS, meaning that the ICS holds the ultimate authority to revoke the host organisation of its responsibilities should it see fit. In turn, the ICS represents multiple stakeholders beyond acute providers (e.g. primary care) whose interests should be represented in the appointment of a host organisation.

To deliver its responsibilities, the host will need a number of people who have the skills and capacity to deliver the requirements of the network. This is likely to include a Clinical Lead for the network – this individual should be carefully selected on the basis of their ability to effectively engage with, and gain buy-in from, clinical colleagues across the network.

A Board should be constituted to oversee the implementation of the network’s strategy. The Board should include those individuals who are employed to run the network in an executive capacity (e.g. the Clinical Lead), as well as members from each provider organisation and from other key stakeholders including the Lead Commissioner and the universities.

Figure 7: Accountability structure for Hosted Networks

Underneath the Board, a number of sub-groups should be created to focus on specific areas of the network’s strategy. These are likely to vary between services, depending on the short-term priorities but should include, as a minimum, the transformation themes outlined as part of this report: workforce, clinical standards (addressing unwarranted variation) and innovation.

As part of establishing the network, all organisations will need to agree on the accountability framework that will ensure the effective operation of the network. Clinical networks are common across the NHS. However, they often fail to make an impact because they lack authority to make decisions and to hold individual organisations to account. The HSR has suggested the concept of a Hosted Network to address this specific issue.

It is suggested that the Host has authority through one or more of the following routes and mechanisms:
The role of the networks is transformation, not reconfiguration and therefore implementing the networks does not require public consultation.

The ability of trusts to delegate decision-making to another body, such as the Hosted Network, varies according to their specific arrangements (e.g. NHS Trusts have different abilities to NHS Foundation Trusts). Hosted Networks do not replace each member organisation’s Board’s responsibility for meeting its statutory requirements.

The Hosted Networks are the mechanism through which a significant proportion of the HSR recommendations will be delivered and should therefore proceed to implementation as a matter of priority, with the aim to have the networks up and running within one year. Chapter 23.2.1 outlines the next steps for SYB(MYND) to implement the Hosted Networks. This level of collaborative working will not be easy and the HSR anticipates that support will be required from teams and resources within the ICS.
## 8.5 Recommendations

<table>
<thead>
<tr>
<th>Ref</th>
<th>HSR recommendations</th>
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<tbody>
<tr>
<td><strong>Hosted Networks</strong></td>
<td>The vision for Hosted Networks is to have a host organisation for each service, to minimise barriers between organisations, make the best use of expertise and skills across SYB(MYND), support shared decision making and enable quick progress on issues.</td>
</tr>
<tr>
<td>1</td>
<td>Each service should establish a basic Hosted Network, Coordinated Delivery Network, or Single Service Model with agreed strategic objectives that align to the wider SYB ICS vision.</td>
</tr>
<tr>
<td>2</td>
<td>The Hosted Network should have a defined scope and remit. A suggested scope has been included in the service-specific recommendations in chapters 10-14. The scope should include functions to address elements of workforce, clinical variation, and innovation.</td>
</tr>
</tbody>
</table>
| 3 | Each Hosted Network should operate within an agreed organisational form, which may build upon existing structures where relevant (see service-specific recommendations in chapters 10-14). The form should include:  
   - A host organisation for each service  
   - The appropriate resourcing, financial and governance model to support it  

Contracts between each member organisation and the host organisation that define the roles and responsibilities of each party as part of the Hosted Network. |
| 4 | Commissioners should be responsible for defining ICS-wide commissioning specifications across SYB(MYND) against which organisations within Hosted Networks deliver services and outcomes. Commissioning arrangements could be supported either by a lead commissioning arrangement or an ICS-wide commissioner. |
| 5 | Each Hosted Network should be accountable to the SYB ICS for the delivery of its agreed functions. This includes delivery against measurable goals and performance metrics, which are monitored by the SYB ICS. |
| 6 | Each Hosted Network should be established recognising the relationships between relevant stakeholders. This includes local organisations within Place structures, central bodies such as NHS England and NHS Improvement, and existing regional networks. |
| 7 | Each Hosted Network should engage with patients, the public and clinicians to ensure their views are encompassed in the design of the Hosted Network. |
9 System-level integration

9.1 Rationale for system-level cooperation

As the ICS takes its shadow form, system-level cooperation will begin to deepen. A number of functions, such as regulation and financial monitoring, will begin to be exercised at a system level rather than between national regulators and individual commissioners or providers. The proposals in this report sit alongside this intended shift to system-wide cooperation and will support it. However, the ICS structure is not essential in order for the cooperation between providers to be taken forward.

As set out in previous chapters, service-specific Hosted Networks will take on increasing levels of responsibility for planning and delivering their services. Depending on the type of Hosted Network, this responsibility can range from the delegation of a small number of support functions to the delegation of responsibility and accountability for service delivery from individual trusts to the host organisation.

Beyond this, however, there are some functions across each of the transformation themes which will need to be carried out once on behalf of the system. These functions are those that are generic across all services, for example developing HR policies. Alternatively, they might have substantial fixed cost components and are therefore only cost-efficient when undertaken across many organisations. The CWGs have considered which functions could be included in this category.

Additionally, there is a common set of capabilities required to develop and carry out transformation functions. For example, all Hosted Networks will be responsible for monitoring improvement of clinical outcomes from the reduction of unwarranted variation; this will require data collection and analysis capabilities. These enabling capabilities could be organised at a service level or system level. However, to ensure the most efficient use of these valuable capabilities, they should be performed at system level.

9.2 Functions and capabilities to be organised and provided at system level

9.2.1 Principles for carrying out functions at system level

The HSR developed a set of principles to help identify the most appropriate level at which any capability or function should be organised at. These principles will apply to all functions across the three HSR transformation themes and are set out below. These principles are not exhaustive but are considered to be the most pertinent:

- **Inter-trust variation**: difference in approach and or outcome across organisation increases the opportunity from doing things once at a system level.

- **Rarity**: functions or capabilities that are performed infrequently by all organisations will benefit from centralisation at system-level.

- **Limited supply**: capabilities that are scarce may most equitably be provided at a system level, ensuring that all services and organisations have access to it.

- **Proportion of fixed costs**: high fixed costs of a function or capability can make pooling across all organisations more cost-efficient.
• **Level of local /organisation-specific knowledge required:** functions or capabilities requiring low degrees of local knowledge makes aggregating at system-level easier.

  9.2.2 **Functions which need to be exercised at a system level**

There are three groups of functions that the HSR identified as needing to be carried out at system level. These are:

- Any functions which need to apply to all staff equally (regardless of service), such as pay or return to work policies; and any training which is standard across specialties
- Coordinating and providing support to enable Hosted Networks to undertake transformation functions
- For services which are not in the Hosted Networks, strategic support and support with standardisation of HR and clinical processes and practices

<table>
<thead>
<tr>
<th>Core functions proposed to be exercised at a system level</th>
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<tbody>
<tr>
<td><strong>Workforce</strong></td>
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<tr>
<td>Develop the workforce strategy and longer-term planning for the system, including:</td>
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<tr>
<td>• Develop strategy for locum and agency used, including setting pay rates</td>
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<tr>
<td>• Undertake system-wide workforce analysis and modelling to inform strategy development</td>
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<tr>
<td>Develop a system-wide approach to recruitment and retention, including:</td>
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<tr>
<td>• Develop and implement system-wide return to work schemes</td>
</tr>
<tr>
<td>• Define benefits and incentives packages for some staff</td>
</tr>
<tr>
<td>• Coordinate system-wide overseas recruitment campaigns (there would also be a service-specific element to this)</td>
</tr>
<tr>
<td>• Engage on behalf of the system with stakeholders including HEE, universities and medical schools (there would also be a service-specific element to this)</td>
</tr>
<tr>
<td>Develop a system-wide approach to training, including:</td>
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<tr>
<td>• Develop a system-wide approach to non-service specific continuous professional development</td>
</tr>
<tr>
<td>• Develop and implement system-wide non-service specific statutory training</td>
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<tr>
<td>Develop leadership capacity, including:</td>
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<tr>
<td>• Undertake succession planning for system-level senior leadership (there would also be a service-specific element to this)</td>
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<table>
<thead>
<tr>
<th>Commissioning and patient flows</th>
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<tbody>
<tr>
<td>Provide technical and programme support to Hosted Networks and other services in developing consistent commissioning approaches</td>
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<table>
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<tr>
<th>Clinical standards</th>
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</table>
Engage with national regulators and central bodies linking with national quality improvement teams such as GIRFT

- Provide supporting capabilities to Hosted Networks in reducing unwarranted variation, such as analytical support for measuring impact on clinical outcomes
- Monitor and evaluate performance of Hosted Networks in reducing unwarranted variation and provide feedback to spread best practice approaches

**Research & innovation**

Develop and execute a system-wide Research & Innovation strategy

- Identify system-wide challenges that could be addressed with innovative solutions
- Develop innovative solutions to system challenges by: working with academic partners; horizon scanning for local, national and international examples of innovation; and undertaking cost-benefit analysis
- Support system-wide implementation, such as the implementation of a shared patient record
- Monitor and evaluate impact of system-wide innovations

**9.3 Capabilities and methodologies**

To fulfil the functions undertaken at a system level, and support those undertaken in Hosted Networks and other services, a number of capabilities will be required, including for example:

- Analysis and intelligence, to support the assessment of workforce options and clinical protocols
- Project and programme management
- Policy and strategy development
- Stakeholder engagement

These capabilities should be provided within system-level structures along with the required transformation theme-specific capabilities.

The methodologies used to develop and implement transformation functions at a service and Place level should be developed and owned at a system level. The HSR recommends that there should be a central process assurance role at a system-wide level to ensure methodologies are followed to support sustainable and systematic roll-out of transformation functions.

**Workforce**

The HSR developed a comprehensive workforce transformation framework (see Annex B). This sets out the detailed functions that should be undertaken within organisations, at a service level and across the system.

**Reduction of unwarranted variation**
The HSR in consultation with the CWGs and clinical leads has developed a quality improvement methodology which should be applied consistently across all services to identify and eliminate unwarranted clinical variation. This methodology follows a four-stage process of identification, agreement, implementation and monitoring of standards and is described in Figure 8 below.

Figure 8: Four-stage process for reducing unwarranted clinical variation

Innovation

The following guiding questions will provide framework to support the development of a system-wide Innovation strategy.

Figure 9: Guiding questions for system-wide Innovation strategy

9.4 Structures for cross-system working

In order for the identified system-level functions to be executed effectively, the HSR has developed a set of system infrastructure proposals. These build on structures already in place.
place or planned, and draw on existing resources where possible. A discussion on operationalising and resourcing the proposed structures is set out in chapter 9.5.

The HSR recognises that the two structures discussed below are in planning stage and not yet operational. The following chapters therefore lay out a suggested set of capabilities and forms to support the required system-level functions, whilst recognising that exact design is subject to a detailed planning process.

9.4.1 The SYB(MYND) Health and Care Institute

The HSR recommends that functions relating to workforce and unwarranted clinical variation should be carried out by a cross-system organisation on behalf of all system partners. The legal form of such an organisation has not yet been determined, but the ICS has begun developing plans for the South Yorkshire and Bassetlaw Health and Care Institute. The HSR recommends building on this work to support the functions on workforce and clinical variation outlined here, and ensuring that it covers the same geographical footprint as the shared working.

The current plan for the Institute is to bring together a number of existing teams and functions (see Figure 10 for the cross-system approach, and Figure 11 for the current proposed structure of the Institute). The HSR considers this a good structure upon which to build and recommends that the scope of this new organisation be expanded to include a wider strategic role. Specifically, this should enable delivery of system-wide functions relating to workforce and clinical variation.

Figure 10: Organisations and functions currently proposed to be covered by the Health and Care Institute
In the context of work to date, the HSR has also considered the Local Workforce Action Board’s (LWAB) SYB Workforce Framework. In the interest of aligning cross-system workforce responsibilities, the HSR recommends the integration of LWAB and its Framework into the Health and Care Institute’s remit should be explored.

For the Institute to effectively execute all its system-level functions, as well as provide support to the Hosted Networks and strategic support to the SYB leadership team, it will need to have access to a number of capabilities. The HSR defines the core organisational capability requirements in the table below:

### Hosted Network Service Leads
The Hosted Networks, as well as other clinical specialities, would look into each of these faculties and their functions as required. The faculties would support them in developing their service specific plans for apprenticeships, alternative workforce models, and clinical variation proposals.

### Universities, Colleges and Schools
Faculties from the Institute should engage with local higher and further education institutes, performing outreach to encourage more people to join the health and care workforce and developing workforce training programmes by leveraging the academic expertise of the universities and colleges.

<table>
<thead>
<tr>
<th>Faculty of Advanced Practice</th>
<th>Faculty for Support Staff</th>
<th>Faculty for Primary Care Training</th>
<th>Faculty for Workforce Development</th>
<th>Analytical and Evaluation Team</th>
<th>Additional Faculties...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of training programme for advanced practitioners, and supervision and oversight</td>
<td>Incorporating South Yorkshire Regional Excellence Centre (SYREC): Coordinating apprenticeships, care certificates and career development for bands 1-4</td>
<td>Incorporating Advanced Training Practice Hub: Coordinating training for primary care</td>
<td>Incorporating HCS and ALB workforce programme: Coordinating training for workforce scientists and other groups as required</td>
<td>Significant resource to support the development of shared clinical protocols, and options appraisals and evidence assessments where analytical capability is needed</td>
<td>Supporting: • Workforce strategy • ANPs and AMPs • Recruitment HSR recommends expanding the H&amp;CI to include a wider range of functions to support Hosted Networks</td>
</tr>
</tbody>
</table>

In the context of work to date, the HSR has also considered the Local Workforce Action Board’s (LWAB) SYB Workforce Framework. In the interest of aligning cross-system workforce responsibilities, the HSR recommends the integration of LWAB and its Framework into the Health and Care Institute’s remit should be explored.

For the Institute to effectively execute all its system-level functions, as well as provide support to the Hosted Networks and strategic support to the SYB leadership team, it will need to have access to a number of capabilities. The HSR defines the core organisational capability requirements in the table below:
### SYB Health and Care Institute required organisational capabilities

<table>
<thead>
<tr>
<th>Capability group</th>
<th>Generic capability description</th>
</tr>
</thead>
</table>
| Strategy         | • Quantitative data analysis, modelling and visualisation  
|                  | • Qualitative data analysis and synthesis  
|                  | • Options appraisal including assessment of economic, financial and commercial viability and impact  
|                  | • Strategic policy analysis and development  
|                  | • System and process design  
|                  | • Strategic engagement and relationship management  
|                  | • Workforce development  
| Delivery         | • Procurement  
|                  | • Programme and project management  

#### 9.4.2 The SYB(MYND) Innovation Hub

Work is ongoing to build a strategy to strengthen innovation across the Integrated Care System, and to develop the ICS footprint as a system which is able to roll out innovation at scale.

A large number of stakeholders are involved at various points in the innovation lifecycle, ranging from academic research groups, the Academic Health Science Networks (national and in Yorkshire & Humber), nationally funded innovation forums and organisation-specific teams. Failure to adequately join up and coordinate the efforts of the various groups will create solutions which fail to tackle the real problems and needs which impact our population’s patients and workforce. We will risk duplicating work developed elsewhere and fail to leverage system-wide capabilities to their full extent.

#### 9.4.2.1 Current work on innovation

Current work on innovation has identified three key areas of focus:

- Development of a SYB research and innovation strategy.
- Workforce development.
- Harnessing innovation development to meet the needs of the local population and workforce.

The SYB Digital Programme Framework and the centrally mandated Local Digital Roadmaps are seeking to develop the basic digital interoperability for the system.

The SYB ICS is working with the Sheffield anchor institutions to shape a place based research and innovation infrastructure required to maximise system-wide research and innovation opportunities, which will align and support pull through of innovation needs from the SYB population. Ensuring the five places are fully involved in defining the system need, then co-creating, evaluating and embedding innovation will be essential.

The ICS is helping shape the creation of a partnership model, based upon Care2050, the SYB long term workforce requirements and system delivery, to oversee and drive development of priorities and responsibilities for supporting research and innovation.
There is also work underway to take forward specific exemplar projects, for example through the NHS England Test Bed initiative or the University of Sheffield and Sheffield Hallam University are establishing a number of Innovation sandpits which will create exemplars based upon needs identified by the Sheffield Accountable Care Partnership and the SYB ICS.

The Academic Health Science Network is also working with the ICS lead to determine their role in development and adoption of innovation.

Proposals which maximise research and innovation opportunities associated with both the Industrial Strategy and the specific Life Sciences Industrial Strategy are in development, including large-scale infrastructure for innovation such as the Health Innovation Park at the Sheffield Olympic Legacy Park.

This will support a significant increase in research and innovation capacity in SYB(MYND). This includes the National Centre for Sports & Exercise Medicine, the Advanced Wellbeing Research Centre which are under construction, with two further projects (for orthopaedics & rehabilitation and child health technology) being listed as specific projects in the Life Sciences Industrial Strategy Sector Deal.

### 9.4.2.2 Developing an innovation strategy

In order to bring these elements together, and to ground the work going forward in the ICS footprint, an innovation strategy will be needed.

A SYB(MYND) innovation strategy would need to cover the following areas:

- A mechanism to identify and prioritise the problems that the system is facing.
- Horizon-scanning and identification of innovative solutions to local problems.
- Promotion of quality improvement functions as well as technological disruption.
- Education and training to support innovators across the system.
- Diffusion and adoption of proven innovations at pace and scale in organisations, place or at a system level

Work on this should be taken forward initially by the Academic Health Sciences Network in partnership with other stakeholders.

### 9.4.2.3 Development of an Innovation Hub

Ultimately, the HSR recommends that system-wide functions for innovation should be based within a central Innovation Hub which would provide resource, expertise and strategic direction to both the Service and Place integration levels. The hub will support innovation identification, creation, evaluation but most importantly lead the adoption of the innovation at scale and pace, for the benefit of the entire system.

The Innovation Hub also requires access to a number of capabilities to ensure the effective delivery of its functions. These capabilities are set out in the table below and closely match those required for the Health and Care Institute.

<table>
<thead>
<tr>
<th>SYB(MYND) Innovation Hub required organisational capabilities</th>
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<tbody>
<tr>
<td><strong>Capability group</strong></td>
</tr>
<tr>
<td>Strategy</td>
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</table>
### 9.5 Resourcing and operationalising the cross-system structures

In the interest of economic and financial viability, the Health and Care Institute and Innovation Hub should build on existing resources where possible. As is demonstrated in the capability assessments above, the skills required for both the Institute and the Hub are very similar and generally do not require substantive service-specific knowledge. However, there may be certain capabilities and therefore roles that are specific to each transformation theme and should be resourced accordingly. The exact funding model should be agreed by SYB ICS, but could potentially be supported by transformation funding for the ICS. If this is not available, it could operate on a fair-share basis with a combination of staff being seconded into the Institute and Hub by member organisations of the ICS or equivalent funding being provided from the organisation if no staff resources are provided.

Figure 122 describes the interaction between the two organisations and the capabilities required to operate them.

The HSR recommends that the core staff for both organisations – the Institute and the Hub – are drawn where possible from existing resources across providers and commissioners in SYB(MYND). This could be on a volunteer basis for secondment, provided staff have the required skills.

There is also scope for other staff from non-ICS organisations to support the Institute and Hub. This could include for example expert academic staff or staff from national regulatory bodies on a secondment basis. For example, there are a number of leading academic institutions and research groups in the region, including the University of Sheffield’s School of Health and Related Research (SCHARR) and the Sheffield Hallam University Centre for Health and Social Care Research (CHSCR), which may join through a cooperation agreement with the Institute or Hub and the ICS.

The exact funding model should be agreed by SYB ICS, but could potentially be supported by transformation funding for the ICS. If this is not available, it could operate on a fair-share basis with a combination of staff being seconded into the Institute and Hub by member organisations of the ICS or equivalent funding being provided from the organisation if no staff resources are provided.
9.6 Recommendations

<table>
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<tr>
<th>Ref</th>
<th>HSR recommendations</th>
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<tbody>
<tr>
<td></td>
<td><strong>System-level integration</strong></td>
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</table>

The vision for system-level integration is to deliver system-wide analytical and planning functions to support SYB(MYND) providers, commissioners and the Hosted Networks implement recommendations of the HSR. This should support service transformation in the following three themes:

- **Workforce**: The vision for workforce is to build on the significant workforce planning that has already been undertaken, and to exploit the benefits that an ICS can offer to SYB(MYND) through the consistent roll-out of workforce solutions across the region.

- **Reducing unwarranted variation**: The vision for reducing unwarranted variation is to reduce health inequalities by ensuring that patients receive the same quality of care wherever they live.
**Innovation:** The vision for innovation is to address challenges through a SYB(MYND)-wide approach to identifying and prioritising problems, horizon-scanning for innovative solutions, and diffusing and adopting innovations at scale across all organisations and services.

1. SYB(MYND) should work with the planned SYB(MYND) Health and Care Institute to ensure the required functions and capabilities are provided to support service transformation through Hosted Networks.

   It should have the appropriate authority to carry out its remit which should include the delivery of a comprehensive workforce strategy and assuring the system-wide adherence to a standardised approach to developing and implementing shared clinical protocols.

   The SYB(MYND) Health and Care Institute should include representation from local higher and further education institutions and the regional office of Health Education England (HEE). It should consider how existing forums, such as the Local Workforce Action Board (LWAB) and the HR Directors Forum, can contribute to and support the workforce functions.

2. The SYB(MYND) Health and Care Institute should act as a central intelligence function for collecting and analysing data on unwarranted variation, and should be the primary vehicle for engaging with national initiatives such as Getting It Right First Time (GIRFT), Model Hospital, and Right Care.

   This should include representation from NHS England and NHS Improvement regional teams.

3. SYB(MYND) should establish an Innovation Hub that develops a system-wide innovation strategy, which should include a mechanism for identifying innovative solutions to challenges, assessing their costs and benefits and proposing ways to scale them across the system.

   This should include representation from the Academic Health Sciences Network and should be linked with existing structures such as local test beds and local academic partners, as well as the UK Life Sciences or Industrial Strategy.
Section B: Service transformation

This section provides detailed transformation approaches and recommendations for each of the five HSR services. The following aspects are discussed for each of the five clinical services covered in this section:

- Vision
- Challenges
- Approach to transformation
10 Urgent and emergency care (UEC) transformation

10.1 Vision

All patients in SYB(MYND) should have access to urgent care in their local hospital. There will be a high level of expertise in the ED, which is the ‘front door’ to the hospital, to diagnose, and if necessary stabilise patients. Patients will then be directed to where they can receive the best treatment for their needs.

The HSR seeks to improve UEC services in SYB(MYND) through transformation across workforce, clinical variation and innovation. Transformation will improve UEC both for patients and for staff. Improving working conditions for staff by developing flexible working models, reducing their workload and improving training and progression opportunities will aid recruitment and retention. More connected ways of working will make sure patients always receive high quality urgent care when they need it, with a UEC Hosted Network standardising care across the region to reduce access inequalities and unwarranted clinical variation.

10.2 Challenges

In the fourth quarter of 2017/18 only one SYB(MYND) service met the four-hour ED waiting time standard. Only Sheffield Children’s Hospital were able to meet the 95% national target in Q4 of 17/18, all other trusts had a performance between 82% and 90%. The increasing demand for care, coupled with challenges in workforce and patient flow, has contributed to this performance.

It is particularly difficult to fill vacancies for consultant and middle grade doctors. The HSR team tested the current consultant and middle grade doctors in post against the levels that would be necessary to meet national guidelines.

This analysis demonstrated that we do not currently have enough consultants to meet guidelines across 6 trusts. While estimates suggest that over the coming 5 years the system will be able to recruit sufficient amounts of doctors to meet these standards, the current situation remains precarious. Gaps in the workforce is resulting in a significant locum and agency spend, with the system currently spending c. £1.4m on consultant locums alone which is equivalent to c. 6 Whole Time Equivalents (WTEs). Total annual locum spending in UEC was £10 million, primarily on middle grade doctors and band 5-6 nurses.

10.2.1 Clinician Engagement

The HSR worked with the CWG for UEC to identify the greatest challenges facing the service:

- **Workforce**: Insufficient numbers of appropriately skilled staff leads to gaps in rotas across all grades and disciplines. This results in fierce competition for staff and heavy reliance on agency cover. The CWG felt that workforce is the single most important problem facing UEC services across the footprint. UEC is recognised as a challenging environment for recruitment and retention.

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10 National standard: 95% of patients should wait no longer than four hours from arrival at ED to admission, transfer or discharge

11 Trust data returns
speciality in which to work, and the role has become increasingly pressured as demand increases, leading to high attrition rates.

- **Demand:** A rapidly ageing population with an increasing number of comorbidities is putting pressure on services. Changing patient expectations have also contributed to this increase in demand. There is a perception that patients have growing expectations to be treated immediately. In a complex landscape with a range of services patients often turn to ED in the first instance to seek treatment instead of a different, more appropriate service. ED is commonly viewed as the default option when patients are unsure as to which service they need.

- **Patient flow:** Lack of timely access to social care and mental health services, lack of available beds and inefficient patient transfers between trusts impedes flow, creates delays and impacts on quality of care.

- **IT systems:** A lack of interoperability across and within trusts and unintuitive user interfaces often mean staff have to log onto different systems or duplicate data entries. Lack of availability of accurate clinical data causes delays in clinicians being able to make decisions for their patients, impacting waiting times.

10.2.2 **Patient Engagement**

Patients and the public have been engaged extensively throughout the HSR process and their views and concerns actively taken into consideration when making recommendations. Key themes raised by patients and the public on UEC are as follows:

**Demand and Usage**

Respondents from across all the patient and public groups, particularly the seldom heard groups, raised concerns about waiting times at the ED and the impact that this had on outcomes for patients.

Attendees of the regional public event on 6th December asked whether EDs were being used appropriately. They questioned how far it was possible to reduce demand for ED services within existing expectations of the ED. Like the CWG attendees, they raised the point that EDs are the most immediately recognisable gateway into the health system. Precisely because it offers fast and easy access to care, people will use it more; it should be considered how far it is feasible to direct people elsewhere and how to make the alternatives more attractive.

Some attendees of the regional public event suggested that the HSR needed to analyse peak usage and whether all EDs are working to capacity all the time, or whether there are times when demand is lower and the service may not be needed in the same form.

In response to this, the HSR team raised with the Clinical Working Group, issues around whether the opening hours of EDs should change to reflect peak usage. The CWG’s view was that this was clinically possible but risked being confusing to patients.

“[There needs to be] better education and training of care workers in care and nursing homes to avoid hospital admissions”

- Regional event attendee

“Increase staffing levels so that waiting times in ED are reduced, also to reduce the stress on staff working there”

- Survey respondent from Chesterfield

Reduction in services for older people outside hospital
Attendees at the regional public event felt that one of the main reasons for increasing usage of EDs was the reduction in support for older people in non-hospital settings, because of funding cuts. Increased attendance at ED was seen as a direct consequence of the reduction in services such as social care wardens and sheltered housing.

**Links with primary care, community care and social care**

Attendees at the regional public event pointed out that pressures on ED were increased because there were not clear pathways for GPs to urgent diagnostics such as x-rays. They suggested that there needed to be closer working with primary care such as a joint working group. They also felt that more work needed to be done to train care workers in nursing homes and care homes, to help them to avoid admissions.

In response to this, the HSR team included a section on work across the primary and community care sector in the report, and undertook an exercise with the fourth meeting of the Clinical Working Groups to identify areas for closer working between acute and out of hospital care.

**Access and transport**

All the groups raised concerns about access or services being available locally, and expressed that it would be essential for the HSR to take travel times and transport arrangements into account in any discussions around the future of EDs. Respondents from the seldom heard groups flagged issues around the difficulty of travelling from a hospital site when there were no buses or taxis available. Attendees also suggested that there should be better communication between EDs and ambulances, to allow them to be directed to hospitals with lower waiting times. Some respondents, however, indicated that they would be happy to travel further for 24/7 urgent care.

In response to this, the HSR recommends that a group, including representatives of patients and the public, be set up to look at transport issues going forward.

10.3 **Approach**

10.3.1 **Hosted Network**

The HSR recommends establishing a Hosted UEC Network, hosted by one trust, with a remit for setting workforce strategy, developing and implementing clinical standards, and spreading innovation and best practice. Additionally, the network would develop over time to become responsible for managing resources across the system to enable better matching of capacity to demand. The Hosted Network would encompass all six general EDs in the region as well as the specialist paediatric ED at Sheffield Children’s Hospital to ensure maximum benefit from more joined-up working.
Given the challenges identified above, the UEC CWG has identified the following list of functions it would like the Hosted Network to progress. A connected approach to tackling workforce problems will allow for accelerated development of alternative workforce models and improved recruitment to tackle the current staff shortfalls; aligned clinical protocols will help remove much of the unwarranted variation seen in outcomes; and innovation around repetitive administrative tasks will free up clinician time to allow them to focus more on the patient.

Further detail on the functions outlined below are available Annexes B and C.

**Functions suitable to be developed within the UEC Hosted Network**

**Workforce**

**Develop the workforce strategy and longer-term planning for the service covered by the network, including:**
- Develop a workforce strategy for the service, covering the areas laid out below
- Work with the Health and Care Institute to build the workforce data for the service
- Lead on service-wide workforce modelling and planning, to understand upcoming workforce needs and prepare for them

**Develop a service-wide approach to recruitment, including:**
- Lead on approaches to recruitment on behalf of the service, for example through:
  - Shared overseas recruitment campaigns
  - SYB(MYND)-wide domestic recruitment campaigns, for roles where there is a clear need to recruit multiple staff across sites, with a single panel undertaking interviews and assessment on behalf of all trusts

**UEC-specific priorities in relation to recruitment**
The UEC CWG were particularly concerned about recruitment since there was a belief that UEC was unattractive to trainees:

- For roles facing shortages the system should consider how to make the role more attractive to potential trainees, for example through one-off salary supplements
- The Hosted Network should work with local universities and medical schools to develop curricula that encourage students to choose UEC specialties

Standardise interviews and assessments for shortage roles at the service line level to optimise use of resources

**Improve retention, including:**

- Develop policies and approaches around flexible working, such as self-rostering, part-time working and annualised or compressed hours
- Support training opportunities as described below
- Work with the system-wide HR structures to develop other good practice in HR

**UEC-specific priorities in relation to retention**

The UEC CWG felt that UEC faced particular challenges around retention, owing partly to the demanding nature of the work, and partly to the fact that hours were long and often unpredictable. Some of the trusts had already started to develop innovative approaches to rostering, and there were examples of annualised hours and other approaches which had been successful in UEC elsewhere.

The CWG therefore felt that the Network should prioritise developing flexible working arrangements to improve workforce morale, offer education opportunities and ultimately make the system a more attractive place to work:

- Self-rostering, part-time working, and annualised or compressed hours allow individuals more flexibility in fitting work around other commitments
- Supporting staff who have taken career breaks, or who wish to take them, is important in preventing talent leaving the system

**Develop workforce roles and job descriptions, including:**

- Design and develop a standardised, service-wide approach to job roles and planning for alternative workforce such as Emergency / Advanced Nurse Practitioners, Advanced Medical Practitioners, Physician Associates and other service-specific roles
- Develop approaches to incentivise flexible working across sites, such as exploring approaches to pay incentives
- Monitor a standardised approach to bank and agency staff (this would need to be agreed at cross-system level)

**UEC-specific priorities in relation to workforce roles and job descriptions**

The UEC CWGs identified opportunities for alternative workforce as one of the top two priorities for the Network. It was felt that an expansion in these alternative roles will go some way to tackling workforce shortages, reducing locum spend and increasing care quality.

- All trusts should work together to understand gaps in workforce identify opportunities for the introduction of alternative roles such as Physician Associates
(PAs) and Emergency Nurse Practitioners (ENPs)

- The Hosted Network should engage with higher education institutes and Royal Colleges to develop these roles in line with best practice
- Particularly with PAs, which remain an unregulated profession, Hosted Networks should develop a training and professional development plan to upskill Associates in emergency medicine; this should complement and not duplicate national programmes already in train

The Network should also assess the possibility of bursaries for PAs, or nurses who wish to train further as ENPs, to support their studies and attract them to SYB(MYND)

<table>
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<td>The UEC CWG stated that training was a particular priority for the Network. The Network should:</td>
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<th>UEC-specific priorities in relation to commissioning and patient flows</th>
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<tr>
<td>The UEC CWG said that variation in the criteria, process and pathways used to transfer patients makes inter-site ambulance transfers burdensome. Standardisation requires alignment of hospital and ambulance policies as well as an appropriate SYB(MYND)-wide commissioning model</td>
</tr>
<tr>
<td>- Social care eligibility assessments: Localities set different needs thresholds for social</td>
</tr>
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</table>
care eligibility. Inconsistent clinical assessment of patients makes it difficult for staff to organise timely discharge of patients requiring care service support after their hospital stay. Whilst the standardisation of social care assessments would be high impact, this would be difficult to deliver across all Local Authorities. Closer coordination with social care providers is necessary to ensure that appropriate care is accessible in a timely manner.

- Patient transfer protocols: Variation in the criteria, process, pathways and pro-formas used to transfer, refer and repatriate patients makes inter-site ambulance transfers burdensome and requires alignment of hospital and ambulance policies as well as an appropriate SYB(MYND)-wide commissioning model.

### Clinical standards

**Develop standardised clinical protocols, including:**

- With input from all partner organisations, prioritise a shortlist of clinical protocols to identify which ones to focus on first. Initial suggestions for each service are included in Annex C.
- With input from all partner organisations, develop an agreed set of evidence-based best practice clinical protocols to improve outcomes for patients.
- Support the implementation of these protocols across all sites, through shared learning (and funding if system-wide transformation funding is available).
- Monitor the implementation of these protocols across all sites to ensure that they are being taken forward.
- Report and be accountable to the ICS on the implementation of these protocols.

**UEC-specific priorities in relation to clinical protocols:**

The group felt that clinical variation was a particular priority for the UEC group, since patients often transferred between sites and therefore variation in guidance was particularly problematic.

It should be a priority for the Network to standardise guidelines based on Royal College evidence bases and make sure that these guidelines are routinely adhered to across the system to reduce unwarranted clinical variation and improve patient care.

Align protocols for clinical procedures and ways of working so that staff from one hospital can seamlessly transition into another if transferred as part of a planned rotation or temporarily filling the rota at a neighbouring trust.

**Develop interoperability across organisations, including:**

- Prioritise the most important areas to support interoperable working across organisations.
- Agree standardised approaches with input from all partner organisations.
- Support the implementation of these protocols across all sites, through shared learning (and funding if system-wide transformation funding is available).
- Monitor the implementation of these common processes and protocols to support interoperable working across organisations to ensure that they are being taken forward.
• Report and be accountable to the ICS on the implementation of these protocols

**Innovation**

**Promote innovation to address service-specific challenges, including:**

- Identify key challenges that could be addressed through technology
- Work with the Academic Health and Science Network and industry partners to identify service-specific innovations to address them
- Work with partners to roll-out these innovations across all organisations
- Work with piloting sites to gather data and centrally conduct cost-benefit analyses and identify potentially useful pieces of innovation
- Centrally set best practice guidelines on innovation
- Leverage the scale of the network in the procurement of new technologies
- Liaise centrally on behalf of the entire service with regional research bodies such as local universities and other institutes to benefit from the latest research and innovation being developed and to guide research priorities based on identified system needs
- Encourage staff within the service to develop their skill base by getting involved in research

**UEC-specific priorities in relation to innovation:**

The UEC CWG said that UEC had been an innovative service in SYB(MYND). Attendees pointed to a number of innovations which had been developed by clinicians within the patch, to improve patient flow or address similar challenges in the specialty. However, there was very limited visibility across trusts and none of the innovations which had been developed in individual trusts had yet been taken to scale outside of it.

The UEC CWG therefore felt that it was a particular priority for the Network to: identify, disseminate and implement service specific innovation and foster a culture of dialogue between organisations.

**Additional functions for a UEC Co-ordinated Delivery Network**

The UEC Clinical Working Group suggested that the UEC Hosted Network should act as a Co-ordinated Delivery Network as well as the functions of a basic Hosted Network.

The additional functions that the network would play would be:

- Conduct service-wide workforce demand and capacity analysis
- Work with member organisations to better match capacity with demand

This includes long term planning of job roles and in the future, may be developed to become a real-time function that is able to re-balance resources to meet spikes in demand across the network.

**10.3.2 Priorities for the Hosted Network: innovation and research**

Clinicians have identified a number of repetitive tasks in ED that could be automated, leaving staff with more time to provide patient care. For example, obtaining and recording complete medical histories is a timely process, with data input often taking longer than the
interaction with the patient themselves. This detracts from the clinician being able to focus on care of the patient and the administrative burden can make the role unattractive.

There are a number of technological and process innovations that can be applied to UEC services to both improve patient experience and use the time of clinicians more efficiently.

One novel solution to this issue is the use of an automated system that allows patients to input their own information while waiting to be treated. Smart-ER is being trialled in Doncaster and Bassetlaw Teaching Hospitals NHS FT. Smart-ER is an interactive digital platform where patients can enter their own personal data, medical history, lifestyle factors, existing medication and other clinically relevant information from the waiting room.

The trial has shown that the platform can lead to a mean reduction of 57% in the time it takes a clinician to write a patient’s history, enabling them to spend more time on value-adding interactions, and also see more patients within a given amount of time.

The HSR recommends that the Hosted Network play a key role in the dissemination of innovation across the hospitals in the region. The Hosted Network should lead on the cost-benefit analysis of rolling out solutions such as Smart-ER across the network, identifying potential barriers to innovation and creating a business case for change.

For example, local adaptations in IT systems may be required to fully utilise such technology and realise time savings and care improvements; in addition, novel technologies might be costly. The Hosted Network should assess the costs involved in adopting new technologies and leverage scale in working with potential suppliers.

10.3.3 Opportunities to move activity out of hospitals

It is broadly recognised that the Emergency Department is not the most appropriate setting for all urgent and emergency care. Published studies estimate a significant percentage of patients who attend ED would most appropriately be cared for elsewhere. Such estimates range from 15-40%\(^\text{12}\). Guidelines state that only patients with the most severe and life-threatening conditions should present at EDs, with alternative UEC provisions in place for other patients in need of care.

The HSR in combination with the CWGs have identified a series of enabling functions that the acute trust can offer to help shift activity out of hospital and into a more appropriate setting. The provision of specialist care in the community and strengthening of primary care will reduce the need for presentation at EDs, and Hosted Networks from each of the other services discussed in this report will play a role in this.

The UEC Hosted Network should work with commissioners to ensure the strengthening of primary care and appropriate alternatives for urgent care in the community. It should also explore the co-location of minor injuries units or primary care with EDs with GP streaming to ensure that vital ED resources are conserved for the most acutely ill patients. Further integration with community and mental health care should be considered to improve the service. Examples of such working include having a robust mental health liaison team within EDs and community nurses to support transfer and discharge and continuity of care for elderly patients.

\(^\text{12}\) Royal College of Emergency Medicine (15%) and The Keogh Urgent and Emergency Care Review, NHS England (40%)
### 10.4 Transformation recommendations

<table>
<thead>
<tr>
<th>Ref</th>
<th>HSR recommendations for Urgent and Emergency Care (Emergency Department)</th>
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<tbody>
<tr>
<td>1</td>
<td><strong>SYB(MYND)</strong> should establish a Hosted Network with the scope and remit of a Coordinated Delivery Network, as outlined in the specification recommended in chapter 10.3.1. The Hosted Network should be appropriately linked to existing networks such as the Trauma Network, the UEC Board, the ED Delivery Board and local Place Boards.</td>
</tr>
</tbody>
</table>
11 Care of the acutely ill child (CAIC) transformation

11.1 Vision

The HSR’s vision for paediatric services that all children receive high quality care at all times, wherever they interact with the health system, be that at hospital or in the community, for both physical and mental ailments. SYB(MYND) should leverage the specialist expertise of Sheffield Children’s Hospital and the system’s dedicated staff to improve care for all.

Each Place should be able to accept, assess and stabilise acutely ill children. Those children who require longer-term observation or specialist treatment should have equitable access to specialist services in the regional network through robust patient transfer protocols.

The HSR seeks to improve care of the acute child in the SYB(MYND) area through transformation across workforce, clinical variation and innovation. Leveraging the expertise of Sheffield Children’s Hospital across the system will improve paediatric care throughout SYB(MYND). More connected ways of working will also make the service a more attractive workplace, improving recruitment efforts and expanding the workforce, making sure there are enough doctors, nurses and other health professionals to provide high quality care to children.

11.2 Challenges

Paediatrics is a challenging speciality nationwide, with the service facing workforce shortages across the country at consultant level\(^\text{13}\). While trainee fill rates in Yorkshire and Humber for 2017 are around 90%\(^\text{14}\), the CWG reported that paediatric training had a particularly high attrition rate, a finding that is borne out by national trends\(^\text{15}\). Most trusts also struggle to attract and retain sufficient nurses. Such staff shortages have been identified by CQC as a matter of concern impacting patient care. Linked to staff shortages is elevated locum spending and increased workloads. Perceived increased workloads were flagged by trainees across multiple trusts; trainees also report satisfaction scores significantly below the national average year on year\(^\text{16}\).

11.2.1 Clinician Engagement

The HSR worked with the CWG for care of the acutely ill child to identify the greatest challenges facing the service:

- **Workforce:** Training grade doctors are difficult to recruit, which impacts current staffing levels and future consultant capacity. In parallel, compliance with standards such as those set out in the *Facing the Future*\(^\text{17}\) report requires large numbers of skilled senior decision makers to be available and present. There would be a 10 WTE shortfall against the number of consultants that would be required to meet Royal College guidelines if all sites continue to provide inpatient paediatrics. Furthermore, the system spends c. £1.7m on consultant locums, equivalent to c. 8 WTEs, and the agency premium rate appears to be c. 29%. There are also considerable gaps in the nursing workforce and

\(^{13}\)https://www.rcpch.ac.uk/search?keywords=attrition&f%5B0%5D=content_type%3Adocument&f%5B1%5D=content_type%3Aproduct&f%5B2%5D=content_type%3Aresource&=Search

\(^{14}\) https://hee.nhs.uk/our-work/medical-recruitment/specialty-recruitment-round-1-acceptance-fill-rate

\(^{15}\) http://careers.bmj.com/careers/advice/view-article.html?id=20010423

\(^{16}\) Trust data returns

\(^{17}\) Available at: https://www.rcpch.ac.uk/facing-future-service-standards
CWG members expressed concerns that this could continue to increase due to the discontinuation of the nursing bursary and issues around training provision.

- **Demand:** CWG members reported that demand on paediatric emergency departments is growing as patient expectations rise and alternative routes to access treatment (for example, via GPs) are considered unfeasible due to long waits in some areas. Attendees felt that there is limited coordination and communication across trusts to manage or direct flow and activity from sites that are particularly busy, to those sites who have capacity.

- **Nature of conditions:** There has been a generational shift from predominance of infectious diseases to primarily chronic conditions such as asthma which can often be managed successfully in a child’s home.

- **Primary care provision:** The CWG members said that GPs are a pivotal link to secondary care for ill children. While some GPs are experts in dealing with sick children, others have had less paediatrics-specific training; where this is the case, it was identified that it would contribute to increase the attendance of sick children at the ED.

### 11.2.2 Patient Engagement

Patients and the public have been engaged extensively throughout the HSR process and their views and concerns actively taken into consideration when making recommendations. Key themes raised by patients and the public on paediatric care are as follows:

#### Response times

Improving response times is a key priority for the residents who responded to the tele-survey, but many of the respondents also felt that little could be improved as services were already good.

> “London hospitals have a far better clinical information system which is compatible with other healthcare organisations in the city, making it much easier to get information about patients from one place to another”
> - Sheffield Children’s Trust Youth Forum

#### Workforce

Attendees at the regional public engagement session put forward concerns and ideas around the workforce for paediatrics. There was a suggestion that paediatric training should be part of the training for all GPs, and that there should be more financial support for staff wishing to gain additional qualifications in working with children.

This is an area to be taken forward in Place rather than by the HSR, but the HSR suggests that this should be included in proposals around the development of primary care capacity going forward.

#### Access to services

There were different views expressed around the issues of access and quality. A number of respondents to the public survey believed that overnight paediatrics services should be available on every hospital site, with a number of responses specifically referencing the recent changes to paediatrics services at Bassetlaw. However, some attendees at the regional public event said that quality of services was more important, and

> “Ensure access to facilities locally to prevent children’s parents from needing to travel”
> - Survey respondent from Sheffield
that it made sense to focus care for acutely ill children on more specialist sites.

The HSR has looked closely at the issues around access to and quality of paediatric services. The conclusions are laid out in the paediatrics reconfiguration chapter below.

Wherever services were based, respondents from the seldom heard groups talked about the need for paediatric units to be friendly spaces, with toys available for children to play with while waiting for care. The HSR considered that this was an operational issue rather than one for the Review, but should be part of trusts’ work to ensure good quality paediatric services going forward.

Local availability of services in a range of settings

Youth Forum attendees commented that greater provision of support outside of hospitals to complement their treatment, such as treatments in pharmacies or GP clinics, would improve services. The attendees at the regional public event raised questions around how mental health services for children would fit into the HSR. Support for young people, in every Place, was seen as vitally important to prevent life-long mental health problems.

In addition to the above, patients and the public highlighted the perceived challenge of a lack of high quality local services, impacting children and their families having to travel long distances for care. Maintaining high quality and minimising clinical variation were also flagged.

The views of patients, as expressed here, were included in the HSR’s consideration of the configuration of paediatrics services as laid out below. They contributed to the Review’s conclusion that every DGH site should continue to provide services for children.

11.3 Approach

11.3.1 Hosted Network

The HSR recommends the development of a paediatric Hosted Network, hosted by Sheffield Children’s Hospital (SCH). This should build on work done to date to establish the Acute Paediatrics Managed Clinical Network (MCN).

The Hosted Network would be responsible for the development and application of standardised clinical protocols and guidelines across all acute sites in SYB(MYND) and for developing service-wide approaches to growing and developing the paediatric workforce.

For some sites within the network, SCH may play a more influential role in the direct delivery of paediatric services. This single service model would involve SCH developing bilateral agreements with trusts to manage and deliver clinical services on their site(s). The HSR recommends this is done on an optional and mutually consensual basis between trusts.

The services could be branded, for example, “Sheffield Children’s Hospital @ Host Trust”, thereby drawing on the value of the SCH brand for the benefit of patients and staff. We refer to these sites as Managed Sites.

The specifics of this arrangement would need to consider the most appropriate employment model, clinical governance arrangements and service level agreements (SLAs) for interdependent services. Further discussion and analysis is required to capture the requirements of each member trust and the scope and setting of services included (e.g. the
community care offer). Additionally, the Hosted Network should seek to develop a working relationship with the LMS (Maternity) Hosted Network and ensure representation from neonatal services, due to the high degree of interdependency between the three services.

The CWG has identified the list of functions it would like the Hosted Network to progress and in doing so has advocated for a comprehensive set of responsibilities. The individual functions proposed to be included in the remit of the Hosted Network are outlined in the table below.

<table>
<thead>
<tr>
<th>Functions suitable to be developed within the CAIC Hosted Network</th>
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<tbody>
<tr>
<td><strong>Workforce</strong></td>
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<tr>
<td><strong>Develop the workforce strategy and longer-term planning for the service covered by the network, including:</strong></td>
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<tr>
<td>• Develop a workforce strategy for the service, covering the areas laid out below</td>
</tr>
<tr>
<td>• Work with the Health and Care Institute to build the workforce data for the specialty</td>
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<tr>
<td>• Lead on service-wide workforce modelling and planning, to understand upcoming workforce needs and prepare for them</td>
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<tr>
<td><strong>Develop a service-wide approach to recruitment, including:</strong></td>
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<tr>
<td>• Lead on approaches to recruitment on behalf of the service, for example through</td>
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<tr>
<td>o Shared overseas recruitment campaigns</td>
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<tr>
<td>o SYB(MYND)-wide domestic recruitment campaigns, for roles where there is a clear need to recruit multiple staff across sites, with a single panel undertaking interviews and assessment on behalf of all trusts</td>
</tr>
<tr>
<td><strong>CAIC-specific issues in relation to recruitment</strong></td>
</tr>
<tr>
<td>The CAIC CWG highlighted particular challenges in recruitment of staff. Attendees were particularly concerned about the discontinuation of the nursing bursary and the varying learning and development offer across organisations. Moreover, middle grades and junior doctors were considered to be particularly short supply and recruitment into the specialty was challenging due to the challenges associated with maintaining a healthy work-life balance in an intensive on-call specialty and the relative attractiveness of the region. The following actions were identified for consideration by the network:</td>
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<tr>
<td>• To counteract the potential negative impact of the bursary elimination, the system should consider making nursing and midwifery roles and training more attractive to potential trainees, for example through financially supporting the education or one-off salary supplements</td>
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<td>• The Hosted Network should work with local universities and medical schools to develop curricula that encourage students to choose paediatrics as a specialty</td>
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<tr>
<td>• Standardise interviews and assessments for shortage roles at the service line level to optimise use of resources</td>
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| **Improve retention, including:** |
| • Develop policies and approaches around flexible working, such as self-rostering,
part-time working and annualised or compressed hours
- Support training opportunities as described below
- Work with the system-wide HR structures to develop other good practice in HR

**CAIC-specific issues in relation to retention**
The CAIC CWG felt that the key to improving retention was to offer more flexible working arrangements to its staff as well as making staff feel more valued and improving the attractiveness of working in the region. The CWG therefore felt that the Network should prioritise developing flexible working arrangements to improve workforce morale, offer education opportunities and ultimately make the system a more attractive place to work:

- Self-rostering, part-time working, and annualised or compressed hours allow individuals more flexibility in fitting work around other commitments
- Supporting staff who have taken career breaks, or who wish to take them, is important in preventing talent leaving the system
- Simplify and encourage staff returning to practice from retirement or career breaks through the use of flexible working and job-share arrangements and funding for training and job guarantees at the end of the training process

**Develop workforce roles and job descriptions, including:**
- Design and develop a standardised, service-wide approach to job roles and planning for alternative workforce such as Advanced Nurse Practitioners, Advanced Medical Practitioners, Physician Associates and other service-specific roles
- Develop approaches to incentivise opt-in flexible working across sites and care settings, such as exploring approaches to pay incentives
- Monitor a standardised approach to bank and agency staff (this would need to be agreed at cross-system level)

**CAIC-specific issues in relation to workforce roles and job descriptions**
The CAIC CWGs identified the identification of opportunities for alternative workforce as one of the top two priorities for the Network. It was felt that an expansion in these alternative roles will go some way to tackling workforce shortages, reducing locum spend and increasing care quality:

- All trusts should work together to understand gaps in workforce identify opportunities for the introduction of alternative roles such as Physician Associates (PAs) and Advanced Paediatric Nurse Practitioners (APNPs)
- The Hosted Network should engage with higher education institutes and Royal Colleges to develop these roles in line with best practice
- Particularly with PAs, which remain an unregulated profession, Hosted Networks should develop a training and professional development plan to upskill Associates in paediatric medicine
- The Network should also assess the possibility of bursaries for PAs, or nurses who wish to train further as APNPs, to support their studies and attract them to
SYB(MYND)

An expansion in these alternative roles will go some way to tackling workforce shortages, reducing locum spend and increasing care quality. The network should also explore the development of specialist paediatric capability in primary care settings as another route to expand the paediatric workforce and improve the care available to children in their local area.

**Develop a service-wide approach to training, including:**

- Develop a service-wide approach to training across sites, developing voluntary rotational schemes, placement programmes and secondments for staff to learn through working on other sites
- Develop service-specific training programmes which can be supported through sharing of expertise rather than additional funding
- Develop a service-wide approach to professional support, supervision and guidance for specialty roles, such as a shared professional development programme
- Develop and deliver education and training programmes to appropriately upskill staff according to any identified skill or competency gaps, to ensure all staff are equipped to provide an effective service
- Differentiate between the role-specific skills required by each group of healthcare professionals
- Give staff the opportunity to work across the different organisations in the system to provide variety to their work, provide upskilling opportunities and increase breadth of experience

**Develop leadership capacity, including:**

- Undertake succession planning for senior leadership, including considering where future job descriptions might include increased elements of joint working across trusts (for roles covered by the Hosted Network)

**Commissioning and patient flows**

**Work with commissioners to agree common specifications and patient pathways**

**CAIC-specific issues in relation to common specifications and patient pathways**

The CAIC CWG said that there was variation in the criteria, process and pathways. The Network should therefore work with the Joint Committee of Clinical Commissioning Groups (JCCCG) and individual commissioners to streamline commissioning specifications, in line with local need and the proposals for reconfiguration set out in the following chapters.

**Clinical standards**

**Develop standardised clinical protocols, including:**

- With input from all partner organisations, prioritise a shortlist of clinical protocols to identify which ones to focus on first. Initial suggestions for each service are included in Annex C
- With input from all partner organisations, develop an agreed set of evidence-based
best practice clinical protocols to improve outcomes for patients

- Support the implementation of these protocols across all sites, through shared learning (and funding if system-wide transformation funding is available)
- Monitor the implementation of these protocols across all sites to ensure that they are being taken forward
- Report and be accountable to the ICS on the implementation of these protocols

**CAIC-specific priorities in relation to clinical protocols:**

The CAIC CWG felt that clinical variation was a particular priority for the service. A number of clinical protocols were identified as being different across trusts; and also some variation in the application of standards and guidance across different trusts.

This variation was considered to reduce the ability for staff to work collaboratively with and across organisations and the Network to should focus as a on a set of priority processes. There are a number of common acute conditions for which consistent use of best practice protocols can increase equality of access to care and improve patient outcomes. These include respiratory conditions and head injuries.

The Network should build on and make use of existing structures. This includes the Acute Paediatrics Managed Clinical Network (MCN) and in particular the Guideline Development Group which is responsible for aligning and streamlining clinical care processes and protocols.

**Develop interoperability across organisations, including:**

- Prioritise the most important areas to support interoperable working across organisations
- Agree standardised approaches with input from all partner organisations
- Support the implementation of these protocols across all sites, through shared learning (and funding if system-wide transformation funding is available)
- Monitor the implementation of these common processes and protocols to support interoperable working across organisations to ensure that they are being taken forward
- Report and be accountable to the ICS on the implementation of these protocols

**Innovation**

**Promote innovation to address service-specific challenges, including:**

- Identify key challenges that could be addressed through technology
- Work with the Academic Health Science Network, and ultimately with the Innovation Hub, to identify service-specific innovations to address them
- Work with partners to roll-out these innovations across all organisations

**CAIC-specific priorities in relation to innovation**

The CAIC CWG identified many opportunities to innovate for the benefits of staff and patients. Attendees for example highlighted a number of components of the care process that could be automated. This would free up time for clinicians to spend more time on high-value adding interactions with patients, enabling them to do what only they can do.
However, there was very limited success so far in making these possible innovative changes a reality. The CWG therefore felt that it was a particular priority for the Network to:

- Identify, disseminate and implement service specific innovation and foster a culture of dialogue between organisations
- Work with piloting sites to gather data and centrally conduct cost-benefit analyses and identify potentially useful pieces of innovation
- Centrally set best practice guidelines on innovation
- Leverage the scale of the network in the procurement of new technologies
- Liaise centrally on behalf of the entire service with regional research bodies such as local universities and other institutes to benefit from the latest research and innovation being developed and to guide research priorities based on identified system needs.
- Encourage staff within the service to develop their skill base by getting involved in research.

Further detail is in Annex C

### Additional functions for a CAIC Hosted Network

In care of the acutely ill child, there is value in creating a Hosted Network to enable system-wide cooperation on functions covering growing and developing the workforce, reducing unwarranted variation and innovation.

In addition, there is an opportunity for Sheffield Children’s Hospital to play a role in the direct delivery of services at other sites (i.e. the Single Service Model) – unlike the Hosted Network this would not apply to all sites and would be at the request of the receiving site.

#### 11.3.2 Priorities for the Hosted Network: innovation and research

Members of the paediatric CWG identified administrative work such as note-taking and transferring records as particularly time-consuming for clinicians. Time spent dealing with administration reduces the time clinicians have to spend with patients, impacting on the quality of care delivered and patient experience. Various other repetitive tasks exist that could also benefit from innovation, such as the monitoring of vital signs such as blood pressure and heart rate.

Changes to the administrative process and the adoption of novel technology to address these challenges would free up more clinician time to spend with patients. Such innovation could be applied to paediatric services to both improve patient experience and increase efficiencies.

One possible solution is the introduction of an automated paediatric monitoring system. Traditional electronic monitoring devices can be replaced with those that are linked to a digital system that tracks and records vital signs, such as heart rate, breathing rate and oxygen saturation, in real time. These systems can identify any abnormalities or deterioration in patients and notify doctors and nurses, alerting them to take necessary actions.
Birmingham Children’s Hospital is currently testing such wireless monitoring systems that reduce the need for manual monitoring from clinicians, freeing them up to perform other tasks.

The HSR recommends that the Hosted Network plays a key role in the identification of potential innovative solutions and disseminating these across the hospitals in the region. The Network should lead on the cost-benefit analysis of rolling out solutions on a wider scale and leverage scale in any negotiations with potential suppliers.

11.3.3 Opportunities to move activity out of hospitals

Given the changing nature of child healthcare, with a shift towards chronic conditions that can readily be dealt with at home and in the community, there is an opportunity to move some activity out of the hospital setting. This allows children to be cared for closer to home and in a setting that can provide a better patient experience.

The HSR recommends that the Paediatrics Hosted Network plays a role in developing the provision of specialist paediatric care in the community. Examples of this include upskilling current community nurses and GPs, and directly providing paediatric consultant community support.

Two successful methods of achieving this are the creation of paediatric community hubs and remote teleconsultations (see table below). Both these opportunities have been identified in Place Plans to develop further, or are already functioning (e.g. Consultant Connect in Doncaster and Barnsley). SYB(MYND) acute trusts should continue to actively support development of these schemes to help reduce admissions pressures.

<table>
<thead>
<tr>
<th>Moving activity out of hospital</th>
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<tbody>
<tr>
<td><strong>Activities / areas</strong></td>
</tr>
<tr>
<td>• <strong>Paediatric community hubs</strong> are led by multiple GP practices and supported, either remotely or by visiting teams, by consultants and nurses from acute hospitals. They generally address lower acuity paediatric issues, with a key focus on patients with chronic illness prone to deterioration.</td>
</tr>
<tr>
<td>• <strong>Remote teleconsultation</strong> allows GPs to diagnose and treat a greater range of children’s conditions by accessing consultant advice in real time. Formalised knowledge sharing between GP practices and paediatric consultants can facilitate GP upskilling in paediatric care.</td>
</tr>
<tr>
<td><strong>Enablers</strong></td>
</tr>
<tr>
<td>• Close coordination between community, primary and secondary care to deliver an integrated service</td>
</tr>
<tr>
<td>• Visiting teams or rotations of acute consultants and nurses to support paediatric community hubs</td>
</tr>
<tr>
<td>• Rotas to support remote teleconsultation</td>
</tr>
<tr>
<td>• Shared records and compatible IT systems to facilitate sharing of patient records and imaging results</td>
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11.4 Transformation recommendations

<table>
<thead>
<tr>
<th>HSR Recommendations for Care of the Acutely Ill Child</th>
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<td><strong>1</strong></td>
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</table>
11.3.1.
12 Maternity transformation

12.1 Vision

The vision for services in SYB(MYND) is that all mothers should receive personalised care before, during and after birth, close to home, and should be able to choose from a variety of safe and high-quality birth options. The configuration of services across the system will support this by making sure SYB(MYND) optimises the use of the expertise held by the dedicated maternity and obstetrics staff in the system.

This is in line with the recommendations of Better Births, the national report into maternity services which was published in 2017\textsuperscript{18}. These themes were also reflected in the CWG and public and patient engagement.

The HSR seeks to improve maternity care by leveraging the benefits of more joined up working. Standardising care protocols across the region will make sure all women in SYB(MYBND) get the high-quality care they deserve, improving outcomes for mothers. A system-wide approach to the workforce will make sure the expertise in the region is best utilised for the benefit of mothers.

12.2 Challenges

Similar to paediatrics, maternity care also suffers from workforce shortages. Trusts struggle to fill posts across all grades and professions, in particular staff grades, nurses and specialist trainees. Only half of obstetrics training posts are filled across the footprint, as such two thirds of trainees report higher workload pressures than their national peers\textsuperscript{19}.

With regards to financial metrics, there is an 85% difference in the efficiency of the most efficient trust and the least efficient when comparing weighted Reference Cost Index (RCI) data for maternity care\textsuperscript{20}.

12.2.1 Clinician Engagement

The HSR worked with the CWG for maternity to identify the greatest challenges facing the service:

- **Workforce:** There are insufficient numbers of appropriately skilled staff, particularly amongst midwives and training grade midwives. Alongside the core obstetrics workforce, a number of staff groups providing critical clinical support services are also in short supply including neonatology nurses, radiologists, sonographers, paramedics and anaesthetists. This general shortage was leading to gaps in rotas which were addressed by temporary measures including consultants acting down and agency locums are being hired at increased cost.

- **Unwarranted variation:** There is a high degree of variation in most care domains across all trusts. This includes different ways of applying national standards and guidance which can reduce the ability of staff to work collaboratively with and in other organisations.

\textsuperscript{18} Available at: https://www.england.nhs.uk/wp-content/uploads/2016/02/national-maternity-review-report.pdf
\textsuperscript{19} Trust data returns
\textsuperscript{20} NHS Improvement reference costs
• **Public health:** Factors including smoking, obesity, and alcohol and substance abuse as well as environmental factors such as inadequate housing leading up to and during pregnancy were considered key root causes of lower outcomes. These public health factors increased the need for consultant-led births and led to longer lengths of stay and patients requiring substantially more specialist medical and nursing attention.

• **IT systems:** Systems are not interoperable between trusts and across care settings (e.g. across primary care, community care and secondary care).

### 12.2.2 Patient Engagement

Patient experience data shows experiences of maternity services in the region are generally good, with Friends and Family Test scores showing 93% - 100% of respondents saying they would recommend the hospital in which they’d received their antenatal care; 95% - 100% of respondents saying they would recommend the hospital in which they’d given birth; 88% - 100% of respondents saying they would recommend the hospital in which they’d received their postnatal care.21

Patients and the public have been engaged extensively throughout the HSR process and their views and concerns actively taken into consideration when making recommendations. Key themes raised by patients and the public on maternity care are as follows:

### Workforce

Respondents to the public survey, and from the seldom heard groups, raised concerns in particular about shortages of midwives, and the impact that this had on patient care.

> “When my daughter-in-law was in hospital there were hardly any nurses to look after her, so it was like she was going through it on her own”
> 
> - Survey respondent from Bassetlaw

Attendees at the regional event and at the Rotherham public event, said that one problem with the traditional routes for training staff was that that some people might not be academic enough for a degree-based route but could still be excellent midwives or other healthcare staff. There was a suggestion that there should be more vocational routes into training for such staff.

While this was raised particularly in relationship to maternity, it was also a point which was raised in relationship to other specialties. The HSR responded to views by proposing that developing apprenticeships and other non-traditional routes into healthcare should be a main focus for the proposed Institute for Health and Care.

> “Midwifery is too hard to get into! There’s no funding – it needs to be more vocational”
> 
> - Regional Event Attendee

### Patient choice

21 NHS England Family and Friends Test 2016
There was discussion in the public events (particularly in Barnsley, and at the regional event) around how the system should balance patient choice with patient risk. Comments focused on home births and midwifery led units, with some people in favour of these and some concerned that they exposed women to higher levels of risk.

Respondents from the seldom heard groups said that the most important thing was that the environment needed to be calm and relaxing in any kind of unit, and said that at the moment this was not always the experience. They raised the need for better care for mothers who suffer miscarriage. They also highlighted a need for improved communication to patients.

The HSR responded to this by ensuring that the proposals developed around maternity services (below) are designed to support choice and the implementation of Better Births, while ensuring that high risk women receive consultant-led care.

### 12.3 Approach

#### 12.3.1 Hosted Network

The transformation solutions require a strong degree of collaboration and cooperation between organisations to deliver. The SYB Local Maternity System (LMS) is a clinical network in its initial stages of development and currently operates under a memorandum of understanding (MoU) between organisations. The LMS should be developed into a Hosted Network, hosted by one trust, with appropriate terms of reference and access to the right level of programme resource to develop and implement transformation functions.

The HSR recognises the statutory role of the LMS and that its footprint differs from the SYB(MYND) geography and recommends this is taken into consideration when developing the Hosted Network.

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“Choice for women is very important so they can give birth in the way they choose, subject to medical constraints”
- CCG Patient Reference Group Attendee
The LMS Hosted Network should seek to develop a working relationship with the Paediatric Hosted Network and ensure representation from neonatal services, due to the high degree of interdependency between the three services.

The maternity CWG has identified the list of functions it would like the LMS Hosted Network to prioritise in the table below – these are highlighted in bold.

### Functions suitable to be developed within the Maternity Hosted Network

<table>
<thead>
<tr>
<th>Workforce</th>
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<tbody>
<tr>
<td><strong>Develop the workforce strategy and longer-term planning for the service covered by the network, including:</strong></td>
</tr>
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<tr>
<td>- Work with the Health and Care Institute to build the workforce data for the specialty</td>
</tr>
<tr>
<td>- Lead on service-wide workforce modelling and planning, to understand upcoming workforce needs and prepare for them</td>
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</tbody>
</table>

| **Develop a service-wide approach to recruitment, including:** |
| - Lead on approaches to recruitment on behalf of the service, for example through: |
|   o Shared overseas recruitment campaigns |
|   o SYB(MYND)-wide domestic recruitment campaigns, for roles where there is a clear need to recruit multiple staff across sites, with a single panel undertaking interviews and assessment on behalf of all trusts |

**Maternity-specific issues to resolve through a service-wide approach to recruitment**

The Maternity CWG was particularly concerned that recruitment into the service was challenging due to a mixture of factors including low starting salaries; the discontinuation of the nursing bursaries for midwives; high levels of responsibility and the challenges associated with maintaining a healthy work-life balance in an intensive on-call specialty.

The following actions were identified for consideration by the network:

- To counteract the potential negative impact of the bursary elimination, the system should consider making nursing and midwifery roles and training more attractive to potential trainees, for example through financially supporting the education or one-off salary supplements
- The Hosted Network should work with local universities and medical schools to develop curricula that encourage students to choose Maternity specialties
- Standardise interviews and assessments for shortage roles at the service line level to optimise use of resources

**Improve retention, including:**

- Develop policies and approaches around flexible working, such as self-rostering, part-time working and annualised or compressed hours.
- Support training opportunities as below
• Work with the system-wide HR structures to develop other good practice in HR

**Maternity-specific issues to resolve regarding retention**

The Maternity CWG felt that more could be done to create a more supportive environment for staff and improve retention. The CWG noted that current employment packages are not as attractive as they could be and attrition rates amongst trainee doctors were mentioned to be considerable. This trend is amplified by an expected increase in midwives retiring over the coming 5-10 years.

The CWG therefore felt that the Network should prioritise developing flexible working arrangements to improve workforce morale, offer education opportunities and ultimately make the system a more attractive place to work:

- Self-rostering, part-time working, and annualised or compressed hours allow individuals more flexibility in fitting work around other commitments
- Supporting staff who have taken career breaks, or who wish to take them, is important in preventing drain of talent from the system
- Simplify and encourage staff returning to practice from retirement or career breaks through the use of flexible working and job-share arrangements and funding for training and job guarantees at the end of the training process

**Develop workforce roles and job descriptions, including:**

- Design and develop a standardised, service-wide approach to job roles and planning for alternative workforce such as Advanced Midwife Practitioners, Advanced Medical Practitioners, Physician Associates, Maternity Support Workers and other service-specific roles
- Develop approaches to incentivise flexible working across sites, such as exploring approaches to pay incentives
- Monitor a standardised approach to bank and agency staff (this would need to be agreed at cross-system level)

**Maternity-specific issues in relation to workforce roles and job descriptions**

The Maternity CWGs identified the opportunities for alternative workforce as one of the top two priorities for the Network. It was felt that an expansion in these alternative roles will go some way to tackling workforce shortages, reducing locum spend and increasing care quality:

- All trusts should work together to understand gaps in workforce identify opportunities for the introduction of alternative roles such as Physician Associates (PAs) and Maternity Support Workers (MSWs). These roles will also contribute to a comprehensive skill mix in the service, enabling all staff to “work to the top of their license”
- The Hosted Network should engage with higher education institutes, existing national programmes and Royal Colleges to develop these roles in line with best practice
- Particularly with PAs, which remain an unregulated profession, Hosted Networks should develop a training and professional development plan to upskill Associates
The Network should build on the work done by some trusts to date on introducing these new roles and also assess the possibility of bursaries for PAs or MSWs, to support their studies and attract them to the SYB(MYND) system.

**Develop a service-wide approach to training, including:**

- Develop a service-wide approach to training across sites, developing voluntary rotational schemes, placement programmes and secondments for staff to learn through working on other sites
- Develop specialty-specific training programmes which can be supported through sharing of expertise rather than additional funding
- Develop a service-wide approach to professional support, supervision and guidance for specialty roles, such as a shared professional development programme

**Maternity-specific issues in relation to training**

The Maternity CWG stated there is variation in the attractiveness and breadth of training received. Training in smaller wards may be less attractive because of less variation in cases and fewer opportunities to participate in research. In some instances, this is compounded by the lack of visible senior leaders who are invested in and have the resources for developing the future workforce.

Training was therefore identified as a particular priority and the Network should:

- Develop and deliver education and training programmes to appropriately upskill staff according to any identified skill or competency gaps, to ensure all staff are equipped to provide an effective service
- Differentiate between the role-specific skills required by each group of healthcare professionals
- Give staff the opportunity to work across the different organisations in the system to provide variety to their work, provide upskilling opportunities and increase breadth of experience

**Develop leadership capacity, including:**

- Undertake succession planning for senior leadership, including considering where future job descriptions might include increased elements of joint working across trusts (for roles covered by the Hosted Network)

**Commissioning and patient flows**

**Work with commissioners to agree common specifications and patient pathways**

**Maternity-specific issues in relation to variation in specifications and patient pathways:**

The Maternity CWG said that there was variation in the criteria, process and pathways across SYB(MYND). In particular, variation in the provision of Early Pregnancy Assessment Clinics and Midwifery-led Units (MLUs) between Places was highlighted at Stage 1B of the HSR. This was identified as being a priority for standardising commissioning specifications to ensure that patients have access to the same care across SYB(MYND).
The Network should therefore work with the joint committee of clinical commissioning groups (JCCCG) and individual commissioners to streamline commissioning specifications, in line with local and the ambition to provide choice to women.

**Clinical standards**

**Develop standardised clinical protocols, including:**

- With input from all partner organisations, prioritise a shortlist of clinical protocols to identify which ones to focus on first. Initial suggestions for each service are included in Annex C.
- With input from all partner organisations, develop an agreed set of evidence-based best practice clinical protocols to improve outcomes for patients.
- Support the implementation of these protocols across all sites, through shared learning (and funding if system-wide transformation funding is available).
- Monitor the implementation of these protocols across all sites to ensure that they are being taken forward.
- Report and be accountable to the ICS on the implementation of these protocols.

**Maternity-specific priorities in relation to clinical protocols:**

The Maternity CWG felt that clinical variation was a particular priority for the maternity services. A number of clinical protocols were identified as being different across trusts; and also some variation in the application of standards and guidance across different trusts.

This variation was considered to reduce the ability for staff to work collaboratively with and across organisations, and the Network to should focus as a on a set of priority processes:

- Induction of labour: there is significant variation between clinicians in classifying risk and when to induce labour. Clinicians agreed that this would be extremely difficult to standardise across SYB(MYND) because of entrenched local clinical practices. However, it was felt that if this process could be aligned, it could support the reduction of unwarranted variation in other processes.
- Clinical assessment of expectant mothers: This includes risk assessment of expectant mothers, escalation protocols and specific conditions such as reduced foetal movement.

The Network should therefore work with the LMS (in particular the Clinical Governance Task and Finish Group which is responsible for reducing unwarranted clinical variation) to develop a standard set of clinical protocols and guidelines for the two processes above as well as identify other priority processes.

**Develop interoperability across organisations, including:**

- Prioritise the most important areas to support interoperable working across organisations.
- Agree standardised approaches with input from all partner organisations.
- Support the implementation of these protocols across all sites, through shared learning (and funding if system-wide transformation funding is available).
- Monitor the implementation of these common processes and protocols to support...
interoperable working across organisations to ensure that they are being taken forward
• Report to the ICS on the implementation of these protocols

**Innovation**

**Promote innovation to address service-specific challenges, including:**
• Identify key challenges that could be addressed through technology
• Work with the Academic Health and Science Network and industry partners to identify service-specific innovations to address SYB(MYND)’s challenges
• Work with partners to roll-out these innovations across all organisations

**Maternity-specific priorities relating to innovation**

The Maternity CWG identified many opportunities to innovate for the benefits of staff and patients. Attendees highlighted a number of components of the care process that could be automated. This would free up time for clinicians to spend more time on high-value adding interactions with patients, enabling them to do what only they can do.

However, there was very limited success so far in making these possible innovative changes a reality. The Maternity CWG therefore felt that it was a particular priority for the Network to: identify, disseminate and implement service specific innovation and foster a culture of dialogue between organisations:
• Work with piloting sites to gather data and centrally conduct cost-benefit analyses and identify potentially useful pieces of innovation
• Centrally set best practice guidelines on innovation
• Leverage the scale of the network in the procurement of new technologies
• Liaise centrally on behalf of the entire service with regional research bodies such as local universities and other institutes to benefit from the latest research and innovation being developed and to guide research priorities based on identified system needs
• Encourage staff within the service to develop their skill base by getting involved in research

Further detail is in Annex C

**Additional functions for a Maternity Hosted Network**

The Maternity CWG suggested that the Network should act as a basic Hosted Network. The participants considered that the greatest benefits would initially come from system-wide cooperation on functions covering workforce, reducing unwarranted variation and innovation.

The Maternity Hosted Network is recommended to work closely with the Paediatric Hosted Network and ensure representation from neonatal services, due to the high degree of interdependency between the three services.
12.3.2 Priorities for the Hosted Network: innovation and research

There are a number of technological and process innovations that can be applied to maternity services to address some of the underlying challenges.

Clinicians told the HSR that there is significant potential to automate substantial amounts of the patient pathway. Repetitive administrative tasks such as taking medical records detract from the time clinicians can spend with patients. Along the maternity pathway mothers may see several different doctors or midwives at several different clinics; patients have said they often find themselves filling out the same forms and recounting the same history on each visit. This is an inefficient use of time.

Creating a shared digital record of a mother’s medical history and details will make sure that every interaction she has with a clinician is focused on providing high quality care and advice, and not spent on administration. A connected IT infrastructure could allow clinicians at one site to see the notes on the relevant patient made at another and make sure the most appropriate care is given. Other technological solutions could be deployed to automate various repetitive tasks such as referral management.

The HSR recommends that the LMS Hosted Network plays a key role in the identification of potential innovative solutions and disseminating these across the hospitals in the region. The network should lead on the cost-benefit analysis of rolling out solutions on a wider scale and leverage scale in any negotiations with potential suppliers.

12.4 Transformation recommendations

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<thead>
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<th>HSR Recommendations for Maternity</th>
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13 Stroke transformation

13.1 Vision

The vision for stroke services in SYB(MYND), is that patients can access the care they need in a timely manner, in accordance with national guidelines. Patients’ care should follow a consistent end-to-end pathway, with seamless transition between providers. The workforce should be sufficiently skilled and staffed to deliver a sustainable stroke service whilst offering attractive career opportunities across SYB(MYND).

Transformation of the service, focusing on workforce, clinical variation and innovation, has the potential to improve access for patients and improve the quality of care received in hospital. A Hosted Network that offers better development and progression opportunities for staff in the system will support a more resilient workforce, which in turn will support improved care. Planning at a service-wide level will also ensure patients receive equitable care across the region, reducing the current inequality that exists around access.

13.2 Challenges

Quality of stroke care varies significantly across the SYB footprint, with much being below the national standard. Three of the six trusts fall below the national average of 51% for the percentage of patients scanned within one hour of clock start (defined as either arrival at hospital or symptom onset if already in hospital at the time of the stroke). In addition, all but one hospital falls below the national average of 62% of patients being thrombolysed within one hour of clock start, with just 17% receiving such timely treatment at one site.

Acute care is not the only part of the stroke pathway with significant clinical variation. There is significant variation in access to and agreement of rehabilitation plans, with a lack of consistency in provision of communication stroke rehabilitation including duration and intensity of therapy on offer. There is also large variation in the percentage of patients treated by an Early Supported Discharge (ESD) team, and in some places ESD does not happen over the weekend.

13.2.1 Clinician Engagement

The HSR worked with the CWG for stroke to identify the greatest challenges facing the service:

- **Workforce:** Issues on workforce are broken down into three key areas: difficulties recruiting and retaining nursing staff; the shortage of acute stroke consultants at some trusts; and the requirement for more investment in therapists to support seven-day working. As a result of workforce pressures, some trusts have come to be reliant on locum and agency staff, which is unsustainable both from a cost perspective and continuity of knowledge and training.

- **Patient flow:** CWG members identified pinch points in patient flow along the pathway as a barrier to effective and timely treatment and recovery. In general, these are at transition points between acuities of care, with issues in the rehabilitation stage of the pathway often impacting on more acute services early on in the pathway. They are

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22 Sentinel Stroke National Audit Programme 2016/17
further accentuated by multiple patient hand-offs between different providers, some of whom do not run seven-day services.

- **Equality of access:** There is a recognised inequity of service offered to patients across SYB(MYND). This is, in part, due to different commissioning specifications, although there is unwarranted variation in operational factors on top of this, resulting in significant variation in reported patient outcomes.

### 13.2.2 Patient Engagement

Patients and the public have been engaged extensively throughout the HSR process and their views and concerns actively taken into consideration when making recommendations. Key themes raised by patients and the public on stroke care are as follows:

**Access to care**

Attendees at the regional public engagement event felt that more needed to be done in order to ensure access to a specialist stroke unit within four hours. They pointed to data suggesting that the system was not performing well against this metric. Survey respondents also felt that improved response times and improved aftercare were key priorities.

Issues around access to Hyper Acute Stroke Units are being taken forward through the review of HASUs. The HSR responded to patient feedback by focusing on the aftercare elements of the stroke pathway, in particular Early Supported Discharge and a standardized specification for stroke rehabilitation.

**Capacity**

Respondents from the seldom heard groups were particularly concerned that there needed to be enough bed capacity on acute sites for patients to stay until they were well, and not be discharged too quickly since this created unmanageable burdens for families. They felt there should be facilities for families to stay overnight.

Some respondents to the online and paper-based surveys prioritised locally available services as well as response times. Attendees of the public events in general tended to focus more on issues around ensuring access to high quality services.

The HSR has not considered the reconfiguration of Hyper Acute Stroke Services since this is being taken forward separately. It has however focused on recommending equal access to follow up care such as rehabilitation in every Place.

**Mental health**

Attendees at the regional public engagement event emphasised the importance of mental health services working alongside physical health, in treating stroke. They pointed to high rates of depression amongst stroke survivors, which can in turn hamper the patient’s recovery.

Mental health services are outside the scope of the HSR, but are being taken forward by the Integrated Care System more widely.

**Patient transport**

Attendees at the regional public engagement event raised concerns that ambulance transfers were already under strain. They suggested that it will be essential to
include both travel times and the implications for the ambulance service in the analysis done for the HSR.

The HSR has carried out initial analysis of travel times for the current report. The results are summarised at chapters 16-20 below, and laid out in more detail in the technical Annex. More detailed analysis, including an understanding of the implications for the ambulance service, is included within the next steps for the Review at chapter 23.

13.3 Approach

Some of the challenges identified in SYB(MYND) stroke services may be addressed through the HSR’s transformation solutions. These solutions can be implemented across stroke services in their current form, but require buy-in and commitment from organisations.

13.3.1 Hosted Network

Transformation solutions for stroke require a strong degree of collaboration and cooperation between organisations to deliver. The HSR recommends establishing a Hosted Network, hosted by one trust, with a remit for setting workforce strategy, developing and implementing clinical standards, and spreading innovation and best practice.

This recommendation aligns with proposals for the development of a Stroke Managed Clinical Network suggested in the HASU Business Case put forward by SYB ICS.

Figure 15: Hosted Network for Stroke

Within the Hosted Network, pairs of trusts should form groups to support specific workforce functions, such as rotations of staff between sites. This is discussed further in chapters 10-14.

The CWG has identified the list of functions it would like the Hosted Network to progress, outlined in the table below.
## Functions suitable to be developed within the Stroke Hosted Network

### Workforce

**Develop the workforce strategy and longer-term planning for the service covered by the network, including:**

- Develop a workforce strategy for the service, covering the areas laid out below
- Work with the Health and Care Institute to build the workforce data for the service
- Lead on service-wide workforce modelling and planning, to understand upcoming workforce needs and prepare for them

**Develop a service-wide approach to recruitment, including:**

- Lead on approaches to recruitment on behalf of the service, for example through
  - Shared overseas recruitment campaigns
  - SYB(MYND)-wide domestic recruitment campaigns, for roles where there is a clear need to recruit multiple staff across sites, with a single panel undertaking interviews and assessment on behalf of all trusts

### Stroke-specific priorities in relation to recruitment:

The Stroke group were particularly concerned about the shortage of specialist stroke staff, including nurses, consultants, trainees and therapists. The end of nursing bursaries was seen to be impacting nursing entrants.

- For roles facing shortages the system should consider how to make the role more attractive to potential trainees, for example through one-off salary supplements
- The Hosted Network should work with local universities and medical schools to develop curricula that encourage students to choose stroke or stroke-related specialties
- Develop the skills and capacity of volunteers and the third sector to enhance patient experience and the skill mix and capacity of stroke teams

### Improve retention, including:

- Develop policies and approaches around flexible working, such as self-rostering, part-time working and annualised or compressed hours
- Support training opportunities as below
- Work with the system-wide HR structures to develop other good practice in HR
- Supporting staff who have taken career breaks, or who wish to take them, is important in preventing talent leaving the system

### Stroke-specific priorities in relation to retention:

The Stroke CWG felt that stroke services faced particular challenges with retention, partly due to caring for stroke patients being highly demanding work, particularly in the acute stroke units. As such the service sees high turnover amongst staff.

The CWG therefore felt that the Network should prioritise developing optional flexible working arrangements to improve workforce morale, and offer education opportunities. It was felt SYB(MYND) could be made a more attractive place to work supporting staff to
work across the stroke care pathway, such as through building some roles and training that cover HASU, ASU and community stroke services, providing greater continuity of care for patients and enabling a wider range of experience for staff

<table>
<thead>
<tr>
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<thead>
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</tr>
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<td>• The Network should also assess the possibility of bursaries for PAs, or nurses who wish to train further as SNPs, to support their studies and attract them to SYB(MYND)</td>
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</tr>
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<td>• Develop specialty-specific training programmes which can be supported through sharing of expertise rather than additional funding</td>
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<tr>
<td>• Develop a service-wide approach to professional support, supervision and guidance for specialty roles, such as a shared professional development programme</td>
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<thead>
<tr>
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<tr>
<td>The Stroke CWG stated that training was a particular priority for the Network. The</td>
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</table>
Network should:

- Develop and deliver education and training programmes to appropriately upskill staff according to any identified skill or competency gaps, to ensure all staff are equipped to provide an effective stroke care service
- Explore ways to train other groups of clinicians (such as staff in ED, or GPs working on an acute site) to be able to treat TIAs, and undertake the initial tests ahead of review by a consultant, to improve weekend and out of hours cover for TIA services
- Differentiate between the role-specific skills required by each group of healthcare professionals
- Provide staff the opportunity to work across the different organisations providing stroke care in the system to provide variety to their work, provide upskilling opportunities and increase breadth of experience

Develop leadership capacity, including:

- Undertake succession planning for senior leadership, including considering where future job descriptions might include increased elements of joint working across trusts (for roles covered by the Hosted Network)

Commissioning and patient flows

Work with commissioners to agree common specifications and patient pathways

Stroke-specific priorities in relation to commissioning and patient flows:

Patient flow through the care pathway was highlighted as being as issue in stroke services. Particular pinch points were highlighted at transitions between the acute stroke unit and the community, inpatient rehabilitation, social care and home.

The CWG identified inequitable access to Early Supported Discharge (ESD) and community rehabilitation, suggesting there should be common specification for these across the SYB(MYND) region.

The standardisation of assessment criteria for social care and reablement was also seen as a priority. Including social workers as core members of stroke teams was also recognised as being valuable and as such should be explored further.

Clinical standards

Develop standardised clinical protocols, including:

- With input from all partner organisations, prioritise a shortlist of clinical protocols to identify which ones to focus on first. Initial suggestions for each service are included in Annex C
- With input from all partner organisations, develop an agreed set of evidence-based best practice clinical protocols to improve outcomes for patients
- Support the implementation of these protocols across all sites, through shared learning (and funding if system-wide transformation funding is available)
- Monitor the implementation of these protocols across all sites to ensure that they are being taken forward
• Report and be accountable to the ICS on the implementation of these protocols

**Stroke-specific priorities:**

The Stroke CWG felt that clinical variation was a particular priority for stroke care, with standard care protocols and commissioning specifications varying significantly between regions within SYB(MYND).

It should be a priority for the Network to:

- Standardise guidelines based on Royal College evidence bases and make sure that these guidelines are routinely adhered to across the system to reduce unwarranted clinical variation and improve patient care.
- ESD, community rehabilitation and TIA have been flagged as particular priority areas but the CWG emphasised that care specifications should be standardised for all aspects of the post-HASU stroke pathway.

Align protocols for clinical procedures and ways of working so that staff from one hospital can seamlessly transition into another if transferred as part of a planned rotation or temporarily filling the rota at a neighbouring trust

**Develop interoperability across organisations, including:**

- Prioritise the most important areas to support interoperable working across organisations
- Agree standardised approaches with input from all partner organisations
- Support the implementation of these protocols across all sites, through shared learning (and funding if system-wide transformation funding is available)
- Monitor the implementation of these common processes and protocols to support interoperable working across organisations to ensure that they are being taken forward
- Report and be accountable to the ICS on the implementation of these protocols

**Innovation**

**Promote innovation to address service-specific challenges, including:**

- Identify key challenges that could be addressed through technology
- Work with the Academic Health and Science Network and industry partners to identify service-specific innovations to address them
- Work with partners to roll-out these innovations across all organisations
- Work with piloting sites to gather data and centrally conduct cost-benefit analyses and identify potentially useful pieces of innovation.
- Centrally set best practice guidelines on innovation
- Leverage the scale of the network in the procurement of new technologies
- Liaise centrally on behalf of the entire service with regional research bodies such as local universities and other institutes to benefit from the latest research and innovation being developed and to guide research priorities based on identified system needs
- Encourage staff within the service to develop their skill base by getting involved in
The Stroke CWG suggested that the Stroke Hosted Network should act as a basic Hosted Network.

In stroke, there is value in system-wide cooperation on functions covering growing and developing the workforce, reducing unwarranted variation and innovation.

The recommendation of the HSR is that resources for stroke are managed across pairs of sites rather than through the full network model (see chapter 19.2).

### 13.3.2 Priorities for the Hosted Network: innovation and research

The stroke CWG identified certain repetitive tasks as taking up clinician time, displacing patient-facing clinical work. Heavy administrative burdens can also make for an unattractive workplace, creating workforce challenges. Changes to process and technology to address these challenges would free up more clinician time to spend with patients.

There are a number of technological and process innovations that can be applied to stroke services to both improve patient experience and increase efficiencies. For example, virtual assistants can help to reduce the burden of routine care tasks on nurses and other health professionals, especially during inpatient rehabilitation.

A virtual assistant can both provide information to patients, families and carers and receive requests for assistance. Tasks can be allocated to the appropriate staff, making better use of skill sets. For example, requests for snacks or water can be diverted to healthcare assistants, leaving nurses more time to respond to clinical questions.

The HSR recommends that the Hosted Network plays a key role in the identification of potential innovative solutions and disseminating these across the hospitals in the region. The network should lead on the cost-benefit analysis of rolling out solutions on a wider scale and leverage scale in any negotiations with potential suppliers.

### 13.3.3 Opportunities to move activity out of hospitals

The HSR recommends that the Stroke Hosted Network plays a role in developing the provision of stroke care in the community. The CWG identified an opportunity to expand use of the voluntary and third sectors in delivering community stroke rehabilitation. Acute providers should continue to work with the voluntary sector to identify opportunities to upskill and enable voluntary carers to support patients in the community.

The stroke pathway already has well-established patient flows into the community in the form of community rehabilitation and ESD. One of the principal barriers to consistent use of ESD is variation in the commissioning of community rehabilitation.

National guidelines support the use of ESD where assessed as appropriate for patients given the severity of stroke and stage of recovery. However, some trusts have been unable to offer ESD to all patients for which it would be beneficial.

The HSR recommends that all trusts should offer consistent ESD services, supported by consistent commissioning specifications. As part of this, the specification should agree on a guideline level of physiotherapy and occupational therapy in the community.
Moving activity out of hospital

<table>
<thead>
<tr>
<th>Activities / areas</th>
<th>• Expanded use of ESD to ensure that patients who meet standardised criteria are offered ESD and the appropriate package of rehabilitation care in the community</th>
</tr>
</thead>
</table>
| Enablers           | • Increased use of the voluntary and third sectors to support delivery of community rehabilitation  
• Further engagement with community and social care providers to bring practitioners into hospitals to aid patient assessment and discharge preparation (e.g. arranging equipment) |

13.4 Transformation recommendations

<table>
<thead>
<tr>
<th>HSR Recommendations</th>
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<tr>
<td>1</td>
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<tr>
<td>SYB(MYND) should establish a Hosted Network with the scope and remit outlined in the specification recommended in chapter 13.3.1.</td>
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</table>
14 Gastroenterology and endoscopy transformation

14.1 Vision

Each patient should have access to high quality acute and elective gastroenterology care\(^{23}\) regardless of where they live in SYB(MYND). Care should be standardised to ensure equitable access across the region, and the workforce better supported to empower doctors and nurses to deliver the best care possible to patients.

The HSR aims to achieve this vision through joined-up working as a Hosted Network to tackle workforce, quality and innovation issues. Closer working and pooling resources can allow for more flexible rotas, and aligning training and development strategies, making the service a more attractive workplace, helping to tackle staff shortages. Aligning clinical protocols in priority areas via the Network will also directly improve care for patients and reduce current inequalities around access.

14.2 Challenges

Demand for GI services is increasing nationally, and the SYB region is no exception to this. Many trusts struggle to fill gastroenterology posts, especially for the more senior medical grades. This has led to high locum spend, largely on consultant doctors and band 5-6 nurses.

Growing demand coupled with workforce shortages, results in significant pressures on hospitals with there being a number of patients waiting longer than they should for elective endoscopies. Acute GI bleed services suffer from the same problems, as such not all trusts are able to operate a full out of hours GI bleed service; for example, at one trust five out of six overnight weekdays are not covered due to staffing shortages\(^{24}\).

14.2.1 Clinician Engagement

The HSR worked with the CWG for gastroenterology and endoscopy to identify the greatest challenges facing the service:

- **Workforce:** National shortages for consultants and nurses create difficulties for trusts in recruiting, training and retaining enough staff to cover the rotas. Impacts include competition for a limited pool of clinicians and difficulty covering the GI Bleeds rotas overnight and over the weekends.

- **Demand:** For endoscopy, changes to stringent clinical guidelines (such as the two-week cancer target), the introduction of new screening programmes (such as bowel cancer screening), and the lowering of thresholds for referral for endoscopy in some areas, has caused an increase in demand for endoscopies.

- **Service provision:** there is variation in service provision across the patch, with only some trusts managing to staff a 24/7/365 gastrointestinal (GI) bleeds rota. In addition, attendees said that there is variation in transfer protocols.

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\(^{23}\) NB the scope of the HSR focuses on elective endoscopy and acute gastrointestinal bleeds.

\(^{24}\) Trust data returns
14.2.2 Patient Engagement

Patients and the public have been engaged throughout the HSR process and their views and concerns actively taken into consideration when making recommendations. Key themes raised by patients and the public on gastroenterology care are as follows:

Simplifying services

Attendees at the regional public event raised concerns that having services duplicated across sites was not efficient, and was confusing for patients. There was a suggestion that it might be more efficient and less confusing to have services for gastrointestinal bleeds on a smaller number of sites. However, respondents to the online and paper-based surveys rated services being available locally as a high priority, particularly for non-emergency services.

The HSR team has responded to this in its reconfiguration proposals laid out in chapter 20 below.

Supporting patients

Attendees from the seldom heard groups were concerned that proper investigations for gastrointestinal issues should be carried out, and patients should not be sent home until a full diagnosis had been found. This was felt to be a concern where there were communication difficulties for patients or the family, and translators needed to be available. There also needed to be a focus on patient dignity and privacy.

The recommendations of the Review include, for example, increasing capacity to carry out diagnostic tests through training more nurse endoscopists.

14.3 Approach

14.3.1 Hosted Network

Transformation solutions for gastroenterology and endoscopy require a strong degree of collaboration and cooperation between organisations to deliver. The HSR recommends establishing a Hosted Network, hosted by one trust, with a remit for setting workforce strategy, developing and implementing clinical standards, and spreading innovation and best practice. A Hosted Network makes best use of expertise across SYB(MYND), speeds up implementation by having a lead decision maker, and supports clinical buy-in possibly through a coordinated workforce model.

Connected working will further the system’s progress towards achieving JAG accreditation from the Royal College of Physicians, acknowledging high quality endoscopy services. Weekend endoscopy lists are one of the criteria for this accreditation; some trusts manage this currently however others do not. Service-wide workforce planning provides the opportunity to meet this and other criteria.

The CWG thought the following areas should be within the remit of the Hosted Network.
# Functions suitable to be developed within the Gastroenterology Hosted Network

## Workforce

**Develop the workforce strategy and longer-term planning for the service covered by the network, including:**

- Develop a workforce strategy for the service, covering the areas laid out below
- Work with the Health and Care Institute to build the workforce data for the service
- Lead on service-wide workforce modelling and planning, to understand upcoming workforce needs and prepare for them

**Develop a service-wide approach to recruitment, including:**

- Lead on approaches to recruitment on behalf of the service, for example through:
  - Shared overseas recruitment campaigns
  - SYB(MYND)-wide domestic recruitment campaigns, for roles where there is a clear need to recruit multiple staff across sites, with a single panel undertaking interviews and assessment on behalf of all trusts

## Gastroenterology-specific priorities in relation to recruitment:

The CWG felt that the greatest challenge across all the trusts was the shortage of staff, particularly amongst consultants and nurses. National shortages for these groups make it difficult for trusts to recruit, train and retain enough staff to cover the rotas, leading to competition for a limited pool of clinicians:

- For roles facing shortages the system should consider how to make the role more attractive to potential trainees, for example through one-off salary supplements
- The Hosted Network should work with local universities and medical schools to develop curricula that encourage students to choose stroke or Gastroenterology-related specialties

## Improve retention, including:

- Develop policies and approaches around flexible working, such as self-rostering, part-time working and annualised or compressed hours
- Support training opportunities as below
- Work with the system-wide HR structures to develop other good practice in HR
- Supporting staff who have taken career breaks, or who wish to take them, is important in preventing talent from leaving the system

## Gastroenterology-specific priorities in relation to retention

The CWG identified flexible working as a particularly important way to attract and retain staff. More use could potentially be made of generalist nurses in outpatient settings which also have more flexible hours, to free up specialist nurses to work on wards.

## Develop workforce roles and job descriptions, including:

- Design and develop a standardised, service-wide approach to job roles and planning for alternative workforce such as Gastroenterology Nurse Practitioners, Advanced Medical Practitioners, Physician Associates and Non-Medical Endoscopists
- Develop approaches to incentivise flexible working across sites, such as exploring approaches to pay incentives
- Monitor a standardised approach to bank and agency staff (this would need to be agreed at cross-system level)

### Gastroenterology-specific priorities in relation to workforce roles and job descriptions

The Gastroenterology and Endoscopy CWG identified opportunities for alternative workforce as one of the top two priorities for the Network. It was felt that an expansion in these alternative roles will go some way to tackling workforce shortages, reducing locum spend and increasing care quality:

- Identify opportunities for the introduction of alternative roles such as Physician Associates (PAs) and Non-Medical Endoscopists (NMEs). It has been estimated that up to 40% of low risk, high volume endoscopic procedures could be carried out by NMEs

- The Hosted Network should engage with higher education institutes and Royal Colleges to develop these roles in line with best practice

- Particularly with PAs, which remain an unregulated profession, Hosted Networks should develop a training and professional development plan to upskill Associates in internal medicine

- The Network should also assess the possibility of bursaries for PAs, or nurses who wish to train further as NMEs, to support their studies and attract them to SYB(MYND)

### Develop a service-wide approach to training, including:

- Develop a service-wide approach to training across sites, developing voluntary rotational schemes, placement programmes and secondments for staff to learn through working on other sites

- Develop specialty-specific training programmes which can be supported through sharing of expertise rather than additional funding

- Develop a service-wide approach to professional support, supervision and guidance for specialty roles, such as a shared professional development programme

### Gastroenterology-specific functions in relation to training:

The Gastroenterology CWG stated that training was a particular priority for the Network. The Network should:

- Develop and deliver education and training programmes to appropriately upskill staff according to any identified skill or competency gaps, to ensure all staff are equipped to provide an effective gastroenterology and endoscopy service

- Differentiate between the role-specific skills required by each group of healthcare professionals. For example, train more staff in advanced technology, such as interventional radiology, to expand the number of experienced staff able to fill GI bleed rotas

- Provide staff the opportunity to work across the different organisations providing

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25 Developing a case for Nurse Endoscopists, York Health Economic Consortium & NHS Improvement, May 2013
stroke care in the system to provide variety to their work, provide upskilling opportunities and increase breadth of experience

Develop leadership capacity, including:
- Undertake succession planning for senior leadership, including considering where future job descriptions might include increased elements of joint working across trusts (for roles covered by the Hosted Network)

Commissioning and patient flows

Work with commissioners to agree common specifications and patient pathways

Gastroenterology-specific priorities in relation to commissioning and patient flows:
The CWG commented on the variation in service provision across SYB(MYND), with some trusts managing to staff a 24/7/365 GI Bleeds rota with any necessary admissions going straight to a Gastroenterology ward, and others not being able to provide the same service.

The CWG also commented on the variation in transfer protocols, with no unified protocol used by all trusts and poor communication across the patch.

The variation in endoscopy equipment between trusts was highlighted, with no clear standardisation of equipment making shared working difficult.

Clinical standards

Develop standardised clinical protocols, including:
- With input from all partner organisations, prioritise a shortlist of clinical protocols to identify which ones to focus on first. Initial suggestions for each service are included in Annex C
- With input from all partner organisations, develop an agreed set of evidence-based best practice clinical protocols to improve outcomes for patients
- Support the implementation of these protocols across all sites, through shared learning (and funding if system-wide transformation funding is available)
- Monitor the implementation of these protocols across all sites to ensure that they are being taken forward
- Report and be accountable to the ICS on the implementation of these protocols

Gastroenterology-specific priorities in relation to clinical protocols:
The Gastroenterology CWG suggested that a formalised, footprint wide approach to providing consistent out-of-hours and weekend cover for acute GI bleeds was required to address the issue of fragile rotas and limited provision in DGHs, and improve the achievement of standards.

To improve care across the SYB(MYND) region the CWG highlighted two priority areas for setting standardised processes:
- GI bleed equipment should be standardised through regional procurement. Training should also be aligned to support familiarisation with equipment and support interoperable working of staff between sites
GI units and team structures should be reconfigured according to national guidelines to facilitate the provision of round the clock high quality care

**Develop interoperability across organisations, including:**

- Prioritise the most important areas to support interoperable working across organisations
- Agree standardised approaches with input from all partner organisations
- Support the implementation of these protocols across all sites, through shared learning (and funding if system-wide transformation funding is available)
- Monitor the implementation of these common processes and protocols to support interoperable working across organisations to ensure that they are being taken forward
- Report and be accountable to the ICS on the implementation of these protocols

**Innovation**

**Promote innovation to address service-specific challenges, including:**

- Identify key challenges that could be addressed through technology
- Work with the Academic Health and Science Network and industry partners to identify service-specific innovations to address them
- Work with partners to roll-out these innovations across all organisations
- Work with piloting sites to gather data and centrally conduct cost-benefit analyses and identify potentially useful pieces of innovation
- Centrally set best practice guidelines on innovation
- Leverage the scale of the network in the procurement of new technologies
- Liaise centrally on behalf of the entire service with regional research bodies such as local universities and other institutes to benefit from the latest research and innovation being developed and to guide research priorities based on identified system needs
- Encourage staff within the service to develop their skill base by getting involved in research

**Additional functions for a Gastroenterology Hosted Network**

The Gastroenterology and Endoscopy CWG suggested that the Gastroenterology Hosted Network should act as a Co-ordinated Delivery Network as well as the functions of a basic Hosted Network.

The additional functions that the network would play would be:

- Conduct service-wide workforce demand and capacity analysis
- Work with member organisations to better match capacity with demand

This includes long term planning of job roles and in the future, may be developed to become a real-time function that is able to re-balance resources to meet spikes in demand across the network.
14.3.2 Priorities for the Hosted Network: innovation and research

From an innovation perspective, the vision is to have a consistent approach to matching problems with innovative solutions.

The CWG identified a number of repeatable and predictable processes that have the opportunity to be automated. These include open access endoscopy, validating results for defined tests (such as biochemistry and faecal immunochemical tests), as well as vetting and management of referrals.

Trials are currently underway to automate the triage of patient referrals from primary care into the gastroenterology service. The model uses Natural Language Processing (NLP) and can predict the triage outcome and urgency of 'suspicion of cancer' referrals with 95% accuracy. This has led to faster patient triage, saved clinician time, more consistent quality of care via redesigned patient pathways, and better-informed demand planning.

The HSR recommends that the Hosted Network plays a key role in the identification of potential innovative solutions and disseminating these across the hospitals in the region. The network should lead on the cost-benefit analysis of rolling out solutions on a wider scale and leverage scale in any negotiations with potential suppliers.

14.3.3 Opportunities to move activity out of hospitals

CWG members recognised the need to move care closer to the patients’ home, which with investment in primary and community care skills and infrastructure, could keep patients out of the acute sector where possible.

The HSR recommends that the Gastroenterology Hosted Network plays a role in developing the provision of specialist gastroenterological care in the community. Examples of include upskilling current community providers such as GPs, and directly providing specialist consultant support through community rotations or teleconsultations.

### Moving activity out of hospital

<table>
<thead>
<tr>
<th>Activities / areas</th>
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<tbody>
<tr>
<td><strong>Acute care in the community:</strong></td>
<td>Gastroenterologists could provide clinics in GP surgeries to provide care closer to home. Much of the care pathways for iron deficiency anaemia and irritable bowel syndrome could be provided in primary care settings. Special interest GPs could be trained to provide such services.</td>
</tr>
<tr>
<td><strong>Remote teleconsultation:</strong></td>
<td>This allows GPs to diagnose and treat a greater range of gastroenterological conditions by accessing consultant advice in real time. Formalised knowledge sharing between GP practices and gastroenterology consultants can facilitate GP upskilling.</td>
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14.4 Transformation recommendations

<table>
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<th>HSR Recommendations on Gastroenterology</th>
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<tbody>
<tr>
<td>1</td>
<td>SYB(MYND) should establish a Hosted Network, with the scope and remit of a Coordinated Delivery Network, as outlined in the specification recommended in chapter 14.3.1.</td>
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Section C: Service reconfiguration

This section outlines the rationale for considering service reconfiguration, as well as an evaluation of options for each of the five HSR services. It covers:

- Case for change
- Service-specific options evaluations
- Recommendations for reconfiguration
15 Reconfiguration - Case for change

Where transformation solutions are not sufficient to address challenges faced by services, reconfiguration may need to be considered. This chapter outlines:

- Challenges and principles that guide reconfiguration considerations
- The benefits and risks of reconfiguration

The underpinning aim of the HSR is to ensure that all patients across SYB(MYND) have equitable access to high quality, sustainable healthcare. HSR recommendations on transformation seek to address this. The establishment of Hosted Networks with a remit to carry out transformation functions and support their consistent implementation in each trust will go a long way towards ensuring every patient is able to access the same quality of care regardless of where they live.

For the highest complexity patients, however, workforce analysis suggests that shared working alone will not be enough. High risk patients need fast access to services with substantial consultant presence to give them the best possible health outcomes:

- For emergency care, senior decision makers at the front door help ensure the most appropriate onward treatment plan
- For high risk mothers-to-be, consultant led care provides the highest level of medical expertise to help ensure a safe delivery and a healthy mother and baby
- For seriously ill children, acute inpatient units best support recovery
- In the case of serious GI bleeds, quicker access to consultant expertise can reduce mortality rates in some cases

At present, all hospitals aim to deliver most services on their sites, but workforce shortages mean that this is not possible everywhere. For example, not all hospitals are able to independently provide a round-the-clock emergency GI bleed service.

During the CWGs, the HSR asked group members whether they believed that it was sustainable to continue to provide all the services that are currently provided on all the sites that currently provide them. None of the groups thought that it was sustainable to do so.

In engagement sessions with patients and the public, many respondents raised similar concerns around the sustainability of services.

While some patients wanted to see all services provided in their local hospital, others felt that this was unrealistic and would not lead to the best quality care.

The HSR has tested these concerns in the modelling laid out in the following chapters.

“We need to accept that sometimes there is going to be a conflict between matching choice with people’s rights. People may prefer a local service but it is not always possible to provide services in every back yard.”

- North Derbyshire PPG Network attendee
15.1 Benefits and Risk of Reconfiguration

Reconfiguration refers to changing the care setting and/or location in which different components of a service are delivered, in order to achieve improved sustainability and quality of care.

The HSR has recommended reconfiguration only when clinical engagement and modelling has suggested either that services are so unsustainable that they cannot be maintained through transformation alone; or that they are inextricably linked to another unsustainable service. The HSR recognises that while reconfiguration can have positive outcomes, it also carries risks, and so recommends reconfiguration only as a last resort.

The advantage of reconfiguration is that it supports a more resilient workforce by concentrating existing staff onto fewer sites, which seeks to support better outcomes and patient experience.

There is strong clinical evidence in some specialties that centralising activity increases the expertise of staff, and leads to higher quality outcomes for patients. It can greatly increase the likelihood that a patient will be seen by a specialist in their particular condition, and can make it easier to meet quality standards.

Where there are staff shortages, it allows the best use to be made of staff, particularly at consultant level, where consolidating units can make it possible to meet national guidelines on staffing numbers. Even for nurses, where the number of staff needed is directly proportionate to the number of patients, working on a larger site with more staff provides more flexibility and resilience in responding to unplanned gaps or shortages.

On the other hand, reconfiguration can be disruptive for both patients and staff. It may require significant capital expenditure; consolidation of services increases journey times to hospital for some patients and staff; and asking staff to transfer between sites may impact retention.

Additionally, consideration needs to be given to the potential impact of reconfiguration on the way organisations work, such as the ability of sites to retain medical training accreditation if some service elements are no longer delivered there.

Patients and the public expressed a wide range of views on reconfiguration of services. Some prioritised maintaining local services, while others supported reconfiguration if it would result in higher quality services.

In weighing these risks, the main consideration must be to deliver a service to patients in SYB(ND) that is not only high quality, but is also sustainable.

15.2 The configuration of services

Every patient is different: two expectant mothers might have very different health issues that mean that the most appropriate care setting for one is not the most appropriate for another; an ill child may need highly specialised care that only an acute inpatient unit can provide, or might best be cared for at a short-stay paediatric assessment unit.

As such one service might comprise activities that take place across a variety of settings, to meet the needs of different kinds of patients as laid out in Figure 16.
In some services, it may be that certain components or parts of the care pathway are best delivered in more local or more consolidated settings. For example, this could include delivering higher complexity services in specialist hubs to benefit from consolidated expertise and equipment. Alternatively, it could include delivering lower complexity services or follow-up appointments in a community setting to be able to provide care closer to patients’ homes.

Given this, the HSR has made evidence-based recommendations on how best to offer highly complex and acute services in the region, to ensure that the highest risk patients get timely access to the consultant-led services they need, regardless of where they live.

The HSR identified a range of possible options for each service, excluding stroke care\(^\text{26}\), which are explored in the following chapters.

A series of agreed evaluation criteria were applied to each option to identify the most appropriate recommendations: hurdle criteria were used to eliminate the most inappropriate options, with quantitative modelling used to evaluate the remaining options. The output of this modelling was then assessed against the HSR’s full evaluation criteria in more detail.

It is important that as the HSR moves into further site-specific modelling, robust evaluation criteria are used to ensure all sites can meet standards on quality of care.

The reconfiguration options outlined in the following individual service-specific chapters apply to six trusts covering SYB(ND) but excluding Mid Yorkshire Hospitals NHS Trust. Mid Yorkshire Hospitals NHS Trust has already been through a reconfiguration and so it is not expected that it will make further service changes.

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\(^{26}\) Due to ongoing work on reconfiguration options for Hyper-Acute Stroke care, the HSR has instead provided a set of considerations around supporting improved stroke services delivered in a network model.
15.3 Safe Staffing Guidelines

The HSR has identified shortfalls in staff across multiple services. High vacancy rates, resulting from retention issues and problems recruiting into certain services, mean consultant presence often falls below the Royal Colleges’ guidelines on safe staffing, potentially impacting quality of care.

The HSR has chosen to use the relevant Royal College guidelines as standards for the levels of workforce services should be aiming for.

In some instances, Royal College guidelines represent an aspirational level of staffing. However, they are designed to be sustainable: they take account of the headroom necessary within a workforce to allow staff to be released for training, to cover sickness absence and maternity leave, and to ensure that the service has a level of resilience built into it.

The HSR repeatedly heard from the CWGs that the workforce was overstretched, staff could not be released for training and staff were being recalled to provide cover for absence within the team. In some cases, staffing levels were so stretched that having a member of staff absent unexpectedly could lead to the trust being forced to pay very high rates for emergency locum cover in order to maintain a safe service, or in some rare cases the service having to be temporarily closed.

Given these challenges, the HSR felt that it was vital to set the workforce bar at a level which could address long term sustainability problems. The HSR therefore assesses workforce levels against the Royal College guidelines for each service, and an option has been considered to be acceptable if it comes close to meeting them.

Presently, Royal College guidelines are not achievable on all sites in the current service configuration for all services.

Hosted Networks have been recommended as a way of addressing some of the workforce issues as well as challenges identified with clinical variation and innovation. However, for some services these alone cannot solve the underlying issue of insufficient numbers of staff to run services to the suggested workforce guidelines.

Therefore, where transformation alone does not go far enough, the HSR has explored reconfiguration to develop a sustainable level of consultant cover and improve the resilience of the service.

Workforce analysis has focused on consultants as they have the most impact on service viability as per Royal College guidelines. However, the HSR has also undertaken analysis on other staff groups including middle grade doctors, nurses and midwives to determine how Royal College guidelines can be met, where these exist.

15.4 Development and evaluation of reconfiguration options

15.4.1 Development of reconfiguration options

In response to the concerns identified by clinicians, patients and the public and in consideration of workforce modelling, the HSR has developed options for reconfiguration. For each service, a long-list of options was developed using ideas generated during the CWG workshops 1-3; these options were subsequently refined with the HSR’s Steering Group, Chief Executives and Accountable Officers.
15.4.2 Evaluation criteria

To objectively assess benefits and risks of reconfiguration, the HSR has evaluated several options for each service. In order to narrow down these options, the HSR has assessed them against agreed evaluation criteria.

The HSR developed these detailed evaluation criteria with input from patients, the public and clinicians, and drawing on guidance from the Consultation Institute. A report detailing this process was published in February 2018 and is available online27.

<table>
<thead>
<tr>
<th>Evaluation criteria</th>
<th>Overarching question</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hurdle criteria</strong></td>
<td>Workforce</td>
<td>Does the option ensure there is a sustainable workforce that is of the right number and is suitably trained and skilled to deliver the service?</td>
</tr>
<tr>
<td>Affordability</td>
<td>Does the option cost no more than the current service?</td>
<td>Running costs of the system compared with current Net contribution of the option to closing the financial gap identified in the STP plan Level of transition costs required by the option Level of capital costs required by the option</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td>Does the option ensure that patients can get to the right place, in the right time, for the right service?</td>
<td>Travel times to services, by blue light and normal driving times, and public transport, for patients’ carers and relatives* Whether the option risks increasing health inequalities across SYB by limiting access for lower socioeconomic groups, their carers and relatives Extent to which the model keeps outpatient, ambulatory and day case activity local Extent to which the model supports shifting care out of acute hospitals closer to home, where appropriate</td>
</tr>
<tr>
<td><strong>Quality</strong></td>
<td>Does the option optimise the quality of care by promoting the delivery of national guidance and good practice?</td>
<td>Promoting the delivery of national guidance and evidence-based practice</td>
</tr>
<tr>
<td><strong>Interdependencies</strong></td>
<td>Does the option ensure that a service can run safely because the other services that are necessary to support it are also appropriately available?</td>
<td>Interdependent services which need to be provided onsite are available onsite There are formal links to interdependent services that do not have to be provided onsite</td>
</tr>
</tbody>
</table>

15.4.3 Evaluation process

A two-stage process was used to arrive at a preferred option(s):

1. **Hurdle criteria** were applied to the long-list of options, to generate a short-list of options for further modelling. This short-list of options was ratified by the Steering Group on Thursday 15\textsuperscript{th} February 2018 and with the Chief Executives and Accountable Officers on Thursday 22\textsuperscript{nd} February 2018.

2. **Evaluation criteria** were applied to the short-list of options during the fourth Clinical Working Group and in the public and patient engagement event. Qualitative comments by stakeholders were captured, with additional quantitative workforce, travel time and affordability modelling undertaken by the HSR.

The below diagram summarises this process.

![Evaluation process diagram]

15.4.4 HSR modelling

The HSR performed high level quantitative modelling for each of the reconfiguration options, assessing the workforce, capacity and capital implications of each. Outputs were used to assess options against these domains to enable the HSR to rule out the least attractive options, and to inform the HSR’s recommendations.

The modelling is high level, so further refinement and analysis on any specific recommendations, including site-specific modelling, will be needed to inform a detailed business case for consultation.

Data were collected from individual trusts and validated with Steering Group members and Directors of Finance across each organisation. Results were shared and iterated with clinical leads, the Steering Group, the Directors of Finance, and Chief Executives and Accountable Officers.

Details on the methodology, inputs and outputs of economic analysis completed with regards to workforce and capacity challenges are available in the Technical Annex.
Non site-specific analysis

The modelling was designed to demonstrate the minimum and maximum potential impact on the system, rather than to provide site-specific analysis.

In order to develop the modelling realistically, the modelling of the scenarios drew on real data from the SYB(ND) system. The data and scenarios that were used were selected on the basis of the smallest and largest sites (as defined by activity levels) in the system, or those services which were furthest apart and closest together for the travel times modelling. Therefore, the modelling which is presented in the report represents the maximum and minimum impact on activity being moved, costs or travel times.

This approach was taken in order to allow for engagement with the public and stakeholders about any potential changes to service models, before these are applied to the full range of combinations of possible sites. The report does not make any recommendations about the future of services on any specific site.

Commissioners will take a view on which of the recommendations if any they wish to take forward. Once commissioners have agreed this, site-specific analysis will be taken forward to develop detailed modelling of the implications of the recommended scenarios for the individual sites in SYB(ND).

Areas of modelling

In summary, the modelling was carried out as follows:

Workforce

Workforce analysis was conducted to identify the scale of the current and future workforce challenge and spend on locums. The HSR used Health Education England growth projections to forecast the likely number of consultants in post in SYB(ND) in five years’ time. The HEE projections do not include retirement projections, so they offer a best case scenario, but they give an indication of the potential maximum size of the available workforce.

The projections of consultants likely to be in post were compared against benchmarks for future staff requirements, which are based on Royal College guidelines. This gave an indication of the scale of the potential gap in the workforce, and therefore the extent to which the service is likely to continue to rely on temporary staff, and the workforce shortfall against standards.

Where national guidelines are available on numbers of mid grades, these were modelled in the same way. The availability of nurses was not modelled in detail because the number of nurses needed is not affected by reconfiguration scenarios, but where possible an indication was given of service-wide shortfalls.

Activity

The HSR considered different permutations of service configuration (i.e. combinations involving the largest and smallest sites) and the impact of consolidating the activity from services onto fewer sites. Impact on the activity and utilisation of resources at remaining sites was then modelled.

As laid out above, the analysis aimed to give an indication of the maximum and minimum impacts on amounts of activity transferred.
Detailed site-specific analysis will be necessary to support the further development of preferred options and business case for consultation.

**Capital costs**

Reconfiguration means that some sites are likely to see higher levels of activity. These increases in activity are likely to impact bed utilisation and may require further beds to be added at some receiving sites to provide capacity for this demand.

The HSR has therefore modelled the capital cost associated with providing this extra capacity, for the smallest and largest potential transfers of activity, to meet the change in demand indicated by the activity modelling. Results shown are non-site specific.

The above modelling was conducted for each of the options across the service lines to assess which option(s) are most appropriate for tackling the challenges that face the system.

The capital costs, along with other potential costs and savings, were used to generate an overall indicative range of costs. This is high level and will need to be further developed at a site specific level for individual scenarios.

**Travel times**

The HSR worked with Yorkshire Ambulance Service and the East Midlands Ambulance Service to assess the impact that the scenarios would have on travel times by ambulances travelling by blue light.

The scenarios modelled were intended to illustrate the maximum and minimum travel times. Therefore, in the same way as activity modelling used real data from the largest and smallest services, the travel times modelling used data which involved the longest and shortest travel times between sites.

Further detail on how the travel times modelling was generated is included in the technical annex to the report.

**15.4.5 Site specific modelling going forward**

Once the HSR has been completed, and commissioners have decided which options if any they wish to take forward, the system will need to undertake detailed site-specific modelling.

As part of this, commissioners will wish to assure themselves that the potential receiving trust for any activity that might be moving is able to deliver services to the appropriate standard.

Additionally, consideration will be given to the operational costs associated with delivering networked care, such as the cost of patient transport between sites.

**15.5 Conclusion**

The summaries for each service in the following chapters lay out the options that we considered, how they performed against the evaluation criteria, and therefore which options the HSR is recommending.
16 Reconfiguration of Urgent and Emergency Care (UEC) services

In the context of reconfiguration options, the scope of UEC is defined as acute Emergency Departments (EDs) only, staffed by clinicians focused on the assessment, diagnosis and treatment of adult patients with urgent medical needs.

16.1 Status quo

Currently there are six Emergency Departments (ED) and one specialist paediatric ED at SCH. There are also seven Minor Injury Units (MIUs) or equivalent.

Note, the scope of the HSR’s recommendations on UEC reconfiguration does not include the Montagu or Royal Hallamshire Hospitals, but instead focuses on sites with an Emergency Department.

<table>
<thead>
<tr>
<th>TRUST</th>
<th>BH</th>
<th>CRH</th>
<th>D&amp;B</th>
<th>STH</th>
<th>SCH</th>
<th>ROTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROVISION</td>
<td>Barnsley hospital</td>
<td>Chesterfield Royal Hospital</td>
<td>Doncaster Royal Infirmary</td>
<td>Bassettlaw District General Hospital</td>
<td>Montagu Hospital</td>
<td>Northern General Hospital</td>
</tr>
<tr>
<td>ED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEDICAL ASSESSMENT UNIT (MAU)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SERVICE TO BE CO-LOCATED WITH I-HEART 365 FROM 04/12/17 OPENING HOURS TBC</td>
<td></td>
<td></td>
<td>GP streaming 08:00-23:00</td>
<td>UCC (via ED streaming)</td>
<td>MIU Mexborough 09:00-21:00 (exc. Christmas Day)</td>
<td>MIU 08:00-20:00 (exc. Christmas Day)</td>
</tr>
<tr>
<td>MINOR INJURIES UNIT (MIU) AND OTHER**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

KEY:
- Service is provided 24/7
- Service is partially provided
- Service is not provided
- Data not available
16.2  Case for change

There is a trend of increasing demand for UEC for a variety of reasons, placing pressure on services and making the prioritisation and treatment of the highest acuity cases difficult.

The root causes of increased demand are complex, and may include a lack of sufficient capacity in primary care, a misunderstanding about the kinds of conditions that it is appropriate to present or refer to ED for, and insufficient guidance for patients on where to go.

The result is increasing strain on ED services, often meaning that patients with the most urgent and acute conditions don’t have timely access the services they need.

Evidence suggests that consultant-led triage in EDs can help reduce non-elective admission rates among patients. The Royal College of Emergency Medicine’s report on the initial assessment of ED patients states that Senior Doctor Triage or Early Senior Assessment enables time-critical conditions to be identified and interventions delivered rapidly.

The Royal College of Emergency Medicine recommends the following levels of consultant staffing for an ED operating 24/7 with c. 60,000 annual attendances: 10 WTE; and with c. 100-120k attendances: 12-16 WTEs.

SYB(ND) currently has 60 consultant WTEs. The number required to meet the Royal College guidelines across the 6 EDs would be 75, so there is currently a substantial gap which is partially filled by 9 WTE locums across the system.

Clinicians in the Clinical Working Group said that locums doing out of hours working in the system often charged very high rates and so had a disproportionate impact on costs.

16.3  Long-list of options

While transformation is the first focus, the HSR has explored whether transformation can go far enough, and whether any reconfiguration of ED is necessary for SYB(ND) to improve the sustainability of services.

A long-list of options was developed to test whether the status quo of six consultant-led EDs could be maintained within SYB(ND), or whether sustainability issues would preclude this.

To support the long-list, the HSR established principles to guide thinking on reconfiguration:

- Every Place must have urgent care available for patients in need
- Patients receive the right level of care in the most appropriate setting, which may not be the local ED
- While ED is the ‘front door’ to the service, the configuration of services behind the ‘front door’ to the system may need to vary across sites to maintain sustainability and quality within the system. The Review has tested out four such services (maternity, paediatrics, gastroenterology, and stroke), and further services for consideration are discussed in section 16.8 below. These changes behind the ‘front door’ would have impacts on the precise staffing of the ED.

28  [http://www.rcem.ac.uk/docs/SDDC%20Intial%20Assessment%20(Feb%202017).pdf](http://www.rcem.ac.uk/docs/SDDC%20Intial%20Assessment%20(Feb%202017).pdf)
29  Royal College of Emergency Medicine (2015) Rules of Thumb for Medical and Practitioner Staffing in EDs
Following these principles, the HSR considered the possible options around structuring the ‘front door’ to a DGH. It looked at the advantages and disadvantages of both EDs and lower acuity services such as standardised GP-led Urgent Treatment Centres (UTCs)\(^3^0\). National policy requires an increasing number of DGHs to move to having UTCs.

The Review looked at the sustainability implications of maintaining consultant led EDs with a UTC alongside, or of moving to a GP-led UTCs only on some sites. A full range of theoretically possible scenarios was drawn up.

**Figure 18: Configuration options for urgent and emergency care**

<table>
<thead>
<tr>
<th>Option 0 – status quo</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
<th>Option 4</th>
<th>Option 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urgent and emergency care</td>
<td>6 A&amp;Es + 7 MIUs</td>
<td>5 A&amp;Es + 7 UTC</td>
<td>4 A&amp;Es + 7 UTC</td>
<td>3 A&amp;Es + 7 UTC</td>
<td>2 A&amp;Es + 7 UTC</td>
</tr>
</tbody>
</table>

A two-stage evaluation methodology was then used to eliminate those of these theoretical options service configurations that were deemed unsuitable or unachievable, then select the preferred option to take forward, according to the HSR hurdle and evaluation criteria.

**16.4 Hurdle criteria and shortlist of options**

In order to identify and remove unworkable options from the long-list, the hurdle criteria relating to workforce and affordability were applied.

**16.4.1 Assessment against hurdle criterion - workforce**

An early, high level assessment was conducted to assess whether the scenarios were workable from a workforce perspective.

The high level indication was that the status quo of 6 EDs is not sustainable at the current staffing levels.

However, HEE has put considerable focus into training ED staff at a national level over recent years. If SYB(ND) receives the number of consultants projected by HEE\(^3\), the number of substantive staff should rise to 70 WTE, suggesting that it would be possible for the system to get acceptably close to the Royal College of Emergency Medicine staffing guidelines of 75, while maintaining 6 EDs.

**All options were found to be feasible at this stage from a workforce perspective.**

**16.4.2 Assessment against hurdle criterion - affordability**

The Urgent and Emergency Care scenarios have very high capital costs associated with them. This is because, if a site moves from a consultant-led to a GP led service at the front door, a significant number of other services cannot be provided. The cost of reproducing these services on other sites results in the need for very high capital investment.

\(^{30}\) Standardised UTCs are planned to replace other forms of low acuity UEC service, including MIUs and walk-in centres

\(^{31}\) HEE projections suggest growth from 58 WTE to 76 WTE consultants, excluding Sheffield Children’s Hospital specialist paediatrics ED consultants
Options 4 and 5, in particular (moving to 2 or 1 EDs) led to a requirement for more than £2bn of total capital expenditure to relocate all inter-dependent non-elective services behind the ED.

**Options 4 and 5 were excluded at this stage on the grounds of capital cost.**

Figure 19: Shortlist of options for urgent and emergency care

16.5 Options evaluation

The shortlisted options were then tested to determine whether each of them satisfied the evaluation criteria.

More detailed workforce, activity and travel times modelling was carried out as laid out above, and detailed in the Technical Annex. This enabled a quantitative assessment of the options against the criteria.

The evaluation criteria were also discussed with system leaders, the Clinical Working Groups, and members of the public. The qualitative assessment against criteria below includes input from these groups.

The Review team considered all the points raised, in order to reach a view of how the options performed against the individual criteria. The recommendations of the Review were based on this assessment.

The Technical Annex lays out the detail of costs and workforce impacts. Below is a summary of considerations against each criterion.

16.5.1 Assessment against workforce criterion for Urgent and Emergency Care

**Does the option ensure there is a sustainable workforce that is of the right number and is suitably trained and skilled to deliver the service?**

**Consultants**

Evidence from trusts across the system suggests that there are currently insufficient numbers of consultants to comply with Royal College minimum staffing guidelines.

The SYB(ND) trusts currently have 60 consultant WTEs. This falls well short of the 75 that would be necessary to meet the guidelines, and the system currently employs 9 FTE locums to make up the shortfall.

However, HEE analysis projects that, if SYB(ND) gets a fair share of the new consultants who will become available by 2021/22, the substantive FTEs available should rise to 70. The HSR considered this acceptably close to the 75 identified in the Royal College guidelines.
Other medical grades

SYB(ND) currently has 124 other medical grades WTEs.

HSR analysis suggests that if current trends continue this is anticipated to decrease to 119 by 2021/2022. In order to meet the Royal College Guidelines in 2021/22 an additional 64 Middle Grade WTEs would be required.

This gap in middle grade doctors is consistent with the clinical opinion in the UEC Clinical Working Group which cited middle grade sustainability as being a major issue.

These trends could be mitigated by the workforce recommendations outlined in this report around workforce recruitment and retention. Role substitution (e.g. nurses of consultants) or new and alternative roles (e.g. ENPs) can also support this to some extent.

Nurses

Since nursing numbers are based on activity ratios, the consolidation of emergency departments does not affect the numbers of nurses, and has not been modelled.

Conclusion

The HSR considered that consultant numbers were sufficiently close to the Royal College guidelines to argue for retaining all 6 EDs as consultant-led EDs. It was felt that the gap in mid grades could be addressed through routes other than reconfiguration.

From a workforce perspective therefore the Review concluded that Option 0, maintaining 6 EDs whilst having an Urgent Treatment Centre alongside each, was the strongest option. This was based on two main requirements:

- That trusts in SYB(ND) can retain their consultant workforce through making SYB(ND) a more attractive place to work. Should retention continue to be a problem and consultant numbers subsequently decrease, six EDs may cease to be sustainable;
- That the UTCs reduce activity that flows into each Emergency Department, reducing the requirement for a greater number of consultants in the Emergency Department.

If the above workforce solution does not go far enough over the next few years, then SYB(ND) may need to revisit options around the configuration of EDs.

16.5.2 Assessment against access criterion for UEC

Does the option ensure that patients can get to the right place, in the right time, for the right service?

Travel times
The HSR did not set a specific threshold of an acceptable travel time, since this will need to be taken forward by a travel and transport group with input from patients and the public. However, options with the highest additional travel times would be less desirable.

| Travel time impact (closest site, mins)³²: | Option 0: 00:00 | Option 1: +02:25 to 06:44 | Option 2: +05:42 to 13:23 | Option 3: +09:15 to 21:08 |

**Equalities**

Patients and members of the public raised concerns about access to an ED particularly for people who did not own a car, or who were on low incomes. Options which involved the lowest additional travel times would minimise the risk of increasing inequalities.

**Other access issues**

Feedback from patients and public emphasized the importance of understanding the impact on travel times by public and private transport. This will be taken forward in the next stage.

**Conclusion**

The HSR concluded that options with the lowest additional travel times were most acceptable from an access perspective although it did not exclude any options.

**16.5.3 Assessment against quality criterion for UEC**

**GP vs consultant-led care**

The HSR considered the quality impacts of maintaining a consultant-led ED on a site, compared with a GP-led Urgent Treatment Centre only.

Evidence suggests that having senior doctor triage and decision making capacity as close to the front door as possible,³³ tends to lead to reduced admission rates, with fewer patients admitted into hospital unnecessarily.

Having considered the evidence³⁴ the HSR took the view that Urgent Treatment Centres were very valuable when co-located alongside a consultant-led ED, but that it was advantageous for the ‘front door’ of the hospital to also provide effective triage and assessment supported by consultants, with the capacity to diagnose patients with any condition.

**Impact on a site from increasing the size of the ED**

An increase in size of an ED to lead to more pressure on facilities and higher demand for beds throughout the rest of the site. This was felt to be a significant risk, as pressure at the ‘front door’ impacts the whole site and may have negative impacts on care quality.

**Conclusion**

Overall the quality assessment suggested that options which retained a higher number of consultant led EDs would be likely to benefit quality.

³² The impact on the mean ‘blue light’ travel time for the SYB(MYND) catchment population to their nearest provider of the service, represented as a range between the potential smallest and greatest impacts of no longer providing the service at a given site within SYB(MYND). See Annex H for full details and methodology.


³⁴ Royal College of Emergency Medicine, 2017. Initial Assessment of Emergency Department Patients. Available at: http://www.rcem.ac.uk/docs/SDDC%20Initial%20Assessment%20(Feb%202017).pdf
16.5.4 Assessment against interdependencies criterion for Urgent and Emergency Care

**Does the option ensure that a service can run safely because the other services that are necessary to support it are also appropriately available?**

UEC has a high number of clinical interdependencies, with on-site access required to a number of services including diagnostics, respiratory and trauma medicine.

Consolidation of sites would impact on the ability of sites without EDs to deal with medical emergencies and admittance pathways to specialist services. Greater levels of consolidation would significantly increase the requirement for protocolised ambulance transfers.

Any reconfiguration would therefore have a large knock-on impact onto other services.

**Conclusion**

The HSR therefore concluded that maintaining a larger number of consultant led EDs was likely to have less of an impact on interdependencies.

16.5.5 Assessment against affordability criterion for Urgent and Emergency Care

**Does the option cost no more than the current service?**

**Capital expenditure**

As units are consolidated, greater levels of capital expenditure are required, particularly in UEC given that other interdependent non-elective services would also have to move. Due to limited spare capacity in the system, most of the activity shifted would need new beds.

Costs could be reduced to some extent if more activity were shifted out of hospital, but remain significant.

| Capital cost: | Option 0: £0.0m | Option 1: £9-806m | Option 2: £124-1071m | Option 3: £308-1311m |

**Efficiencies**

The workforce analysis identified the potential to achieve an average c.20% workforce efficiencies and service model benefits on Type 1 and Type 2 ED activity. This results in a small potential annualised saving of £0.9m in the version of option 1 that would involve the lowest activity moves.

**Conclusion**

The very high costs associated with changes to ED pointed towards Option 0.

16.5.6 Summary

Option 0 best meets the affordability, quality, interdependencies and access criteria. Any of the options would meet the workforce criteria.

16.6 Reconfiguration recommendation

The HSR considered the advantages and disadvantages of both consultant-led and GP-led UEC, with input from clinicians.

35 Type 1: Consultant-led 24hr service with full resuscitation facilities; Type 2: Consultant-led single-specialty 24hr service
The workforce analysis suggests that SYB(ND) will be able to get acceptably close to meeting consultant numbers on 6 sites, over the next five years. This also supports quality considerations, where the HSR felt that the priority at the front door of the hospital should be to be able to provide effective triage and assessment supported by senior decision makers, with the capacity to diagnose patients. The high costs associated with any reduction in the number of EDs was also a significant factor.

**Based on the discussion above, the HSR recommends all six EDs are retained.**

16.7 Services provided in an ED

However, while the HSR recommends that consultant-led capacity should be in place in all EDs, the services which sit behind this ‘front door’ may change. This will itself have an impact on the specific staff and specialties which need to be provided within the ED.

Minimum functions

The HSR and CWG have identified the minimum functions that all EDs need to be capable of delivering:

- **Assessment and diagnosis**: Diagnosis of the patient’s acute condition to decide on further treatment, observation, transfer or discharge.

- **Resuscitation / stabilisation / treatment**: Resuscitation of adult and children including stabilisation to enable further treatment or transfer.

- **Transfer**: Patient onward transfer if another site is better suited to treat the patient’s condition.

EDs should as a minimum have access to diagnostics including routine blood tests, plain and chest x-ray, blood gas test, and access to a networked CT service. Every site must have an appropriate care offer and frailty services.

Service portfolio

Beyond this, the non-elective service portfolio that sits behind the ED may have different configurations, dependent on role of each DGH within the SYB(ND) network and local requirements.

Additionally, in the future elective services may also have a degree of specialisation within the network.

This is discussed in more detail in the next section.

<table>
<thead>
<tr>
<th>Ref</th>
<th>HSR recommendations for reconfiguring UEC services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SYB(ND) should retain all six Emergency Departments, with the ability to deliver the core functions (assessment / diagnosis; resuscitation / stabilisation / treatment; transfer).</td>
</tr>
</tbody>
</table>

16.8 Role of the District General Hospital

Organising principles for networked care
Historically, DGHs have been the places where patients have received most if not all their care and have offered a wide range of services. However, in the context of increased medical specialisation, stringent quality standards and resource constraints, the point has been reached where each DGH may not be able to provide effectively for every component of each service.

The HSR engagement and analysis has concluded that most patients should continue to receive their care on local DGH sites.

However, constraining factors such as acute national workforce shortages mean it is not sustainable to offer a full range of acuity and complexity for every service at each site. Some higher complexity service components may benefit from being provided in a network.

Each DGH should be the local gateway for patients to access the full range of services they need within the SYB(ND) network. Some of those service components may be provided on other sites within the network. This arrangement is the most equitable way to for all patients to access consistent high-quality care, regardless of where they live.

In order to ensure networked services provide the highest quality joined-up care, organisations need to work together as a system, rather than being independently responsible for providing the full range of care. Besides specialist services provided in a network, there must be a core set of services provided at each site to provide the majority of care that patients need close to home, as well as providing appropriate care to respond to acute medical emergencies.

**Core service offering in DGHs**

There is a core set of service components that must be offered at each site. The HSR has defined this core set for its five services in chapters 10-14. In addition, further service components should be provided at each site, as defined by each service network.

**Considerations for networked care**
All service components at each DGH need to be provided alongside the relevant clinically and operationally interdependent and supporting services. For example, consultant-led maternity units require on-site access to neonatal, anaesthetics, critical care, general surgery and supporting diagnostic services. In addition, some of those services have onward clinical interdependencies as well as operational factors (such as space and capital requirements).

Moving to a networked model of care therefore requires consideration of the full breadth of clinical and operational elements of care. This involves other non-elective services not discussed within this report, as well as supporting factors including transport services and clinical protocols.

Elective services have strong operational and workforce interdependencies with non-elective, such as shared theatre space and support of emergency medical rotas. They are therefore difficult to provide as separate services and due consideration must be given when developing networked services.

However, for some specialties, consolidated elective services can support greater quality and efficiencies. There are successful examples of this in orthopaedics such as the South West London Elective Orthopaedic Centre. Any further plans for elective services should be developed alongside primary care providers due to significant overlap of care pathways, such as in dermatology.

The next phase of work will require every DGH to work collaboratively through service networks to define the optimum configuration of services at each site. This should include investigation of elective services that may benefit from consolidation.

16.8.1.1 Recommendations

<table>
<thead>
<tr>
<th>Ref</th>
<th>HSR recommendations for district general hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SYB(ND) should continue to have a DGH in every Place.</td>
</tr>
<tr>
<td>2</td>
<td>There should be a defined range of services that are moved out of the acute hospital setting, in line with existing Place Plans already underway. These services should be supported by the appropriate workforce model (e.g. GPs, community staff, and hospital staff) and estates solutions to support moving services into the community. The HSR has identified areas of opportunity for further investigation.</td>
</tr>
<tr>
<td>3</td>
<td>Each DGH will have its own unique service portfolio (core and specialist offer) and work in a networked way across SYB(ND).</td>
</tr>
<tr>
<td>4</td>
<td>SYB(ND) should develop models for the transformation and reconfiguration of elective services to support the improvement in outcomes, as well as support changes to non-elective flows.</td>
</tr>
</tbody>
</table>
17 Reconfiguration of services providing care for the acutely ill child

In the context of reconfiguration options, the scope of care of the acutely ill child is defined as paediatric ED, inpatient paediatric ward / inpatient area in ED and children’s / paediatric assessment / observation unit (CAU / PAU), including short stay PAU (SSPAU).

Maternity services are considered separately in chapter 12. Neonatology is not considered separately. However, the strong independencies between maternity, neonatology and paediatrics have been considered and it is recognised all recommendations will have to be consistent across maternity and paediatrics.

17.1 Status quo

Currently there are six paediatric inpatient units with 76 beds across the DGHs and 159 beds at SCH as the tertiary centre. This includes the inpatient unit at Bassetlaw District General Hospital: despite this unit currently being closed, the HSR felt it appropriate to consider it in scope to independently assess the current arrangements. In addition, there are three 24/7 Short Stay Paediatric Unit (SSPAUs) and three part-time SSPAUs.

<table>
<thead>
<tr>
<th>TRUST</th>
<th>BH</th>
<th>CRH</th>
<th>D&amp;B</th>
<th>SCH</th>
<th>ROTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROVISION</td>
<td>Barnsley hospital</td>
<td>Chesterfield Royal Hospital</td>
<td>Doncaster Royal Infirmary</td>
<td>Bassetlaw District General Hospital*</td>
<td>Montagu Hospital</td>
</tr>
<tr>
<td>PAEDIATRIC INPATIENT UNIT</td>
<td>1 ward; 20-22 beds</td>
<td>1 ward; 20-22 beds</td>
<td>1 ward; 20 beds</td>
<td>0 wards; 0 beds; 8am-10pm</td>
<td>10 wards; 159 beds</td>
</tr>
<tr>
<td>SHORT STAY PAEDIATRIC ASSESSMENT UNIT</td>
<td>1 unit; 6 beds; 10am-6pm</td>
<td>1 unit; 6 beds; 10am-10pm</td>
<td>1 unit; 20-22 beds</td>
<td>1 unit; 14 beds; 8am-10pm</td>
<td>1 unit; 14 beds</td>
</tr>
<tr>
<td>PAEDIATRIC ED</td>
<td>1 general; 1 dedicated</td>
<td>1 general + primary care screening (8am-11pm)</td>
<td>1 general</td>
<td>1 general</td>
<td>1 dedicated + primary care screening</td>
</tr>
</tbody>
</table>

KEY:
- Green: Service is provided 24/7
- Orange: Service is partially provided
- Grey: Service is not provided
- Black: Data not available
Acute paediatric services have a strong clinical interdependency with neonatology and maternity. As such, during any decisions on service configuration in acute paediatrics, due consideration must be given to the impact on the other two services.

17.2 Case for change

Paediatric services are under strain across the country and in SYB(ND), driven by significant medical workforce shortages. National guidelines for inpatient unit staffing cannot currently be met under the status quo of six consultant-led paediatric inpatient units.

In addition, services in SYB(ND) have not changed to reflect changes in the needs of patients. The type of conditions that children suffer from, and the ways in which care can be provided, have changed significantly in recent years. Children are now much less likely to suffer from the highly infectious, acute illnesses of the past, such as polio; however, there has been a significant increase in children living with chronic conditions, such as asthma.

However the ways in which services are configured do not always support this.

- **Care outside hospital:** Children should be treated outside hospital wherever possible. However, while there are a number of interventions being developed in SYB(ND) to support GP-led community care of common paediatric conditions, the CWG suggested that this was not consistent across all Places. Services need to be developed in partnership with acute services to maximise the services that can be provided outside the acute sector, for example through teleconsultation and visiting support teams.

- **Care in hospital:** Many children become ill quickly, but similarly recover quickly. 85% of children stay in hospital for less than 48hrs with many needing less than 24hrs. At present, most sites in SYB(ND) admit these children to an inpatient paediatric unit, while significant numbers of these children might most appropriately be seen in a Short Stay Paediatric Assessment Unit (SSPAU).

  The levels of demand for paediatric admissions overnight vary in different Places, with overnight admissions for children tending to be confined to the very sickest children.

  However, when children do get seriously ill, including overnight, they should have access to 24/7 emergency care as soon as possible, and access to 24/7 higher acuity services. Highly specialised 24/7 acute care needs to be provided to these children in paediatric inpatient units. There is currently a shortfall of -9.8 WTE between budgeted and in-post consultants across SYB(ND), and 15 between in-post consultants and the Royal College guidelines.

Short Stay Paediatric Units and Inpatient Units are defined in the Glossary.

17.3 Long-list of options

17.3.1 Principles

Based on the case for change laid out above, the HSR developed a range of scenarios for the future of care, based on the following principles:

36 NHS Institute for Innovation and Improvement, 2011: “A Whole System Approach to Improving Emergency and Urgent Care for Children and Young People”. Available at: https://www.rcem.ac.uk/docs/Paediatric%20EM%20Guidance/11.%20A%20Whole%20System%20Approach%20to%20Improving%20Emergency%20and%20Urgent%20Care%20for%20CYP.pdf
• Every ED (unless there is a specialist paediatric ED close by) should have the ability
to see, assess and monitor children.

• Every DGH should have the capacity to monitor and treat children. However the level
of demand for services, particularly overnight, does not always justify retaining 24/7
paediatric services. Therefore paediatric services should either be:
  o a Short Stay Paediatric Assessment Unit, led by paediatricians, open during
  the day (e.g. 14/7), with robust transfer protocols; or
  o an Inpatient Unit open 24/7, led by paediatricians, which may also be
  supported by a 24/7 Short Stay Paediatric Assessment Unit onsite.

An initial long-list of theoretical reconfiguration options was developed in response to the
identified consultant gap across the five trusts of SYB(ND).

17.3.2 Options included

Based on the considerations above, the full range of theoretical options that were devised
for paediatric services maintained access to an SSPAU at each site as a minimum.

The status quo option includes an inpatient unit at Bassetlaw General Hospital. This unit is
currently temporarily closed owing to sustainability concerns.

Figure 22: Configuration options for Care of the Acutely Ill Child

A two-stage evaluation methodology was used to eliminate the service configurations that
were deemed unsuitable or unattainable, then select the preferred option to take forward,
according to the HSR hurdle and evaluation criteria.

17.4 Hurdle criteria and shortlist of options

In order to identify and remove unworkable options from the long-list, the hurdle criteria
relating to workforce and affordability were applied.

17.4.1 Assessment against hurdle criteria - workforce

An early, high level assessment was conducted to assess whether the scenarios were
workable from a workforce perspective.

The high level indication was that the status quo of 6 Inpatient Paediatric Units is not
sustainable at the current staffing levels of 47 WTE consultants, or in 5 years’ time.

It was felt that Option 0 and Option 1 may not be feasible. However it was necessary to
model Option 0 (the status quo), and the Steering Group decided not to rule Option 1 out
at an early stage in order to allow of more detailed workforce modelling and assessment.

No options were excluded based on workforce criteria
17.4.1 Assessment against hurdle criteria - affordability

The range of costs identified suggested that the costs of paediatrics were lower than those of UEC or maternity. As a result no options were excluded at this stage although options 4 and 5 had the highest costs.

No options were excluded based on affordability criteria

17.4.2 Assessment against hurdle criteria - other

Interdependencies were not considered in detail at this stage of the evaluation. However, the HSR Steering Group agreed that due to the clinical interdependencies between obstetrics, neonatology and hence the workforce interdependencies with paediatrics, there should be no fewer paediatric sites than there are obstetric sites.

In the maternity reconfiguration evaluation, options 4 and 5 were not considered to be viable options and were therefore also excluded for paediatrics.

Options 4 and 5 were excluded based on interdependencies with maternity.

Figure 23: Shortlist of options for CAIC service

17.5 Options evaluation

The shortlisted options were then tested to determine whether each of them satisfied the evaluation criteria. They were modelled (results are laid out in detail in the Technical Annex) and discussed with system leaders, the Clinical Working Groups, and members of the public.

17.5.1 Evaluation against workforce criterion for Care of the Acutely Ill Child

Does the option ensure there is a sustainable workforce that is of the right number and is suitably trained and skilled to deliver the service?

Consultants

Royal College guidelines were used as a benchmark and compared to the HEE modelled number of consultants in SYB(ND) by 2022 to determine the potential consultant gap. The HSR recognises the Royal College guidelines for consultants are aspirational, so the HSR assumed that options must get acceptably close to the Royal College targets.

There are currently 47 consultant WTEs attributed to acute paediatrics and this is anticipated to rise to 53 in 2021/2022, if SYB(ND) receives a fair share of the staff available at national level.

62 consultants would be needed to provide services across all 6 sites. 61 would be needed on 5 sites and 55 on 4 sites.
Other staff groups

With regard to other staff groups, projections show a decreasing number of trainee grades over the same period.

Nurses

Nursing numbers have not been modelled at this stage, since they are determined by ratio of nurses to patients and are so less affected by reconfiguration scenarios.

Conclusion on workforce criterion

Taking all the above evidence into consideration, the HSR took the view that Options 1 or 2 would help to meet the criteria; Option 3 went further than necessary.

17.5.1 Evaluation against access criterion for CAIC

Does the option ensure that patients can get to the right place, in the right time, for the right service?

Travel times

The HSR did not set a specific threshold of an acceptable travel time, since this will need to be taken forward by a travel and transport group with input from patients and the public.

Travel time analysis suggests that a smaller number of sites is likely to increase the travel time for at least some patients. However, this increased travel time will need to be balanced against access to high quality services for all patients.

SYB(ND) is served by a specialist paediatric ambulance service, Embrace, who are able to safely transfer children.

<table>
<thead>
<tr>
<th>Travel time impact (closest site, mins)</th>
<th>Option 0:</th>
<th>Option 1:</th>
<th>Option 2:</th>
<th>Option 3:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>00:00</td>
<td>+02:36 to 07:10</td>
<td>+06:00 to 16:28</td>
<td>+09:34 to 25:21</td>
</tr>
</tbody>
</table>

Equalities

[37] The impact on the mean ‘blue light’ travel time for the SYB(MYND) catchment population to their nearest provider of the service, represented as a range between the potential smallest and greatest impacts of no longer providing the service at a given site within SYB(MYND). See Annex H for full details and methodology.
Patients and the public raised concerns about the potential impact on people on low incomes, who did not have access to childcare while they needed to visit another child in hospital, or who had to travel by public transport.

It was suggested that this potential impact on inequalities might be partly mitigated by for example providing shuttle buses between hospitals sites.

**Public transport**

The impact on travel times by public and private transport will also need to be understood.

**Conclusion**

The HSR team felt that, while lower transfer times were preferable, they could be mitigated to some degree, and needed to be balanced against quality concerns. They therefore did not rule any options out on the grounds of access, pending further work.

17.5.1 **Evaluation against quality criterion for CAIC**

**Access to consultant care**

The main quality improvement relates to the specialised nature of paediatric care. Ensuring that children are cared for in units which are fully staffed by paediatricians was considered to be an important quality consideration. (This was considered as part of the workforce assessment so was not considered here).

**Access overnight**

The HSR considered whether there was a quality risk to a child who might be brought to an ED overnight when a SSPAU was closed.

This was discussed by the CWG, who heard evidence from trusts which are currently running a SSPAU model (such as Dewsbury in the Mid Yorkshire Hospitals NHS Trust) that it is possible to put clear protocols in place to address any such risk. The HSR felt therefore that options involving SSPAUs were capable of meeting the quality criterion.

**Capacity**

The CWG said that one a quality consideration for paediatrics is whether inpatient bed availability over winter is sufficient to accommodate increased incidence of bronchiolitis and similar seasonal conditions. Shortages of capacity can lead to children being taken to beds out of area which can reduce the quality of the patient and family experience.

All options considered would maintain the same number of beds overall so the HSR team believed that this consideration would not rule out any options. However, options with fewer inpatient sites will need to demonstrate that they can meet fluctuations in seasonal demand.

**Conclusion**

In summary, the HSR considered that all of the options would meet the quality criterion, provided that sufficient flex was in place to deal with seasonal demand.

17.5.1 **Evaluation against interdependencies criterion for CAIC**

*Does the option ensure that a service can run safely because the other services that are necessary to support it are also appropriately available?*
Interdependencies with maternity and neonatology

The ability to offer obstetric services (due to interdependencies with neonatology) must be carefully considered.

- Obstetrics has an essential clinical interdependency with neonatology. Neonatal critical care must be available in hospitals that care for women and babies at higher risk, who are cared for in consultant-led obstetric units.

- Paediatrics does not need to be co-located with neonatology for clinical reasons. However, in the vast majority of hospitals, the same consultants work across both neonatology and paediatrics. Only the largest hospitals have sufficient demand for neonatology to support an independent neonatology rota.

Should inpatient paediatrics be removed, this would reduce the ability to provide neonatology and therefore obstetrics.

As such the Review considered it essential that proposals for obstetrics and paediatrics should be aligned, unless the requirements around workforce interdependencies could be met in other ways.

Other interdependencies

Robust patient transfer protocols are required to support a network model of care for SSPAU-only sites. The HSR heard evidence that this is achievable.

Conclusion

The HSR concluded that the only options that will meet the interdependency criteria for paediatrics are those which mirror options for maternity (and vice versa).

17.5.1 Evaluation against affordability criterion for CAIC

Capital costs

Capital requirements are lower than for some services, though some scenarios are still substantial depending on the level of activity transferred. Some scenarios are lower cost because of spare capacity available at one of the providers.

However the team was aware that capital costs of changes to neonatology will also need to be assessed in the next stage. Overall however capital costs were not felt to exclude any options at this stage.

| Capital cost: | Option 0: £00m | Option 1: £2-58m | Option 2: £2-67m | Option 3: £1-75m |

Efficiencies

There is limited scope for workforce efficiencies and service model benefits for this service given the high consultant requirements for inpatient units and SSPAUs.

Conclusion

The HSR concluded that the costs of the options were not so high as to totally disqualify any of the options, although the options involving fewer changes were more affordable.
17.5.2 Summary

The HSR concluded that options 1 or 2 would best meet the workforce criterion. Any of the options would meet the affordability, quality and access criteria. Only options which mirror options on maternity would meet the interdependencies criterion so option 3 is ruled out.

17.6 Reconfiguration recommendation

The HSR has confirmed that the current configuration of inpatient paediatric units in SYB(ND) is not sustainable.

The HSR felt that Options 1 and 2 would assist towards meeting the workforce requirements, while option 3 goes further than is necessary. As such the Review recommends exploring options 1 and 2 in more detail.

The criterion on interdependencies means that options for maternity and paediatrics need to mirror each other, unless models can be developed that make the services independent of each other.

<table>
<thead>
<tr>
<th>Ref</th>
<th>HSR recommendations for reconfiguring services that provide Care for the Acutely Ill Child</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Further consideration should be given to how the system makes the best use of the paediatric consultant and mid-grade workforce, and consider a reduction in the number of inpatient units.</td>
</tr>
<tr>
<td>2</td>
<td>Those Places which potentially do not have an inpatient unit should each have a part-time SSPAU, supported by robust referral and patient transfer protocols to ensure the children are able to access the care they need out-of-hours.</td>
</tr>
</tbody>
</table>
18 Reconfiguration of maternity services

In the context of reconfiguration options, the scope of maternity is defined antenatal and perinatal services (including relevant community settings), Early Pregnancy Assessment Clinics, Obstetric / consultant led units and Midwifery led units. Neonatology is not considered separately from maternity. The strong independencies between maternity, neonatology and paediatrics have been considered in all recommendations.

18.1 Status quo

Currently all trusts in SYB(ND) (besides Sheffield Children’s Hospital) have consultant-led units providing a 24/7 service. Additionally, Sheffield Teaching Hospitals has an alongside midwifery-led unit.

<table>
<thead>
<tr>
<th>TRUST</th>
<th>BH</th>
<th>CRH</th>
<th>D&amp;B</th>
<th>STH</th>
<th>SCH</th>
<th>ROTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROVISION</td>
<td>Barnsley hospital</td>
<td>Chesterfield Royal Hospital</td>
<td>Doncaster Royal Infirmary</td>
<td>District General Hospital*</td>
<td>Montagu Hospital</td>
<td>Jessop Wing</td>
</tr>
<tr>
<td>ANTE NATAL SERVICES</td>
<td></td>
<td>Not available at w/e or OOH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERINATAL SERVICES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EARLY PREGNANCY ASSESSMENT CLINICS</td>
<td>8am-8pm; 9:30-5pm at w/e</td>
<td>Not available at w/e or OOH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OBSTETRIC / CONSULTANT LED UNITS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDWIFERY LED UNITS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NEONATOLOGY (LEVEL 1, 2, 3)</td>
<td>Level 1 and only, 24/7</td>
<td>1 2</td>
<td>Level 1, 24/7</td>
<td>2</td>
<td>Level 1, 24/7</td>
<td>2</td>
</tr>
</tbody>
</table>
Maternity services have a strong clinical interdependency with neonatology and acute paediatrics. As such, during any decisions on service configuration in maternity, due consideration must be given to the impact on the other two services.

18.2 Case for change

The Better Births strategy for maternity services in England\(^{38}\), published in 2017, stated that the requirements of maternity services in England are changing. Women are increasingly demanding choice about where and how they give birth. At the same time an increasing body of evidence is emerging about the improved outcomes for women who have normal vaginal births without intervention. As a result, Better Births laid out a strategy to increase the choices available to women, including more midwifery-led services and more home births for mothers who are at low risk of complications.

SYB(ND) is not currently meeting the targets around mothers’ choice set out in Better Births. Few of the trusts have Midwifery Led Units, and home birth services are limited. This point was raised by a number of respondents during the public engagement.

The HSR has therefore looked at ways in which the system can increase the options available to women at low risk of complications.

Alongside this, the HSR considered whether the current system provides the most appropriate levels of consultant care for women at higher risk of complications. The Clinical Working Group said that levels of deprivation in the population of SYB(ND) mean that a higher proportion of women are at high risk than the national average (further detail is in the Place Profiles in the Technical Annex). CWG members said that the intensity of the work in the consultant led units, that resulted from this, led to significant unplanned overtime and high pressure on consultants.

Another major pressure on maternity services is shortfall in workforce, particularly amongst midwives. The Review found a shortage of 150 midwives in SYB(ND) against the 702 that would be needed to meet national guidelines. This is projected to worsen as at national level a third of midwives are over 50 and approaching retirement\(^{39}\).

Concerns have also been raised about quality and safety of maternity units in the SYB(ND) region. The CQC recently rated maternity services at three of the acute sites, across two trusts, as Requires Improvement\(^{40}\).

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38 Available at: https://www.england.nhs.uk/wp-content/uploads/2016/02/national-maternity-review-report.pdf
39 Available at: https://www.rcm.org.uk/sites/default/files/SoMS%20Report%202016_New%20Design_lowres.pdf
40 Care Quality Commission, 2017
18.3 Developing options for maternity services

In looking at the options for maternity services going forward, the HSR considered the advantages and disadvantages of a number of options.

18.3.1 Midwifery-led birth units

Lower risk births can be undertaken in midwifery-led units (MLUs). If an issue arises during the birth that requires consultant attendance, the woman is transferred to a Consultant Led Unit (CLU). MLUs and CLUs are defined in the Glossary.

MLUs can be either Alongside, i.e. collocated with a CLU, or Standalone, on a site which does not have a CLU.

All members of the maternity Clinical Working Group supported the model of an Alongside MLU (AMLU). It was felt that this was a sustainable model and provided easy access to consultant-led services.

The CWG raised more concerns around the Standalone MLU (SMLU):

- **Whether the option is safe.** A review of the evidence by NICE\(^41\) found that outcomes across all birth settings were almost identical for normal births. SMLUs actually had clinical benefits for low-risk women compared with other settings such as home-birth, AMLUs and CLUs. NICE and other studies found that this was due to the lower levels of intervention during low-risk births in SMLUs compared to AMLUs and especially CLUs\(^42\). This indicates that SMLUs can be made safe, as long as rigorous triage is in place to ensure that women who give birth there are at low risk of complications; and as long as clear protocols are in place for emergency transfer if necessary.

- **Whether the option can be made sustainable.** The CWG identified concerns around potential for low levels of activity, both because a minority of women in SYB(ND) qualify for a SMLU, and because some women will choose to go to a site with an obstetric unit instead. SMLUs are suitable for low-risk mothers, who are of normal health, do not have a relevant medical condition or a history of birth complication, and are not of borderline childbearing age. The HSR estimated that 23%\(^43\) of births might be eligible for SMLU births, based on the profile of the population and discussions with clinical leads. Extrapolated across SYB(ND), this would equate to around 4,000 – 5,000 births per year.

As recommended in the *Better Births* strategy, there are national efforts to increase awareness and understanding of midwife-led care, as well as increase the number of SMLUs.

Based on the national evidence around safety, the HSR Steering Group agreed that SMLUs should be retained within the options for reconfiguration. This will allow consultation with women in SYB(ND), to understand their views with regard to SMLUs, and to test the likely viability of the SMLU model.

One site in SYB(ND) is exploring the potential of a day-time elective obstetric service which would provide obstetric cover during the day on a planned basis. The HSR has not reviewed

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\(^{41}\) Available at: [https://www.nice.org.uk/guidance/cg190/chapter/Recommendations](https://www.nice.org.uk/guidance/cg190/chapter/Recommendations)

\(^{42}\) Available at: [https://www.nice.org.uk/guidance/cg190/chapter/Recommendations](https://www.nice.org.uk/guidance/cg190/chapter/Recommendations)

\(^{43}\) The Review identified 29% of women as being at low risk of complications, and clinical leads suggested that expectations should be set slightly below this to give a realistic picture of potential patient numbers.
the efficacy or sustainability of this model, and it recommends commissioners and providers undertake further due diligence into this model, in the next stage of the review.

18.3.2 Consultant-led birth units

For higher-risk mothers, of which SYB(ND) has a higher proportion than the national average\(^{44}\), mother and baby safety must be maintained. This requires access to sustainable consultant-led units (CLUs) as well as locally-delivered ante- and post-natal care.

For CLUs, the 2009 guidelines stated by the Royal College of Obstetricians and Gynaecologists\(^ {45}\) set out requirements for consultant presence dependent on the number of deliveries carried out per year. These are defined in the Technical Annex.

There are variations in the RCOG 2009 Guidelines based on the individual specialties covered by a Consultant Led Unit. The Review modelled two different scenarios based on different combinations of specialties (8 or 10 consultants in a 60 hour unit)

71% of all deliveries in SYB(ND) are medium or high risk. This translates into a high intensity role for obstetricians, and while the current model is safe, the Clinical Working Groups said that consultants in current units have a high level of out of hours activity which makes rotas difficult to manage. The Review therefore also tested how far the scenarios would take the units towards the number of consultants required to provide 98 hours of consultant presence.

18.4 Long-list of options

The HSR developed options based on the following principles:

- All sites should have a Midwifery Led Unit, either Alongside or Standalone, in order to provide a low-risk birth option as close to home as possible.
- CLUs are co-located with neonatology services (this was not specifically modelled)
- There should be a home birth service in each place (this was not specifically modelled)

Details of the three scenarios and individual modelling outputs are available at the Technical Annex.

Figure 25: Configuration options for maternity

<table>
<thead>
<tr>
<th>Option 0 - status quo</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
<th>Option 4</th>
<th>Option 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternity</td>
<td>6 CLUs + 2 MLUs</td>
<td>5 CLUs + MLU in each place</td>
<td>4 CLUs+ MLU in each place</td>
<td>3 CLUs+ MLU in each place</td>
<td>2 CLUs+ MLU in each place</td>
</tr>
</tbody>
</table>

A two-stage evaluation methodology was used to eliminate the service configurations that were deemed unsuitable or unattainable, then select the preferred option to take forward, according to the HSR hurdle and evaluation criteria.

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\(^{44}\) The average proportion of low risk births across SYB(ND) is 29% of total deliveries, which represents a relatively complex population compared to the national average, with 71% of all deliveries being medium or high risk.

18.5  Hurdle criteria and shortlist of options

In order to identify and remove unworkable options from the long-list, the hurdle criteria relating to workforce and affordability were applied.

18.5.1  Assessment against hurdle criteria - workforce

There are 69 consultant obstetrician and gynaecologist WTEs in SYB(ND) and this is anticipated to rise to 72 in 2021/2022. Under scenario A (8 hours’ presence in a 60 hour unit) SYB would need 64 consultants to meet the guidelines. Under scenario B (10 hours’ presence) 72 would be needed.

Based on these guidelines, all options appear feasible from a consultant workforce perspective.

No options were removed based on the workforce hurdle criterion.

18.5.2  Assessment against hurdle criteria - affordability

The capital costs of options 4 and 5 were very high owing to the volumes of activity that would be moved. They were therefore deemed to be unaffordable.

Options 4 and 5 were removed based on the affordability criterion.

18.5.3  Assessment against hurdle criteria – other considerations

There are significant interdependencies between maternity, neonatology and paediatrics, as laid out above.

Therefore, the removal of options 4 and 5 for maternity led to the removal of options 4 and 5 for paediatrics.

Figure 26: Shortlist of options for maternity service

18.6  Options evaluation

The shortlisted options were then tested to determine whether each of them satisfied the evaluation criteria. They were modelled (results are laid out in detail in the Technical Annex) and discussed with system leaders, the Clinical Working Groups, and members of the public.

18.6.1  Assessment against workforce criterion for Maternity

Does the option ensure there is a sustainable workforce that is of the right number and is suitably trained and skilled to deliver the service?

Consultants

The RCOG guidelines allow of a wide range of consultant presence, depending on the specific specialties covered by the unit. The HSR team modelled three scenarios as laid out above and in the Technical Annex.
SYB(ND) currently has 69 consultant FTEs in post. It can meet Royal College guidelines for 6 sites under both scenarios A and B.

If commissioners wished to move towards units with 98 hours of consultant presence, given the levels of risk in the population, 84 consultants would be needed on 6 CLUs, 78 on 5 and 71 on 4.

Midwives

There are significant gaps in the midwifery workforce; the HSR identified a shortfall of 150 midwives against the 702 needed to meet Royal College guidelines across 6 sites.

This gap is not affected by reconfiguration as the requirement is driven by ratio of births to midwives.

Other staff groups

Alongside the core obstetrics workforce, there are also a number of staff groups providing critical clinical support services that support maternity services and are also in short supply.

These include neonatology nurses, radiologists, sonographers, paramedics and anaesthetists. Service consolidation could help make these groups more resilient.

Conclusion

From a workforce perspective SYB(ND) can sustain any of the options, if current levels of consultant presence are maintained. The shortfall in the number of midwives needs to be a major focus of the work of the Hosted Network.

18.6.2 Assessment against access criterion for Maternity

Does the option ensure that patients can get to the right place, in the right time, for the right service?
Travel time

The HSR did not set a specific threshold of an acceptable travel time, since this will need to be taken forward by a travel and transport group with input from patients and the public.

The option all assume that antenatal and postnatal services would continue to be provided on every DGH, and that all DGHs retain a MLU for low risk women. The aim would also be to increase the number of home births in SYB(ND). The impact of any change on travel times would thus be limited.

However, a smaller number of sites would increase the travel time for some higher risk patients.

| Option | Travel time impact (closest site, mins) \(^{46}\) |
|--------|--------------------------------itäopathy|
| Option 0: | 00:00 |
| Option 1: | +01:40 to 05:33 |
| Option 2: | +04:04 to 13:21 |
| Option 3: | +06:28 to 19:11 |

Equalities

The HSR identified a potential equalities risk as the patients at higher risk of complications are more likely to be from lower socioeconomic groups, and are least likely to have access to private transport. This will need to be explored going forward.

Public transport

The impact on travel times by public and private transport will also need to be understood.

Conclusion

The HSR felt that options with lower increases in travel times were more likely to be acceptable though none were ruled out at this point.

18.6.3 Assessment against quality criterion for Maternity

**Does the option optimise the quality of care by promoting the delivery of national guidance and good practice?**

Consultant presence

The HSR considered the quality of services from the perspective of the number of hours of consultant cover that are provided.

The number of births in the majority of the units in SYB(ND) points towards a requirement for 60 hours of consultant presence.

However, during the Clinical Working Groups, the CWG said that the high risk population in SYB(ND) translates into a higher than average need for obstetric presence, leading to significant out of hours work. Feedback from the patient and public events similarly talked about women feeling that staff did not have time to spend with them.

A model which allows for an increase in consultant presence could potentially allow for greater consultant time to be spent with women in the unit, which could improve quality of

\(^{46}\) The impact on the mean ‘blue light’ travel time for the SYB(MYND) catchment population to their nearest provider of the service, represented as a range between the potential smallest and greatest impacts of no longer providing the service at a given site within SYB(MYND). See Annex H for full details and methodology.
care. This would suggest that options with fewer units, which allow of more units approaching 98 hours, could be beneficial.

**Choice**

A further aspect of quality is the extent to which a new model would comply with Better Births by offering a greater range of choice. All the options would improve choice by including AMLUs while options which include a SMLU would extend choice further.

**Health outcomes**

NICE guidance demonstrates that both SMLUs and AMLUs have good outcomes for mothers and babies. Ensuring that women have appropriate levels of consultant presence will also help to ensure good health outcomes. All the options therefore meet the quality criterion.

**Conclusion**

Overall, the quality criterion suggests that all options meet the quality criterion but smaller number of larger CLUs, with higher consultant presence, and SMLUs, might be better.

18.6.4 **Assessment against interdependencies criterion for Maternity**

**Does the option ensure that a service can run safely because the other services that are necessary to support it are also appropriately available?**

**Independencies with paediatrics and neonatology**

The ability to offer paediatric services (due to interdependencies with neonatology) must be carefully considered.

Should paediatric services be removed, this would reduce a site’s ability to support neonatology services through a shared consultant rota. Neonatology services are clinically essential to support obstetric services.

**Other interdependencies**

Robust patient transfer protocols are required to support a network model of care for sites with a stand-alone midwifery led unit.

Greater levels of consolidation could adversely impact on the ability to maintain an anaesthetics rota on sites which do not have consultant presence.

**Conclusion**

The HSR concluded that the only options that will meet the interdependency criteria for maternity are those which mirror options for care of the acutely ill child (and vice versa). Interdependencies with anaesthetics also need to be considered.

18.6.5 **Assessment against affordability criterion for Maternity**

**Does the option cost no more than the current service?**

**Capital costs**

Capital costs are driven by the requirement to build new capacity. The costs thus depend significantly on the level of activity being transferred. The options with the highest costs are likely to be unaffordable.

| Capital cost: | Option 0: £0m | Option 1: £13-143m | Option 2: £33-188m | Option 3: £50-223m |
Efficiencies
There is limited scope for workforce efficiencies and service model benefits for this service given the investment in midwives required and the greater levels of consultant presence required as the size of the unit increases.

Very small Consultant Led Units with low numbers of births are likely to be less efficient. Similarly, an SMLU would need to demonstrate that it could support the efficiency of the trust as a whole.

Conclusion
The HSR did not rule out any options on affordability grounds but concluded that option 3 was likely to be less acceptable, and that very small CLUs were likely to be less efficient.

18.6.6 Summary
The HSR has confirmed that all the options would meet the workforce and quality requirements. Option 3 carries high capital costs. The interdependencies requirement means that options must mirror the options for Care of the Acutely Ill Child.

18.7 Reconfiguration recommendations
The HSR has confirmed that, at a workforce level, it would be possible to sustain six consultant led units in SYB(ND). However, very small units may be less safe and efficient. Increasing the size of units and increasing the consultant presence on the consultant led units in SYB(ND) may be appropriate, in recognition of the high risk nature of the population.

In addition, any option must be compatible with the requirements of a sustainable paediatric service. As such, commissioners will wish to consider whether to take forward modelling of a change to maternity services, in line with a change to paediatric services.

In line with the requirement for mothers to be offered greater choice of birth options closer to home, the system should consult with the public on whether stand-alone MLUs are an option that they would support, and should further develop the home births service in each Place.

In the next phase of the HSR, SYB(ND) should also investigate innovative models of care such as part-time elective caesarean services to support MLUs and provide greater choice to mothers.

Any future change in configuration of maternity services must be supported by robust and standardised referral and acceptance criteria, drive-by policies and patient transfer protocols to ensure mothers are able to access the care they need within the network.

<table>
<thead>
<tr>
<th>Ref</th>
<th>HSR recommendations for reconfiguring maternity services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The HSR has confirmed that the current configuration of consultant led obstetric units in SYB(ND) meets the guidelines for minimum levels of consultant presence. However, the high level of risk in the population of SYB(ND) may make a higher level of consultant presence appropriate, and the configuration of obstetric led maternity services needs to recognise the interdependencies with paediatrics</td>
</tr>
</tbody>
</table>
services. Commissioners will wish to consider how the system makes the best use of the obstetric and midwifery workforces, and the Review recommends that the configuration of maternity services should support and enable sustainable paediatrics services.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>SYB(ND) should consult with the public on whether stand-alone Midwifery Led Units are an appropriate way to ensure choice and care close to home for lower risk pregnancies, on sites where consultant-led obstetrics services are not provided.</td>
</tr>
<tr>
<td>3</td>
<td>SYB(ND) should undertake further due diligence into innovative models of care such as part-time elective caesarean services to support MLUs and provide greater choice to mothers in areas where no full-time consultant-led obstetrics services are provided.</td>
</tr>
</tbody>
</table>
19 Reconfiguration of stroke services

In the context of reconfiguration options, the scope of care of stroke is defined as acute stroke units (ASU), inpatient rehabilitation and Transient Ischemic Attack (TIA) services. Although Early Supported Discharge (ESD) and community rehabilitation is in scope, it is up to each Place to decide how to implement recommendations.

19.1 Status quo

All SYB(ND) trusts (besides Sheffield Children’s Hospital) currently provide an acute stroke service. For trusts that submitted data to the HSR in September 2017, there were 8.7 WTE consultants in post, with one trust being 1.8 WTE below its budgeted consultant number. Whilst the Royal College of Physicians does not stipulate a target WTE number, it does require sufficient coverage to have a specialist stroke physician available five days per week; a consultant to see all new patients on the next working day following admission and provide 5 day a week consultant review47.

Recent retention issues with acute stroke consultants has led to some trusts having to close their acute stroke services as they are not able to meet the above standard.

<table>
<thead>
<tr>
<th>TRUST</th>
<th>BH</th>
<th>CRH</th>
<th>D&amp;B</th>
<th>STH</th>
<th>SCH</th>
<th>ROTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROVIDION</td>
<td>Barnsley hospital</td>
<td>Chesterfield Royal Hospital</td>
<td>Doncaster Royal Infirmary</td>
<td>Bassettlaw District General Hospital*</td>
<td>Montagu Hospital</td>
<td>Northern General Hospital</td>
</tr>
<tr>
<td>TIA service</td>
<td>7 days</td>
<td>5 days</td>
<td>7 days</td>
<td>(1 clinic p week)</td>
<td>7 days</td>
<td>7 days</td>
</tr>
<tr>
<td>Acute Stroke Unit (ASU)</td>
<td>11 beds (+2 HA beds)</td>
<td>36 beds (combined w/ HA)</td>
<td>20 Acute (+4 HA beds)</td>
<td>28 Acute (+7 HA beds)</td>
<td>15 Acute (+4 HA beds)</td>
<td></td>
</tr>
<tr>
<td>Inpatient Rehabilitation</td>
<td>Service provided by SWYFT (16 beds at Kendray)</td>
<td>20 beds</td>
<td>12 beds</td>
<td>10 beds</td>
<td>28 beds</td>
<td>15 beds</td>
</tr>
<tr>
<td>Early Supported Discharge and Community Rehab</td>
<td>Service provided by SWYFT</td>
<td>In-reach, operated by HASU/ASU team w/o dedicated workforce</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

47 Available at: https://www.strokeaudit.org/SupportFiles/Documents/Guidelines/2016-National-Clinical-Guideline-for-Stroke-St-(1).aspx
19.2 Consideration of HASU reconfiguration impact

The HSR has not presented any options around changing the configuration of Acute Stroke Units (ASUs), but has instead commented on ways to improve stroke services without significant service reorganisation.

The proposals laid out below will take effect in the event that the business case for the transformation of Hyper Acute Stroke Units (HASUs) is put into operation.

Introduction

When assessing the sustainability of HASU, ASU and inpatient rehabilitation services, it is important to ensure there is sufficient workforce to staff the services, as well as ensure there is sufficient volume of patients on any one site.

Going forward, as trusts develop their stroke services, the HSR recommends there should be a critical mass of stroke services on any site that provides stroke services – and that this is supported by co-location of services where appropriate.

In addition, the HSR recommends that stroke patients should be cared for by specialist stroke staff, rather than being supported by a general medical rota.

This has benefits for the quality of patient care and for making the most efficient use of staff.

To support this critical mass and sharing of staff, the relationship between HASU and ASU, and ASU and inpatient rehabilitation is discussed below. These services are defined in more detail in the Glossary.

Relationship between HASU and ASU

Running ASUs without HASUs can lead to difficulties in maintaining a sustainable workforce and sustainable levels of patient activity.

Clinical staff value the variety and professional development opportunities that come with working across both hyper-acute and acute stroke services and larger volumes of activity. Therefore, sites that operate an ASU only may be seen as less attractive, creating difficulties for recruitment and retention.

There is also a risk that they may not have significant throughput to keep the service sustainable.

Recent developments around the business case for the Hyper Acute Stroke Units have left some sites with challenges in recruiting and retaining acute stroke consultants on those sites that are not expected to include a HASU once the business case is implemented.

However, ASUs are not required by national guidelines to maintain a permanent onsite consultant presence and can be supported by a rota shared with a neighbouring HASU.

The Royal College of Physicians consultant requirements for ASUs are: to have a specialist stroke physician available 5 days per week; a consultant to see all new patients on the next working day following admission and provide 5 day a week consultant review; and to provide a means for a consultant review of a deteriorating patient out-of-hours.

48 Available at: https://www.strokeaudit.org/SupportFiles/Documents/Guidelines/2016-National-Clinical-Guideline-for-Stroke-5t-(1).aspx
be provided by an in-reach, on-call consultant visiting from another site each work day to do a ward round, and providing on-call cover at other times.

Therefore, ASUs on sites that do not have a HASU could be supported through shared arrangements with sites that have a HASU. This would need to be developed in consideration of distance and travel times. A shared consultant rota would support both the HASU/ASU site and ASU only site.

The nursing requirement for ASUs is 1.35 WTE per bed, at a 65:35 trained to untrained ratio, giving a 1:3 nurse to patient ratio. Due to higher nurse staffing requirements in ASUs, the HSR anticipates that both a HASU and an ASU site would maintain a separate rota of nurses. However, if staff wished to gain experience working in the different acuity units, a paired arrangement of sites could support this.

**Relationship between ASU and inpatient rehabilitation**

Inpatient rehabilitation provides the first stage of rehabilitation once a stroke patient has received emergency and acute treatment and has been medically stabilised. The workforce requirements include access to consultants, and 1.35 WTE (50:50 trained to untrained) nurses per bed, as well as psychologists, dieticians, social workers and rehabilitation assistants.

Nurses who work in ASUs may also provide support to inpatient rehabilitation. Additionally, where nurses are offered the ability to rotate through acute and rehabilitation settings, it can increase job variety, attractiveness and skills development opportunities. Therefore, colocation of ASUs and inpatient rehabilitation can strengthen workforce sustainability.

Co-location of ASUs with inpatient rehabilitation units also ensure greater levels of activity within each unit, further supporting sustainability.

**Trust pairing**

Given the consultant support that HASUs can provide to remote ASUs, coupled with the requirement for ASUs to be co-located with inpatient rehabilitation to support a sustainable nursing workforce and sustainable levels of activity – pairing arrangement between trusts may be appropriate in a scenario where HASUs are consolidated.

By pairing sites that provide HASU/ASU with those that provide ASU/inpatient rehabilitation, a joint consultant workforce could support both sites, whilst the nursing workforce could be offered optional rotations in different levels of acuity to support development and retention. Particular consideration would be required to ensure job roles remained attractive to the recruitment market.

Future consideration may be given to other site-specific joint staffing rotas with adjacent services, such as care of the elderly, to support stroke service components.

**19.3 Recommendation**

The HSR is not recommending reconfiguration of the remaining stroke pathway in SYB(ND). However, as mentioned above, there are a number of transformation solutions that can be pursued independently of reconfiguration.

Consideration should be given to the opportunities offered by HASU/ASU site pairing and the workforce interdependencies between ASU and inpatient rehabilitation. Patients should be cared for by staff which are stroke specialists, regardless of which type of unit they are in.
If this does not sufficiently address workforce challenges, commissioners and providers may wish to reconsider reconfiguration options.

<table>
<thead>
<tr>
<th>Ref</th>
<th>HSR recommendations for reconfiguring stroke services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SYB(ND) should adopt a pairing approach for sites with HASUs to share consultant rotas with those that have ASU-only services.</td>
</tr>
</tbody>
</table>
20 Reconfiguration of gastroenterology and endoscopy services

In the context of reconfiguration options, the scope of gastroenterology and endoscopy is defined as urgent and emergency gastroenterology (GI bleed services and the structure of acute rotas) as well as elective endoscopy services.

The scope excludes elective gastroenterology services and hepatology because emergency GI bleed and elective endoscopy were identified as higher priority. The HSR notes the strong interdependencies with emergency medicine.

20.1 Status quo

Currently there are three out-of-hours GI bleed services covering four sites which provide weekday nights and weekend cover, enabling 24/7 urgent bleed service provision. There are two further out-of-hours services, covering three sites which offer partial cover as outlined in the table below.

Most trusts seek to provide an out-of-hours services independently, however, there is some cooperation between trusts to ensure patients are seen quickly.

<table>
<thead>
<tr>
<th>BH</th>
<th>CINH</th>
<th>STH</th>
<th>Doncaster Royal Infirmary</th>
<th>Bassetlaw District General Hospital*</th>
<th>Rotherham General Hospital</th>
<th>Sheffield Children's Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hours of operation of out-of-hours bleed service</strong></td>
<td><strong>Endoscopy department</strong></td>
<td><strong>Theatre</strong></td>
<td><strong>Weekend cover between Fri 17:00 - Mon. 08:00 for D&amp;B and ROTH patients</strong></td>
<td><strong>Weekend cover provided at BH</strong></td>
<td><strong>Weekdays 18:00-05:00 Weekend cover is provided by DRI</strong></td>
<td><strong>Emergency theatre</strong></td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td><strong>Theatre (Fri 20:00 - Mon 08:00)</strong></td>
<td><strong>If not fit to be transferred to NH, use ITU or Theatre</strong></td>
<td><strong>Theatre (overnight, inc. weekend 16:30-05:00)</strong></td>
<td><strong>Cover provided at BH</strong></td>
<td><strong>-</strong></td>
<td><strong>-</strong></td>
</tr>
</tbody>
</table>

**KEY:**
- Service is provided 24/7
- Service is partially provided
- Service is not provided
- Data not available

20.2 Case for change

The CWG recognised that the current provision for GI Bleeds services out-of-hours is not equitable across SYB(ND).

Whilst some services are able to run a 24/7 GI bleed rota, others are unable to do so because of insufficient staff. Whilst there would be enough staff in the region to cover five rotas independently, they are unevenly distributed across trusts.

In addition to uneven distribution of gastroenterologists, smaller DGHs also face a challenge where gastroenterologists must contribute to general acute medical rotas. This
responsibility means that there is not enough capacity to run a dedicated out-of-hours GI bleed rota. These factors contribute to DGHs operating informal ad hoc transfers to sites that do offer a 24/7 service.

This means patients across SYB(ND) do not have equal access to high quality services, especially out-of-hours.

The CWG therefore considered a number of shortlisted options to consolidate out-of-hours GI Bleeds services onto a smaller number of sites but maintain the service as much as possible during the day. Indeed, it was felt maximising the number of lists done during the day would relieve the pressure on the out-of-hours rota.

### 20.3 Long-list of options

An initial long-list of theoretical reconfiguration options was developed in response to the identified workforce shortages, making it difficult for trusts to cover GI bleeds rotas out-of-hours (OOH) and over the weekend.

The options were designed on the principle that

- Every patient should have access to a planned, full out of hours emergency GI bleed rota, with clear transfer protocols to allow them to access the service wherever they live in SYB(ND).

Figure 29: Configuration options for OOH GI bleed service

A two-stage evaluation methodology was used to eliminate the service configurations that were deemed unsuitable or unattainable, then select the preferred option to take forward, according to the HSR hurdle and evaluation criteria.

### 20.4 Hurdle criteria and shortlist of options

In order to identify and remove unworkable options from the long-list, the hurdle criteria relating to workforce and affordability were applied.

#### 20.4.1 Assessment against hurdle criteria - workforce

The status quo requires 40 consultants to meet guidelines, with subsequent options requiring less.

There are currently around 42 gastroenterologist consultant WTEs in post providing services for adults (and a further 7 WTE at SCH) but these are distributed in an uneven way, with some organisations not having enough staff to meet guidelines on their own.

This means that whilst certain trusts are able to run GI bleeds rotas 24/7 independently, some trusts are unable to provide an adequate level of cover independently whilst also maintaining their general medical rotas.

The status quo is unsustainable but was retained for modelling purposes.
No options were ruled out based on workforce.

20.4.2 Assessment against hurdle criteria - affordability

The capital expenditure required to alter GI bleed rota arrangements is relatively small, increasing with greater levels of consolidation.

No options were ruled out based on affordability.

All options were taken forward for more detailed modelling.

Figure 30: Shortlist of options for OOH GI bleed service

<table>
<thead>
<tr>
<th>Option 0 – status quo</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
<th>Option 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastroenterology and endoscopy</td>
<td>5 independent OOH rota: 3 full and 2 partial</td>
<td>4 full OOH rotes &amp; formal network arrangements</td>
<td>3 full OOH rotes &amp; formal network arrangements</td>
<td>2 full OOH rotes &amp; formal network arrangements</td>
</tr>
</tbody>
</table>

20.5 Options evaluation

The options were tested to determine whether each of them satisfied the evaluation criteria. They were modelled (results are laid out in detail in the Technical Annex) and discussed with system leaders, the Clinical Working Groups, and members of the public.

20.5.1 Assessment against workforce criterion for gastroenterology

Does the option ensure there is a sustainable workforce that is of the right number and is suitably trained and skilled to deliver the service?

Consultants

CWG members felt that consolidation would support staffing a full out of hours GI Bleeds rota.

In the system’s current state, Option 0, sites are not able to independently provide full out-of-hours GI bleed rotas, which increases risk for patients. As out-of-hours rotas are consolidated, the need to fill fewer rotas improves the sustainability of each.

The consultant numbers required were not modelled in detail in the quantitative modelling since the transfers of activity are marginal. The aim is a reorganisation of existing capacity out of hours to use it more effectively. However, overall, the CWG felt that options 1 and 2 would require a lower level of transfers and less disruption to staff while reducing pressure on workforce rotas.

The CWG recognised it would be a challenge to free up gastroenterologists from the acute medical rota, but the more this could happen the lower the requirement to consolidate. The use of locum or temporary staff was not applicable for out-of-hours GI Bleeds but more relevant for elective endoscopy services.

Conclusion

The HSR concluded that Option 1 and Option 2 are the most appropriate for further investigation based on workforce sustainability.
20.5.2 Assessment against access criterion for gastroenterology

Does the option ensure that patients can get to the right place, in the right time, for the right service?

Travel times
Patient travel times for GI bleed services are of vital importance due to the acuity of some patients.

Travel time analysis suggests that a smaller number of sites is likely to increase the travel time for at least some patients, although it was recognised this service change represents a very smaller number of patients per week.

| Travel time impact (closest site, mins) | Option 0: 00:00 | Option 1: +02:53 to 07:14 | Option 2: +06:19 to 16:38 | Option 3: +10:44 to 27:46 |

Given the acuity of the GI bleeds and the requirement for fast access to care, the CWG felt that Option 3 had too negative an impact on travel times and therefore patient safety.

Furthermore, travel time analyses assume that the patient moves to the site at which they will receive care, as opposed to clinicians travelling to the patient’s local hospital to deliver care. However, in some very narrowly defined circumstances where the patient is not fit to travel it may be appropriate for staff to move to the patient.

The number of patients who have to travel out of hours can be mitigated in a number of ways:

If in-hours provision is maximised where possible (i.e. Saturday and Sunday morning lists), out-of-hours demand can be reduced, along with the need for consolidation.

Any consolidation of GI bleed services must be planned carefully to ensure that patients are able to access the right service to treat their condition. Previous consolidation of services in Mid Yorkshire initially led to a large number of patient transfers for ‘mimics’ such as vomiting, highlighting the importance of robust clinical evaluation and patient transfer protocols to support any proposed reconfiguration.

Equalities

At present, some patients in SYB(ND) do not have reliable access to a 24/7 emergency GI bleeds rota. By ensuring that patients are able to access this, options with fewer sites will improve equity.

Public transport

The implications of public transport for families and carers visiting patients will need to be understood.

Conclusion

Overall, the HSR concluded that option 3 would not meet the access criterion and that the implications of options 1 and 2 should be further modelled.

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49 The impact on the mean ‘blue light’ travel time for the SYB(MYND) catchment population to their nearest provider of the service, represented as a range between the potential smallest and greatest impacts of no longer providing the service at a given site within SYB(MYND). See Annex H for full details and methodology.
20.5.3 Assessment against quality criterion for gastroenterology

Does the option optimise the quality of care by promoting the delivery of national guidance and good practice?

National guidance

CWG members suggested that all units were working to JAG guidelines and are accredited.

Availability of services

Given that not all sites are currently able to run full 24/7 GI bleed rota, consolidation of the services onto fewer sites will ensure a more robust service provision. NICE\textsuperscript{50} and the British Society of Gastroenterology\textsuperscript{51} both suggest the need for timely emergency endoscopy, surgery and other interventions and consolidation onto three or four (Option 1 or Option 2) robust 24/7 rotas will improve this offering and, in turn, quality of care.

Increasing experience

Consolidation has the ability to improve quality of care as staff become experienced in more uncommon procedures (e.g. gluing, foreign body removal, and angiography) as volume increases.

Conclusion

The HSR considered that Option 1 or Option 2 would meet the quality criterion.

20.5.4 Assessment against interdependencies criterion for gastroenterology

Acute medical rotas

For on-site services, CWG members felt greater levels of consolidation (i.e. the concentration of services on fewer sites) might adversely impact on the acute medical rotas at the trusts that would not cover out-of-hours bleeds, and this would have a knock-on impact on day rotas.

Other specialist services

Anaesthesia, critical care and interventional radiology services might also be affected, although this was thought to cover a very small number of patients.

In addition, any changes to GI bleeds would have an impact on the hepatology and IBD pathways, which should be fully considered as part of detailed planning.

Ambulance transfers

In relation to off-site services, greater levels of consolidation would increase the requirement for protocolised ambulance transfers, although the numbers are thought to be small.

Conclusion

Given the possible impact of greater levels of consolidation on general acute medical rotas, independent services such as anaesthesia, critical care and interventional radiology, and transport, the HSR recommends Option 3 be set aside and Option 1 and Option 2 be taken forward for further investigation.

\textsuperscript{50} Acute upper GI bleeding, National Institute for Health and Care Excellence (NICE) (July 2013)

\textsuperscript{51} Upper Gastrointestinal Bleeding Toolkit, Academy of Medical Royal Colleges (October 2010)
20.5.5 **Assessment against affordability criterion for gastroenterology**

*Does the option cost no more than the current service?*

**Capital costs**

Due to limited spare capacity in the system, any GI bleed activity shift would require new bed build. However, as patient volumes in out-of-hours GI bleed services are low this new bed requirement is limited. As such the capital expenditure required to accommodate any service configuration is considered negligible.

<table>
<thead>
<tr>
<th>Capital cost:</th>
<th>Option 0:</th>
<th>Option 1:</th>
<th>Option 2:</th>
<th>Option 3:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>£0m</td>
<td>£1-2m</td>
<td>£2-4m</td>
<td>£2-5m</td>
</tr>
</tbody>
</table>

**Conclusion**

Mo options have been excluded on the basis on capital costs required at this stage.

20.5.6 **Summary**

The impact on interdependencies and access led the HSR to recommend excluding option 3, and taking forward options 1 and 2 for further work.

20.6 **Reconfiguration recommendation**

The HSR recommends consolidating overnight GI bleeds services onto three or four sites, supported by robust patient assessment and transfer protocols. All sites that currently offer daytime GI bleeds and elective endoscopy should continue to do so and provide where possible additional day-time capacity on weekends to reduce demand overnight.

Any future change in configuration of overnight GI bleeds services must be supported by robust and standardised referral and acceptance criteria, drive-by policies and patient transfer protocols to ensure patients are able to access the care they need within the network.

<table>
<thead>
<tr>
<th>Ref</th>
<th>HSR recommendations for reconfiguring GI bleeds services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SYB(ND) should consolidate overnight GI bleeds services onto three or four sites, supported by robust patient transfer protocols. All sites that currently offer daytime GI bleeds and elective endoscopy should continue to do so and provide where possible additional daytime capacity on weekends to reduce demand overnight.</td>
</tr>
</tbody>
</table>
Section D: Organising care across the health economy

This section outlines some further considerations for the organisation of care in light of transformation and potential reconfiguration functions. It covers:

- System architecture
- Transport
21 System Architecture

This chapter provides an overview of how the individual components of the system are proposed to fit together and interact with each other. The chapter covers in particular:

- The role of the HSR in designing the system architecture
- A description of the current and potential future and end states

21.1 Role of the Hospital Services Review

To successfully implement the recommendations of the HSR, organisations within SYB(MYND) will need to work together as part of an integrated system of providers and commissioners of healthcare. Achieving this will require a change in mindset – from one focused on the objectives of sovereign organisations, to one focused on the objectives of the system as a whole.

It is not the role of the HSR to design the future working arrangements of the provider sector in SYB(MYND). Decisions around the issues in this section will be taken forward by SYB ICS as part of establishing its infrastructure and governance.

However, the effectiveness of these arrangements will impact how successfully the HSR recommendations are implemented. This section therefore describes current arrangements, the future system requirement, the issues that the ICS will need to resolve going forward and some potential options that the ICS may wish to consider.

21.2 Current arrangements

21.2.1 A history of collaboration

SYB(MYND) has a long history of collaborative working.

The Working Together collaborative, launched in 2013, created a portfolio of initiatives to pursue both clinical and non-clinical opportunities. It was successful at bringing leaders together to acknowledge challenges and discuss potential solutions, and was subsequently awarded National Vanguard status and funding in 2015.

By working together, providers and commissioners have benefited from a number of quick wins, such as the consolidation of procurement, and have developed a number of new clinical models, such as changes to children’s surgery and anaesthesia services.

Over the last 12 months, the acute providers in SYB(MYND) have established formal governance arrangements, known as Committees in Common, that will enable them to work together to implement change. These committees create a formal mechanism for leaders to identify and develop new opportunities to work together.

This is underpinned by a Joint Working Agreement of the trusts, which sets out the trusts’ ambition to make collective decisions on four priority areas: Informatics; Sharing and Adopting Good Practices; Sustainable Care Quality; and Sustainable Service Configuration. The CCGs have also implemented a Committees in Common arrangement – the joint committee of clinical commissioning groups (JCCCG).

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52 See: [http://workingtogethernhs.co.uk/](http://workingtogethernhs.co.uk/)
21.2.2 Current limitations

Despite a strong track record of collaboration, there remain a number of barriers that have prevented organisations from signing-off new clinical and non-clinical solutions.

As a result, several promising initiatives have not progressed at the final milestone due to a mixture of:

- **Financial disincentives**, where the financial impact is either negative or neutral for one or more organisations (for example, where a new clinical model results in the loss of clinical income), even where the total system-wide impact is positive; and

- **Clinical buy-in**, where organisations have failed to gain the support and engagement of senior clinical leaders within their own organisations, resulting in insufficient buy-in from the clinical workforce.

To successfully implement the recommendations of the HSR, the system must overcome these barriers. It should be able to make collective decisions that are based on patient benefit and are organisation-agnostic.

To date this has been limited by a number of organisational red lines. For example, in developing the Committees in Common arrangement described above, the Boards of the trusts did not feel able to formally cede decision making rights to their CEOs and Chairs, while still fulfilling their statutory accountabilities as a Board.

This means that all decisions taken by the Committees in Common are subject to approval by seven statutory Boards. The result is that the Committee is a decision coordinator rather than a decision maker.

The barriers described above are common in other healthcare systems and are difficult to overcome within the current legislative and regulatory landscape. As SYB moves to becoming an ICS, as defined by NHS England, possible arrangements such as a single control total for the entire system and local self-regulation may become catalysts for more collective decision making, within the current legislative framework.

21.3 Description of the future system

21.3.1 Functional requirements

Implementing the recommendations of the HSR will require organisations to make collective decisions for the benefit of patients and the system, while retaining local focus and accountability. This can be enabled by effective system design, incorporating arrangements ranging from contractual agreements to shared governance.

Any future system design would need to:

1. Enable and support the fast implementation of system-wide integration and transformation (as a result of the HSR recommendations and other future programmes), for the benefit of the population.

2. Create a culture that incentivises the right organisational behaviours, individually and collectively, to encourage collaboration and remove organisational barriers.

3. Allow collective decision making at pace, for the benefit of patients and the system, covering: how services are configured; how to deploy our collective workforce; and how to use collective assets.

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53 NHS England and NHS Improvement envisage a single system control total that applies to all providers and commissioners in the ICS. All organisations will be held accountable for delivering both their individual control total and the overall system control total.
4. Ensure collective responsibility and accountability for the health and care needs of the population, while maintaining local accountability at a place and organisational level.

5. View financial sustainability as a system-wide target and responsibility, acknowledging that certain decisions may detrimentally impact the financial position of a single site or trust.

Achieving these principles will require SYB(MYND) to go further than it has to date. It is for this reason that the HSR has focused in chapters 10-14 on shared working arrangements at a service level.

**21.4 Potential changes**

In an attempt to overcome these common barriers, other organisations have tested a variety of arrangements designed to enable more effective working together. They cover changes to governance, the creation of contractual arrangements and new organisational forms. Figure 31 below demonstrates the variety of arrangements currently available.

Figure 31: Mechanisms used to enable closer working within the NHS

The bottom two rows in the figure highlight those arrangements that are suitable for a single service (e.g. paediatrics) or a single function (e.g. workforce). These arrangements were considered in the service specific solutions described in chapters 10 - 14.

The top two rows in the figure highlight those arrangements that are suitable for whole organisations, which is the purpose of this section. It is important to note that the solutions...
are not always mutually exclusive and that SYB(MYND) already has a number of these in place today.

Current governance arrangements do not go far enough to give the system the level of control required to effect change. Any future model will require all organisations to cede some sovereignty to the system – this will be difficult, particularly without legislative change and while the end-state clinical model is not yet fully defined. We would therefore expect that there would be a number of interim milestones along this journey.

Annex E provides further detail on the potential organisational models that could be pursued by the system and an assessment of their viability.

### 21.5 Recommendations

<table>
<thead>
<tr>
<th>Ref</th>
<th>HSR recommendations for system architecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The current arrangements between providers are not fit for purpose when considering the scale of change that is included in this report. SYB(MYND) should review current governance arrangements and ensure these enable rapid decision making at pace to support the successful implementation of the recommendations in this report.</td>
</tr>
</tbody>
</table>
22 Transport

This chapter provides an overview of the pivotal role of transport services in connecting the various system components and enabling transformation

Clinicians, patients and the public consistently told the HSR that transport is one of the most crucial factors to consider. This includes transport from patients’ homes to hospitals and transport between hospitals.

22.1 Requirement for networked care

As SYB(MYND) moves towards a networked model of care, some services may be delivered on specialist sites across the network. In order to support this model, a different approach to patient transport will be required.

22.1.1 Optimisation of emergency flows

The HSR recommends that every DGH should retain an ED, however the services that are provided beyond the ED may vary, with some specialist services being provided on fewer consolidated sites. As a result, patients with acute and specialist conditions may need to be directed towards the appropriate site to receive timely and high-quality care.

22.1.2 Patient transfer and repatriation

A key patient requirement is to receive treatment as close to home as possible, whilst being able to access the highest quality care. This means that patients may receive complex and specialist treatment at a specialist hub, before being repatriated to their local DGH for follow-up care. A robust and efficient non-emergency patient transport system is required to support efficient transfer between sites and services.

22.1.3 Public transport

Alongside the importance of ensuring that patients can be transported to hospital safely in an emergency, it is equally important to ensure that families and carers are able to reach the hospital sites to visit their loved ones.

Going forward, the development of site-specific options will need to consider the implications of any changes to services on travel times both by public transport, and by private car.

Additionally, placing patients in hospitals remote from their place of residence may complicate any social care arrangements, negatively impacting on lengths of stay; this provides further impetus to make sure transport protocols are robust and timely.

22.2 How requirements can be supported

Providing more efficient and higher volume patient transport in the SYB(MYND) network requires a collaborative and standardised approach between acute and ambulance providers. Transport requirements can be supported through the following functions:
• **Drive-by policies:** Ambulance drive-by policies for certain conditions and acuities are already in place across SYB(MYND). These should be reviewed, refined and documented to accommodate reconfigured services, along with appropriate clinical protocols for in-transit care.

• **Referral and acceptance criteria:** Standard protocols and pro-forma for the referral and acceptance of patients between sites and services should be developed to ensure that receiving organisations are fully prepared for a smooth transfer of care.

• **Patient transfer protocols:** Standard protocols for pre-transfer planning, transfer and hand-over, including patient records and information, should be developed to ensure patient safety and well-being is maintained during transfer.

• **Non-emergency transport:** A system-wide approach to non-emergency transport should be developed to provide a high quality and cost-efficient service.

22.3 **Recommended approach**

22.3.1 **Transport Reference Group**

There is a long history of collaboration between acute and ambulance providers in SYB(MYND), meaning that many of the functions required to support a networked model of care are already in place.

In order to consolidate work to date and develop a consistent transport strategy for SYB(MYND), a Transport Reference Group (TRG) should be created, with representation from acute trusts, commissioners, Yorkshire Ambulance Service and East Midlands Ambulance Service, local transport authorities, as well as patients and the public. Increased collaboration with transport stakeholders is already underway, such as through the regional Chambers of Commerce. This should be expanded to develop closer relationships between SYB(MYND) health and care providers and local public transport operators.

The TRG should have a remit for developing the SYB(MYND) transport strategy, as well as developing and implementing specific functions to deliver on it. In this way, it should act with comparable governance, delegated decision-making rights and scope to the service-specific clinical reference groups proposed by the HSR to address unwarranted clinical variation.

Alongside this, the HSR recommend commissioners review the way emergency and non-emergency transport is commissioned to enable the clinical model outlined in this report.

22.3.1 **Modelling of the transport implications of reconfiguration**

A sub-group of the Transport Reference Group would have responsibility for working with patients and the public, and system stakeholders, to develop transport modelling to support site-specific modelling on system reconfiguration.

This would include consideration of the implications for travel times by public and private transport, as well as by ambulance.

“Obviously ambulance service cooperation for any plans for the future is imperative.”

- Regional event attendee
22.3.2 Non-emergency transport

Besides ambulance drive-by policies for acute emergencies required as some specialist services are provided within the SYB(MYND) network, there may be opportunities for providers to support each other for non-emergency patients during periods where patient demand and constrained supply are mismatched on any given site. This will require further development and optimisation of patient transport flows, and should form part of the ongoing responsibility of the TRG.

Currently, non-emergency patient transport provision across SYB(MYND) is fragmented, largely commissioned by individual trusts. The TRG should review non-emergency transport arrangements and undertake a cost-benefit analysis of a system-wide approach as services are increasingly delivered through networks.

22.4 Recommendations

<table>
<thead>
<tr>
<th>Ref</th>
<th>HSR recommendations for transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SYB(MYND) should establish a Transport Reference Group (TRG) with a remit to develop a system-wide transport strategy and the specific functions to support and deliver it. This should include representation from acute trusts, commissioners, Yorkshire Ambulance Service and East Midlands Ambulance Service, local transport authorities, patients and the public. Emergency and non-emergency transport should be commissioned appropriately to enable the clinical model outlined in this report.</td>
</tr>
</tbody>
</table>
23 Next Steps

23.1 Introduction

Change is not easy and transformation of the scale outlined in this report will require a coordinated change management approach across SYB(MYND).

This report contains a number of recommendations relating to the transformation and reconfiguration of services, all of which are non-site specific. Some of these recommendations are beginning to be being taken forward across SYB(MYND), while others are entirely new.

Delivering change at this scale and consistently across SYB(MYND) will be challenging. The HSR has set out next steps from May 2018 to the end of January 2019.

Wherever possible, the HSR recommends that these next steps should be taken forward internally by the system and become part of the work programmes of existing groups in SYB(MYND). Other next steps where there is no obvious forum to progress the actions or there is not the capacity or capability from within the system to deliver the work will need resources which are not currently available internally to the system.

23.2 Outline of workstreams and next steps

The major workstreams that should be progress from May 2018 until January 2019 include developing implementation plans against the key themes in this report:

- The development of Hosted Networks and supporting architecture across providers
- Reconfiguration of non-elective and elective services, including next steps on the role of the DGH
- Continued clinical and stakeholder engagement

Before any decisions are made on reconfiguration of acute services in SYB(ND), site-specific modelling will need to be undertaken to fully understand the options and their implications. This will include but not be limited to modelling of the impact of each reconfiguration option on workforce, patient access and travel times. There will also be further exploration of the impact on elective services and opportunities to provide services outside acute hospital settings. Site specific modelling is expected to be complete by December 2018.

The high-level milestone plan to deliver these over the next 12 months is shown in Figure 32 below.
Figure 32: High-level milestone plan

The key next steps for each of these three areas are laid out in more detail below.

### 23.2.1 Establish Hosted Networks

<table>
<thead>
<tr>
<th>Set up a programme to design and implement the Hosted Networks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish a task group to oversee the programme, reporting to the SYB ICS</td>
</tr>
<tr>
<td>Agree timelines, milestones and programme outcomes</td>
</tr>
<tr>
<td>As a matter of priority:</td>
</tr>
<tr>
<td>• Agree which organisations will be part of the network</td>
</tr>
<tr>
<td>• Agree the process by which host providers and lead commissioners will be selected (see #5 below)</td>
</tr>
<tr>
<td>Run engagement sessions with clinicians from across SYB(MYND) to ensure early buy-in to the concept of the network</td>
</tr>
</tbody>
</table>
2 **For each service, agree the objectives of the network, its priorities and its scope**

<table>
<thead>
<tr>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree the primary objectives of the network</td>
</tr>
<tr>
<td>Agree ‘what good looks like’ and how we will measure the success of the network</td>
</tr>
<tr>
<td>Identify and agree the full range of functions that should fall within the remit of the host/lead</td>
</tr>
<tr>
<td>Undertake a process to identify those functions that will have the greatest impact and therefore should be prioritised</td>
</tr>
<tr>
<td>Agree when and how functions will transfer to the Host, focusing on the highest priority areas</td>
</tr>
<tr>
<td>Agree which staff groups will be within the scope of the network</td>
</tr>
</tbody>
</table>

3 **Agree principles of engagement**

<table>
<thead>
<tr>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree a set of principles that will become a behavioural compact between the Host and the network members</td>
</tr>
</tbody>
</table>

4 **Appoint host provider and lead commissioner**

<table>
<thead>
<tr>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undertake a process to select a lead commissioner and a host provider for each service</td>
</tr>
</tbody>
</table>

5 **Agree the specific requirements of the host**

<table>
<thead>
<tr>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform detailed analysis of the functions identified in stage 3 above, to define the specific requirements of the Host. This will include</td>
</tr>
<tr>
<td>• Defining the scope of the function in terms of individual tasks and processes</td>
</tr>
<tr>
<td>• Detailing the required output specifications, including SLAs where required</td>
</tr>
<tr>
<td>Agree what stakeholder relationships will be managed by the Host on behalf of the system</td>
</tr>
<tr>
<td>Quantify the resources required by the Host to deliver the network and agree how this will be sourced or funded, including what costs/ resources can be repurposed from the network members</td>
</tr>
</tbody>
</table>

6 **Design accountability framework**
Define how the members of the network will be held to account by the network host for full and active participation in the network and its transformation agenda.

Define how the network Host will be held to account for fulfilling its role as Host and leader of the network.

Outline how decisions will be made and how disputes will be handled.

7 **Design governance and contractual arrangements**

Design how the network will be led and governed within the Host Trust and how this relates to the Trust's own governance, including:

- Leadership: the individuals who will lead and manage the network – from both a clinical and managerial perspective.
- Governance: the governing forum of the network – who is on it, and where does it report.
- Decision making: how are decisions made and by who with regards to the network.

Develop, agree and sign the contractual arrangements that underpin the network.

23.2.2 **Establish Health and Care Institute**

1 **Establish Health and Care Institute**

Define the scope of the Institute, in discussion with HR Directors, HEE and LWAB, incorporating the recommendations of this report into existing thinking.

Develop business case for the Institute and confirm resources from transformation funding.

Establish the Institute as a formal entity.

In the meantime, while the Institute is being set up, begin to build the analytical capacity and workforce planning teams to support the Hosted Networks, so that this support is available as soon as the HNs go live.
### 23.2.3 Establish cross-provider analytical support

<table>
<thead>
<tr>
<th></th>
<th>Establish cross-provider analytical support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>As part of building the health and care Institute, develop a central function of analysts who can support the trusts.</td>
</tr>
</tbody>
</table>

### 23.2.4 Establish Innovation Hub

<table>
<thead>
<tr>
<th></th>
<th>Establish Innovation Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Work with the Academic Health Service Network to establish a subgroup, with the remit of developing a shared strategy on innovation going forward. The scope of the strategy should cover the ICS as a whole, not just the Sheffield City Region.</td>
</tr>
<tr>
<td></td>
<td>Building on this strategy, develop proposals around the establishment of an Innovation Hub.</td>
</tr>
</tbody>
</table>

### 23.2.5 Develop and consult on options for paediatrics, maternity services, gastroenterology and endoscopy

<table>
<thead>
<tr>
<th></th>
<th>Submit recommendations of the HSR to NHSE for gateway 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Draft and submit the HSR for gateway 1 approval by the NHSE regional team</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Public engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Agree engagement strategy with advices from the Citizen’s Panel and the Consultation Institute</td>
</tr>
<tr>
<td></td>
<td>Engage with the public throughout the process of developing options below</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Engagement with stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Refresh governance in line with refresh of ICS governance</td>
</tr>
<tr>
<td>Step</td>
<td>Task</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>4</td>
<td><strong>Agree the service models</strong>&lt;br&gt;Agree the service model for maternity services, paediatrics and GI bleeds. This should involve ensuring that, as we develop site-specific modelling, the requirements for the service are fully understood, including any requirements that potential receiving sites must meet, and the services that would need to continue to be in place on sites which services are moving from.</td>
</tr>
<tr>
<td>5</td>
<td><strong>Define the scope of the site-specific analysis</strong>&lt;br&gt;Confirm and if necessary refresh the evaluation criteria before specifying site-specific options&lt;br&gt;JCCCG agree site-specific options in scope: the combinations of service changes and sites to be included, and any fixed points&lt;br&gt;Develop and agree scope for the model. To include:&lt;br&gt;  * Activity modelling linked to demographic change&lt;br&gt;  * Workforce requirements at consultant, mid-grade and nursing level&lt;br&gt;  * Financial data&lt;br&gt;  * Travel times, with input from travel group (see below)</td>
</tr>
<tr>
<td>6</td>
<td><strong>Model and evaluate the site-specific options against evaluation criteria</strong>&lt;br&gt;Model all options at site specific level&lt;br&gt;Assess modelling against evaluation criteria&lt;br&gt;Agree consultation requirements with Joint Health Overview and Scrutiny Committee</td>
</tr>
<tr>
<td>7</td>
<td><strong>Draft business case and gain necessary approvals</strong>&lt;br&gt;Identify preferred options based on the evaluation of the models&lt;br&gt;Engage with the public on the evaluation and emerging models&lt;br&gt;Draft Business Case&lt;br&gt;Submit for review by the Clinical Senate</td>
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</tr>
<tr>
<td><strong>Submit for NHSE assurance via NHSE Gateway 2, OSCRA meeting and national NHSE finance and investment committee</strong></td>
<td></td>
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<tr>
<td><strong>Discuss business case with JHOSC</strong></td>
<td></td>
</tr>
<tr>
<td><strong>8 Public Consultation</strong></td>
<td></td>
</tr>
<tr>
<td>Formal consultation with the public following Consultation Institute-approved process with advice from the Citizen’s Panel. To include consultation with staff.</td>
<td></td>
</tr>
<tr>
<td><strong>9 Dependent on outcome of consultation, move to implementation</strong></td>
<td></td>
</tr>
<tr>
<td>Review consultation outcomes, adjust proposals as required and move to implementation.</td>
<td></td>
</tr>
</tbody>
</table>

### 23.2.6 Develop options for what sits behind ED: the role of the DGH

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>1 Agree proposed approach to the role of the DGH work</strong></td>
<td></td>
</tr>
<tr>
<td>Agree approach based on tiers of services – to be done in all sites; to be done on fewer sites</td>
<td></td>
</tr>
<tr>
<td><strong>2 Agree services to be included in next tranche</strong></td>
<td></td>
</tr>
<tr>
<td>Agree approach around elective work. Collect data and identify which elements of elective services are in scope for the work</td>
<td></td>
</tr>
<tr>
<td>Consider whether any further non-elective services should be in scope</td>
<td></td>
</tr>
<tr>
<td>Engage with the public and staff</td>
<td></td>
</tr>
<tr>
<td><strong>3 Identify options for each service</strong></td>
<td></td>
</tr>
<tr>
<td>Develop proposed options</td>
<td></td>
</tr>
<tr>
<td>Engage with the public and staff</td>
<td></td>
</tr>
<tr>
<td><strong>4 Develop site-specific options for the elective services and consult</strong></td>
<td></td>
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</tbody>
</table>
If any options emerge around reconfiguration, follow process as for non-elective services

23.2.7 Develop options for stroke

<table>
<thead>
<tr>
<th></th>
<th>Agree pairing arrangements between sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Each ASU site which does not have a HASU to identify a partner organisation which can support the consultant rota across both sites</td>
</tr>
<tr>
<td></td>
<td>Consult with staff about any changes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Develop approach to paired consultant rota</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Design shared job descriptions, rotas</td>
</tr>
<tr>
<td></td>
<td>Consult with staff about any changes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Agree standardised commissioning standards for Early Supported Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Review evidence base for ESD</td>
</tr>
<tr>
<td></td>
<td>Develop proposed approach to standardised commissioning standards across SYB(ND)</td>
</tr>
<tr>
<td></td>
<td>Consult with the public on any proposed changes</td>
</tr>
<tr>
<td></td>
<td>Implement changes</td>
</tr>
</tbody>
</table>

23.3 Engagement – next steps

As shown above, the HSR will require close engagement with clinicians and with stakeholders from across the system.

The HSR will also require ongoing public engagement and consultation. This will evolve, with the involvement of the Citizens’ Forum which has been set up to advise the shadow Integrated Care System on how best to engage with the public. However, we envisage at least the following stages:

<table>
<thead>
<tr>
<th></th>
<th>Engage with the public both formally and informally</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Public engagement events during May and June 2018 on the Hospital Service Review recommendations</td>
<td></td>
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<tr>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Public engagement over the summer and autumn on the emerging options around site-specific modelling</td>
<td></td>
</tr>
<tr>
<td>Public consultation on Business Case once preferred options have been identified</td>
<td></td>
</tr>
</tbody>
</table>

2 **Engage with clinicians**

- Agree the structures for clinical engagement and governance going forward
- Establish and work with the relevant groups of clinicians to support development of the work on Hosted Networks

3 **Engage with stakeholders**

- Refresh the governance of the process as the shadow Integrated Care System governance is set up
- Ongoing engagement with stakeholders through the appropriate governance routes.
## 24 Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td><strong>ED</strong> An accident and emergency provides acute care for patients who arrive without prior appointment either by their own means or by ambulance and who have medical or surgical conditions that are likely to need hospital admission. They are typically open 24 hours a day, seven days a week.</td>
</tr>
<tr>
<td><strong>Acute Care</strong></td>
<td>Urgent short-term treatment - usually in a hospital - for patients with a new injury or illness or for patients with an existing condition that is worsening.</td>
</tr>
<tr>
<td><strong>Acute Stroke Unit (ASU)</strong></td>
<td>An acute neurological ward providing specialist services for people who have had a stroke. Patients are cared for in an intensive model of care with continuous monitoring and high nurse staffing levels. Typical length of stay may be up to 7 days. Patients are typically admitted to a Hyper-Acute Stroke Unit (HASU) for immediate emergency treatment before transfer for an ASU for ongoing care.</td>
</tr>
<tr>
<td><strong>Acute Trust</strong></td>
<td>NHS acute trusts manage hospitals. Some are regional or national centres for specialisms. Others are attached to universities and help to train clinicians. Some may also provide community services.</td>
</tr>
<tr>
<td><strong>Advanced clinical practitioner (ACP)</strong></td>
<td>An experienced, registered health and care practitioner with a Master’s level award or equivalent that encompasses the four pillars of clinical practice, leadership and management, education and research, with demonstration of core capabilities and area specific clinical competence. ACPs undertake a level of practice characterised by a high degree of autonomy and complex decision making. Specific roles include Advanced Nurse Practitioner (ANP) and Advanced Therapy Practitioner (ATP). Delegating responsibilities to these roles reduces the burden on other clinicians.</td>
</tr>
<tr>
<td><strong>Alternative workforce</strong></td>
<td>This general term refers to roles for healthcare professionals that are ‘non-traditional’ and generally support or augment the work done by clinicians such as doctors and nurses. It encompasses Physician Associates, advanced clinical practitioners and support roles.</td>
</tr>
<tr>
<td><strong>Antenatal Care</strong></td>
<td>Care of women during pregnancy up to their going into labour by various healthcare professionals to ensure that mother and baby are as healthy as possible during pregnancy. This care also includes education, advice and support to make sure the mother is ready for labour.</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td><strong>CAMHS</strong> Child and Adolescent Mental Health Services – specialist care for children and young people who have difficulty with their emotional or behavioural wellbeing. CAMHS usually provides care for young people up to either 16 or 18, depending on their location.</td>
</tr>
<tr>
<td><strong>Care outside hospital</strong></td>
<td>Care that takes place in a community setting. This could be a patient’s home or community health centre.</td>
</tr>
<tr>
<td><strong>Clinical Commissioning Groups (CCGs)</strong></td>
<td>These are the health commissioning organisations that replaced primary care trusts (PCTs) in April 2013. CCGs are led by GPs and represent a group of GP practices in a certain area. They are responsible for purchasing healthcare services in both community and hospital settings.</td>
</tr>
<tr>
<td><strong>Clinical governance</strong></td>
<td>A framework through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by</td>
</tr>
<tr>
<td><strong>Creating an environment in which excellence in clinical care will flourish.</strong></td>
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</tr>
<tr>
<td><strong>Clinical interdependencies</strong></td>
<td>Where some clinical services need other clinical services to be based on the same site for particular types of care to be successfully and safely delivered.</td>
</tr>
<tr>
<td><strong>Clinical pathway</strong></td>
<td>A clinical pathway is a template or blueprint for a plan of care for a specific speciality or condition. It is a guide to best practice treatment patterns, but does not replace the need for clinical judgement in meeting an individual’s needs.</td>
</tr>
<tr>
<td><strong>Clinical protocol</strong></td>
<td>The detailed outline of the steps to be followed in the treatment of a patient with a particular condition.</td>
</tr>
<tr>
<td><strong>Clinical Reference Group (CRG)</strong></td>
<td>A group of clinicians and healthcare professionals convened to agree on and develop a specific clinical process, protocol or standard. The group is typically governed by a Terms of Reference and is part of a wider framework such as a Hosted Network.</td>
</tr>
<tr>
<td><strong>Clinical Working Group (CWG)</strong></td>
<td>A group comprised of clinicians, nurses, allied health professionals and other healthcare professionals from a specific service in the scope of the HSR. The primary purpose of the CWGs was to bring together members of staff from across SYB(MYND) to discuss service challenges, best practice and potential solutions, as well as to provide input and feedback into the review process.</td>
</tr>
<tr>
<td><strong>Committees in Common (CIC)</strong></td>
<td>A sub-committee of multiple committees with an agreed level of delegated decision-making rights on behalf of each committee. There must be clear terms of reference and reporting lines back to each committee.</td>
</tr>
<tr>
<td><strong>Community Midwifery-led Unit / Birth Centre</strong></td>
<td>A form of standalone midwifery-led unit providing prenatal, midwifery and postnatal services to predominantly low-risk mothers (see SMLU).</td>
</tr>
<tr>
<td><strong>Community services</strong></td>
<td>A wide range of non-emergency services provided closer to home at community facilities including local health centres and GP practices. Some may be provided by social care services.</td>
</tr>
<tr>
<td><strong>Consultant led obstetrics units</strong></td>
<td>An obstetric unit with consultant presence, providing maternity and obstetric care to mothers, with the capacity to deal with a broader range of complications and conditions than a midwifery-led unit.</td>
</tr>
<tr>
<td><strong>Continuous professional development (CPD)</strong></td>
<td>Encompasses the further development of a practitioner’s knowledge, skills, attitudes and behaviours across all areas of their professional practice. It includes both formal and informal learning activities aimed at maintaining and improving performance.</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>Typically, the major healthcare facility in its locality with services that may include maternity, ED, acute medicine, surgery and a range of outpatient care. It may also provide some specialist facilities for care such as specialist surgery but does not cover all specialist services.</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>An intervention for adults after a stroke that allows their care to be transferred from an inpatient environment to a community setting. It enables people to continue their rehabilitation therapy at home, with the same intensity and expertise that they would receive in hospital.</td>
</tr>
<tr>
<td><strong>Elective care</strong></td>
<td>Treatment that is planned in advance because it does not involve a medical emergency.</td>
</tr>
<tr>
<td><strong>Emergency care</strong></td>
<td>Treatment for acute medical and surgical emergencies that may need admission to hospital. This includes severe pneumonia, diabetic coma, bleeding from the gut, complicated fractures that need surgery, and other serious illnesses.</td>
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<tr>
<td>Term</td>
<td>Definition</td>
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</tr>
<tr>
<td>Emergency Department</td>
<td>An acute hospital department responsible for the delivery of emergency medicine and care, providing treatment to patients arriving at hospital with an immediate care requirement. Accident and Emergency is a form of ED.</td>
</tr>
<tr>
<td>Engagement</td>
<td>The measurable degree of a stakeholder or patient’s positive or negative involvement with the NHS, which influences their willingness to take part in NHS issues. In the context of the HSR, it refers to the involvement of different stakeholders to gather views, feedback and recommendations.</td>
</tr>
<tr>
<td>Evaluation criteria</td>
<td>A series of questions and factors to test options against to determine whether they are suitable and optimal for their intended purpose. Evaluation criteria have been agreed and used in the HSR to test service reconfiguration options.</td>
</tr>
<tr>
<td>Facing the Future</td>
<td>Facing the Future: Standards for children with ongoing health needs are a set of standards that focus on ensuring prompt and correct diagnosis, improving the long-term care and management of children in healthcare services. These standards were developed jointly by the Royal Colleges for Paediatrics and Child Health, General Practitioners, Nursing, Physicians and Psychiatrists.</td>
</tr>
<tr>
<td>Flexible working</td>
<td>The ability for clinicians and other healthcare professionals to work across multiple sites in networked system of care.</td>
</tr>
<tr>
<td>Foundation Trusts</td>
<td>NHS foundation trusts (FTs) are NHS organisations that run acute, community or mental health hospitals. They differ from non-foundation trusts in that they have greater financial autonomy and therefore more freedom to decide their own plans and the way local services are run. Foundation trusts have members and a council of governors.</td>
</tr>
<tr>
<td>Function</td>
<td>In the context of the HSR, ‘function’ refers to specific operational and management processes and is used as a generic term. It does not refer to statutory functions of NHS bodies (such as commissioners) unless explicitly stated.</td>
</tr>
<tr>
<td>Hospital Services Review (HSR)</td>
<td>The programme to review the shape and nature of acute hospital services across SYB(MYND), culminating in this report. The HSR was commissioned by SYB commissioners on behalf of the partners in the SYB STP.</td>
</tr>
<tr>
<td>Hosted Network</td>
<td>A clinical network between acute trusts where a host trust provides leadership and coordination to support a system-wide approach to: workforce deployment and development; the adoption of standardised clinical guidelines; and the spread and adoption of innovation and best practice.</td>
</tr>
<tr>
<td>Hub</td>
<td>A setting for care outside hospital where patients are brought together for treatment also serving as a base for local healthcare teams. The services offered will vary depending on local needs and will range from bases for multidisciplinary teams to ‘one-stop’ centres for GP services, diagnostic and outpatient appointments.</td>
</tr>
<tr>
<td>Hurdle criteria</td>
<td>A set of evaluation criteria (see above) that must be satisfied in order for an option or solution to be considered within the HSR.</td>
</tr>
<tr>
<td>Hyper Acute Stroke Unit (HASU)</td>
<td>Hospital wards that specialise in treating people who have had a stroke. A dedicated unit that gives all stroke patients access to the most up-to-date treatments and latest research breakthroughs during the first 72 hours after a stroke: swift action can reduce levels of disability and, in some cases, may even eradicate symptoms completely. Patients will typically be transported to a Hyper Acute Stoke Unit for initial</td>
</tr>
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</table>
emergency treatment before later being transferred to an ASU for ongoing care and therapy.

I

**Induction of labour**
The process of artificially bringing on labour using drugs or surgical interventions with a view to achieving vaginal delivery.

**Integrated Care System (ICS)**
A partnership of NHS organisations, including providers and commissioners that collaborate to provide healthcare in a region in a close and coordinated manner. Member organisations take collective responsibility for managing resources, delivering NHS standards and improving the health of the population they serve.

**Interventional Radiology**
Interventional radiology refers to a range of medical techniques that rely on the use of radiological image guidance to precisely target therapy. It is a minimally invasion alternative to open or laparoscopic surgery. Example therapies that benefit from interventional radiology include endovascular surgery (such as angioplasty and stenting) and kidney or gall stone removal.

J

**Joint Advisory Group (JAG)**
The Joint Advisory Group (JAG) on gastrointestinal endoscopy is principally a quality improvement and service accreditation programme for gastrointestinal endoscopy. It supports and assesses endoscopy units to meet and maintain a set of standards, offering patients and commissioners a badge of quality.

**Joint Committee of Clinical Commissioning Groups (JCCCG)**
A collective committee made up of representation from clinical commissioning groups (CCGs) in SYB.

L

**Lead / prime provider**
A trust within a Hosted Network from which services are commissioned, which then sub-contracts service delivery to other trusts within the network. The lead / prime provider holds other providers to account for outcomes and for adoption of clinical protocols and pathways.

**Lead employer**
A trust within a Hosted Network that employs some or all clinical staff within the network. The trust is responsible for the recruitment, career pathway and employment models, training and development and long-term staff deployment.

M

**Managed Clinical Network (MCN)**
Linked groups of health professionals and organisations from provider organisations, working in a coordinated manner to ensure equitable provision of high quality clinically effective services throughout a region. Work may include development of clinical protocols, workforce development and agreements around service provision, with remit and governance varying between networks.

**Midwifery**
The profession which leads on normal pregnancy and birth and provides expert care to mother and baby during pregnancy, childbirth and the postnatal period within a family centred environment.

**Midwifery Led Units**
Units run by midwives that can either be run alongside a main hospital maternity unit (AMLU) or completely standalone from hospital (SMLU). MLUs are ideal for handling births with no complications. Women facing complications may be advised to give birth at a consultant-led maternity unit.

**Minor Injuries Unit (MIU)**
A type of walk-in clinic to treat minor injuries such as lacerations and fractures, typically staffed by emergency nurse practitioners with some consultant input in training and supervision.
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<tr>
<th>Term</th>
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<tr>
<td>Multidisciplinary team</td>
<td>A group of professionals from different disciplines (both healthcare and non-healthcare) who work together to provide care for patients with a particular condition. The composition of multidisciplinary teams will vary according to many factors, these can include the specific condition; the scale of the service being provided; and geographical / socio-economic factors in the local area.</td>
</tr>
<tr>
<td>Neonatal Unit</td>
<td>A unit of a hospital that provides care and treatment of new-born babies who are too sick to be cared for by their mothers.</td>
</tr>
<tr>
<td>Networked services</td>
<td>The coordinated provision of care within a particular specialty across a number of providers or sites in a region. Different elements of care may be provided at different sites, requiring patient transfer to the appropriate care location.</td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>An Advanced Practice Registered Nurse who has completed graduate-level education (either a Master of Nursing or Doctor of Nursing Practice degree). Nurse Practitioners treat both physical and mental conditions independently including prescription of select medications.</td>
</tr>
<tr>
<td>Obstetrics</td>
<td>The medical specialty dealing with the care of pregnant women and their babies during pregnancy, childbirth and the postnatal period.</td>
</tr>
<tr>
<td>Operational Delivery Network (ODN)</td>
<td>Clinical networks established across large geographical areas to coordinate development of clinical practice in a specialty across providers. Success factors are improved access, operating consistency, outcomes and productivity. ODNs are focused on coordinating patient pathways between providers over a wide area to ensure access to specialist resources and expertise.</td>
</tr>
<tr>
<td>Oversight and Assurance Group</td>
<td>A governance group of the HSR, with responsibility for approving both stages of the HSR process and the recipient of this report and recommendations. The membership of the OAG includes all the commissioners and providers in the SYB region at Chair level, as well as representatives of Local Authorities, Healthwatches and other key organisations. The membership is laid out in Stage 1a Report of the HSR.</td>
</tr>
<tr>
<td>Pairing</td>
<td>Two trusts working closely together to deliver an agreed set of joint functions. This may include coordination of staff and resources across the two sites, supported by appropriate contractual arrangements.</td>
</tr>
<tr>
<td>Physician Associate (PA)</td>
<td>Physician associates are medically trained, generalist healthcare professionals, who work alongside doctors and provide medical care as an integral part of the multidisciplinary team. Physician Associates work with a dedicated medical supervisor, but are able to work autonomously with appropriate support.</td>
</tr>
<tr>
<td>Place</td>
<td>The term used in the SYB STP plan for the main areas and their healthcare organisations that make up the SYB footprint. These are Barnsley, Bassetlaw, Doncaster, Rotherham and Sheffield. They encompass health and social care providers, in acute and community settings, as well as commissioners, local authorities and other key stakeholders in an area based around key population centres.</td>
</tr>
<tr>
<td>Place Plans</td>
<td>Statements that set out the vision, ambitions and proposed direction of travel for the design and delivery of health and care services in a Place. These plans are generally produced by commissioners of health and care services, usually in cooperation with...</td>
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55 Available at: https://www.healthandcaretogethersyb.co.uk/application/files/7515/0903/4254/Hospital_Services_1a_Report.pdf
| **Primary care** | Primary care services provide a first point of contact in the healthcare system for many patients, acting as the ‘front door’ of the NHS. Primary care includes general practice, community pharmacy, dental, and optometry (eye health) services. Patients may be treated in this setting or referred for onward treatment in a different setting (such as secondary or tertiary care). |
| **Priority processes** | Clinical and operational processes identified by clinicians and other healthcare professionals as part of the HSR, to be addressed for unwarranted variation across SYB(MYND) with the highest potential impact and ease of implementation. |
| **Reconfiguration** | The rearrangement of the location and type of clinical service provided across a given area. It may include transferring the provision of different service components between acute providers, as well as transfer of some care to alternate settings such as the community. |
| **Reference Cost Index** | Reference costs are the average unit cost to the NHS of providing secondary healthcare to NHS patients. Reference costs are used to set prices for NHS-funded services in England. They are indexed and individual trusts’ costs are measured as a ratio against them. |
| **Referral** | The process whereby a patient is transferred from one professional to another, usually for specialist advice and/or treatment. |
| **Resuscitation** | Cardio pulmonary resuscitation is a life-saving procedure that is performed when a person’s breathing or heartbeat has stopped. |
| **Rotations** | The formalised process of organising for staff to work across multiple sites or services in a routine way. It may be used to facilitate provision of services in multiple locations or to support staff development and training. |
| **Royal Colleges** | The Royal Colleges are professional organisations for doctors, nurses and allied health professionals. In general, they have a vision of improving, maintaining and promoting standards of care within the specialist area which they cover. They work jointly to develop policy on some issues and work closely with other organisations and associations that have similar objectives. They promote education and research in their respective fields. |
| **Secondary care** | Specialist healthcare usually provided in hospital after a referral from a GP or other health professional. |
| **Seldom heard groups** | ‘Seldom heard’ is a term used to describe groups who may experience barriers to accessing services or are under-represented in healthcare decision making. Traditionally, some of the groups identified in engagement activities include rural communities, black and minority ethnic (BME) groups, gypsies and travellers, lesbian, gay, bisexual and transgender, asylum seekers and refugees and young carers. However, teenagers, employees, people with mental health issues and many others may also be considered as seldom heard, since they may not find it easy to engage with traditional methods of public engagement. |
| **Sentinel Stroke National Audit Programme (SSNAP)** | The Sentinel Stroke National Audit Programme (SSNAP) aims to improve the quality of stroke care by measuring both the structure and processes of stroke care against evidence based standards. These standards are informed by the National Clinical Guideline for Stroke, and national and local benchmarks. |
| **Short Stay Paediatric Assessment Unit** | A facility within which children with acute illnesses, injuries or other urgent referrals (from GPs, community nursing teams, walk-in centres, NHS Direct and emergency... |
**Hospital Services Review**

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<tr>
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<tbody>
<tr>
<td>SSPAU</td>
<td>departments) can be assessed, investigated, observed for a short period of time and treated without recourse to in-patient areas. May be co-located with ED.</td>
</tr>
<tr>
<td>System Control Total (SCT)</td>
<td>A net revenue target for Integrated Care Systems agreed to by providers, commissioners and the central NHS England and NHS Improvement finance teams. It is an aggregate of all the individual control totals of the organisations in the ICS. The SCT acts as a proxy measure of financial performance of the system and is intended to be the metric against which ICSs will be judged when NHS Improvement awards Sustainability and Transformation Funding (now divided into the Provider Sustainability Fund and Commissioner Sustainability Fund).</td>
</tr>
<tr>
<td>Single service model</td>
<td>A network where care is delivered directly by the lead trusts and responsibility for patient care and clinical governance rests with that lead trust. Staff and resources are paid for and managed directly by the lead trust and activity is commissioned directly from the lead trust.</td>
</tr>
<tr>
<td>South Yorkshire and Bassetlaw (SYB)</td>
<td>SYB refers to the more specific region within SYB(MYND) that covers acute trusts which will be members of the SYB shadow Integrated Care System, as well as the footprint of SYB Sustainability and Transformation Plan.</td>
</tr>
<tr>
<td>South Yorkshire and Bassetlaw and North Derbyshire (SYB(ND))</td>
<td>SYB(ND) refers to the area within scope of this review (see SYB(MYND)), excluding Mid Yorkshire. It may be used to refer to recommendations on reconfiguration of services, in which Mid Yorkshire Hospitals NHS Trust is not included.</td>
</tr>
<tr>
<td>South Yorkshire and Bassetlaw Integrated Care System (SYB ICS)</td>
<td>SYB is one of the first and largest Integrated Care Systems. An ICS brings partner organisations closer together, taking further responsibility for finances in return for greater flexibility in delivering NHS services. ICSs are in shadow form and due to go into operation at the beginning of 2018/19 financial year. The shadow period refers to the period before the full operation of the ICS, during which the system will develop and gradually implement the governance, structural and financial arrangements required to 'go live' as an integrated care system.</td>
</tr>
<tr>
<td>South Yorkshire and Bassetlaw, Mid Yorkshire and North Derbyshire (SYB(MYND))</td>
<td>SYB(MYND) refers to the area serviced by acute trusts within the scope of this review. There are seven acute trusts in SYB(MYND): Barnsley Hospital NHS Foundation Trust, Doncaster and Bassetlaw Hospitals NHS Foundation Trust, Rotherham NHS Foundation Trust, Sheffield Children's NHS Foundation Trust, Sheffield Teaching Hospitals NHS Foundation Trust, Chesterfield Royal Hospital NHS Foundation Trust, and Mid Yorkshire Hospitals NHS Trust.</td>
</tr>
<tr>
<td>Standalone Midwifery Led Units (SMLU)</td>
<td>Maternity units that are led and staffed by midwives without consultant presence, in a setting that is unattached to a hospital. They generally provide prenatal, midwifery and postnatal care to lower risk mothers. They may be in community settings and are sometimes called Community Birth Hubs or Centres.</td>
</tr>
<tr>
<td>Sustainability and Transformation Plan (STP)</td>
<td>Five-year plans covering all aspects of NHS spending within a given geographical footprint. STPs have a broad scope in planning healthcare, including: improving quality and developing new models of care; improving health and wellbeing; and improving efficiency of services. STPs are developed by Sustainability and Transformation Partnerships, made up of NHS organisations and local councils. The SYB STP has now become an Integrated Care System (see ICS).</td>
</tr>
<tr>
<td>Teleconsultation / remote consultation</td>
<td>Consultation by remote telecommunications, generally for the purpose of diagnosis or treatment of a patient at a site remote from the patient or primary physician. It allows GPs and other healthcare professionals to access specialist advice in real time.</td>
</tr>
<tr>
<td>Tertiary care</td>
<td>Highly specialised treatment such as neurosurgery, transplants and secure forensic mental health services.</td>
</tr>
<tr>
<td>Unwarranted variation</td>
<td>Clinical variation</td>
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<tr>
<th>Urgent Treatment Centre (UTC)</th>
<th>Definition</th>
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<tr>
<td></td>
<td>Urgent care centres designed as an alternative to ED departments for patients with less severe, non-emergency conditions. Often co-located with EDs with patients triaged and streamed at the front door, and equipped to diagnose and deal with many of the most common patient conditions. May also be standalone at sites without an ED.</td>
</tr>
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<thead>
<tr>
<th>Whole-time equivalent (WTE)</th>
<th>Definition</th>
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<tr>
<td></td>
<td>Whole-time equivalent is a unit that indicates the workload of an employed person (or student) in a way that makes workloads or class loads comparable across various contexts. For medical staff, it generally refers to 10 programmable activities per week of resource.</td>
</tr>
</tbody>
</table>