One Gloucestershire
Transforming Care, Transforming Communities

NHS

FIT FOR THE FUTURE

Lung Function & Sleep Services Business Case

Version 1.7

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Contents

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1 Executive Summary

1.1 Purpose of the document

- The purpose of this business case is to present and summarise the work completed to date in respect of the Lung Function and Sleep Service.
- The document describes our emerging proposals for service change, and to enable decision makers to decide whether there is (or is not) a case to launch a public consultation
- This version (v1.7) of the document has been developed to seek internal approval including recommendations.
- The Governing Body of Gloucestershire Clinical Commissioning Group (CCG) will decide whether the proposed service change requires consultation. The CCG is the legally accountable Consulting Authority so has final responsibility for approving next steps.

1.2 Introduction to the System

- The One Gloucestershire ICS is committed to turning the NHS Long Term Plan (LTP) into action for the benefit of local people and our dedicated workforce.
- The services included within this business case should not be seen in isolation from all the other developments that support the delivery of our LTP
- Our Fit for the Future (FFTF) Programme includes looking at how we can develop outstanding specialist hospital care in the future across the Cheltenham General (CGH) and Gloucestershire Royal (GRH) hospital sites.
- Detailed work on our Phase 1 implementation plans, for Image Guided Interventional Surgery proposals at GRH (identified after the Phase 1 decision-making had completed), identified a requirement for a service to relocate to allow for the establishment of the IGIS day-case recovery.
- The preferred implementation option for the IGIS Hub would require Lung Function and Sleep to relocate from its current GRH footprint

1.3 Lung Function and Sleep Services

- The Lung Function and Sleep Service provide investigation, monitoring and testing for respiratory diseases; non-invasive ventilation and identification and treatment for sleep disordered breathing conditions.
- The service also delivers investigation, testing and assessment of the gastrointestinal system.
- The vast majority of activity is for outpatients (~ 90%), with 600 G.I. patients (8%) and the remaining 2% is inpatient activity.
- Currently, the majority of services are available at both GRH and CGH.
- There is currently a broad distribution of patients across the county attending each site and most specifically at CGH, with patients often choosing the site with the shortest wait and therefore not necessarily the site closest to where they live.
- The Gastrointestinal (G.I.) service is only available at CGH
- The current Lung Function and Sleep Service location at GRH would provide the required footprint for the Image Guided Interventional Surgery day-case recovery area.

1.4 Engaging with clinicians, patients the public and other stakeholders

- All respondents to our survey who had used the Lung Function and Sleep service had had a positive experience.
- When asked to comment on the proposals for a Hub and Spoke model, 51% of those responding were positive, 18% neutral and 31% negative.
- Travel impact is the single largest negative impact of the proposals.
- Lung Function and Sleep services staff have been central to the assessment of options and the development of proposals.

1.5 Developing clinical models

- Lung Function and Sleep Service staff have identified the most important factors for the service when considering proposals.
- Fit for the Future programme has identified, through previous public, patient and staff engagement, a number of hurdle or essential criteria
- The team identified five potential options (including the status quo) and these have been assessed.

1.6 Proposal

- The preferred option is a 'Hub' and 'Spoke' model; the 'Hub' (at CGH) will provide the main outpatient services and G.I. service; and the 'Spoke' (GRH) will focus mostly on inpatients.
- Whilst the initial driver for change arises from the requirement to vacate their current footprint, the service has considered many innovative ways in which the impact of relocation can be mitigated, and additional patient benefits delivered.
- A Hub and Spoke model will address the case for change and provide an opportunity to avoid duplication and ensure staff and equipment are in the right location to meet patient needs.
- Benefits have been clearly identified including development of multi-disciplinary clinics, optimisation of equipment for patients, improvement in staff resilience and create capacity for impromptu patient queries.
- Our proposal also includes changes to sleep follow ups which will now primarily be conducted remotely.
- The preferred option is aligned with the strategic vision.
- The impact of this proposal would be to shift approximately 3,600 patients from GRH to CGH
- Positively evaluated by clinical and public representative at option evaluation workshop

1.7 Integrated Impact Assessment

- Service level data and the 2011 Census have been utilised to understand the impact that a consolidation of a hub at CGH could have on patients, including those with protected characteristics.
- It suggests that patients who are obese, which is a risk factor for Obstructive Sleep Apnoea, and patients who live in the areas of highest deprivation may be most impacted

by the consolidation of a main hub to CGH. However, for those with co-morbidities this may be advantageous by providing specialist services on one site

- Travel impact assessment has been completed.
- The engagement survey response showed that almost twice as many people were positive about the proposal than negative about the proposal
- A number of themes, including travel impact, were identified through the engagement process and these are addressed.

1.8 Resource Impact Assessment

- Given the scale of the Lung Function and Sleep service and the preferred option proposed, the impact on resources is either neutral or low.

1.9 Implementation plan

- These proposals were shared with the Gloucestershire Health Overview and Scrutiny committee (HOSC) in July 2021 including the intention of the ICS to initiate and undertake the process for formal service change.
- Following approval of the Fit for the Future (FFTF) proposals by CCG Governing Body in March 2021, the programme is now into Phase 1 implementation stage and to enable the IGIS hub to be established at GRH these proposed changes to the Lung Function and Sleep Service need to have been implemented by December 2021.

1.10 Economic and Financial Analysis

- There are no anticipated recurrent finance changes expected from this proposal.
- The shift of some services to non-face to face appointments may require agreement with Commissioners when the Trust moves away from block contracts to payment by results.
- There have been no requests for additional equipment by the service to enable to implementation of this proposal, however there will be a non-recurring one-off capital costs to cover transition costs. This funding will be identified and funded through the IGIS programme.

1.11 Governance and decision-making

- The Fit for the Future Programme is overseen by the Gloucestershire ICS and is embedded into both system and individual organisational governance structures.
- NHS England and Improvement and the South West Clinical Senate have been involved in the Fit for the Future Programme, with regular contact and sharing of documents.
- The Governing Body of Gloucestershire Clinical Commissioning Group (CCG) will decide whether the proposed service change requires consultation. The CCG is the legally accountable Consulting Authority so has final responsibility for approving next steps.

1.12 Next Steps and Recommendation

- In accordance with our standardised process for service redesign, the Lung Function and Sleep service has undertaken a number of key activities that are presented in this business case.
- The evidence provided in this business case, including feedback from our patient and public engagement, supports the creation of a Hub and Spoke Model for Lung Function and Sleep services.
- The recommendation to the Governing Body of Gloucestershire Clinical Commissioning Group is to approve the proposals to create a Hub and Spoke model for Lung Function and Sleep Services (the 'Hub' at CGH will provide the main outpatient services and G.I. service and the 'Spoke' at GRH will focus mostly on inpatients), and also that the proposed service change **does not** require consultation
- The CCG Governing Body meeting is on 30/09/21, and the outcomes will be shared with HOSC at their meeting of the 12/10/2021.

2 Purpose of the document

The purpose of this business case is to present and summarise the work completed to date in respect of the Lung Function and Sleep Service, with the following purposes in mind:

- To describe our emerging proposals for service change, and to enable decision makers to decide whether there is a case to launch a public consultation
- To build alignment between the NHS and local authority by describing the case for change and to demonstrate that all options, benefits and impact on service users have been considered
- To inform the necessary assurance process that our proposals against the government's four tests of service change, and NHS England's fifth test of service change and best practice checks for planning service change and consultation
- To test whether proposals are compatible with our shared system strategy

This version (v1.7) of the document has been developed as part of both the internal governance requirements and the NHS England Service Change Assurance Process.

The proposals set out in this document are confidential until approved for release to public by the standard assurance processes and duties on public bodies as defined by the Health and Social Care Act 2012.

2.1 Intended Audiences and their Decision-Making Roles

The business case is written by the Gloucestershire Fit for the Future Programme for the following audiences:

- The Governing Body of Gloucestershire Clinical Commissioning Group (CCG) which will decide whether the proposed service change requires consultation. The CCG is the legally accountable Consulting Authority so has final responsibility for approving next steps.
- The Board of Gloucestershire Hospitals NHS Foundation Trust (GHNHSFT) who will confirm organisational level support for the proposed changes to clinical services including formal approval of the case in terms of finance, workforce and implementation plans.
- The Board of the Gloucestershire Integrated Care System (ICS), who will be asked to provide their support and ensure that the proposals are compatible with our shared system strategy.
- NHS England and Improvement (NHSE&I) and South West Clinical Senate.
- The Gloucestershire Health Overview and Scrutiny committee (HOSC) who will scrutinise the final proposals in line with their responsibilities.

For the purposes of transparency, the final draft of this business case will be made available publicly, but the document is not written with a public audience in mind.

2.2 Document Status

This document has been written at a point in time, reflecting information as of the date of publication. The document, including its related analysis and conclusions, may change based on new or additional information which is made available to the programme.

Until published this is a confidential document for discussion purposes and any application for disclosure under the Freedom of Information Act 2000 should be considered against the potential exemptions contained in s.22 (Information intended for future publication), s.36 (Prejudice to effective conduct of public affairs) and s.43 (Commercial interests). Prior to any envisaged disclosure under the Freedom of Information Act, the parties should discuss the potential impact of releasing such information as is requested.

The involved NHS bodies understand and will comply with their statutory obligations when seeking to make decisions that will have an impact on the provision of care services.

Key Points

- **The purpose of this business case is to present and summarise the work completed to date in respect of the Lung Function and Sleep Service.**
- **The document describes our emerging proposals for service change, and to enable decision makers to decide whether there is (or is not) a case to launch a public consultation**
- **This version (v1.7) of the document has been developed as part of both the internal governance requirements and the NHS England Service Change Assurance Process.**
- **The Governing Body of Gloucestershire Clinical Commissioning Group (CCG) will decide whether the proposed service change requires consultation. The CCG is the legally accountable Consulting Authority so has final responsibility for approving next steps.**

3 Introduction and Context

3.1 One Gloucestershire Integrated Care System

The One Gloucestershire Integrated Care System (ICS), a partnership between local NHS and care organisations, is committed to turning the NHS Long Term Plan into action for the benefit of local people and our dedicated workforce. Our expectations of healthcare, the demands on health services and the incredible progress made in development of staff skills, medicine and technology mean that we need to continue to adapt to support healthy lives and transform care to meet the needs of people into the future.

Our Vision

To improve health and wellbeing of our population, we believe that by all working better together - in a more joined up way, and using the strengths of individuals, carers and local communities - we will transform the quality of support and care we provide to all local people.

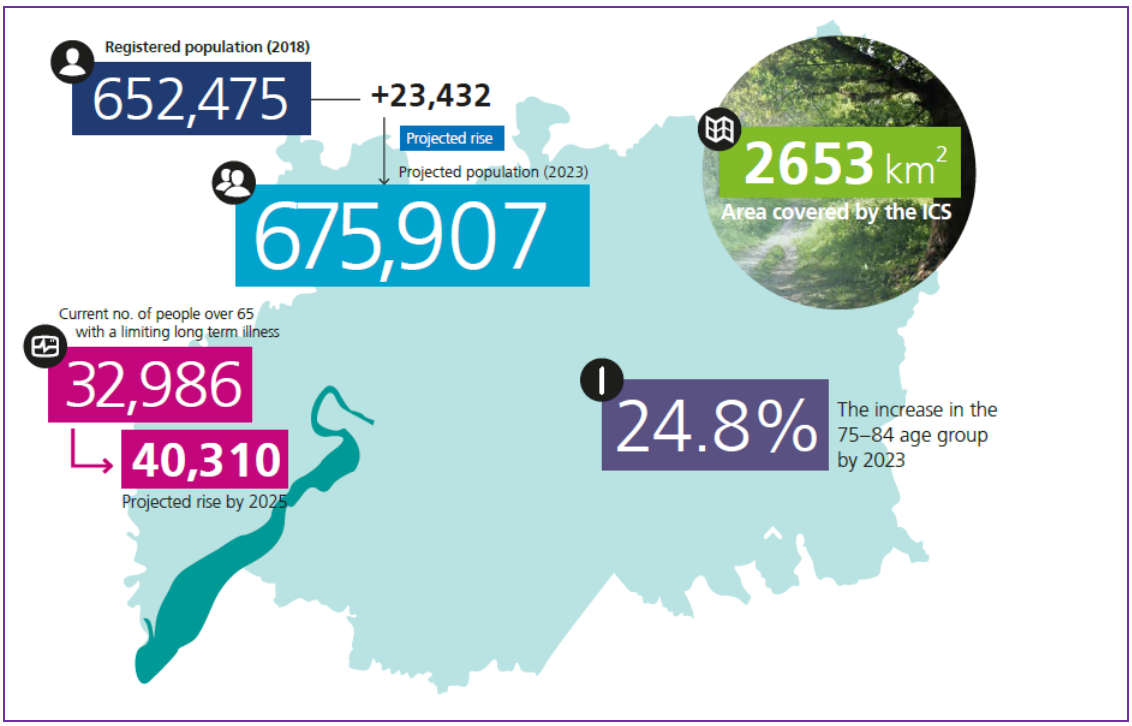
Our Integrated Care System priorities are to:

- Place a greater emphasis on personal responsibility, prevention and self-care, supported by additional investment in helping people to help themselves
- Place a greater emphasis on joined up community-based care and support, provided in patients' own homes and in the right number of community centres, supported by specialist staff and teams when needed
- Continue to bring together specialist services and resources into *Centres of Excellence* that deliver a greater separation of emergency and planned care, and, where possible reduce the reliance on inpatient care (and consequently the need for bed-based services) across our system by repurposing the facilities we have in order to use them more efficiently and effectively in future.
- Develop new roles and ways of working across our system to make best use of the workforce we have, and bring new people and skills into our delivery system to deliver patient care
- Have a continued focus on ensuring parity of esteem for mental health.

As part of our response to the NHS LTP and commitment to the public in Gloucestershire, when patients have serious illness or injury that requires specialist care, we believe they should receive treatment in centres with the right specialist staff, skills and equipment by delivering care that is fit for the future. Our *Fit for the Future Programme* includes looking at how we can develop outstanding specialist hospital care in the future across the Cheltenham General and Gloucestershire Royal Hospital sites; our *Centres of Excellence*.

3.2 Local Health Context

An overview of the demographics and financial challenges that our county faces are presented below. This proposal which is part of a much wider FFTF Programme aimed at supporting our system to improve health outcomes for our population in line with our assessment of local health needs.



The three leading causes of death for our population are cancer (27.9%), cardiovascular disease (26.8%) and respiratory disease (14.2%). Age is the leading risk; however, the burden of disease in these categories is associated with four additional key risk factors: poor diet, physical inactivity, smoking and excess alcohol consumption.

Poor mental and emotional wellbeing also have a key part to play. Gloucestershire is broadly in line with national and regional benchmarks for alcohol related admissions to hospital, levels of physical activity and adult excess weight, although some districts have worse rates than the county as a whole, notably in the west of the county in the Forest of Dean, Gloucester and Tewkesbury. Smoking rates in Gloucestershire are steadily declining and are lower than comparators. Whilst healthy life expectancy for women is almost two years better than for their regional counterparts, the average for Gloucestershire men is lower than for the South West as a whole.

Our ageing population, changing patterns of disease (more people living with multiple long-term conditions) and rising public and patient expectations mean that fundamental changes are required to the way in which care is delivered in our county. We will more fully involve individuals in their own health and care by ensuring shared decision-making is a reality by intensively training our clinicians to give people the support and information they need for effective self-management and involving their families and carers to support them in making the changes needed to keep healthy. There is clear evidence that most people want to be more involved in their own health and that, when they are, decisions are better, health outcomes are improved, and resources are allocated more efficiently.

3.3 Joint Strategic Needs Assessment & Joint Health and Wellbeing Strategy

The Gloucestershire Joint Health and Wellbeing Strategy 2019-2030 (JHWS) sets out the plans to address our seven Health and Wellbeing Board priorities:

- Physical activity
- Adverse childhood experiences (ACEs)
- Mental wellbeing
- Social isolation and loneliness
- Healthy lifestyles
- Early years and best start in life
- Housing

As an Integrated Care System (ICS) we recognise that our JHWS is intrinsically linked to our response to the NHS Long-Term Plan (LTP) and the services within our FFTF programme should not be seen in isolation from all the other developments that support the delivery of our JHWS and address the issues and challenges identified in our Joint Strategic Needs Assessment 2017 (JSNA) . Our JSNA does highlight that Gloucestershire has an ageing population, with a higher and growing number and proportion of older people and this is developed as part of our Case for Change (section 4.2).

Some key highlights our LTP response where we have delivered significant progress that link directly to the JHWS and JSNA include:

- Mental Health Trailblazer work supporting children's and young people's mental through Mental Health Support Teams working with and in education.
- Early implementer site for personalised care supporting people to have greater control and choice around their care and services.
- Clinical programmes transformation including continuing to reshape Musculoskeletal services and take a prevention focused approach to Diabetes
- Continuing our work on cultural commissioning and social prescribing with excellent results showing improvement in the health and well-being of people who have used the services.
- Use of population health management case finding to proactively identify and support people who have the greatest need, for example, our Complex Care @ Home service supporting people to stay well and avoid future urgent care admissions.
- Formation and strengthening of Primary Care Networks and Integrated Locality Partnership: our place-based working is moving rapidly within increasingly empowered places supporting the improvements that make most difference to their population.

3.4 Local Services Context

The One Gloucestershire Integrated Care System (ICS) Partnership members are NHS Gloucestershire Clinical Commissioning Group, Gloucestershire Hospitals NHS Foundation Trust, Gloucestershire County Council, South Western Ambulance Service Foundation Trust and Gloucestershire Health and Care Services NHS Foundation Trust. In response to recent legislation and in-line with all systems in England we are working to legally formalise the ICS from 1st April 2022.

3.4.1 *Gloucestershire Hospitals NHS Foundation Trust (GHNHSFT)*

Gloucestershire Hospitals NHS Foundation Trust (GHNHSFT) is one of the largest hospital trusts in the country and provides high quality acute and specialist health care for a population of more than 850,000 people. It is the second largest employer in Gloucestershire, with more than 7,400 employees. Patients are cared for by more than 2,250 registered nurses and midwives and 850 doctors. In addition, it employs more than 500 estates staff, 250 healthcare scientists and 400 health professionals, such as physiotherapists and speech therapists. GHNHSFT delivers services from two main sites that complement each other:

- Gloucestershire Royal Hospital (GRH).
- Cheltenham General Hospital (CGH).

Some services run on both sites while other specialist services are focused at just one to optimise the use of specialist staff, skills and equipment. Services are also provided from a range of other locations across the county and beyond.

3.4.2 *South Western Ambulance Service NHS Foundation Trust (SWASFT)*

South Western Ambulance Service NHS Foundation Trust (SWASFT) provides a wide range of Emergency and Urgent Care services and employs more than 4,000 staff and has 96 ambulance stations, three clinical control rooms, six air ambulance bases and two Hazardous Area Response Teams (HART). In the context of urgent care in Gloucestershire, South Western Ambulance Service NHS Foundation Trust provide the 999-phone service, and hear and treat, see and treat and ambulance dispatch services.

3.4.3 *Gloucestershire Health and Care NHS Foundation Trust*

Gloucestershire Health and Care NHS Foundation Trust was formed in October 2019 by the merger of 2gether NHS Foundation Trust and Gloucestershire Care Service NHS Trust, to provide joined up physical health, mental health and learning disability services.

The Trust provides nursing, physiotherapy reablement and adult care in community settings, operates the county's seven community hospitals and runs health visiting, school nursing and speech and language therapy services for children. It also provides specialist services including sexual health, heart failure, community dentistry, diabetes, IV therapy, tissue viability and community equipment. The Trust employs around 2,700 people including nursing, medical, dental, allied health professionals, support staff, administrative and clerical workers. It also works in close partnership with around 800 social care staff from Gloucestershire County Council.

3.4.4 *NHS Gloucestershire Clinical Commissioning Group (GCCG)*

GCCG came into existence on 1 April 2013. It is a membership-based organisation that includes all general medical practices in Gloucestershire and is overseen by a constitution. The geographical area covered by the 76 practice members is coterminous with that covered by Gloucestershire County Council, covering 271,207 hectares with a registered population of around 630,000 which is further divided into District Councils. GCCG has a wide remit which includes service transformation, quality assurance, consultation and involvement, medicines stewardship and integration between commissioning for health and commissioning for social care.

Our local system provides some excellent quality care as reflected in our CQC assessments, but there are areas where we can do better. In particular we have to respond to a range of performance, financial and workforce challenges that are impacting on our health and care system and it is vital therefore that we are both ambitious and realistic about the future as we consider our opportunities for future service delivery models.

3.4.5 *Gloucestershire County Council (GCC)*

GCC is responsible for a population of 628,000 residents, has 53 councillors and employs 3,155 staff. In its latest strategy GCC has set out a long-term vision setting out priorities for: children's wellbeing and safeguarding; education and skills; health, care and prevention; communities and localities; transport, economy and infrastructure; highways, and; council leadership.

3.5 Fit for the Future

As part of our response to the NHS Long Term Plan and commitment to the public in Gloucestershire, when patients require specialist care, we believe they should receive treatment in centres with the right specialist staff, skills and equipment by delivering care that is fit for the future. Our Fit for the Future (FFTF) Programme includes looking at how we can develop outstanding specialist hospital care in the future across the Cheltenham General (CGH) and Gloucestershire Royal (GRH) hospital sites. Our "Centres of Excellence" vision for the future configuration of specialist hospital services with GRH focussing more (but not exclusively) on emergency care, paediatrics and obstetrics and CGH focussing more (but not exclusively) on planned care and oncology. Across the UK and the world, it is recognised that an element of separation between planned and emergency care services can improve care for everyone.

With these Phase 1 changes agreed and the principle of a greater separation of emergency and planned care established, the programme is starting to explore Phase 2 of reconfigurations that fit with this model. Distinct from our longlist of Phase 2 services, detailed work on our Phase 1 implementation plans, for Image Guided Interventional Surgery proposals at GRH (identified after the Phase 1 decision-making had completed), require a service to relocate to allow for the establishment of the IGIS day-case recovery. The first phase of the programme has completed consultation with the wider public and capital works to establish the IGIS Hub are expected to begin in August 2021. The preferred implementation option for the IGIS Hub would require Lung Function and Sleep to relocate from its current GRH footprint at the end of November 2021.

Key Points

- **The One Gloucestershire ICS is committed to turning the NHS Long Term Plan (LTP) into action for the benefit of local people and our dedicated workforce.**
- **The services included within this business case should not be seen in isolation from all the other developments that support the delivery of our LTP**
- **We recognise that our Joint Health & Wellbeing Strategy is intrinsically linked to our response to the NHS Long-Term Plan (LTP)**
- **Our Fit for the Future (FFTF) Programme includes looking at how we can develop outstanding specialist hospital care in the future across the Cheltenham General (CGH) and Gloucestershire Royal (GRH) hospital sites.**
- **Detailed work on our Phase 1 implementation plans, for Image Guided Interventional Surgery proposals at GRH (identified after the Phase 1 decision-making had completed), identified a requirement for a service to relocate to allow for the establishment of the IGIS day-case recovery.**
- **The preferred implementation option for the IGIS Hub would require Lung Function and Sleep to relocate from its current GRH footprint**

4 Lung Function and Sleep Services

4.1 What is the 'current state' service model?

The Lung Function and Sleep Service provide investigation, monitoring and testing for respiratory diseases (problems with the upper airway, the lungs, the chest wall and the ventilatory control system); non-invasive ventilation (the use of breathing support administered through a full face or nasal mask) and identification and treatment for sleep disordered breathing conditions. In addition to this, the service delivers investigation, testing and assessment of the digestive or gastrointestinal (GI) system.

Currently, the Lung Function and Sleep Service operate at both Gloucestershire Royal Hospital (GRH) and Cheltenham General Hospital (CGH), meaning that patients may visit either site for their appointment depending on what test they are having and therefore not necessarily the site closest to where they live, with patients often choosing the site with the shortest wait. However, the Gastrointestinal (G.I.) service is only available at CGH.

The vast majority of activity (care and treatment) carried out by the Lung Function and Sleep Service is for outpatients (approximately 90%), with 600 G.I. patients (8%). The remaining 2% is inpatient activity which supports patients under the care of a range of specialists, mostly focussing on tests for patients prior to them leaving hospital for home.

For the 12 months in our baseline year (pre-COVID-19: February 2019 - January 2020), the Lung Function and Sleep service saw a total of 7,389 patients at 10,974 outpatient appointments across both sites (an average of 1.4 appointments / patient). Of these 43% (3,286[1]) attended CGH and 57% (4,419) attended GRH. Within each outpatient appointment patients may have multiple procedures, with an average of 2.7 procedures / patient or 1.9 procedures / appointment.

The table lists the services available at each site in our baseline period.

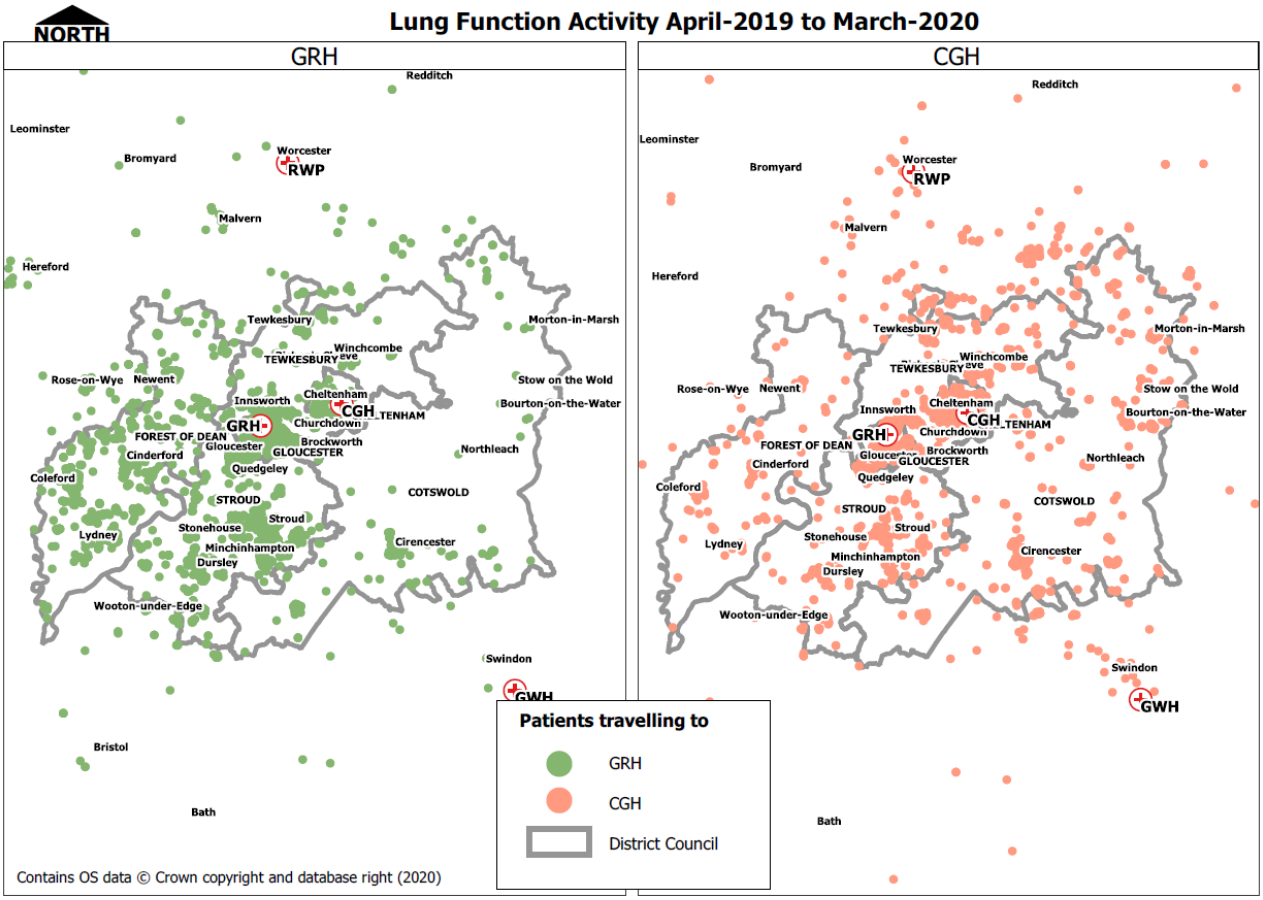
Baseline Services by Site	
GRH	**CGH**
Lung Function – Flow Volume Loop (FL), Lung Volume (LV), Gas Transfer (GT)	Lung Function - FL, LV, GT
Spirometry	Spirometry
Capillary Blood gases	Capillary Blood gases
Mouth pressures	Mouth pressures
Exhaled Nitric Oxide (FeNO)	Exhaled Nitric Oxide (FeNO)
Sitting and Supine spirometry	Sitting and Supine spirometry
Bronchodilator response	Bronchodilator response
Mannitol	Mannitol
Multichannel Sleep study	Multichannel Sleep study
Continuous Positive Airway Pressure (CPAP) trial	CPAP trial
Overnight pulse oximetry	Overnight pulse oximetry
Non-Invasive Ventilation (NIV) issue	NIV issue
6wk Occupational Asthma study	6wk Occupational Asthma study

[1] The sum of patients attending each site is greater than the total number of patients as some patients attend both sites.

	Hypoxic challenge (Fit to fly)
	Gastrointestinal (G.I.) Services

Whilst the majority of services are available at both sites the maps below, which reflect where patients live and which site they attended, illustrates there is currently a broad distribution of patients across the county attending each site and most specifically at CGH, with patients often choosing the site with the shortest wait.

Please note that each 'dot' represents 1 patient.



4.2 Case for change: the problem we are seeking to address.

Gloucestershire Hospitals NHS Foundation Trust (GHNHSFT) operates from two main hospital sites, 8 miles apart. Since merging to form a single Trust in 2002 many services have been centralised to one of the two sites, e.g. paediatrics, emergency general surgery, vascular surgery, stroke and trauma to Gloucestershire Royal Hospital and ophthalmology, oncology, gastroenterology and urology to Cheltenham General Hospital.

As described in Section 3.5, the Fit for the Future (FFTF) programme Phase 1 proposals included the establishment of a hub for Image Guided Interventional Surgery (IGIS) at Gloucestershire Royal Hospital. Capital works to establish the IGIS Hub are expected to begin in August 2021. The preferred implementation option for the IGIS Hub would require a service to relocate to allow for the establishment of the IGIS day-case recovery. Our proposal would be that Lung Function and Sleep services move from its current GRH footprint area. The proposed solution to manage the move and mitigate any impacts associated with it is to implement a 'hub and spoke' model for Lung Function and Sleep Services. This would mean that Lung Function and Sleep would have a main hub, where

most of its activity would take place, at CGH. However, it would also operate a smaller 'spoke' service on GRH.

Whilst the initial driver for change arises from the requirement to vacate their current footprint, the service has considered many innovative ways in which the impact of relocation can be mitigated, and additional patient benefits delivered; details of these are provided in the sections below. It is our view that the hub and spoke model will facilitate the best use of limited resources to deliver the best patient outcomes through the co-location of key staff and equipment.

4.3 Why improvements to current provision are needed

4.3.1 *Clinical Challenges*

- Currently patients attending the 'ventilation' or 'complex airways' clinics not only require a consultant review, but also specific blood gas testing, machine data reviews performed by a respiratory physiologist but also input from specialist nurses and on occasions specialist physiotherapists. There is no space available in the department at GRH to undertake this 'one-stop shop' clinic format, meaning that patients are required to navigate more than one department during their visit or indeed attend multiple appointments to access the care that they need. This is something that should be minimised for this cohort of patients.
- The G.I. service within Gloucestershire is operating with 0.2 WTE for upper GI and 0.5 WTE for lower GI per week. For patients, this can mean waiting up to 30 weeks from referral as only 3 patients can be seen per week, to being seen by the service. This means that for some patients, they will be referred to G.I services in Bristol or Bath where the waiting times are shorter
- As a result of stocking both sites, there are times where the correct equipment needed for the patient is not available at a particular site. This means that patients are either fitted with the 'next best fit', or patients will be required to revisit the department at a later date to collect the equipment that they need. A negative patient experience at the outset can impact hugely on long term treatment outcomes, as patients can become disengaged in their treatment if the equipment issued to them is not optimal for them. In addition, by providing patients with the best fit equipment first time, there is a financial benefit as less equipment is wasted.
- The Improving Quality in Physiological Services Standards notes that healthcare providers must manage facilities and environments to support the service delivery. This includes ensuring that there is suitable space, facilities to support patient confidentiality and dignity and facilities that are fit for their intended purpose.[2] Currently, these standards are unable to be met on the service's footprint at GRH due to limited available space and facilities.
- As a result of providing the services at GRH and CGH, staff also work at both and therefore if patients wish to see the same member of staff at each appointment, they will often have to attend both sites.

[2] https://www.ukas.com/wp-content/uploads/2020/12/FINAL-IQIPS-standard-2020.pdf

4.3.2 *Workforce Challenges*

- In the last few years, significant changes have been made to address patient access and staffing issues within the department. These include changes to work schedules, job planning and increased working from home opportunities within individual staff job plans to ensure that all rooms onsite could be utilised for patient appointments. However, the benefits of such changes have been difficult to realise when diluted across two sites, as issues around lone working and distribution of staff mean that these changes are unmanageable.
- Currently the service is heavily reliant upon telephone and email communication, meaning that it is difficult for senior staff members to offer full support to junior members.
- There is a national shortage of gastroenterology (G.I.) Physiologists; meaning that it is incredibly difficult to recruit new members of staff into this area. Due to the service being thinly spread across both sites, there are currently no opportunities to facilitate in-house cross training for members of staff into a G.I role.

Key Points

- **The Lung Function and Sleep Service provide investigation, monitoring and testing for respiratory diseases; non-invasive ventilation and identification and treatment for sleep disordered breathing conditions.**
- **The service also delivers investigation, testing and assessment of the gastrointestinal system.**
- **The vast majority of activity is for outpatients (~ 90%), with 600 G.I. patients (8%) and the remaining 2% is inpatient activity.**
- **Currently, the majority of services are available at both GRH and CGH.**
- **There is currently a broad distribution of patients across the county attending each site and most specifically at CGH, with patients often choosing the site with the shortest wait and therefore not necessarily the site closest to where they live.**
- **The Gastrointestinal (G.I.) service is only available at CGH**
- **The current Lung Function and Sleep Service location at GRH would provide the required footprint for the Image Guided Interventional Surgery day-case recovery area.**

5 Engaging with clinicians, patients the public and other stakeholders

5.1 Patient and Public Engagement

5.1.1 *Patient survey (April 2021)*

With the aim of providing an insight into patient views around the proposal to implement a hub and spoke model with a centralised hub at CGH, current patients were asked to complete a series of questions when they attended the service for their appointment. The surveys were completed in April 2021 and 84 patients provided their feedback on the proposal[3].

Firstly, patients were asked about whether they had previously visited either site for an appointment. Out of the 84 patients who completed the questionnaire, 26 patients reported that they had visited CGH before for an appointment and 33 patients reported that they had visited GRH before for an appointment. Furthermore, when asked about their site preference, 27 patients (32%) reported that they had no preference over where they visited for their appointment, 33 patients (39%) reported that they would prefer to visit GRH and 24 patients (29%) reported that they would prefer to visit CGH for their appointment.

In order to understand more about patient's site preferences, the questionnaire asked patients about their reasons behind their preferred site. 51 patients had selected their preferred site based on ease of travel, 15 patients had selected their preferred site based on it being easier to find their way around, 14 patients had selected their preferred site based on it being easier to park at, 7 patients selected their preferred site based on it having better facilities and 6 patients selected their preferred site for another reason not specified. For both sites, the most common reason for patients selecting it at their preferred site was because it was easier for them to travel.

In addition to their preferred site, patients were asked whether any of the reasons behind their site preference would prevent them from visiting their least preferred site for an appointment. Excluding patients who did not have a preferred site, 36 patients reported that they would still be able to visit their least preferred site for their appointment, 14 reported that they would not be able to attend their least preferred site for their appointment and 7 patients did not answer this question.

When patients were asked about their thoughts on the proposal, 33 patients (39%) reported that they had no thoughts on the proposal, 39 (46%) patients reported that they liked the proposal, 6 patients (7%) reported that they did not like the proposal but weren't sure how it could be improved, 1 patient (1%) reported that they did not like the proposal and thought it could be improved by having the spoke site based at the location closest to the patient and 5 patients (6%) did not answer this question.

Finally, patients were asked about what the most important factor was to them when visiting the Lung Function and Sleep department. The results showed that the most important factors to patients where how close the department was to where they lived (35 patients), that the department had the latest possible medical equipment (30 patients) and the waiting time between referral and appointment (21 patients).

[3] Please see Appendix 1 for more information.

5.1.2 *Public and Patient Engagement (August- September 2021)*

A programme of awareness raising with current service users (and with potential future service users) across the county has used a range of channels (print and online) as well as a tour of the NHS Information Bus, notably in Cheltenham and Gloucester City (current service locations). A public and patient questionnaire has been set up on the Get Involved Gloucestershire (GIG) online participation community. The survey was promoted to over 100 county stakeholder groups including those with a specific interest in the service, as well as Healthwatch Gloucestershire, GIG members, Patient Participation Group Members and Trust Members. The survey was also promoted in Trust Lung Function and Sleep Service outpatient clinics. The Outcome of Engagement Report can be found in Appendix 2 and summarised below. The purpose of these questionnaires is to seek feedback from recent, current and potential future patients about the service provided by the Trust, to explore possible alternative solutions for location of future services and the advantages and disadvantages of these and to better understand the Covid-19 experience to ensure this is taken into account.

Summary

- 73 surveys have been received to date of which 78% had used the service (95% as outpatients).
- All respondents who had used the Lung Function and Sleep service had had a positive experience, referencing both the staff and an efficient process. The option of virtual (telephone) appointments was viewed positively by those respondents commenting.
- When asked what could be improved, a third stated "*nothing*", with choice of site and improvements to the Lung Function and Sleep service on-site locations/ environment also being highlighted.
- When asked to comment on the proposals for a Hub and Spoke model, 51% of those responding were positive, 18% neutral and 31% negative.
- When asked what the most important things were to be considered to reduce any negative impact, a third indicated the Hub and Spoke model would be beneficial, with assistance with travel impact, improved information and changes to current process also identified.
- In respect of alternatives, over half of those providing a response indicated the Hub and Spoke was preferred, with suggestions to use community venues and continue to develop virtual options also referenced.
- Whilst the overall response was positive and supportive of the both current service quality and the Hub and Spoke model, a number of themes have been identified that will need to be considered to improve the service (see section 8.5); these include:
    - Communication to patients
    - On-site way finding to existing and new service locations
    - Changes to appointment process
    - Improving the service venue environment
    - Supporting self-management
    - Consider use of video appointments not just telephone

5.2 Staff communication and engagement

Members of staff were involved in an engagement session[4] to discuss the opportunities and potential risks that should be considered when redesigning the service. Initial feedback received suggested that the service could be reconfigured to either CGH (predominately for the GI service); on both sites; and on either location but single sited. As a result, of three viable options suggested by staff, a more in-depth SWOT (Strengths, weaknesses, opportunities and threats) analysis was undertaken centred on the feedback from the initial engagement session.

The key themes that were discovered through the engagement session were that increased space for patients and equipment, better communication between staff, more flexibility for staff cover and a fit for purpose department for Lung Function were the most important factors to be prioritised when reconfiguring the service. In addition, careful consideration for clinical adjacencies, how patients and staff would travel to the site and support for staff working at spoke site would need to be made, but it was recognised that these issues could be reduced through mitigations. When discussing the 'best fit' site, it appeared that CGH was preferable in terms of there being more available space, clinical adjacencies with Endoscopy and Cancer Services and more estates scope to increase the space available to patients and staff. The amount of space available was considered to be the most important factor to the service. Although it was also clear that GRH had benefits in terms of accessing the small number of cardiology inpatients, transport links for staff and patients.

The engagement session established that staff in the Lung Function service were agreed that their preference was a 'hub and spoke' model, as this would allow for benefits associated with the majority of the service having a presence on one site but with the flexibility to continue seeing inpatients.

Throughout the development of this proposal, the project team have been working closely with the Principal Clinical Physiologist and Service Manager to ensure that members of staff are informed on progress and have opportunity to provide any feedback or ask questions.

Finally, five members of the Lung Function and Sleep services team participated in the option evaluation details of which can be found in section 7.8.

Key Points

- **All respondents to our survey who had used the Lung Function and Sleep service had had a positive experience**
- **When asked to comment on the proposals for a Hub and Spoke model, 51% of those responding were positive, 18% neutral and 31% negative.**
- **Travel impact is the single largest negative impact of the proposals.**
- **Lung Function and Sleep services staff have been central to the assessment of options and the development of proposals.**

[4] Please see Appendix 2 for more information.

6 Developing clinical models

6.1 Criteria Development

In order to develop initial criteria for proposals, an engagement session[5] was run with all Lung Function and Sleep Service staff to provide them with an outline of the FFTF Programme and to discuss key considerations when redesigning the service.

It was noted by staff that the most important factors when considering proposals included:

- space available to the service for patients and staff (a fit for purpose department)
- space available for equipment and storage
- flexibility to allow for supporting inpatients
- clinical adjacencies with G.I and Endoscopy and Cancer Services.
- flexibility for staff cover
- transport links for staff and patients

In addition to these team generated priorities, the wider Fit for the Future programme has identified, through previous public, patient and staff engagement, a number of hurdle criteria or essential criteria; these are listed as follows:

- Address the issues identified in the Case for Change
- Supports the delivery of high-quality care across Gloucestershire, ensuring provision of a clinically safe service.
- Achievable and able to be delivered in a timely and sustainable way.
- Affordable and offers best value for money, making the most of the Gloucestershire pound
- Supports sustainable ways of working and facilitates both recruitment and retention of our workforce.

6.2 Options for the 'future state' service model

The Lung Function and Sleep services team with support from the FFTF Programme identified five potential options (including the status quo); these listed in the table below and summarised overleaf:

#	Option	Description
1	No change to service model	The service continues to operate as it currently is, with patients able to attend either CGH or GRH for their appointment and inpatients being supported by the service at both sites.
2	Centralise service at GRH	The service centralises all outpatient activity to GRH, meaning all patients will be required to travel to GRH for all of their appointments. Inpatients at CGH will require a member of the Lung Function and Service Team to travel over to CGH site when required.

[5] Please see Appendix 2 for more information.

#	Option	Description
3	Centralise service at CGH	The service centralises all outpatient activity to CGH, meaning all patients will be required to travel to CGH for all of their appointments. Inpatients at GRH will require a member of the Lung Function and Service Team to travel over to GRH site when required.
4	Hub & Spoke: hub at GRH and spoke at CGH	Outpatient activity will be centralised at GRH, meaning all patients will be required to travel to GRH for their appointments. Inpatients at CGH will be supported by a spoke site team on the CGH site.
5	Hub & Spoke: hub at CGH and spoke at GRH	Outpatient activity will be centralised at CGH, meaning all patients will be required to travel to GRH for their appointments. Inpatients at GRH will be supported by a spoke site team on the GRH site.

6.2.1 *No change to service model*

If the service continued to operate as it currently is, patients would be able to attend either CGH or GRH for their appointment and inpatients would be supported by the service at both sites. This option does not address the case for change and, given the requirement to relocate from its current GRH footprint would not be deliverable in a timely way.

6.2.2 *Centralise the service at GRH*

The centralisation of the service at GRH has the potential to address a number of issues identified in the case for change (including improving service resilience through centralising staff and opportunity for cross-training staff; clinical adjacencies with Cardiology and Respiratory departments and a single equipment site).

However, as an alternative location on the GRH site, with the required increased footprint, has not been identified (and GHNHSFT estates strategy does not envisage a situation where this could be made available given site constraints), this option is not deliverable.

6.2.3 *Centralise the service at CGH*

The centralisation of the service at CGH has the potential to address a number of issues identified in the case for change (including improving service resilience through centralising staff and opportunity for cross-training staff; clinical adjacencies with Colorectal, Endoscopy and Oncology and a single equipment site).

Unlike GRH, centralisation on the CGH site would allow for an improved estate for the Lung Function and Sleep service. A bigger estate will allow for the service to introduce multi-disciplinary clinics for the 'ventilation' or 'complex airways' clinics, negating these patients to navigate multiple departments in one-visit or attend multiple separate appointments. This would also reduce the risk of patients being exposed to infection by reducing the number of times they visit site.

This option has the potential to reduce the likelihood of Gloucestershire G.I. patients being referred to Bristol or Bath where there are shorter waiting times, by centralising staff to allow for G.I cross training in house. It is also aligned with strategic vision of 'Centres of Excellence', Lung Function and Sleep is a planned care service and is therefore better aligned to the planned care site.

6.2.4 *Hub & Spoke: hub at GRH and spoke at CGH*

Whilst providing many of the benefits of a centralisation model (e.g. improving service resilience through consolidating staff to the hub and a single equipment site), the option of a spoke will enable to dedicated support for inpatients to ensure they are seen in a timelier manner. The hub at GRH will maintain clinical links with Cardiology and Respiratory departments. From a staff perspective there is a clear definition in how clinical time is spent and planned by separation of inpatient and outpatient work.

However, as with the centralisation at GRH option, we have not been able to identify an alternative location (to the existing) on the GRH site, with the required increased footprint for a hub, and therefore this option is not deliverable. Furthermore, under current service configurations (Colorectal, Endoscopy and Oncology who are all based in CGH), means that the G.I service would be unable to be provided at the GRH site.

6.2.5 *Hub & Spoke: hub at CGH and spoke at GRH*

Whilst providing many of the benefits of a centralisation model (e.g. improving service resilience through consolidating staff to the hub, opportunities for cross-training and a single equipment site), the option of a spoke will enable to dedicated support for inpatients to ensure they are seen in a timelier manner. The hub at CGH will maintain clinical links with G.I. and Colorectal, Endoscopy and Oncology. From a staff perspective there is a clear definition in how clinical time is spent and planned by separation of inpatient and outpatient work.

The CGH site would allow for an improved estate for the Lung Function and Sleep service due to spatial constraints on GRH site. A bigger estate will allow for the service to introduce multi-disciplinary clinics for the 'ventilation' or 'complex airways' clinics, negating these patients to navigate multiple departments in one-visit or attend multiple separate appointments. This would also reduce the risk of patients being exposed to infection by reducing the number of times they visit site.

This option has the potential to reduce the likelihood of Gloucestershire G.I. patients being referred to Bristol or Bath where there are shorter waiting times, by centralising staff to allow for G.I cross training in house. It is also aligned with strategic vision of 'Centres of Excellence', Lung Function and Sleep is a planned care service and is therefore better aligned to the planned care site.

The consolidation of services at the hub will allow us to provide them in one place which can benefit patients with co-morbidities, such as obesity, which is a risk factor for Sleep Apnoea, as it means that patients can access specialist services.

Finally, as part of overall service improvement, our proposal is that sleep follow ups will now primarily be conducted remotely.

Key Points

- **Lung Function and Sleep Service staff have identified the most important factors for the service when considering proposals.**
- **Fit for the Future programme has identified, through previous public, patient and staff engagement, a number of hurdle or essential criteria**
- **The team identified five potential options (including the status quo) and these have been assessed.**

7 Proposal

7.1 Hub and Spoke Model: Hub at CGH and Spoke at GRH

Following an assessment of the potential options (see section 6.2) our preferred option (our "proposal"), is to create a 'Hub' and 'Spoke' for Lung Function and Sleep Services, with the busier main outpatient 'Hub' in Cheltenham and the smaller 'Spoke' in Gloucester focussing mostly on inpatients.

The 'Hub' would provide the majority of outpatient diagnostic testing for patients attending a hospital appointment for Lung Function and Sleep Services and would also provide an inpatient service supporting other patients staying overnight at the hospital that also require Lung Function diagnostic testing.

The 'Spoke' in Gloucester would provide diagnostic testing for patients staying overnight at the other hospital site and would also help to support the lung cancer patient pathway through accommodating these patients when they attend GRH for their EBUS investigation in Endoscopy.

A table detailing the procedures available at the hub and spoke is presented overleaf with activity numbers for both the baseline/ "current" state and the future state for comparison purposes. Based on the current patient, appointment and procedure ratios, the impact of this proposal would be to shift approximately 3,600 patients from GRH to CGH (at 5,000 appointments with ~ 9,000 procedures).

A Hub and Spoke model provide an opportunity to avoid duplication and ensure staff and equipment are in the right location to meet patient needs. For the Lung Function and Sleep Service this could allow us to:

- Improve access to the service for patients staying overnight in hospital
- Improve the availability of rooms available to the service on the CGH site and allow us to offer multidisciplinary (a range of health and care professionals working together)/'one-stop shop' clinics reducing the need for patients to visit the service multiple times
- Improve the management of equipment stock (at the 'Hub') so that the correct equipment is available for the patient and avoid the current problems where patients are required to revisit the department at a later date to collect the equipment, they need
- Improve service resilience - through consolidation by bringing staff together to improve management of rotas and staff cover for absences and by cross training a number of clinical members of staff in G.I. Physiology.
- Increase the accessibility of the service to respond to patient queries (via telephone or email), improving the support provided and reducing the need for attendance at hospital.

It is our view that a 'Hub' and 'Spoke' model would ensure the best use of limited resources to deliver the best patient outcomes through the co-location of key staff and equipment.

	Number of Outpatient Procedures Performed Per Site (Baseline)		Estimated Number of Outpatient Procedures Moving to CGH as a result of a Hub and Spoke Model
Procedure	**GRH**	**CGH**	**CGH**
RVC (LF test)	2319	1641	2119 (1)
FVL (LF test)	2287	1447	2087 (1)
GT (LF test)	1793	1192	1593 (1)
LV (LF test)	703	300	503 (1)
Spiro	91	299	91
Reversibilities	397	111	397
FENO	637	406	637
Supine Spiro	37	22	37
Mannitol	27	6	27
PEF Trial	6	0	6
HCT	0	36	n/a (2)
NOX Sleep Study	735	575	735
Oxim Issue	27	14	27
CPAP Issue	534	329	534
Sleep FU	2280	1344	n/a (3)
BIPAP ISSUE	23	16	23
BIPAP FU	54	140	54
ELCBG	153	190	153
ARP	0	183	n/a
BFB	0	91	n/a
EAUS	0	58	n/a
Flexi TRUS	0	115	n/a
Hydrogen breath test	0	0	n/a
Impedance	0	13	n/a
OM	0	75	n/a
pH	0	55	n/a
pH/ Impedance rtn	0	48	n/a
TRUS	0	92	n/a
Total outpatient procedures:	12,103	8,798	9023

(1) -Approximately 200 tests retained at GRH to support cancer pathways

(2) Not activity we will provide as NHS. This is 'fit to fly' testing to allow people to fly overseas

(3) As part of our proposals Sleep follow ups will now primarily be conducted remotely

7.2 What pathways would be impacted if the preferred option is implemented?

Careful consideration to clinical adjacencies and patient pathways has been given when developing this proposal. By implementing a spoke site at GRH it would ensure that any Cardiology, Vascular and Respiratory inpatients can be tested by the Lung Function and Sleep Service.

Moreover, this model would enhance the Lung cancer patient pathway as the spoke site could also be used in a flexible way to accommodate for Lung Cancer patients who are currently required to visit the sites multiple times, within 2 weeks, prior to diagnosis. With an increased flexibility of the spoke site, these patients could be seen by the service when they attend GRH for their EBUS investigation in Endoscopy. This would be a significant benefit for this cohort of patients, as multiple tests that form their diagnosis could be performed in one visit, reducing the requirement to visit sites on multiple occasions within 2 weeks.

7.3 What is the evidence for this clinical solution?

7.3.1 *Multi-disciplinary Clinics*

A reconfiguration of Lung Function and Sleep to a hub and spoke model would enable the service to provide some services in a 'one-stop shop' model, by allowing for a purpose-built department with adequate room to run consultant led clinics. Patients who attend these clinics are often on, or require long term home ventilation, and therefore are some of the most unwell, in terms of disease prognosis and physical condition. Therefore, it would significantly improve the experience for this cohort of patients, if a main hub had sufficient capacity to allow us to develop multi-disciplinary clinics.

Currently patients attending the 'ventilation' or 'complex airways' clinics not only require a consultant review, but also specific blood gas testing, machine data reviews performed by a respiratory physiologist but also input from specialist nurses and on occasions specialist physiotherapists. There is no space available in the department at GRH to undertake this 'one-stop shop' clinic format, meaning that patients are required to navigate more than one department during their visit or indeed attend multiple appointments to access the care that they need. This is something that should be minimised for this cohort of patients. Not only is this an inconvenience to patients in terms of time, but it is also an expense to patients who may currently be required to visit the site multiple times to attend appointments, which could be alleviated through the consolidation of Lung Function and Sleep outpatient services on to a main hub. There are approximately 164 Lung Function and Sleep patients, who could benefit from implementing this 'one-stop shop' model.

7.3.2 *Optimise Equipment for Patients*

In Gloucestershire, there are currently between 4,000 and 5,000 patients who are using non-invasive ventilation or CPAP equipment. This is for the most part a lifelong treatment and is delivered via a mask connected to the device; masks are replaced on an annual basis and more frequently if there are issues. Masks come in multiple sizes, designs and configurations and much like shoes there isn't a one size fits all formula.

Currently, the Lung Function and Sleep service is required to ensure that both GRH and CGH have adequate stock to allow for patient care. This presents multiple challenges around clinical resource being utilised within the stock management process and patients not

having access to the optimum equipment needed for their treatment, at the time of their appointment.

Currently, as a result of stocking both sites, there are times where the correct equipment needed for the patient is not available at a particular site. This means that patients are either fitted with the 'next best fit', or patients will be required to revisit the department at a later date to collect the equipment that they need. A negative patient experience at the outset can impact hugely on long term treatment outcomes, as patients can become disengaged in their treatment if the equipment issued to them is not optimal for them. In addition, by providing patients with the best fit equipment first time, there is a financial benefit as less equipment is wasted.

A main hub would negate the requirement for these patients to visit the department multiple times in order to receive their equipment, as all equipment for patients would be available in one place. This is a significant patient benefit, in terms of the success of their treatment and travel requirements to the site.

By improving stock management for the Lung Function and Sleep service, this will also increase efficiency within patient pathways. For example, as staff and stock are split across two sites, sleep patients often have to visit the service up to 4 times for diagnostics and treatment. If a main hub were to be implemented by the service this pathway could be significantly streamlined, meaning that the number of visits made by patients is reduced. This provides further support for the service to be consolidated at a hub in CGH, due to the limited amount of space available at GRH to hold all of the stock necessary for patients in one place.

7.3.3 *Staff Resilience for Future Service*

The Lung Function and Sleep service have been a cross county service, since the Trust mergers in 2004. In the last few years, significant changes have been made to address patient access and staffing issues within the department. These include changes to work schedules, job planning and increased working from home opportunities within individual staff job plans to ensure that all rooms onsite could be utilised for patient appointments. However, the benefits of such changes have been difficult to realise when diluted across two sites, as issues around lone working and distribution of staff mean that these changes are unmanageable.

Furthermore, by having majority of staff present on one site (the hub), it would improve the access to senior members of staff if help is needed with a patient. Currently the service is heavily reliant upon telephone and email communication, meaning that it is difficult for senior staff members to offer full support to junior members. Therefore, by having a mix of staff members on one site, issues surrounding this would be alleviated. In addition, a consistent mix of staffing levels would also enable continuous learning and development opportunities for the team; this in turn improves the service and care that patients receive. Moreover, it would increase staff morale and a sense of team by enabling staff members to fully support each other, which in turn will have a positive impact upon staff recruitment and retention.

It should also be noted that there is a national shortage of Gastroenterology (G.I.) Physiologists; meaning that it is very difficult to recruit new members of staff into this area. The G.I. service within Gloucestershire is operating with 0.2 WTE for upper GI and 0.5 WTE for lower GI per week. For patients, this can mean waiting up to 30 weeks from referral as only 3 patients can be seen per week, to being seen by the service. This means that for

some patients, they will be referred to G.I services in Bristol or Bath where the waiting times are shorter. By redesigning the Lung Function and Sleep service so that it can operate with a main hub, it would mean that current members of staff within the service would have more opportunity to be cross trained into a G.I. role in house. Ultimately, this will reduce the wait time for these patients to be seen and adding to the appeal of any future posts advertised within the service.

7.3.4 *Spoke Site at GRH*

Although the main hub for the Lung Function and Sleep service would be situated at CGH; careful consideration has been given to the spoke site that would operate at GRH. By directing the majority of clinical work to the main hub, it would enable a dedicated inpatients service to be offered at GRH. This service inpatient service will be able to respond to short-notice requests, for example, the current service is contacted on a daily basis with requests to see inpatients that have been admitted for a variety of reasons, often unrelated to underlying or acute respiratory problems, but who utilise a machine issued by the Lung Function and Sleep department and therefore require support from the team whilst on site to resolve issues or queries. At present the Lung Function and Sleep service is too thinly distributed across both sites, therefore inpatient work is slotted in around pre-booked outpatient clinics which risks delaying a patient's discharge or surgical treatment. As the inpatients seen by the service are only on GRH, having a spoke site would ensure that support from the physiology service or diagnostic testing prior to discharge could be provided in a timelier manner, thus reducing delays to discharge or surgical treatment. Therefore, a separation of inpatient and outpatient work will enable the service staff to become more efficient. Furthermore, a dedicated spoke site would allow the service space to utilise a third lung function machine.

In addition, there is an opportunity to enhance the Lung Cancer patient pathway through utilisation of the spoke to accommodate for Lung Cancer patients who are currently required to visit the sites multiple times, within 2 weeks, prior to diagnosis. With an increased flexibility of the spoke site, these patients could be seen by the service when they attend GRH for their EBUS investigation in Endoscopy meaning multiple tests that form their diagnosis could be performed in one visit.

7.3.5 *Accessibility for Impromptu Patient Queries*

The implementation of a 'hub and spoke' model for the service will improve the management of impromptu patient queries to the service. At present, it can take the service a number of days to respond to patient queries, for example queries around their Continuous Positive Airway Pressure (CPAP)/ Bi-level Positive Airway Pressure (BiPAP) equipment. This is the direct result of a limited capacity due to the service being thinly distributed across both sites, meaning that it is difficult to incorporate patient queries outside of their appointment time.

The implementation of a hub and a spoke model would mean that patient queries could be better managed as they will be directed to the spoke site, which will have an increased flexibility within their workday to respond to patients without impacting upon clinical lists. For patients, this will mean that they will feel better supported by the service with their treatment, outside of their appointment times.

7.3.6 *Desk-top research*

Evidence sent to Health Select Committee 2020 as a response to their Inquiry on Delivering Core NHS and Care Services during the Pandemic and Beyond)[6] identified that enhanced multi-disciplinary working to improve coordination and delivery of care to help address respiratory backlog of care and increasing capacity via implementation of novel ways of working including non-face-to-face.

In the British Thoracic Society Strategic Plan 2020-22)[7] workforce is listed as a priority to ensure that there are sufficient numbers of well-trained staff to provide respiratory services across the entire service.

7.4 How does this evidence relate to the clinical models proposed in this Business Case?

The implementation of a hub and spoke model for the Lung Function and Sleep service will allow for the best use of limited resources to produce the best patient outcomes, through the consolidation of staff and equipment. The main hub would be best placed at CGH, due to the space required by the service to operate effectively and the clinical adjacencies between the G.I. services within Lung Function and Sleep and Endoscopy and Cancer Services which are both based at CGH. Adequate space would be unavailable at GRH due to spatial pressures on the site, as a result of demand upon the site for specialist services to have a presence at GRH to form part of the Centre of Excellence for Unplanned Care. Details are provided in the sections below.

7.5 How does this address the case for change?

Reason for change	How preferred option addresses this
Lack of available space to implement multi-disciplinary clinics for patients on the ventilation pathway, who currently visit the service up to every 3-4 months.	The establishment of a main hub at CGH where there is less spatial pressure on the site, will create the ability to develop and realise the benefits of multidisciplinary clinics
Currently unable to meet the Improving Quality in Physiological Services Standards on the service's footprint at GRH due to limited available space and facilities.	An increased footprint and improved estate at CGH will help the service to have fit for purpose facilities for patients and staff, which would not be achieved on the GRH site due to significant spatial constraints on this site.
Requirement for patients to return to site multiple times to collect equipment needed for treatment.	The consolidation of staff and equipment onto a main hub will ensure that equipment needed for treatment is available at the time of a patient's appointment. The CGH site is likely to have more storage space available for equipment to be stored, due to fewer spatial pressures.

[6] https://committees.parliament.uk/writtenevidence/4242/html/

[7] https://www.brit-thoracic.org.uk/media/455440/strategic-plan-2020-2022-april-2021-final.pdf

Reason for change	How preferred option addresses this
National shortage of G.I. Physiologists, meaning that some patients are required to wait 30 weeks for testing or travel to Bristol or Bath where waiting lists are shorter.	By centralising staff onto one main site, it will allow for in-house cross training to cover G.I., which could reduce the wait time between patients being referred to the service and being seen by a G.I. Physiologist.
Difficulties in fitting inpatient work required for discharges or surgery, due to lack of separation between outpatient and inpatient work and the thin distribution of staff across both sites.	By allowing for a spoke site, this will mean that there is a dedicated inpatient resource available to negate the need for inpatient travel between sites and reduce the risk of a delayed discharge or surgical treatment. The separation of work will also lead to increased efficiencies within the team and also allow space for the service's third lung function machine to be used.
There is a limited capacity at present for the service to manage impromptu patient queries around their treatment, as a direct result of being too thinly distributed across both sites.	By introducing a main hub where majority of patients will be seen, this will in turn increase the service's capacity to respond impromptu patient queries in a timely manner.
Alignment of the service to the Centre of Excellence for Planned Care, as per the strategic vision for the Trust	The preferred options will enable the Lung Function and Sleep Service to centralise the majority of its elective outpatient activity to CGH which is the Centre of Excellence for Planned Care, whilst also allowing the service to support inpatients on the Centre of Excellence for Unplanned Care (GRH).
Enable the progression of the IGIS Hub as part of the Trusts strategic objectives within Fit for the future	The preferred implementation option for the IGIS Hub would require Lung Function and Sleep to relocate from its current GRH footprint to allow for the establishment of an IGIS day-case recovery area. Therefore, the implementation of a main hub at CGH would ensure the benefits associated with the IGIS hub can be realised.
As a result of providing the services at GRH and CGH, staff also work at both and therefore if patients wish to see the same member of staff at each appointment, they will often have to attend both sites.	The hub and spoke model will support the continuity of care for patients as they will only visit a single site

7.6 What are the benefits including clinical outcomes?

Proposed Solution	Benefits
Implementation of a hub at CGH, where majority of the service's elective activity will take place and a spoke at GRH where the service can support inpatients.	• Enable to dedicated support for inpatients to ensure they are seen in a timelier manner, through a smaller spoke site. • Enhance the Lung Cancer patient pathway, through flexible spoke site allowing for multiple tests in one visit • Improve service resilience through centralising staff to improve management of rotas and staff cover for absences. • Ensure service sustainability through cross-training staff into all areas, facilitated through centralising staff onto one site. • CGH site would allow for an improved estate for the Lung Function and Sleep service due to spatial constraints on GRH site. A bigger estate will allow for the service to introduce multi-disciplinary clinics for the 'ventilation' or 'complex airways' clinics, negating these patients to navigate multiple departments in one-visit or attend multiple separate appointments. This would also reduce the risk of patients being exposed to infection by reducing the number of times they visit site. • An improved estate at CGH would also allow for the service to better meet the Improving Quality in Physiological Services Standards around facilities that are fit for their intended purpose. • Clinical adjacencies with Colorectal, Endoscopy and Oncology who are all based in CGH. • Negate the requirement for patients to return to site to pick up equipment for their treatment, as all equipment will be centralised. • Reduce the likelihood of Gloucestershire G.I. patients being referred to Bristol or Bath where there are shorter waiting times, by centralising staff to allow for G.I cross training in house. Clear definition in how clinical time is spent and planned by separation of inpatient and outpatient work • The consolidation of services to provide them in one place can benefit patients with co-morbidities, such as obesity, which is a risk factor for Sleep Apnoea, as it means that patients can access specialist services in one place. • Alignment with strategic vision of 'Centres of Excellence', Lung Function and Sleep is a planned care service and is therefore better aligned to the planned care site.

Our benefits realisation plans (Appendix 3) will continue to be developed to ensure the expected outcomes for patients, staff and the health economy are delivered, and this will include (as part of the wider FFTF programme), dedicated resource and reporting of benefits progress to the FFTF implementation group.

As stated in section 3.5, these proposals enable the implementation of the IGIS hub at GRH. The benefits realisation plans for IGIS have previously been reviewed by the Clinical Senate (as part of Phase 1).

7.7 What are the interdependencies with other services?

There are clinical adjacencies between Lung Function and Sleep and Cardiology and Respiratory, however through wider Trust engagement it is not thought that there would be any issues raised by implementing a main hub for the service on CGH.

The G.I aspect of Lung Function and Sleep Services has clinical adjacencies with Endoscopy and Cancer services which are both based at CGH, therefore implementing a main hub at CGH will have no impact upon these services.

7.8 Option Evaluation

The FFTF Programme has a standardised process for the assessment of shortlisted/ preferred options that has been developed and refined over the last two years. The process for developing a long list of options and the use of hurdle criteria is presented in section 6.1.

7.8.1 *Desirable Evaluation Criteria*

We have undertaken extensive engagement and used an iterative process to develop our evaluation criteria, this included:

- Established a Criteria Development Task & Finish Group including Public/patient representatives, public engagement leads and clinical Workstreams.
- Desktop research of national good practice
- Direct contact with other areas/ systems
- Review of draft proposals during FFTF Phase 1 public engagement phase
- Significant redrafting
- 2nd stage review by Clinical Workstreams, ICS New Models of Care Board and ICS Directors
- FFTF Phase 1 Citizens Jury (CJ) review of criteria domains and triangulation of CJ outputs with proposal
- Finalisation of criteria for use in options evaluation process.

The process described above culminated in the development of five criteria domains (each with a sub-set of questions) and a summary is presented below:

Quality of care
This section includes questions to evaluate clinical effectiveness, patient outcomes, patient and carer experience, continuity of care, the quality of the care environment, self-care and the management of risk.
Access to care
This section includes questions to evaluate the impact on patient choice, simplifying the offer to patients, travel burden for patients, carers and families, waiting times, supporting the use of new technology to improve access, improving or maintaining service operating hours and locations, impact on equality and health inequalities and accounting for future changes in population size and demographics.
Deliverability
This section includes questions to evaluate the expected time to deliver, access to the required staffing capacity and capability, support services, premises/estates and technology to be successfully implemented.
Workforce
This section includes questions to evaluate the impact on workforce capacity resilience, optimising the efficient and effective use of clinical staff, cross-organisational working across the patient pathway, flexible deployment of staff and the development of innovative staffing models, staff health and wellbeing, recruitment and retention, maintaining or improving the availability of trainers, enabling staff to maintain or enhance their capabilities/ competencies, the travel burden for staff and clinical supervision.
Strategic Fit
This question seeks to evaluate if the proposal is compatible with the One Gloucestershire ICS vision

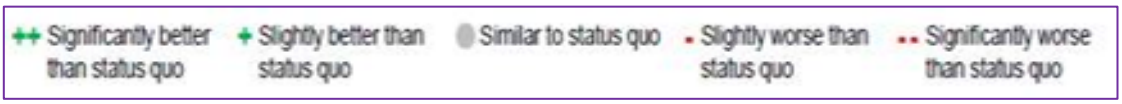
7.8.2 *Option Evaluation Workshop*

The Fit for the Future (FFTF) Programme has put in place an evidence-based, transparent and inclusive options evaluation process that enabled a broad range of participants to help shape our emerging solutions and has met its statutory assurance requirements. The objective of the options evaluation workshop is to debate, discuss and assess the Hub and Spoke proposal against the evaluation criteria and to discuss and agree the score.

The options evaluation workshop took place on 26th August with 9 scorers:

- 5 x Lung Function & Sleep services clinical and operational staff
- 3 x public/patient representatives (drawn from the FFTF Reference Group)
- 1 x senior GHFT Divisional Leadership

The assessment method chosen was to compare option to the status quo and record if:



Scorers were provided with a range of information to support the process including:

- Evidence Pack – description of “what would be better” and “what would be worse” for every question (see Appendix 4)
- Integrated Impact Assessment summary
- Travel Impact Analysis (see Appendix 5)

The scoring was a two-stage process:

1. **Online questionnaire**: all the information was sent in advance and scorers completed individual assessments (including comments), of the solutions/models they had been allocated, prior to the workshop. Over 80% of scorers completed the on-line assessment indicating a high level of engagement and commitment.
2. **Workshop consensus**:
    - scorers were given copies of their assessments
    - facilitator shared the online results for each question
    - A discussion took place referencing the workshop information and comments
    - A consensus score and any comments were agreed and recorded

7.8.3 *Proposal Scorecard*

The results of the option evaluation are presented overleaf. In summary:

- Strongly positive for Quality of Care and Workforce
- Recognition of negative impact of travel for patients and carers but with other positive access factors
- Deliverable
- Aligned to our strategy

Quality of Care						
Question	Sig Better (++)	Sl Better (+)	Similar (0)	Sl Worse (-)	Sg Worse (--)	Don't Know
1.1 What is the likely effect of this solution on patients receiving equal or better outcomes of care?						
1.2 What is the likely effect of this solution on patients being treated by the right teams with the right skills and experience in the right place and at the right time?						
1.3 What is the likely effect of this solution on continuity of care for patients?						
1.4 What is the likely effect of this solution on the opportunity to link with other teams and agencies to support patients holistically?						
1.5 What is the likely effect of this solution on the quality of the care environment?						
1.6 What is the likely effect of this solution on encouraging patients and carers to manage self-care appropriately?						
1.7 What is the likely effect of this solution on patient safety risks?						

Deliverability						
Question	Sig Better (++)	Sl Better (+)	Similar (0)	Sl Worse (-)	Sg Worse (--)	Don't Know
3.1 What is the likelihood of this solution being delivered within the agreed timescale?						
3.2 What is the likely effect of this solution on access to the required staffing capacity and capability to be successfully implemented?						
3.3 What is the likelihood of this solution having access to the required support services to be successfully implemented?						
3.4 What is the likelihood of this solution having access to the required premises/estates to be successfully implemented?						
3.5 Does this solution rely on other models of care / provision being put in place and if so, are they deliverable within the timeframe?						

Strategic Fit						
Question	Sig Better (++)	Sl Better (+)	Similar (0)	Sl Worse (-)	Sg Worse (--)	Don't Know
5.1 What is the likelihood of this solution being compatible with the One Gloucestershire vision?						

Access to care						
Question	Sig Better (++)	Sl Better (+)	Similar (0)	Sl Worse (-)	Sg Worse (--)	Don't Know
2.1 What is the likely effect of this solution having an impact on patient choice						
2.2 What is the likely effect of this solution on simplifying the offer to patients?						
2.3 What is the likely effect of this solution on travel burden for patients?						
2.4 What is the likely effect of this solution on patients' waiting time to access services?						
2.5 What is the likely effect of this solution on the travel burden for carers and families?						
2.6 What is the likelihood of this solution supporting the use of new technology to improve access?						
2.7 What is the likelihood of this solution improving or maintaining service operating hours?						
2.8 What is the likelihood of this solution improving or maintaining service operating locations?						
2.9 What is the likelihood of this solution having a positive impact on equality and health inequalities?						
2.10 What is the likelihood of this solution accounting for future changes in population size and demographics?						

Workforce						
Question	Sig Better (++)	Sl Better (+)	Similar (0)	Sl Worse (-)	Sg Worse (--)	Don't Know
4.1 What is the likely effect of this solution on improving workforce capacity resilience and reducing the risk of temporary service changes?						
4.2 What is the likely effect of this solution on optimising the efficient and effective use of clinical staff?						
4.3 What is the likely effect of this solution on supporting cross-organisational working across the patient pathway?						
4.4 What is the likely effect of this solution on supporting the flexible deployment of staff and the development of innovative staffing models?						
4.5 What is the likely effect of this solution on supporting staff health and wellbeing and their ability to self-care?						
4.6 What is the likely effect of this solution on improving the recruitment and retention of permanent staff with the right skills, values and competencies						
4.7 What is the likely effect of this solution on retaining trainee allocations, providing opportunities to develop staff with the right skills, values and competencies?						
4.8 What is the likely effect of this solution on maintaining or improving the availability of trainers and supporting them to fulfil their training role?						
4.9 What is the likely effect of this solution on enabling staff to maintain or enhance their capabilities/ competencies?						
4.10 What is the likely effect of this solution on enabling staff to fulfil their capability, utilising all of their skills, and develop within their role?						
4.11 What is the likely effect of this solution on the travel burden for staff? e.g. relocation time and cost.						
4.12 What is the likely effect of this solution on maintaining clinical supervision support to staff?						

Key Points

- **The preferred option is a 'Hub' and 'Spoke' model**
- **The 'Hub' (at CGH) will provide the main outpatient services and G.I. service**
- **The 'Spoke' (GRH) will focus mostly on inpatients**
- **Whilst the initial driver for change arises from the requirement to vacate their current footprint, the service has considered many innovative ways in which the impact of relocation can be mitigated, and additional patient benefits delivered**
- **A Hub and Spoke model will address the case for change and provide an opportunity to avoid duplication and ensure staff and equipment are in the right location to meet patient needs**
- **Benefits have been clearly identified including development of multi-disciplinary clinics, optimisation of equipment for patients, improvement in staff resilience and create capacity for impromptu patient queries.**
- **Our proposal also includes changes to sleep follow ups which will now primarily be conducted remotely.**
- **The preferred option is aligned with the strategic vision.**
- **The impact of this proposal would be to shift approximately 3,600 patients from GRH to CGH**
- **Positively evaluated by clinical and public representative at option evaluation workshop**

8 Integrated Impact Assessment

8.1 Summary

Service activity data has been utilised to understand the impact that a consolidation of a hub at CGH could have on patients with protected characteristics. Data from the 2011 Census has been utilised to inform whether there will be an impact upon those who experience health inequalities within Gloucestershire. The data suggests that patients who are obese, which is a risk factor for Obstructive Sleep Apnoea, and patients who live in the areas of highest deprivation may be most impacted by the consolidation of a main hub to CGH. However, for those with co-morbidities this may be advantageous by providing specialist services on one site.

Approximately 7.7% of the Gloucestershire population live within the most deprived IMD quintile, which equates to just over 48,000 people. At a district level, Gloucester city has the highest proportion of its population living in the most deprived areas (25%) equating to approximately 32,500 people; this is followed by Cheltenham (11,700), Forest of Dean (2,600) and Tewkesbury (1,800). None of the areas within neither Stroud nor Cotswold fall under the most deprived quintile. Overall, an estimated 72% of the population living in the most deprived areas appear to live closer to GRH (based on district level map information) and this equates to around 35,000 people.

The deprivation data from Gloucestershire Council would suggest that patients who utilise the Lung Function and Sleep service and live in Gloucester city could be most impacted by the consolidation of a hub to CGH, especially if they are from a low socioeconomic background.

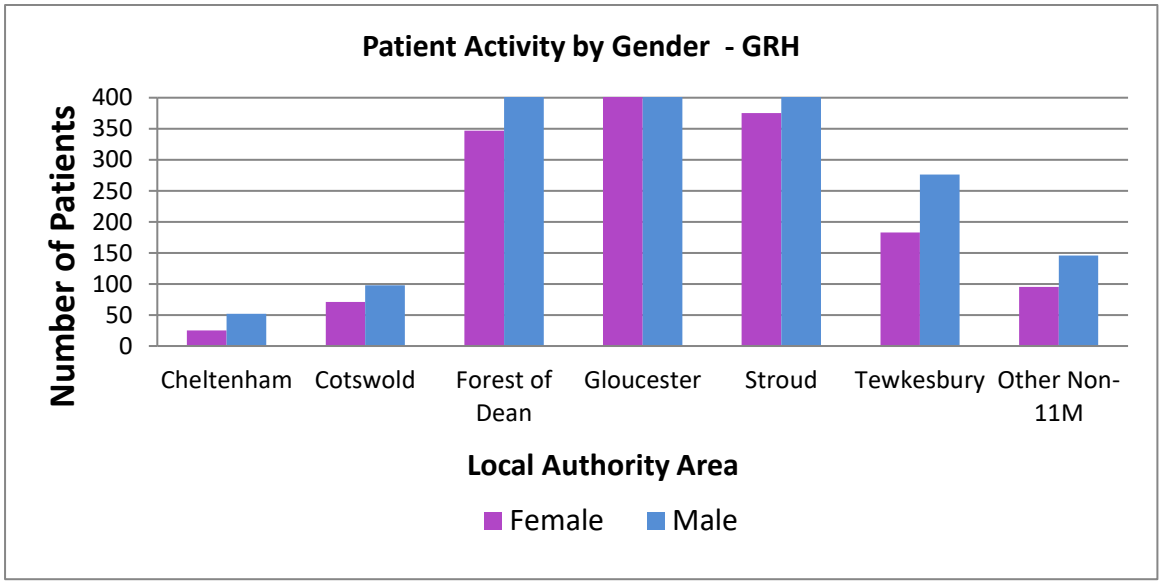
According to the Gloucestershire Obesity Needs Assessment (2017), 23.5% of adults (18 years and older) in Gloucestershire are obese. Excess weight and obesity are risk factors for various health conditions, including type 2 diabetes, high blood pressure, cardiovascular disease, fatty liver disease, various cancers and kidney disease. Furthermore, obesity is also considered to be a risk factor for obstructive sleep apnoea (OSA), with an estimated 40% of people with obesity suffering from sleep apnoea. The British Lung Function Foundation has suggested that within Gloucestershire, there is a mid OSA risk band compared to the rest of the UK for the prevalence of risk factors for OSA. In addition to obesity, the risk factors considered by British Lung Function Foundation research include the prevalence of Hypertension, Diabetes, being male and being over 50 years old.

As a result of Gloucestershire being in the mid risk band for prevalence of comorbidities associated with sleep apnoea, it is likely that the consolidation of the Lung Function and Sleep service to a hub at CGH will impact these patients. However, it must be noted that centralising the service and the movement of other services will benefit these patients through providing specialist service in one place, as such meaning better care for patients with comorbidities.

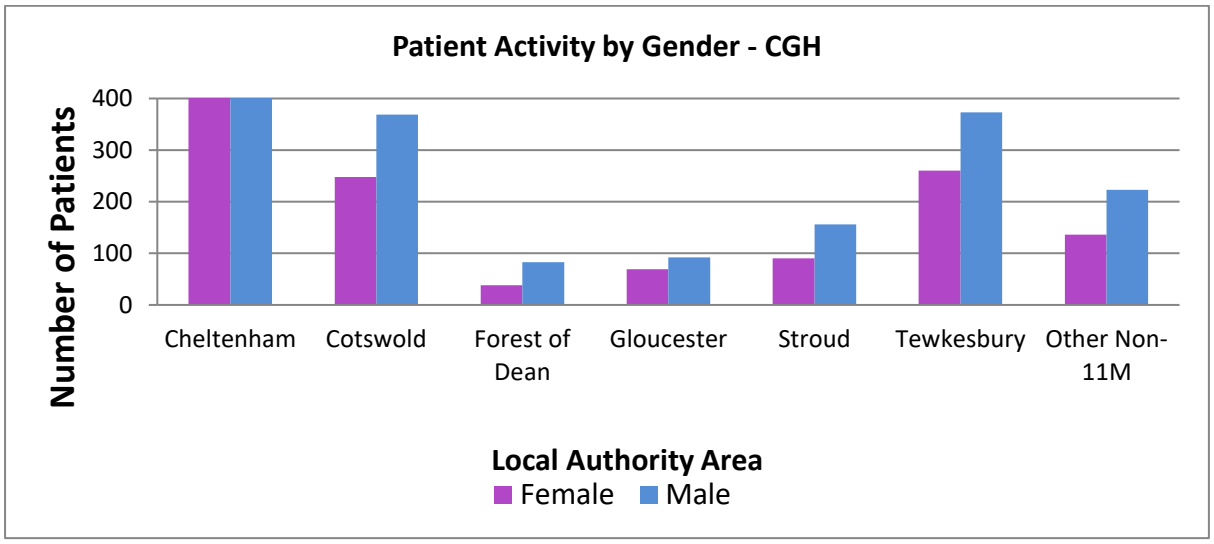
8.2 Equality Impact assessment: the impact on groups with protected characteristics

8.2.1 *Gender*

Lung Function and Sleep activity (graph 1 and 2 below) present the number of male and female patients by local authority area that were seen by the service between April 2019 and March 2020. It can be observed that for both GRH and CGH, more male patients (4,714 patients for both sites across the period) were seen than female (2,991 patients for both sites across the period). Furthermore, the majority of patients seen by the Lung Function and Sleep service across all local authority areas were male.



Patient Activity by Gender Graph 1: GRH[8]



Patient Activity by Gender Graph 2: CGH

Although it is important to reflect that on the whole the Lung Function and Sleep service see more male patients than female patients across all local authority areas within

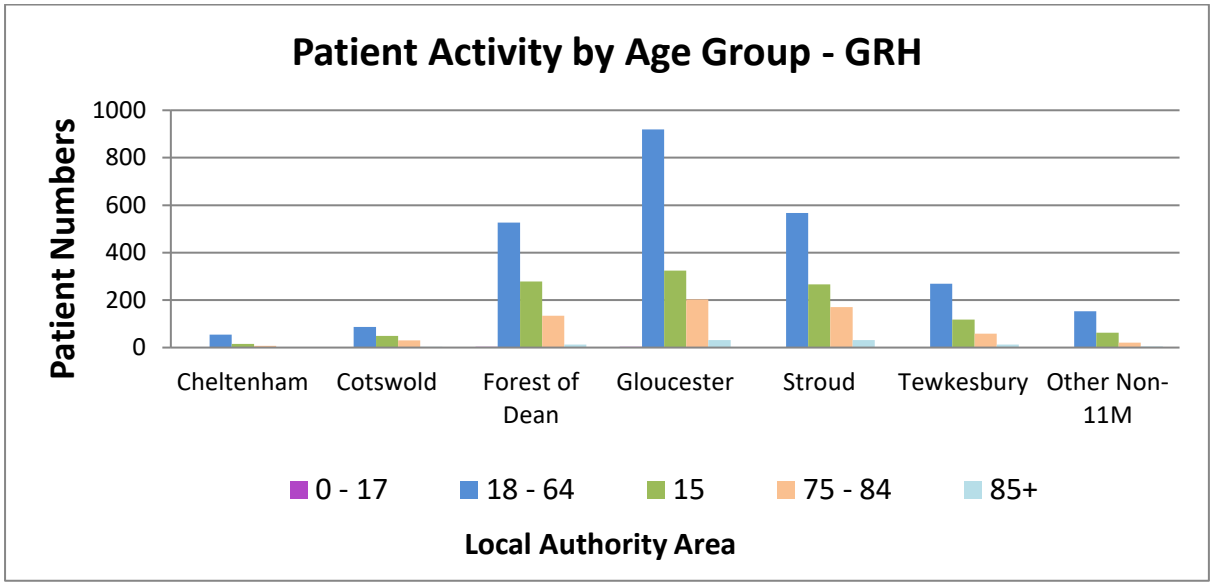
[8] The sum of patients attending each site is greater than the total number of patients as some patients attend both sites.

Gloucestershire, there is no evidence to suggest that centralising the main hub to CGH would significantly negatively or positively impact men or women.

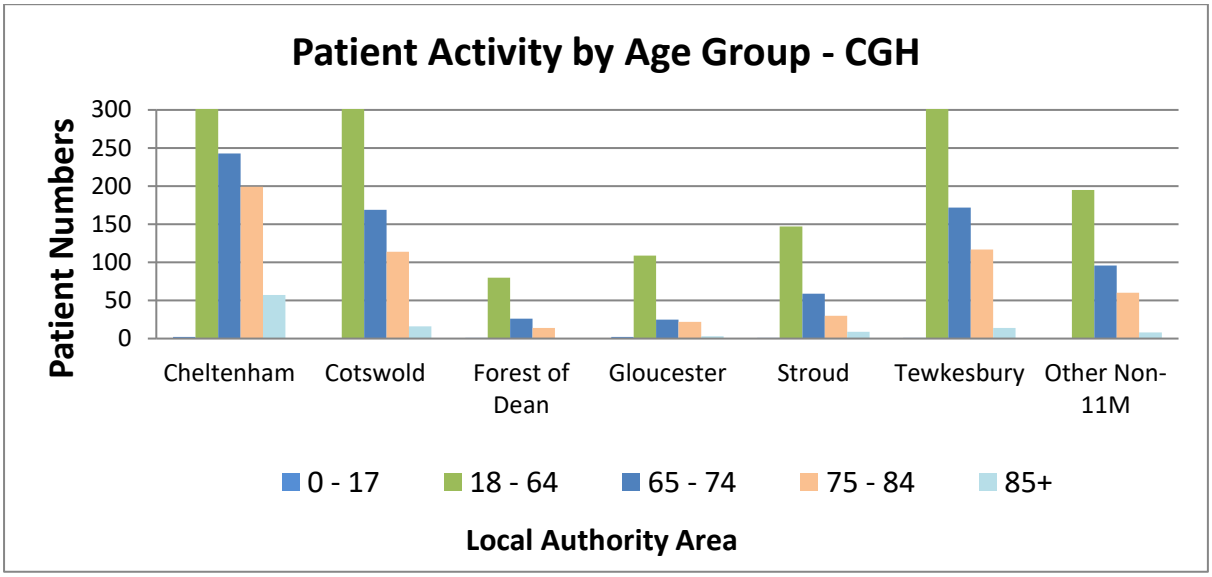
8.2.2 *Age*

The Lung Function and Sleep activity by age activity (graphs 3 and 4) reflect that the largest group of patients who visit the service are between 18 and 64 years old (4,402 patients), this equates to 57% of all patients seen between April 2019 and March 2020. Furthermore, the second largest age group for both sites were patients aged between 65 and 74 years old (1,902 patients) which equates to 25 % of total activity.

It is important to consider the impact that the consolidation of the Lung Function and Sleep service to a main hub at CGH may have on elderly patients, as these patients may need more support in order to travel to the service. However, a significant number of patients who attend the Lung Function and Sleep service are between 18 and 64 (57 %) and there is no evidence to suggest that patients would be negatively impacted by the consolidation of this service onto a hub at CGH. Moreover, for patients who are over 65 and may suffer with comorbidities associated with lung function and sleep, the consolidation of the service onto a main hub at CGH may have a positive impact as they can access multiple services in one place and in one visit.



Patient Activity by Age Group Graph 3: GRH



Patient Activity by Age Group Graph 4: CGH

8.2.3 *Ethnicity*

The 2011 Census found that 7.7% of Gloucestershire residents (46,100 people) were born outside of the UK compared with a national figure of 13.4%. Furthermore, it was reported that 4.6% of the population within Gloucestershire were from a Black and Minority Ethnic (BME) background and with the majority residing in Gloucester City. The proportion of people from BME backgrounds within Gloucestershire was considerably lower than the national figure of 14.6% [9]

In respect of the Lung Function and Sleep service, there is limited data that can be obtained to provide an insight into the ethnicity of patients who access the service. This is the result of potentially ambiguous ethnicity descriptions provided within the clinical system; and therefore, they have not been used.

Whilst it is difficult to assess the impact of the consolidation of Lung Function and Sleep services on ethnic minorities, consolidation of services aims to ensure the best quality care is made available to all patients and will especially benefit patients with complex or long-term needs but we also recognise that the impact may be greater on communities living in Gloucester City.

8.2.4 *Religion*

According to the 2011 Census, 63.5% of residents in Gloucestershire were Christian, making it the most common religion. This was followed by no religion which accounts for 26.7% of the total population.

In respect of the Lung Function and Sleep service, it appears to follow a similar pattern to the wider county with Christianity (48% of patients) being reported as the most common religion, followed by 'Religion Not Stated' (45 % of patients. However, it must be noted that this data set had a significant amount of incomplete data (up to 25% incomplete) and therefore it is difficult to obtain a holistic picture of Lung Function and Sleep patient's religion.

[9] https://www.gloucestershire.gov.uk/media/12777/equality-profile-2019-final.pdf

The consolidation of the Lung Function and Sleep Service to a main hub at CGH is unlikely to have a significant negative or positive impact upon people of faith. Both CGH and GRH have a team of Chaplains who provide spiritual and pastoral care and support for all faiths to help people find strength, comfort and meaning at what can be a very difficult time in their lives.

8.2.5 *Sexual Orientation*

There is a substantial body of evidence which demonstrates that Lesbian, Gay, Bisexual and Trans people experience discrimination and marginalisation in their daily lives, including in health care. Although there is no definitive data around sexual orientation at a local or national level, it is estimated that around 5-7% of the population in Gloucestershire are LGB.[10]

There is currently no definitive data available to provide an insight into how many LGB patients access the Lung Function and Sleep service. However, we anticipate that there will be no significant negative or positive impacts for these patients as a result of centralising the service to CGH. As a Trust we would expect all of our colleagues to create an inclusive environment for patients, regardless of the physical location of the service.

8.2.6 *Gender Reassignment*

There is currently no definitive data around the proportion of the national or local population who experience some degree of gender variance. However, it is estimated at both a national and a local level, these individuals represent between 0.6-1% of the adult population[11].

Similar to sexual orientation, there is no definitive data available to provide an insight into how many individuals who experience some degree of gender variance access the Lung Function and Sleep Service. Furthermore, there is no evidence to suggest that the consolidation of this service onto a main hub at CGH will cause a negative or positive impact upon this cohort of patients.

8.2.7 *Marriage*

It is reported that within Gloucestershire just over 50% of the population who are over the age of 16 are married, which is higher than the national figure. This is also true for the proportion of the population within Gloucestershire who are divorced or widowed. However, the proportion of the population who are single or separated is lower than the national figure.[12]

The activity by marital status of patients within the Lung Function and Sleep service is dissimilar to that seen within Gloucestershire. Although majority of patients seen by the service reported that they were married (42 % of patients), the second highest marital status was single (16 % of patients). Furthermore, patients who reported themselves as divorced only made up 4% of patients seen. It should be noted that data obtained is only partial as a result of incomplete data being available within the clinical system (up to 25% incomplete data).

Importantly, there is no evidence to suggest that the consolidation of this service onto a main hub at CGH will cause a negative or positive impact upon this cohort of patients.

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[10] https://www.gloucestershire.gov.uk/media/12777/equality-profile-2019-final.pdf

[11] https://www.gloucestershire.gov.uk/media/12777/equality-profile-2019-final.pdf

[12] https://www.gloucestershire.gov.uk/media/12777/equality-profile-2019-final.pdf

8.2.8 *Disability*

The Equality Act (2010) defines a person with a disability as an individual who has a physical or mental impairment, which has a substantial and long-term adverse impact on that person's ability to carry out normal day-to-day activities. The 2011 Census reported that 16.8% of Gloucestershire residents reported having a long-term limiting health problem or disability; of these individuals 7.3% reported that their activities were limited 'a lot' and 9.5% reported that their activities were limited 'a little'.

Furthermore, for the older population Dementia is one of the major causes of disability. The 2011 Census suggested that within Gloucestershire it was forecasted 9,780 people aged 65+ would be living with dementia by 2019.

There is evidence to show that people with learning disabilities have poorer health outcomes than the general population. The impact of these health inequalities is serious, with people with learning disabilities three times more likely than the general population to have a death classified as potentially avoidable through the provision of good quality healthcare. These inequalities result to an extent from the barriers which people with learning disabilities face in accessing health care.[13]

Currently there is no data available to provide an insight into the proportion of patients seen by the service who may have a disability and whilst it is difficult to suggest that a consolidation of Lung Function and Sleep to main hub at CGH would have a significant adverse or positive effect on these patients, we do know that the Forest of Dean (closer to GRH) is the only district locally that exceeds the national average in terms of the proportion of residents living with a disability. This geographical clustering means that geographical changes to where services are delivered may have a disproportionate impact on those with disabilities in terms of access. However, it is important to acknowledge that patients with a disability can often experience health inequalities as a result of poor-quality healthcare. Therefore, regardless of site, we would expect colleagues to provide a safe and accessible environment to all patients, including those who have a disability.

8.2.9 *Pregnancy and Maternity*

The Equality Act (2010) protects women who are pregnant, have given birth in the last 26 weeks (non-work context) or are on maternity leave (work context) against discrimination in relation to their pregnancy.[14]

For the Lung Function and Sleep service there is no data available to identify the proportion of patients who were pregnant, had given birth within the previous 26 weeks or were on maternity leave. However, there is no evidence to suggest that the consolidation of this service onto a hub at CGH would result in changes to pregnancy, maternity or neonatal services or would impact adversely upon women who would be protected under the Pregnancy and Maternity section of the Equality Act (2010).

[13] https://www.gloucestershire.gov.uk/media/12777/equality-profile-2019-final.pdf

[14] https://www.gloucestershire.gov.uk/media/2094524/gloucestershire_deprivation_2019_v13.pdf

8.3 Travel implications for the preferred option

The preferred option (hub at CGH and spoke at GRH), consolidates the majority of services on the CGH site. Our previous analysis has indicated that for services moved from Gloucestershire Royal Hospital to Cheltenham General Hospital, the impact for patients living in our localities is as follows:

- No/Low impact – North Cotswolds, South Cotswolds, Tewkesbury, Gloucester (East), Stroud and Berkley Vale
- Positive impact – Cheltenham
- Negative impact – Forest of Dean and Gloucester (West)

In order to assess the specific travel impact upon Lung Function and sleep services patients in more depth, patient postcode data has been utilised further to determine the type and extent of impact upon patient travel. For 66% of patients it will have a neutral impact, however, for 34% of patients the Hub and Spoke model will have a negative impact upon their travel time. The above figures exclude sleep patients as patient appointments for sleep follow ups will be primarily conducted via telephone.

We also recognise that for some patients with Sleep Apnoea, they are advised not to drive and will therefore be required to utilise public transport or lifts from friends or relatives. However, our assessment is that this equates for around 2 out of 50 (<5%) Sleep Apnoea patients per week.

With regards to the one stop clinics this move would allow us to run one stop Lung cancer clinics which would potentially save the patient two appointments, one for a CT and one for Lung Function, these would be done consecutively followed by an appointment with the consultant.

Further mitigations to travel impact include the potential to move all sleep diagnostic appointments into the community, through the utilisation of nominated GP Primary Care Networks (PCNs) or Community Hospitals located across the county. Sleep diagnostic appointments are currently 20-minute face to face appointments, which are used to help patients understand how to use their CPAP machine at home and are undertaken by Band 3 clinical members of staff. In the future, there is scope to implement diagnostic hubs in the community in order for patients to visit their nearest hub, as opposed to CGH for their appointment. In addition, these hubs could be used to download patient data from CPAP machines and forward it onto the Lung Function and Sleep department at CGH for analysis., moving sleep diagnostic appointments into the community would reduce the requirement for patients to travel to the hospital site. Instead, patient appointments could be held at their nearest diagnostic hub for them to collect and understand how to use their CPAP equipment, with all other follow ups to discuss their treatments being held remotely by the Lung Function and Sleep team.

Moreover, there is further potential for PCNs to support remote care for sleep patients. For patients who are receiving a 12-month sleep follow up appointment, they will require replacement CPAP equipment. Currently these parts are either posted to patients, or patients will have to travel to the hospital to pick them up. There is a regular postal run between GP practices and the hospital which could be utilised to send parts to patients, not only would this reduce travel for patients, but it would also reduce the risk of equipment getting lost or delayed.

Although the service has not received any negative feedback from patients who receive a remote follow up appointment, there is scope to provide additional support to patients who may struggle with telephone appointments. 'Attend Anywhere' is a secure web-based platform, where patients can speak with clinicians over a video consultation. The Lung Function and Sleep service are keen to implement video consultations, to ensure that remote case is accessible to all sleep patients. However, it must be noted that all patients who have learning difficulties will always be seen in face to face appointments, to ensure that these patients do not experience inequality as it is understood that remote care is not always appropriate for all patients.

8.4 Health Inequalities Impact Assessment

It is estimated that 23.6% of the total Gloucestershire population are obese, which is a risk factor for Obstructive Sleep Apnoea. As a result of this we would expect this group to be more impacted by the proposed changes. However, it must be noted that establishing a hub and spoke model for this service, alongside the movement of other services as defined in FFTF, will benefit these patients through providing specialist services in one place, as such meaning better care for patients with comorbidities.

Approximately 7.7% of the Gloucestershire population live within the most deprived IMD quintile, at a district level Gloucester city has the highest proportion of its population living in the most deprived areas (25%). This data would suggest that patients who utilise the service and live in Gloucester city district would be most impacted by a consolidation to CGH in respect of travel costs and time. However, there are mitigations in place such as the Pulmans 99 Bus which runs between the two hospital sites.

There is no formal link between the Lung Function and Sleep service and mental health provision at both sites and it is not thought that the implementation of a hub and spoke model would have any adverse impact upon patients with mental health issues as mental health services are offered at both GRH and CGH.

8.5 Addressing themes from the Engagement

The table below lists some of the specific topics, identified through the engagement responses that have been responded to as part of the Business Case. As with all engagement responses there are a range of issues identified commensurate with the differing views of those responding to the engagement.

Theme	Engagement Topic	Response
Access and Travel Impact	Consider use of video appointments not just telephone	The Lung Function & Sleep services (LF&SS) team are already investigating this option as a number of other GHFT Out-patients services are via video.
	Travel impact	Whilst recognising there would be a negative travel time impact for 34% of patients, our proposals would reduce the number of times patients need to attend as: • Appointments for sleep follow ups would be primarily conducted via telephone • A bigger estate would allow for the service to introduce multi-disciplinary clinics for the 'ventilation' or 'complex airways' clinics, negating these patients to navigate multiple departments in one-visit or attend multiple separate appointments. • Improve the Lung Cancer patient pathway, through flexible spoke site allowing for multiple tests in one visit
	Supporting self-management	The hub and spoke model would support the continuity of care for patients as they would only visit a single site
Clinic on-site location and environment	Improving the service venue environment	The creation of a Hub and Spoke model would provide a larger and improved clinic space at CGH to allow the service to better meet the Improving Quality in Physiological Services Standards.
	On-site way finding	The new Hub and Spoke clinic sites would have new signage at GRH and CGH and there would be a communication programme to make current and future users aware.
Appointment Process	Changes to appointment process and improved communication to patients	The engagement process has helped the LF&SS team identify opportunities to improve the service and these would be developed.

Key Points

- **Service level data and the 2011 Census have been utilised to understand the impact that a consolidation of a hub at CGH could have on patients, including those with protected characteristics.**
- **It suggests that patients who are obese, which is a risk factor for Obstructive Sleep Apnoea, and patients who live in the areas of highest deprivation may be most impacted by the consolidation of a main hub to CGH. However, for those with co-morbidities this may be advantageous by providing specialist services on one site**
- **Travel impact assessment has been completed.**
- **The engagement survey response showed that almost twice as many people were positive about the proposal than negative about the proposal**
- **A number of themes, including travel impact, were identified through the engagement process and these are addressed.**

9 Resource Impact Assessment

9.1 Workforce Impact

9.1.1 *Staff Engagement*

As described in section 5.2, staff have been engaged and involved throughout the development of proposals, through engagement sessions, staff surveys, regular email contact on the progress of proposals and through a self-nominated working group who developed the case for change.

The current service is staffed by 10 respiratory clinical staff (physiologists), 1 HCA, 2 G.I. staff, 4 clerical staff and one apprenticeship post to be trained in respiratory (not yet within team but has been recruited).

9.1.2 *Recruitment and Retention*

The implementation of a hub and spoke model is likely to increase retention as a main hub will allow for better cross training, especially into G.I where there are limited healthcare professionals available in these positions. In addition, staff are supportive of the proposal to co-locate on one site to improve communication within the service.

9.1.3 *Training – including new roles/ways of working' realignment of skills and upskilling*

As previously discussed, the implementation of a hub and spoke model for the service will be advantageous for in-house staff training and upskilling particularly for the G.I service.

9.1.4 *Staff Support through change*

Staff have been involved and engaged with throughout the development of proposals and will continue to be supported by the division throughout the change.

9.1.5 *Staff Travel*

The implementation of a main hub at CGH is likely to increase travel time for some members of staff who live closer to GRH, however there will be a spoke at GRH which would look to accommodate any clinical or clerical members of staff.

This issue was identified at the options evaluation workshop, but the service staff representatives (#5) stated that the benefits of the Hub and Spoke were such that it should be implemented.

9.1.6 *Baseline Workforce*

The Lung Function and Sleep Service is currently made up of 18 members of staff, including 10 respiratory clinical staff members, 1 untrained clinical staff member, 2 G.I. staff members, 4 clerical staff members and one apprenticeship post to be trained in respiratory.

9.1.7 *Additional Staff*

It is not anticipated that any additional staff will be required as part of this proposal.

9.2 Bed Capacity

The Lung Function and Sleep service do not have dedicated inpatient beds, they will provide support for other inpatient specialties through the spoke site at GRH.

9.3 Critical Care

There is no anticipated impact upon critical care as the service would not see high acute patients.

9.4 Theatres

There is no anticipated impact upon theatres.

9.5 Diagnostic and Specialist Division impact

There is no anticipated impact upon diagnostic and specialist divisions.

9.6 Ambulance "Blue Light" Impact

There is no anticipated impact upon the Ambulance service, as the service would not see high acute patients.

9.7 Long Covid Services

The Lung Function and Sleep service is not involved directly in Long Covid clinics although they may receive referrals that were initiated there. We have also engaged with

Furthermore, there have not been any significant increase in referrals to Cardiology because of Long Covid although we have seen an increase in Cardiology referrals generally as they have filled all of their consultant vacancies.

9.8 Environmental Impact

Whilst a detailed environmental impact assessment has not been completed, the impact of these proposals include a reduction in the number and frequency of patient attendances (e.g. 3,624 sleep follow up appointments previously delivered on site will now be provided remotely; one-stop MDT clinics and improved equipment stock management), which will reduce travel.

Key Points

- **Given the scale of the Lung Function and Sleep service and the preferred option proposed, the impact on resources is either neutral or low.**

10 Risk

The main risk from a Programme perspective associated with the service is that Lung Function and Sleep are unable to be relocated from their current space in GRH Radiology to allow work on the IGIS hub (x2 cath labs, recovery area and additional IR room) to be completed in 2021/22 as planned. This is recorded on the programme risk register and communicated with ICS, CCG and GHNSFT via a monthly highlight report.

The preferred option mitigates this risk but is required to be implemented by December 2021 (see below).

The Lung Function and Sleep service currently hold three risks relating to:

- Stock of sleep equipment
- Training of staff in the community for the Non-Invasive Ventilation service
- Recall of the Continuous Positive Airway Pressure equipment

11 Implementation plan

These proposals were shared with the Gloucestershire Health Overview and Scrutiny committee (HOSC) in July 2021 including the intention of the ICS to initiate and undertake the process for formal service change. As described previously, following approval of the Fit for the Future (FFTF) proposals by CCG Governing Body in March 2021, the programme is now into Phase 1 implementation stage and to enable the IGIS hub to be established at GRH these proposed changes to the Lung Function and Sleep Service need to have been implemented by December 2021.

12 Economic and Financial Analysis

12.1 Activity Baseline

The vast majority of activity (care and treatment) carried out by the Lung Function and Sleep Service is for outpatients (approximately 90%), with 600 G.I. patients (8%). The remaining 2% is inpatient activity which supports patients under the care of a range of specialists, mostly focussing on tests for patients prior to them leaving hospital for home.

For the 12 months in our baseline year (pre-COVID-19: February 2019 - January 2020), the Lung Function and Sleep service saw a total of 7,389 patients at 10,974 outpatient appointments across both sites (an average of 1.4 appointments / patient). Of these 43% (3,286[15]) attended CGH and 57% (4,419) attended GRH. Within each outpatient appointment patients may have multiple procedures, with an average of 2.7 procedures / patient or 1.9 procedures / appointment.

The service does not have a dedicated inpatient bed base.

12.2 Activity shift

A table detailing the procedures available at the hub and spoke is presented in section 7.1 with activity numbers for both the baseline/ "current" state and the future state for comparison purposes. Based on the current patient, appointment and procedure ratios, the impact of this proposal would be to shift approximately 3,600 patients from GRH to CGH (at 5,000 appointments with ~ 9,000 procedures).

Under the hub and spoke proposal and based on activity between February 2019 and January 2020, it is anticipated that the service will undertake approximately 95% of its procedure activity (16,477 procedures) at CGH hub and 5% of its procedure activity (800 procedures) at GRH spoke. GRH inpatients will be unaffected by proposals due to the spoke site.

Furthermore, 3,624 sleep follow up appointments previously delivered on site (2,280 @ GRH and 1,344 @ CGH) will now be provided remotely.

12.3 Workforce Changes

It is not anticipated that there will be any requirement to increase the number of staff in the Lung Function and Sleep service as a result of proposals. However, planned patient engagement will explore whether there is a possibility to increase the hours which the service is open to patients. The service has previously considered the possibility to run an 8am to 8pm service, with staff working longer but fewer days with some home working. This will be explored further through patient engagement to understand if this is something that could be accommodated.

12.4 Revenue Impact

There is no anticipated revenue impact, as no additional staff will be required as a direct result of this proposal. In addition, it is not thought that there will be any immediate revenue impacts. However, when the Trust moves away from block contracts to payment by

[15] The sum of patients attending each site is greater than the total number of patients as some patients attend both sites.

results, a local tariff will need to be agreed for the increase utilisation of non-face to face appointments.

12.5 Capital

There have been no requests for additional equipment by the service to enable to implementation of this proposal; however, there will be a non-recurring one-off capital costs to cover transition costs. This funding will be identified through the IGIS programme and a fixed price for this will be given at tender as the programme is currently in detailed design phase.

12.6 Income

Currently, the service is operating on a block contract which will move to payment by results. This could have an impact upon income as a local tariff payment for non-face to face appointments will need to be agreed.

12.7 Growth assumptions

There are currently no assumptions for the growth of the service; growth has not been agreed within the current block contract. Given the requirement for additional space is delivered through the preferred option (Hub @ CGH), this does create an opportunity to respond to any future demand requirements.

12.8 Phasing

The implementation of the proposed solution would be phased in regards to the estate as the service would be required to vacate their footprint in GRH from December 2021 with interim arrangements in place until the permanent estate solution in CGH is in place; works are expected to start in September 2022.

Key Points

- **There are no anticipated financial changes expect from this proposal.**
- **The shift of some services to non-face to face appointments may require agreement with Commissioners when the Trust moves away from block contracts to payment by results.**
- **There have been no requests for additional equipment by the service to enable to implementation of this proposal, however there will be a non-recurring one-off capital costs to cover transition costs. This funding will be identified and funded through the IGIS programme**

13 Governance and decision-making

13.1 Internal Assurance

The Fit for the Future Programme is overseen by the Gloucestershire ICS and is embedded into both system and individual organisational governance structures. Regular reports are taken to the ICS Board and ICS Executives and also to CCG Governing Body, GHNHSFT and GHCFT Trust Boards, as well as system and Board sub-committees.

The programme management arrangements are overseen through the Fit for the Future Programme Development Group (PDG) including oversight of the Programme Director, the Programme Managers Group, FFTF Communications and Engagement and activity and financial modelling. Investment is provided by the system to ensure that there are central programme resources in place to ensure delivery of programme objectives.

These proposals have been shared with our ICS, GHNHSFT and CCG as part of the HOSC engagement process and this business case (and updated versions) will be approves through the formal governance arrangements within each organisation.

The Board of GHNHSFT supported the model of care at their meeting on 09/09/21.

In respect of the decision-making process and timescales the Governing Body of Gloucestershire Clinical Commissioning Group (CCG) is the legally accountable Consulting Authority so has final responsibility for approving next steps (see section 0).

Gloucestershire CCG will decide whether the proposed service change requires consultation at their meeting on 30/09/21.

13.2 External Assurance

13.2.1 *NHS England and Improvement (NHSE&I) assurance process*

NHS England and Improvement (NHSE&I) conduct system level approval on all business cases that need to go to consultation. The level of this assurance is decided based on both the materiality of the service changes proposed in financial terms and the level of financial robustness of the organisations involved.

NHE&I has been involved in the Fit for the Future Programme, with regular meetings to share progress and secure input. These proposals for Lung Function and Sleep services have been shared with NHSE&I and their involvement is dependent on the decision by the Governing Body of Gloucestershire CCG regarding consultation. This will include whether NHSE&I will instruct the South West Clinical Senate to undertake a full clinical review.

13.2.2 *South West Clinical Senate*

The Fit for the Future Programme (FFTF) has worked closely with the South West Clinical Senate with regular updates and sharing of documentation. This business case has been shared with the Senate and, as stated above, further involvement of the Senate is dependent on decisions made by the CCG regarding consultation.

13.2.3 *Health Overview and Scrutiny Committee*

Regular updates on the FFTF programme have been provided to the Health Overview and Scrutiny Committee (HOSC) and these specific proposals were presented in July 2021.

There is no national definition of ‘significant variation’ set out in the legal duties relating to engagement and consultation. Gloucestershire ICS partners have developed with the GCC

HOSC (with input from Healthwatch Gloucestershire) a Memorandum of Understanding regarding the local definition of key terms.

Following the CCG Governing Body meeting on 30/09/21, our proposals will be shared with HOSC in October 2021.

13.3 Public sector equality duty (PSED)

Section 149 of the Equality Act 2010 requires the CCG, in the exercise of its functions, to have due regard to the need to:

- Eliminate discrimination, harassment, victimisation and any other conduct that is prohibited under the Equality Act;
- Advance equality of opportunity between persons who share a relevant protected characteristic (see below) and persons who do not share it. This is expanded on under s.149(3) of the Equality Act, as set out below;
- Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

In order to advance equality of opportunity, decision-makers should have due regard in particular to the need to:

- Remove or minimise the disadvantage suffered by persons who share relevant protected characteristics;
- Take steps to meet the needs of those who share such characteristics; and
- Encourage participation of those who share such characteristics.

The requirements of the Equality Act 2010 also mean that the CCG should ensure that service design and communications should be appropriate and accessible to meet the needs of diverse communities

The requirements of the Public Sector Equality Duties are integral to the Fit for the Future approach. To inform the programme there has been extensive engagement and communications activity seeking to gather the views of seldom heard groups. The planned public engagement will continue with this approach and is underpinned by our Integrated Impact Assessment. The Equality Impact Assessment will be updated iteratively and used to inform decision making as the Programme progresses.

13.4 Information Governance (IG) and privacy impact assessment

Following specialist IG advice, the Data Protection Impact Assessment (DPIA) has been drafted on the basis that the next phase of the FFTF Programme is focusing on a business cases, there should be no change to any patient pathways and patient data flows. At no time will any patient identifiable data be held by the programme. The data that will be held by the programme during the next phase is as follows –

- Project Management documentation
- Programme Governance documentation
- Engagement documentation and feedback

It should be noted that all the proposals that form part of this business case are not intended to change the provider of the services nor are there changes to clinical systems or record keeping specific to the FFTF Programme; any changes would be subject to a separate DPIA process.

The DPIA describes:

- the data, data flows, and retention period
- any data protection and privacy risks identified
- the risk management measures agreed

Key Points

- **The Fit for the Future Programme is overseen by the Gloucestershire ICS and is embedded into both system and individual organisational governance structures.**
- **NHS England and Improvement and the South West Clinical Senate have been involved in the Fit for the Future Programme, with regular contact and sharing of documents.**
- **The Governing Body of Gloucestershire Clinical Commissioning Group (CCG) will decide whether the proposed service change requires consultation. The CCG is the legally accountable Consulting Authority so has final responsibility for approving next steps.**

14 Next Steps

In accordance with our standardised process for service redesign, the Lung Function and Sleep service has undertaken a number of key activities that are presented in this business case; including:

- A clear case for change
- A structured approach to the development of clinical model options to meet the case for change
- Patient, public and staff engagement
- An evidenced based preferred option evaluation process including both service staff and members of the public
- A well-defined set of benefits that can be monitored through implementation
- A detailed integrated impact assessment including patient and carer travel
- An assessment of the proposal's deliverability and impact on resources (finance, infrastructure, staff etc.).

The evidence provided in this business case, including feedback from our patient and public engagement, supports the creation of a Hub and Spoke Model for Lung Function and Sleep services. As part of this development the service will work on areas identified through this process to improve the current service offer and to mitigate the impact of the changes.

The next step is for Governing Body of Gloucestershire Clinical Commissioning Group (CCG) to decide whether the proposed service change requires consultation. The CCG is the legally accountable Consulting Authority so has final responsibility for approving next steps. There is no national definition of 'significant variation' set out in the legal duties relating to engagement and consultation.

14.1 Recommendation

The recommendation to the Governing Body of Gloucestershire Clinical Commissioning Group is to approve the proposals to create a Hub and Spoke model for Lung Function and Sleep Services (the 'Hub' at CGH will provide the main outpatient services and G.I. service and the 'Spoke' at GRH will focus mostly on inpatients), and also that the proposed service change **does not** require consultation.

In making this recommendation the following has been taken into consideration:

- There is currently a broad distribution of patients across the county attending each site and therefore not necessarily the site closest to where they live. This is influenced by factors such as staff availability, equipment, waiting times etc. all of which are addressed by the Hub and Spoke model.
- Travel has been clearly identified as an issue, however, when considering the quality benefits, a switch to more virtual appointments, the development of multi-disciplinary (one-stop) clinics and improved equipment stock management, the overall patient impact should be positive.
- The proposal does not remove the service from GRH but creates a spoke that will enable dedicated support for inpatients to ensure they are seen in a timelier manner.

- The scale of the service change.
- The proposal is aligned with the ICS strategic vision
- The feedback from our patient and public engagement is in support of the proposal and there is no indication that further involvement (through consultation) will provide further evidence or alternatives.

The CCG Governing Body meeting is on 30/09/21, and the outcomes will be shared with HOSC at their meeting of the 12/10/2021. This will include the Memorandum of Understanding developed by Gloucestershire ICS partners and GCC HOSC (with input from Healthwatch Gloucestershire).

15 Appendices

Appendix 1: Patient Survey Results (April 21)

See separate document

Appendix 2: Output of Engagement Report

See separate document

Appendix 3: Benefits Realisation Plans

See separate document

Appendix 4: Options Evaluation Evidence Pack

See separate document

Appendix 5: Travel Impact Analysis

See separate document

Appendix 6: Integrated Impact Assessment

See separate document

Glossary of Terms and Abbreviations

Centres of Excellence (CoEx)	The development of the two main hospital sites. Part of the Fit for the Future Programme
CGH	Cheltenham General Hospital
Clinical Senate	Non-statutory body, established by the Health and Social Care Act 2012 Clinical Senates aid Clinical Commissioning Groups (CCG), Health and Wellbeing Boards (HWB) and NHS England and NHS Improvement to make the best decisions about healthcare for the populations they represent by providing advice and leadership at a strategic level.
COVID-19/ Coronavirus	COVID-19 is a new illness that can affect your lungs and airways. It is caused by a virus called coronavirus.
CPAP/BiPAP equipment	Continuous positive airway pressure/Bi-level positive airway pressure machines to maintain a consistent breathing pattern
DPIA	Data Protection Impact Assessment
EBUS	Endobronchial Ultrasound A procedure that allows the doctor to view the airways inside your lungs
FFTF	Fit for the Future Programme
GCC	Gloucestershire County Council
GCCG/CCG	Gloucestershire Clinical Commissioning Group. CCGs are the GP-led bodies responsible for planning and investing in many local health and care services including the majority of hospital care.
GHC	Gloucestershire Health & Care NHS Foundation Trust - Formed in 2019 by the merger of 2gether Trust and Gloucestershire Care Services
GHNHSFT/GHFT	Gloucestershire Hospitals NHS Foundation Trust
GI	Gastrointestinal (a planned gastrointestinal service is sometimes referred to as upper GI and a planned colorectal service is sometimes referred to as lower GI).
GRH	Gloucestershire Royal Hospital
HOSC	Health overview and scrutiny committee (HOSC) - A committee of the relevant local authority, or group of local authorities, made up of local councillors who are responsible for monitoring, and if necessary, challenging health plans.
ICS	Gloucestershire Integrated Care System Bringing together NHS providers and commissioners and local authorities to work in partnership in improving health and care
IG	Information Governance
IGIS	Image Guided Interventional Surgery
IMD	Indices of Multiple Deprivation - widely-used datasets within the UK to classify the relative deprivation of small areas.
JHWS	Joint Health & Wellbeing Strategy requires the Local

	Authority and Clinical Commissioning Group (CCG) to work together to understand the health and wellbeing needs of their local community and agree joint priorities for addressing these needs to improve health and wellbeing outcomes and reduce inequalities.
JSNA	Joint Strategic Needs Assessment, a high-level overview of need in Gloucestershire. It is jointly produced by Gloucestershire County Council and the Clinical Commissioning Group on behalf of the Gloucestershire Health and Wellbeing Board whose members decide the strategic direction of public agency commissioning in Gloucestershire.
NHS Long Term Plan (LTP)	The NHS long term plan sets out priorities for the NHS over the next ten years
NHSE	NHS England is an executive non-departmental public body of the Department of Health.
NHSEI	NHS England and NHS Improvement came together on 1 April 2019 as a new single organisation
One Place	Previous name for the FFFT Programme
OSA	Obstructive sleep apnoea occurs when the muscles that support the soft tissues in your throat, such as your tongue and soft palate, temporarily relax. When these muscles relax, your airway is narrowed or closed, and breathing is momentarily cut off
PCN	Primary Care Networks - groups of practices working together to focus local patient care
PDG	Programme Development Group – oversees the programme management arrangements
SWASFT	South West Ambulance Service Foundation Trust
WTE	Whole Time Equivalent