

## Annex: Integrated Impact Assessment

A key commitment for the Fit for the Future programme is to deliver the requirements for Service Change as set out in Delivering Service Change for Patients (NHS England, 2018). An important component of this is delivery of an Integrated Impact Assessment on proposed solutions. This document contains all analysis conducted to determine the impacts of each proposed change.

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## 1. Equality Impact Assessment

### 1.1. Key Findings

#### Public and staff Engagement

- Engagement from the public suggests BME communities feel it is vitally important services remain close to patients who need it most. This cohort identified the need to see a specialist at their earliest opportunity and some think that centres of excellence are a good idea to promote specialist care.
- The key concerns for patients are around access to specialist care regardless of where they live, time to assessment and overall waiting times and the availability of services locally so there is not an inequality in service provision.
- Over 65s have also expressed concerns around access to specialist staff in a timely manner.
- Both Staff and the public expressed some concerns about Gloucester Royal Hospital being able to cope with an increase in emergency admissions with staff looking at it from a facilities and resource perspective and the public considering waiting times and parking.
- Over 65s expressed concerns around transport. Specifically they highlighted the impact on family and friends and the unfamiliarity of a different hospital, the surrounding area and how to get there. This cohort also criticised public transport reliability. This point was emphasised by those living outside of both Gloucester and Cheltenham where transport is perceived to be more complicated.
- Feedback indicated that the public are more concerned with travel times than distances when it comes to care but also indicated that for some parts of the county it can take an hour to attend hospital if the proposed changes take place and this will result in increased fuel costs on top of parking charges.

#### Potential Positive Impacts

Centralising acute medicine enhances patient safety, improve outcomes and reduce LOS as it allows for more patients to be seen by a senior reviewer within 14 hours of arrival, associated with increased patient discharges and improved clinical outcomes. 67% of admissions to acute medicine last year were for over 65s, meaning this cohort is significantly impacted by this change and its benefits.

By centralising the IGIS hub patients will now have a 24/7 service available to them. By co-locating this with the County's Trauma hub patients are more likely to receive emergency intervention faster. By co-locating with vascular the Trust is creating a multi-disciplinary approach to management of primary angioplasty which can improve patient outcomes. 68% of interventional cardiology patients and 66% of vascular patients last year were over 65, meaning this cohort is significantly impacted by this change and its benefits.

The centralisation of services will also mean quality of care and expertise will be enhanced, particularly beneficial to patients with long term conditions or co-morbidities which are prevalent in patients with disabilities, those aged 65 and some BME communities.

By centralising services, patients will have reduced waiting times, less cancellations and less unplanned overnight stays. Timely appointments with fewer cancellations means patients can more effectively plan their travel (e.g. pick up and drop off times if they are not driving themselves). This will benefit all patients, including those with disabilities who may need to plan travel in advance.

Reduced unplanned overnight stays may help to limit anxiety and unfamiliarity, particularly important for patients with a learning disability.

### **Recommendations based on evidence Review**

1. It is recommended that BME communities, particularly those vulnerable to long term conditions are involved in the consultation to feedback their views of the proposed changes and their perceived challenges. BME patients and those aged over 65 are disproportionately represented in the vascular patient cohort, meaning that engagement with these groups around the proposed changes to the vascular hub would be beneficial.
2. High quality signposting, good quality wheelchair access and interactive information for those with sensory impairments will be necessary to help patients navigate this change. Both sites will already have facilities in place for patients with disabilities but it is important to ensure these are optimised and co-designed where possible with representative organisations and patients with disabilities.
3. Proactive engagement will be needed to explain the benefits and mitigate public perceptions of additional risks to patient and visitor wellbeing. Ensure sufficient time, resource and focus is allocated to engagement with a range of groups on travel impacts, both planned and emergency, and for families and visitors as well as patients. Staff travel may also be a factor.
4. Explaining how specialist staff are distributed across the two sites will be beneficial in alleviating concerns around accessibility to specialist care equally across the county.

## Potential Negative Impacts

A centralised hub for IGIS will provide the capacity and capability to provide specialist centralised care for these patients. Patients most impacted by this are those over 65 as they are more likely to have heart disease and make up over 60% of the vascular patient cohort. The impact to vascular and the impact on patient safety has been identified by Gloucestershire Hospitals Foundation Trust, however, this impact has yet to be quantified by clinicians.

If emergency general surgery is centralised to Gloucestershire Royal Hospital, people attending A&E at Cheltenham General Hospital or patients (e.g. day cases and elective colorectal) deteriorating and needing emergency general surgery may need to be transferred to Gloucestershire Royal Hospital. Patients over 65 are most vulnerable to deterioration and currently 40% of general surgery patients are over 65, meaning they are disproportionately impacted by this. Currently, however, it is only 8 per day in total will be impacted by the new arrangements, with less than 1 patient per day need to be transferred in an emergency as a result of inpatient deterioration. This means the impact is relatively small and outweighed by the positive clinical outcomes.

GI day case patients are generally lower acuity and so are less likely to deteriorate, however, in the event a patient does deteriorate they may need to be transferred to Gloucestershire Royal Hospital. Patients over 65 are more likely to experience co-morbidities and other health conditions and therefore could be more vulnerable to needing transfer, however, transfer as a result of deterioration is already indicated to be low and infrequent. This is outweighed, however, by reduction in waiting times, enhanced quality of care and a reduction in the number of patients who are required to stay overnight unplanned as a result of a late start.

Feedback from staff and patients suggests parking can be a challenge at both sites. This could prove challenging for patients with a disability who will require a disabled parking bay of drop off point if the demand increases beyond what is currently available as a result of centralising services. Moving sites can also be a challenge for patients with a sensory impairment who may be familiar with their local hospital site but may be required to travel to the other site. Additional support may be needed to help patients navigate this change.

The new proposed models will mean that deteriorating patients may need to be transferred depending on the site they attended and their condition. For patients with a physical or learning disability, this may mean additional support with transport arrangements on their return home as they may not drive. It is important to note this will likely be a rare occurrence and therefore outweighed by the clinical benefits.

## Recommendations based on evidence review

1. It is recommended residents and service users over 65s and BME communities are engaged with to explain the reasons for centralising IGIS and co-locating with vascular from a clinical outcomes perspective.
  2. It is recommended those over 65 are engaged with regarding the proposed centralisation of emergency general surgery as 60% of the cohort are over 65. It is important to consider the impact for patients deteriorating at Cheltenham General Hospital who may need to be transferred, particularly those over 65 who may have more difficulty travelling around the county e.g. visitors such as relative who may be relying on public transport and who may have health conditions themselves. It is also recommended to consider if there will be repatriation plans for patients who started at Cheltenham General Hospital.
  3. Identifying to the public that current A&E services at Cheltenham General Hospital will be maintained is important to alleviate concerns around its closure. Feedback from over 65s emphasises the need to ensure all patients are aware of their local A&E and where to go in the event of an emergency. There are concerns around whether they will need to learn the route to a new A&E so ensuring they know A&E is still available at Cheltenham General Hospital and what to do in the event of an emergency is important.
  4. Any change involving emergency transport will need to be part of engagement as this could result in access concerns.
  5. Liaise with the local authority and transport services regarding public transport options for people who may need to use public transport to travel between hospital sites or access a different site from their home.
  6. When centralising services it is important to assess if there is an appropriate number of disabled parking bays to accommodate increases in demand of, for example, specific elective procedures. Engagement with patients with disabilities can help to identify the perceived challenges and what is required.
  7. Moving sites can be a challenge for patients with a sensory impairment who may be familiar with their local hospital site but may be required to travel to the other site. Additional support may be needed to help patients navigate this change, engagement through representative organisations for sensory impairments and disabilities would be beneficial to understand the best way to offer support.
  8. It is recommended patients with disabilities are part of the co-design where possible, looking at specific challenges such as disabled access and transport for those who do not drive. Engagement with representative organisations and support groups would also be needed to understand how to support patients with learning disabilities who may need to travel to a different site.
2. EQIA analysis



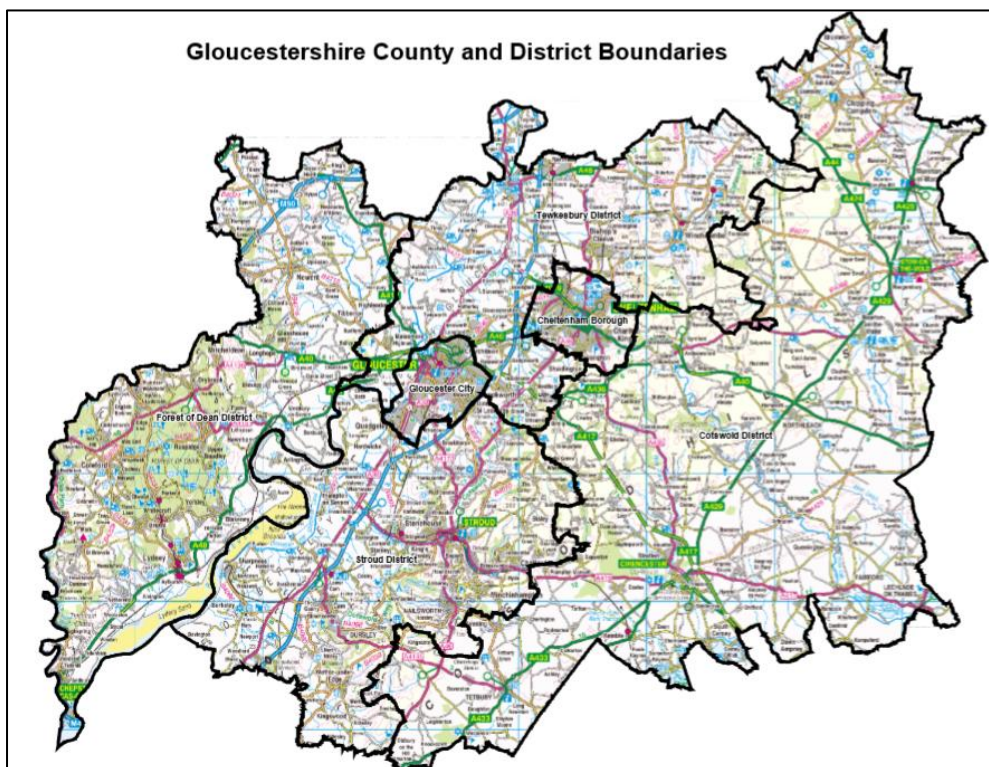
Public bodies have a legal duty to eliminate unlawful discrimination, to advance equality of opportunity and to have particular regard to the impact of potential service changes on defined segments of the population – known as those with ‘protected characteristics’. The main protected characteristics defined in legislation and national guidance are:

1. Age
2. Disability
3. Sex
4. Pregnancy
5. Marital status
6. Race
7. Sexual orientation
8. Religion
9. Gender reassignment

### Catchment Area

Gloucestershire covers 6 districts: Gloucester, Stroud, Forest of Dean, Tewkesbury, Cheltenham and Cotswold (see map below). This report will use this geography for analysing prevalence within the population to supplement analysis of specific patient cohorts

identified through hospital data.



2.1. A  
ge

The age of an individual, combined with additional factors including other ‘protected characteristics’ may affect their health and social care needs. Individuals may also experience discrimination and inequalities because of their age. Analysis of the 2008

European Social Survey in 2012 found that age discrimination was the most common form of prejudice experienced in the UK, affecting both younger and older people, with 28% of respondents saying they had experienced prejudice based on age.

Assuming current population trends continue, the population in Gloucestershire will rise by 44,300 between 2016 and 2026, from 623,100 to 667,400 (an increase of 0.7% per annum). The dominating feature of the population projections is the sharp increase in population in the age group 65 or over. These changes mean that by 2041, the proportion of people in the county who are aged 65 or over will have risen from 20.8% to 28.9%, and the proportion of people aged 85 or over will have risen from 2.9% to 5.5%. Population projections in the older age categories far exceed national averages (see Table 1).

**Table 1: ONS Subnational Population Projections for Gloucestershire, the districts and England by age group, 2016 to 2041**

	0-19			20-64			65+		
	Number of people		% change	Number of people		% change	Number of people		% change
	2016	2041	2016 to 2041	2016	2041	2016 to 2041	2016	2041	2016 to 2041
Cheltenham	26,500	27,200	2.6%	69,100	67,200	-2.7%	21,900	33,600	53.4%
Cotswold	17,600	18,400	4.5%	47,000	44,500	-5.3%	21,500	33,500	55.8%
Forest of Dean	18,300	19,600	7.1%	46,700	45,200	-3.2%	20,200	32,100	58.9%
Gloucester	32,100	35,200	9.7%	75,600	80,600	6.6%	20,800	35,300	69.7%
Stroud	26,200	28,600	9.2%	65,400	67,100	2.6%	25,800	40,400	56.6%
Tewkesbury	19,800	22,800	15.2%	49,300	52,100	5.7%	19,500	32,100	64.6%
<b>Gloucestershire</b>	<b>140,600</b>	<b>152,000</b>	<b>8.1%</b>	<b>353,000</b>	<b>356,700</b>	<b>1.0%</b>	<b>129,700</b>	<b>206,700</b>	<b>59.4%</b>
England	13,107,000	13,672,900	4.3%	32,278,400	33,285,800	3.1%	9,882,800	14,993,600	51.7%



## 2.1.1 EQIA summary for Age

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and potential duration	Nature of potential impact and recommendations
<p>A3 - Centralise acute medicine to GRH</p>	<p><b>Large Scale Impact</b></p> <p>The proportion of people in the county who are aged 65 or over will rise from 20.8% to 28.9% and the proportion of people aged 85 or over will rise from 2.9% to 5.5% by 2040. Population projections in the older age categories far exceed national averages. As part of the centralisation of acute medicine there will likely be an increase at GRH from CGH. There were 7,415 admissions between Feb 19 and Jan 20 for acute medicine at CGH. 67% were over the age of 65.</p>	<p><b>Long Term Impact</b></p> <p>Long term conditions are more prevalent in those over the age of 65 making this cohort more likely to access services and may require extra provision and support to do so. The acute medical problems of older people are often similar to those of younger adults but the presentation can be atypical or there can be a number of co-existing problems that make diagnosis difficult. In these patients a minor illness can lead to deterioration<sup>1</sup>. This commonly leads to admission into acute medicine, making this cohort likely to be impacted by the centralisation of acute medicine.</p> <p>Centralising acute medicine enhances patient safety, improve outcomes and reduce LOS as it allows for the co-ordination of tests and input from different specialist teams. It is also best</p>	<p><b>Overall Impact : Positive</b></p> <p><b>Large Positive Impact</b> Centralising acute medicine enhances patient safety, improve outcomes and reduce LOS as it allows for more patients to be seen by a senior reviewer within 14 hours of arrival, associated with increased patient discharges and improved clinical outcomes.</p> <p><b>Small Negative Impact</b> Patients over 65 may need further support to access services in the new location if their journey becomes longer and they are less familiar with the centralised location. Therefore engaging with over 65s to understand what challenges they may face, if any, is needed. These would support the co-design of support services as well.</p>

<sup>1</sup> Lawson P, Richmond C. 13 Emergency problems in older people. Emergency Medicine Journal 2005;22:370-374.

		<p>practice for acute medicine patients to undergo consultant review within 14 hours of arrival in hospital. By centralising a finite workforce the Trust will be able to offer more consistent provision of senior reviewers which will increase the number of patients being reviewed within 14 hours, improving clinical outcomes for patients and associated with increased discharges.</p>	
<p>B2 - IGIS hub and vascular centralised to GRH</p>	<p><b>Moderate Scale Impact</b></p> <p>There were 1,855 Interventional cardiology procedures and 944 vascular surgeries at CGH between Feb 19 and Jan 20. 68% of interventional cardiology patients were over 65 and 66% of vascular patients. Considering that in addition to this, over a fifth of the population of GRH and CGH is over 65, this cohort is likely to be the most impacted.</p>	<p><b>Long Term impact</b></p> <p>Evidence suggests aging has a remarkable effect on the heart and arterial system, leading to an increase in Cardiovascular Disease including atherosclerosis, hypertension, myocardial infarction, and stroke<sup>2</sup>. As the population of over 65s in GRH and CGH is predicted to rise from a fifth to over a quarter by 2040, this suggests a significant number of patients receiving services will be over 65.</p> <p>By centralising the image-guided interventional surgery (IGIS) 'hub' to GRH including vascular this will enable</p>	<p><b>Overall Impact: Positive</b></p> <p><b>Large Positive Impact</b></p> <p>By centralising the IGIS hub patients will now have a 24/7 service available to them. By co-locating this with the County's Trauma hub patients are more likely to receive emergency intervention faster. By co-locating with vascular the Trust is creating a multi-disciplinary approach to management of primary angioplasty which can improve patient outcomes. The co-location will also promote a multi-disciplinary approach to angioplasty, most common in those over 65<sup>3</sup>.</p> <p><b>Small Negative Impact</b></p>

<sup>2</sup> Lakatta EG, Levy D. Arterial and cardiac aging: major shareholders in cardiovascular disease enterprises, part I: aging arteries: a "set up" for vascular disease. Circulation. 2003;107:139–146

<sup>3</sup> <https://www.nhs.uk/conditions/Coronary-angioplasty/>

		<p>a 24/7 for patients which is not currently offered. Many IGIS interventions are time critical and there, outcomes for patients will be improved by locating the hub at the County's trauma unit because it will reduce the time to intervention in many emergencies.</p> <p>By co-locating IGIS and vascular, interventional radiology and interventional cardiology The Trust is taking a multi-disciplinary approach to the management of primary angioplasty. There is significant evidence to suggest that patient outcomes could improve as a result of this approach.</p>	<p>Data suggests a number of patients accessing vascular services will be over 65 and required to travel to GRH where they may have been travelling to CGH previously. Therefore it is important to engage with over 65s to understand the challenges they perceive and how they feel about the movement of the vascular hub which was once located in CGH.</p>
<p>C3 - EGS centralised to GRH</p>	<p><b>Moderate Scale Impact</b></p> <p>It is estimated this will mean 2,812 patients in total may be subject to change, approximately 8 a day.</p> <p>2080 patient episodes would move from</p>	<p><b>Long Term Impact</b></p> <p>The population aged 65 and over are much more likely suffer with long term conditions and ill health in general thus the older populations are more likely to be accessing services and more likely</p>	<p><b>Overall Impact: Positive</b></p> <p><b>Large Positive Impact</b></p> <p>EGS care would be improved by providing a dedicated team on SAU which would review all patients presenting on the same day. This would reduce delays to review, improving</p>

	<p>CGH to GRH 732 patient episodes would move from GRH to CGH.</p> <p>General surgery activity data states that approximately 38% of patients seen at GRH are aged 65+ and the proportion is even higher at CGH at 42%; using general surgery activity as a proxy, this would imply that regarding EGS approximately 278 patients will move from CGH to GRH and 874 Patients will move from CGH to GRH. A total of 1,152 aged over 65 will be impacted by solution C3 which is 40% of the estimated 2,812 overall patients impacted.</p>	<p>to require extra provision and support to access the services. By 2039 the proportion of over 65s is expected to rise to by 25% (ONS). This demographic shift has been accompanied by an increase in the prevalence of multiple and often complex long-term conditions. The number of people in England with three or more long-term conditions is projected to increase by 1 million people. As the older population grows, so too will the number of surgical patients carrying additional risk factors and requiring more multi-professional and multidisciplinary support. Research into 154 hospital sites shows 60% of EGS patients were over 65.<sup>4</sup></p> <p>Centralising emergency general surgery to Gloucestershire Royal Hospital will result in greater availability for staff to discuss patients and see surgical assessment unit patients quicker. Evidence suggests patients who are seen quicker have reduced admissions and increased self-care post treatment.</p>	<p>patient safety. Evidence suggests patients who are seen quicker have reduced admissions and increased self-care post treatment. It is estimated 40% of the patient cohort impacted by this change will be over 65.</p> <p><b>Small Negative Impact</b>          Patients attending A&amp;E at Cheltenham General Hospital or inpatients deteriorating and needing emergency general surgery may need to be transferred, however, this is less than 1 patient per day at present so this impact is relatively small overall but moderate for the patient as they may be moved, however, they will receive a high quality service due to centralisation.</p> <p>It is recommended those over 65 are engaged with as 60% of the emergency general surgery cohort are over 65. It is important to consider the impact for patients deteriorating at Cheltenham General Hospital who may need to be transferred, particularly those over 65 who may have more difficulty travelling around the county e.g. visitors such as relative who may be relying on public transport and who may have health conditions themselves. It is also recommended to consider if there will be repatriation plans for patients who started at Cheltenham General Hospital.</p>
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<sup>4</sup> Watson R, Crump H, Imison C, Currie C and Gaskins M (2016) Emergency general surgery: challenges and opportunities. Research Report. Nuffield Trust.

<p>C11 - GI day cases to CGH</p>	<p><b>Moderate Scale Impact</b></p> <p>In this solution (including the impacts of all changes that will co-occur with this solution in the overall model) it is estimated, 4349 patients in total may be subject to change, approximately 16 a day. 2535 patients would move from CGH to GRH 1814 patients would move from GRH to CGH</p> <p>Based on the prevalence of over 65s as a proxy, up to 42% of patients are over 65. This is disproportionately high compared to other age ranges.</p>	<p><b>Medium Term Impact</b></p> <p>Gastrointestinal (GI) changes in the elderly are common. While some changes associated with aging GI system are physiologic, others are pathological and particularly more prevalent among those above age 65 years<sup>5</sup>.</p> <p>By centralising GI day cases to Cheltenham General Hospital there will be dedicated unit which increases quality of care and in turn will improve clinical outcomes. Patients are currently cancelled frequently due to the need for emergency beds, therefore, by separating elective and emergency there is dedicated resource reducing the number of cancellations for patients.</p>	<p><b>Overall Impact: Positive</b></p> <p><b>Large Positive Impact</b></p> <p>There will be dedicated unit which increases quality of care and in turn will improve clinical outcomes. By separating elective and emergency there is dedicated resource reducing the number of cancellations for patients.</p> <p><b>Moderate Negative Impact</b></p> <p>GI day case patients are generally lower acuity overall in this cohort and so are less likely to deteriorate, however, in the event a patient does deteriorate they may need to be transferred to Gloucestershire Royal Hospital. This is potentially outweighed by the reduction in the number of patients who are required to stay overnight unplanned as a result of a late start in procedures. Patients over 65 are more likely to experience co-morbidities and other health conditions and therefore could be more vulnerable to needing transfer.</p> <p>It is recommended to engage with those over 65 regarding the impact of centralising services and the potential for transfer in the event of</p>
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<sup>5</sup> Dunic, I., Nordin, T., Jecmenica, M., Stojkovic Lalosevic, M., Milosavljevic, T., & Milovanovic, T. (2019). Gastrointestinal Tract Disorders in Older Age. *Canadian journal of gastroenterology & hepatology*, 2019, 6757524. <https://doi.org/10.1155/2019/6757524>

			deterioration to understand how best to support visitors and carers in travelling to another site.
C5 - Elective colorectal to CGH	<p><b>Moderate Scale Impact</b></p> <p>GRH conducted 910 colorectal surgeries in Feb 19 to Jan 20. 42% were over the age of 65. This means over 65s will be disproportionately impacted by the centralisation to CGH.</p>	<p><b>Long Term Impact</b></p> <p>With the increase in life expectancy comes an increase in the number of elderly people with colorectal diseases; as the incidence of colorectal carcinomas increases with advancing age.<sup>6</sup> The population of over 65s in Gloucestershire is increasing from a fifth to over a quarter by 2041 and therefore an increase in demand for colorectal could be seen.</p> <p>By centralising elective colorectal surgery, quality of care could be improved as a result of co-location with other relevant specialities such as medical gastroenterology. There is also a reduced risk of cancellations for patients as they will have access to a ring fenced service.</p>	<p><b>Overall Impact: Positive</b></p> <p><b>Large Positive Impact</b> By centralising the service with relevant specialities quality of care will improve and there will be fewer cancellations as a result of better access.</p> <p><b>Moderate Negative Impact</b></p> <p>The Proposed relocation to CGH may impact negatively on travel for patients who would have previously attended GRH. This may be a challenge for patients over 65 who may find travel more difficult and therefore it is important to engage with this cohort. If elective colorectal surgery is centralised to Cheltenham General Hospital then arrangements will need to be made for deteriorating patients who may need to be transferred to Gloucestershire for emergency general surgery, if centralised. This will impact on visitors and carers who may be</p>

<sup>6</sup> 1. de Rijke JM, Schouten LJ, Hillen HF, Kiemeney LA, Coebergh JW, van den Brandt PA. Cancer in the very elderly Dutch population. Cancer. 2000;89:1121–1133.



			<p>reliant on public transport and who may have health conditions themselves.</p> <p>It is recommended to engage with those over 65 regarding the impact of centralising services and the potential for transfer in the event of deterioration to understand how best to support visitors and carers in travelling to another site.</p>
<p>C6 - Elective colorectal to GRH</p>	<p><b>Moderate Scale Impact</b></p> <p>CGH conducted 584 colorectal surgeries and 49% were over 65. This means over 65s will be disproportionately impacted by the centralisation to GRH.</p>	<p><i>Evidence as listed above.</i></p>	<p><b>Overall Impact: Positive</b></p> <p><b>Large Positive Impact</b></p> <p>Although a smaller percentage of patients are over 65 in GRH's general surgery cohort, The centralised services will improve access to the right specialists without the need to travel, however, data suggests this cohort is smaller in GRH than CGH, so more over 65s will need to travel in this proposed solution. This is outweighed by the benefit of having elective colorectal co-located with Emergency general surgery (if this is to go ahead) as then patients will not need to travel in the event of deterioration, something patients over 65 could be more vulnerable to.</p> <p><b>Small Negative Impact</b></p> <p>The Proposed relocation to GRH may impact negatively on travel for patients who would have previously attended CGH. This may be a</p>



**Strategy Unit**

			challenge for patients over 65 who may find travel more difficult and therefore it is important to engage with this cohort.
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### 2.1.2 Disability

Dementia, learning disabilities and physical disabilities have all been considered under this category.

**Learning Disabilities:** Estimated projections suggest that in 2019 there will be approximately 11,825 people aged 18+ living with a learning disability in Gloucestershire equating to 2.3% of the adult population. Of this group, about 2,400 are estimated to have moderate or severe learning disabilities, equating to 0.5% of the adult population.

**Disabilities:** According to the 2011 Census, 16.7% of Gloucestershire residents reported having a long term limiting health problem or disability. At a household level, 24.2% of households had at least one person with a long-term limiting health problem or disability.

**Dementia:** Only 12% of people with dementia have no comorbidities. 40% have 1-2 and 48% have 3 and a quarter of hospitals beds are occupied by patients with dementia over the age of 65.

**Sensory Impairment:** A sensory impairment is something that affects your hearing, vision or both your hearing and vision. Most people accessing support because of a sensory impairment are over 55 years and population projections suggest this will increase. They often experience multiple long term conditions which can impact on accessing health care services. Several services are on offer to sensory impaired people in the county including Gloucestershire Deaf Association who provide British Sign Language (BSL) Interpreters in our health care settings.

### 2.1.3 EQIA summary for Disability

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<b>Moderate Scale Impact:</b>  16.7% of Gloucestershire residents reported having a long term limiting health problem or disability. Approximately 11,825 people aged 18+ living with a learning disability in Gloucestershire	<b>Long Term Impact</b>  People with a physical or learning disability will require increased provision and assistance to access services and are at a higher risk of requiring services, especially those	<b>Overall Impact: Positive</b>  <b>Large Positive Impact</b> By centralising services, patients will have reduced waiting times, less cancellations and less unplanned overnight stays. Timely appointments with fewer cancellations means patients can more effectively plan their travel (e.g. pick up and drop off times if they are not driving themselves). The centralisation of services will also mean quality of care and expertise will be enhanced, particularly beneficial to patients with long term
B2 - IGIS hub and vascular centralised to GRH			
C3 - EGS centralised to GRH			
C11 - GI day cases to CGH			
C5 - Elective colorectal to CGH			

<p>C6 - Elective colorectal to GRH</p>	<p>equating to 2.3% of the adult population.</p>	<p>with multiple long term conditions.</p>	<p>conditions or co-morbidities which are prevalent in patients with disabilities.</p> <p>Reduced unplanned overnight stays may help to limit anxiety and unfamiliarity, particularly important for patients with a learning disability.</p> <p><b>Moderate Negative Impact</b></p> <p>Feedback from staff and patients suggests parking can be a challenge at both sites. Therefore, by centralising services it is important to assess if there is an appropriate number of disabled parking bays to accommodate increases in demand of, for example, specific elective procedures.</p> <p>The new proposed models will mean that deteriorating patients may need to be transferred depending on the site they attended and their condition. For patients with a physical or learning disability, this may mean additional support with transport arrangements on their return home as they may not drive.</p> <p>Moving sites can also be a challenge for patients with a sensory impairment who may be familiar with their local hospital site but may be required to travel to the other site. Additional support may be needed to help patients navigate this change.</p> <p>High quality signposting, good quality wheelchair access and interactive information for those with sensory impairments will be necessary to help patients navigate this change. Both sites will already have facilities in place for patients with disabilities but it is important to ensure these are optimised.</p> <p>It is recommended that those with a disability are involved in the</p>
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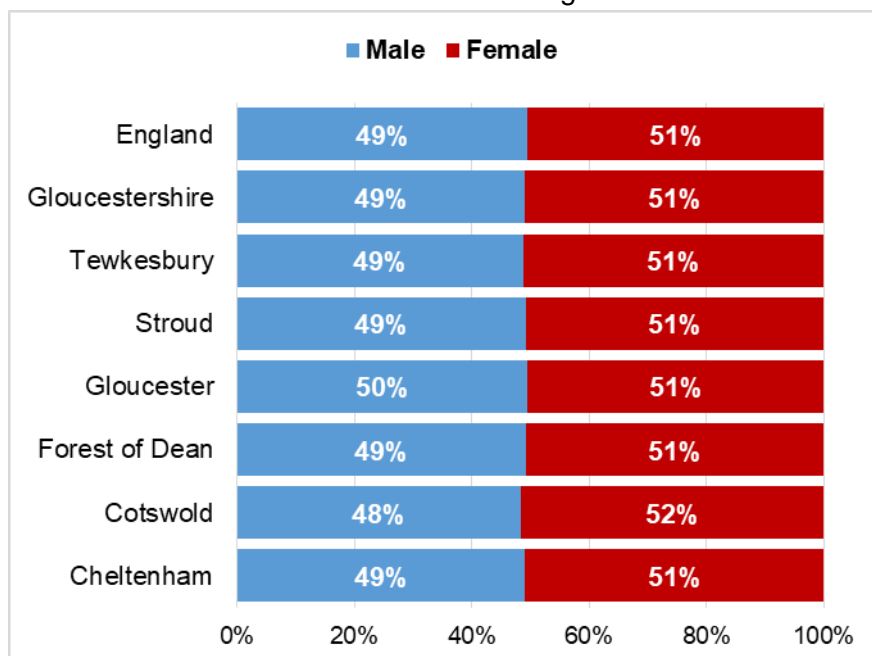
		consultation to understand their needs and perceived challenges
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## 2.2. Gender

The sex of an individual, combined with additional factors such as living alone, may affect their health and social care needs. Individuals may also experience discrimination and inequalities because of their sex. A report by the European Social Survey found 24% of respondents had experienced prejudice based on their sex. Discrimination on the grounds of sex was reported by more respondents than discrimination based on ethnicity.

The overall population split by sex in Gloucestershire is slightly skewed towards females, with males making up 49.1% of the population and females accounting for 50.9%. In Gloucestershire in 2017, 52.9% of people aged 65-84 were female, whilst for people aged 85+ the difference was more marked with females accounting for 64.6% of the total population. This situation is also reflected at district, regional and national level. As a result of this, 71% of single pensioner households are shown to be headed by a woman. It is worth highlighting that women were more likely than men to be living in a household without access to a car.

**Figure 1:** population by proportion of males and females within the catchment area, Gloucestershire and England.





**Mid and  
South Essex**  
University Hospitals Group  
**Strategy Unit**



## 2.2.1 EQIA Summary for Gender

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<p><b>Large Scale Impact</b></p> <p>There were 7,415 admissions between Feb 19 and Jan 20 for acute medicine at CGH. 54% were female, suggesting changes to acute medicine may slightly disproportionately impact females.</p>	<p><b>Long Term Impact</b></p> <p>It is difficult to determine the driver behind why more females are treated in acute medicine in Cheltenham, however, it could be because although there is a gynaecology department in CGH, Obstetrics is in Women's and Children in GRH. Therefore this demand could be skewed by females of pregnancy age.</p> <p>Pregnant women can present to any acute hospital service at any time during their pregnancy or the postpartum period, which is up to 12 months post-delivery. Women may present with acute medical problems that need to be managed differently because of pregnancy, or may present with obstetric syndromes<sup>7</sup>.</p>	<p><b>Overall Impact: Positive</b></p> <p><b>Large Positive Impact</b></p> <p>It is evident that males are disproportionately impacted in some cohorts and females in others, however, the centralisation of services and the separation of elective and emergency where possible in these proposed changes will improve quality of care, create opportunities for enhanced training and understanding of patient's conditions as a result of co-located specialities and therefore improve clinical outcomes for patients.</p> <p><b>Small Negative Impact</b></p> <p>It is possible that males could be disproportionately impacted if vascular was</p>

<sup>7</sup> <https://www.rcplondon.ac.uk/guidelines-policy/acute-care-toolkit-15-managing-acute-medical-problems-pregnancy>

<p>B2 - IGIS hub and vascular centralised to GRH</p>	<p><b>Moderate Scale Impact</b></p> <p>There were 1,855 Interventional cardiology procedures and 944 vascular surgeries at CGH between Feb 19 and Jan 20. 69% of interventional cardiology patients were male and vascular was only marginally more male.</p>	<p>It is estimated that around 1.4 million people in the UK have survived a heart attack, approx.1 million men and 380,000 women. There are currently 2.3 million people living with Coronary heart disease in the UK, 1.5 million are men<sup>8</sup>. Therefore males may be disproportionately impacted by changes to cardiology and vascular services.</p>	<p>to remain at CGH and IGIS to centralise at GRH as 69% of interventional cardiology patients were male. This could mean that is a patient needs to be moved to the vascular hub at CGH from GRH evidence suggests they are more likely to be male, however, this is likely to be less than 1 patient per day and the clinical outcomes are likely to outweigh this.</p>
	<p>of IGIS.</p>		
<p>C3 - EGS centralised to GRH</p>	<p><b>Moderate Scale Impact</b></p> <p>General surgery activity data states that approximately 54% of patients seen at GRH are female and 52% at CGH. Using general surgery activity as a proxy, this could suggest females may be slightly disproportionately impacted by this, however, the</p>	<p><b>Long Term Impact</b></p> <p>There is no evidence to suggest that males or females are more likely to use EGS services in GRH. The overall population of general surgery patients are 52% female, however, there is no evidence to suggest females are more likely to receive emergency general surgery.</p>	

<sup>8</sup> <https://www.bhf.org.uk/what-we-do/our-research/heart-statistics>

	difference in gender is very small.	
C11 - GI day cases to CGH	<p><b>Moderate Scale Impact</b></p> <p>In this solution (including the impacts of all changes that will co-occur with this solution in the overall model) it is estimated, 4349 patients in total may be subject to change, approximately 16 a day. 2535 patients would move from CGH to GRH 1814 patients would move from GRH to CGH.</p> <p>Using general surgery as a proxy we know that 54% of patients at GRH who would attend CGH in the proposed change are female. Suggesting females could be disproportionately impacted by this.</p>	<p><b>Medium Term Impact</b></p> <p>There is no evidence to suggest that males or females are more likely to use EGS services in GRH. The overall population of general surgery patients are 52% female, however, there is no evidence to suggest females are more likely to receive emergency general surgery. Evidence does suggest, however, that, as compared to men with IBS, women with IBS are more likely to report additional functional gastrointestinal (GI) conditions including globus, dysphagia, bloating, constipation, fecal incontinence and pelvic floor dysfunction<sup>9</sup>. This could suggest women may be more likely to report concerns and seek treatment.</p>

<sup>9</sup> Cain et al (2009) Gender Differences in Gastrointestinal, Psychological, and Somatic Symptoms in Irritable Bowel Syndrome, Dig Dis Sci, 54(7) 1542–1549.

<p>C5 - Elective colorectal to CGH</p>	<p><b>Moderate Scale Impact</b></p> <p>GRH conducted 910 colorectal surgeries in Feb 19 to Jan 20. There were slightly more males than females in this patient cohort (51%) but very marginal.</p>	<p><b>Long Term Impact</b></p> <p>Evidence suggests differences in gender across colorectal cancer. The overall incidence is higher in men, with an earlier age distribution, however, important sex differences exist in anatomical site. There were relatively small differences in screening uptake, route to diagnosis, cancer staging at diagnosis. Women are more likely to present as emergency cases, with more men diagnosed through screening and two-week-wait<sup>10</sup>.</p>
<p>C6 - Elective colorectal to GRH</p>	<p><b>Moderate Scale Impact</b></p> <p>CGH conducted 584 colorectal surgeries. 53% of this patient cohort were male.</p>	<p>Evidence same as above</p>

<sup>10</sup> White, A., Ironmonger, L., Steele, R.J.C. et al. A review of sex-related differences in colorectal cancer incidence, screening uptake, routes to diagnosis, cancer stage and survival in the UK. BMC Cancer 18, 906 (2018). <https://doi.org/10.1186/s12885-018-4786-7>

## 2.2.2 Pregnancy

The Equality Act 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.

There were 6,739 live births in Gloucestershire in 2016. Table 2 shows the age of mothers at the delivery of their baby in five year age bands), the highest proportion of deliveries were to women aged 30 to 34 continuing the trend of later motherhood. Births to mothers aged 25-29 and 30-34 account for a slightly higher proportion of total births in Gloucestershire than they do nationally, whilst those to mothers aged under 25 account for a slightly lower proportion.

At district level, Gloucester and the Forest of Dean have a higher proportion of births to mothers aged under 20 (4.0% and 3.6% respectively) than Gloucestershire and England. Cheltenham, Cotswold and Stroud have a higher proportion of births to mothers aged 35+ than Gloucestershire and England.

**Table 2:** % of births by age of mother

	Total number of live births	% of total births by age of mother						
		under 20	20-24	25-29	30-34	35-39	40-44	45+
Cheltenham	1,328	2.0	10.6	24.4	36.3	21.5	5.1	0.2
Cotswold	730	1.5	10.5	25.2	34.2	22.6	5.3	0.5
Forest of Dean	844	3.6	15.8	32.5	29.5	15.2	3.3	0.2
Gloucester	1,768	4.0	16.2	31.6	31.6	13.7	2.7	0.3
Stroud	1,094	1.9	10.3	28.6	34.3	19.7	4.8	0.3
Tewkesbury	975	1.9	11.7	31.4	33.8	17.5	3.5	0.1
<b>Gloucestershire</b>	<b>6,739</b>	<b>2.6</b>	<b>12.8</b>	<b>29.1</b>	<b>33.3</b>	<b>17.9</b>	<b>4.0</b>	<b>0.3</b>
England	663,157	3.2	14.6	28.0	31.8	18.1	4.0	0.3

### 2.2.3 EQIA Summary for Pregnancy

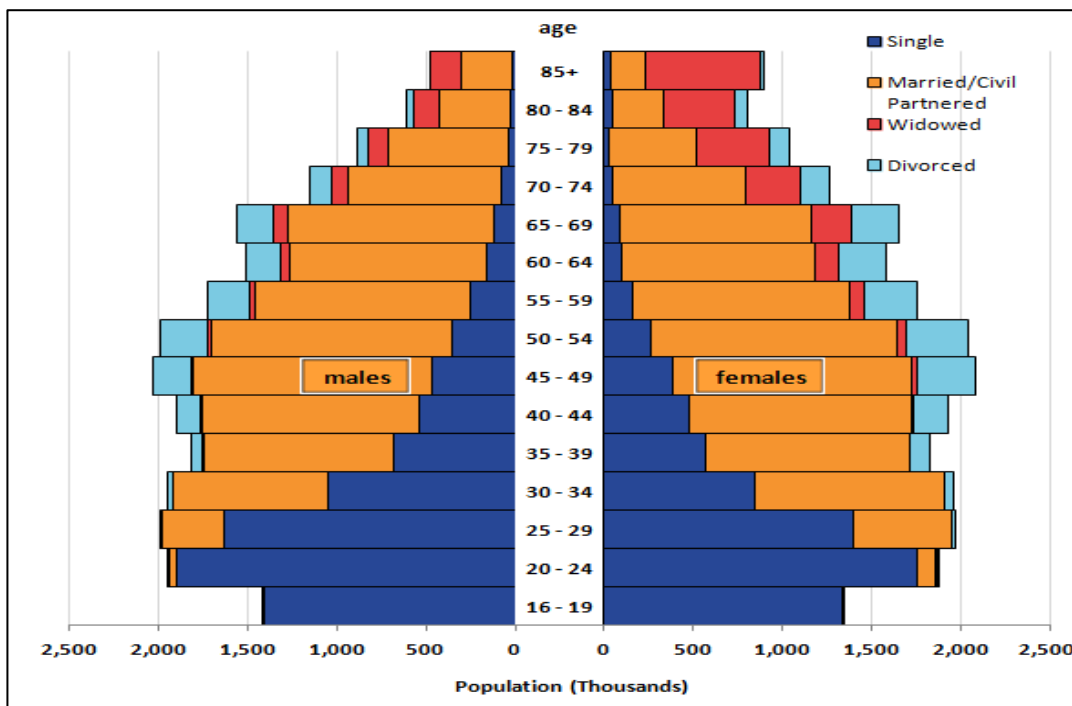
Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<b>Moderate Scale Impact</b>  There were 6,739 live births in Gloucestershire in 2016; Gloucester and the Forest of Dean have a higher proportion of births to mothers aged under 20 (4.0% and 3.6% respectively) than Gloucestershire and England. Cheltenham, Cotswold and Stroud have a higher proportion of births to mothers aged 35+ than Gloucestershire and England.	<b>Long Term Impact</b>  There is currently limited data to determine any impact of the changes for women during pregnancy.	<b>Overall Impact: Neutral</b>  Proposed changes to services are expected to maintain current inclusive support service approach. It is recommended to engage with a representative distribution of the population, to include those pregnant or new parents.
B2 - IGIS hub and vascular centralised to GRH			
C3 - EGS centralised to GRH			
C11 - GI day cases to CGH			
C5 - Elective colorectal to CGH			
C6 - Elective colorectal to GRH			



### 2.3. Marital status

According to the latest data from the ONS, the majority (50.6%) of the population in England and Wales aged 16 and over in 2015 were married and this is similar in Gloucestershire. The next largest group within the population were single, never married or civil partnered (34.5%). The population who were divorced or widowed made up a smaller proportion of the total population at 8.1% and 6.5% respectively. The smallest group within the population were those who were civil partnered, making up 0.2% of the population aged 16 and over in 2015.

**Figure 2:** Population Estimates (aged 16 and over) by marital status, age group and sex, 2015



### 2.3.1 EQIA Summary for Marital Status

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<b>Moderate scale Impact</b> As part of the centralisation of acute medicine there will likely be an increase at GRH from CGH. There were 7,415 admissions between Feb 19 and Jan 20 for acute medicine at CGH. 46% of acute medicine patients are married, 16% single and 9% widowed. A large number not stated	There is currently limited data to ascertain any impact of the changes for those who are from any particular marital status.	<b>Overall Impact: Neutral</b>  Proposed changes to services are expected to maintain current inclusive support service approach. It is recommended to engage with a representative distribution of the population to include those who are married, divorced, widowed, single and separated.
B2 - IGIS hub and vascular centralised to GRH	<b>Moderate scale Impact</b> There were 1,855 Interventional cardiology procedures and 944 vascular surgeries at CGH between Feb 19 and Jan 20. 49% of interventional cardiology patients and 45% of vascular patients at CGH are married.		

<p>C3 - EGS centralised to GRH</p>	<p><b>Moderate Impact:</b> General surgery activity data states that approximately 36% of patients seen at GRH are married compared to 44% at CGH. Using general surgery activity as a proxy, this suggests patients are most likely to be married.</p>
<p>C11 - GI day cases to CGH</p>	<p><b>Moderate Impact:</b> In this solution (including the impacts of all changes that will co-occur with this solution in the overall model) it is estimated, 4349 patients in total may be subject to change, approximately 16 a day. 2535 patients would move from CGH to GRH 1814 patients would move from GRH to CGH</p> <p>Using general surgery as a proxy we know that 36% of patients at GRH who would attend CGH in the proposed change are married.</p>
<p>C5 - Elective colorectal to CGH</p>	<p><b>Moderate scale Impact:</b> GRH conducted 910 colorectal surgeries in Feb 19 to Jan 20. 39% of patients were married at GRH./</p>

C6 - Elective colorectal to GRH	<b>Moderate Impact:</b> CGH conducted 584 colorectal surgeries and 43% of patients at CGH were married
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## 2.4. Ethnicity

The prevalence of ethnic minorities in Gloucestershire is lower than national averages at 4.6% of the population from Black and Minority Ethnic (BME) backgrounds; this figure increased to 8.4% when the Irish, Gypsy or Irish Traveller and 'other White' categories were included<sup>11</sup>.

Based on data, from the Gloucestershire county council population profile, amongst people aged 65 and over, 58.5% of Asian/Asian British people and 56.7% of Black African/Caribbean/Black British people had a long-term health problem/disability compared with 48.9% of White British people. Amongst the Gloucestershire population of all ages, people of Gypsy or Irish Traveller origin were much more likely to be in poor health than other ethnic groups (15.9% of Gypsy/Irish Travellers compared with 4.6% of White British people).

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<sup>11</sup> <https://inform.gloucestershire.gov.uk/media/2087689/equality-profile-2019-final.pdf>

### 2.4.1. EQIA Summary for Ethnicity

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<p><b>Large Scale Impact</b></p> <p>As part of the centralisation of acute medicine there will likely be an increase at GRH from CGH. There were 7,415 admissions between Feb 19 and Jan 20 for acute medicine at CGH. 4% were BME</p>	<p><b>Long Term Impact</b></p> <p>In Gloucestershire amongst people aged 65 and over, 58.5% of Asian/Asian British people and 56.7% of Black African/Caribbean/Black British people had a long-term health problem/disability compared with 48.9% of White British people.</p>	<p><b>Overall Impact: Positive</b></p> <p><b>Large Positive Impact</b> Centralised services ensure the best quality care is made available to patients and will benefit patients with complex or long term needs, which correlates with some BME patient cohorts. The co-location of relevant specialist services improves training and enhanced understanding of patient conditions, leading to better clinical outcomes and improving access to services with fewer cancellations.</p>
B2 - IGIS hub and vascular centralised to GRH	<p><b>Moderate Scale Impact</b></p> <p>There were 1,855 Interventional cardiology procedures and 944 vascular surgeries at CGH between Feb 19 and Jan 20. 4% of cardiology patients and 5% of vascular patients at CGH are BME. This is disproportionately higher than the overall BME population of Gloucestershire at 4.6% BME.</p>	<p>Research suggests South Asians are more likely to develop coronary heart disease than white Europeans. Those who are African or African Caribbean are at higher risk of developing high blood pressure and having a stroke than other ethnic groups and all are more likely to develop diabetes than the rest of the population<sup>12</sup>. Therefore, BME patients are likely to be impacted by this proposed change.</p>	<p><b>Small Negative Impact</b> Some patient cohorts are</p>

<sup>12</sup> <https://www.bhf.org.uk/information-support/risk-factors/ethnicity>



disproportionately from BME communities such as vascular patients. Therefore, changes to the vascular hub will impact on this cohort, particularly if this results in further travel or the possibility of requiring a transfer from one site to another, however, this is only in a very small number of circumstances.

It is recommended that BME communities, particularly those vulnerable to long term conditions are involved in the consultation to feedback their views of the proposed changes and their perceived challenges.

C3 - EGS centralised to GRH	<p><b>Moderate Scale Impact:</b> General surgery activity data states that approximately 8% of patients seen at GRH are BME compared to 6% at CGH. Using general surgery activity as a proxy, this suggests BME patients are disproportionately impacted.</p>
C11 - GI day cases to CGH	<p><b>Moderate Scale Impact:</b> In this solution (including the impacts of all changes that will co-occur with this solution in the overall model) it is estimated, 4349 patients in total may be subject to change, approximately 16 a day. 2535 patients would move from CGH to GRH 1814 patients would move from GRH to CGH.</p> <p>Using general surgery as a proxy we know that 8% of patients at GRH who would attend CGH in the proposed change are BME. This suggests BME patients are disproportionately impacted.</p>

C5 - Elective colorectal to CGH	<b>Moderate Scale Impact:</b> GRH conducted 910 colorectal surgeries in Feb 19 to Jan 20. 4% were BAME patients.		
C6 - Elective colorectal to GRH	<b>Moderate Scale Impact:</b> CGH conducted 584 colorectal surgeries in Feb 19 to Jan 20. 5.6% were BAME patients. This is disproportionately high compared to the population of BAME which is 4.6%.		

## 2.5. Sexual orientation

People who are lesbian, gay or bisexual (LGB) are more likely to have experienced depression or anxiety, attempted suicide or had suicidal thoughts and self-harmed than men and women in general<sup>13</sup>. LGB population aged over 55 are more likely than heterosexual people over 55 to live alone and are more likely than heterosexual people to say that they expect to rely on health and social care providers as they get older.<sup>14</sup> The prevalence of the LGB population in Gloucestershire is estimated to be around 5% - 7%<sup>15</sup>.

### EQIA Summary for sexual Orientation

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<b>Small- Moderate Scale Impact</b>  The LGBTQ+ community is estimated to form 5% - 7% of the Gloucestershire population.	<b>Long Term Impact</b>  According to the Stonewall survey, 13% of LGBTQ+ people have experienced some form of unequal treatment from healthcare staff because they are LGBTQ+ and 23% have witnessed it. This includes 32% of trans people and 24% of Asian LGBTQ+ people who have experienced unequal treatment.	<b>Overall Impact: Neutral</b>  Proposed changes to services are expected to maintain inclusive support service approach. It is recommended to ensure LGBTQ+ communities are included in the consultation and are able to feed back their views as changes to health care settings can be challenging to patients who may already feel healthcare is unequal (as shown in the Stonewall survey).
B2 - IGIS hub and vascular centralised to GRH			
C3 - EGS centralised to GRH			
C11 - GI day cases to CGH			
C5 - Elective colorectal to CGH			
C6 - Elective colorectal to GRH			

<sup>13</sup> Stonewall, 2015, Mental Health, Stonewall health briefing  
[http://www.stonewall.org.uk/sites/default/files/Mental\\_Health\\_Stonewall\\_Health\\_Briefing\\_2012\\_.pdf](http://www.stonewall.org.uk/sites/default/files/Mental_Health_Stonewall_Health_Briefing_2012_.pdf)  
 Accessed 18/12/2017

Stonewall, 2011, Lesbian, Gay and Bisexual People in Later Life.  
[www.stonewall.org.uk/sites/default/files/LGB\\_people\\_in\\_Later\\_Life\\_\\_2011\\_.pdf](http://www.stonewall.org.uk/sites/default/files/LGB_people_in_Later_Life__2011_.pdf) Accessed 18/12/2017

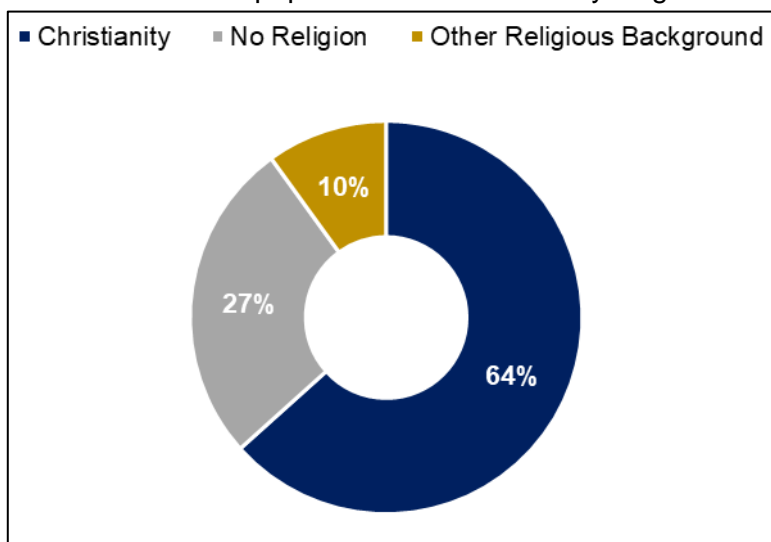
<sup>15</sup> <https://inform.gloucestershire.gov.uk/media/2087689/equality-profile-2019-final.pdf>

## 2.6. 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.

Gloucestershire has a higher proportion of people who are Christian, have no religion or have not stated a religion than the national figures. In contrast it has a lower proportion of people who follow a religion other than Christianity, which reflects the ethnic composition of the county.

**Figure 3:** Gloucestershire population broken down by religious background



At district level:

- Cheltenham had the lowest proportion of people who are Christian at 58.7% of the total population; this was lower than the county and marginally lower than the national figure.
- Cotswold had the highest proportion of people who follow Christianity.
- Cheltenham had the highest proportion of Buddhists, Hindus and people who have no religion.
- At 3.2% of the total population Gloucester had the highest proportion of Muslims.
- Stroud had the highest proportion of people who follow an "Other Religion" and of people who did not state their religion.

2.6.1. EQIA Summary for Religion

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<p><b>Small Scale Impact</b></p> <p>As part of the centralisation of acute medicine there will likely be an increase at GRH from CGH. There were 7,415 admissions between Feb 19 and Jan 20 for acute medicine at CGH. 60% acute medicine patients were Christian and 7% have no religion.</p>	<p><b>Long Term Impact</b></p> <p>Approximately 64% of the Gloucestershire population are from a Christian background and almost 27% have no religion. Only estimated 10% of the population has other religious backgrounds.</p>	<p><b>Overall Impact: Neutral</b></p> <p>It is important to ensure an evenly represented group feedback through the consultation, meaning that religions are represented when feeding back views. Many patients did not state their religion and so it is difficult to know how different religions are impacted which is why it is important to ensure the consultation captures feedback from all religions. As an example some patients will want reassurance that they can request the gender of their doctor for religious reasons</p>
B2 - IGIS hub and vascular centralised to GRH	<p><b>Small Scale Impact</b></p> <p>There were 1,855 Interventional cardiology procedures and 944 vascular surgeries at CGH between Feb 19 and Jan 20. 48% of interventional cardiology patients and 33% of vascular patients at CGH are Christian. 0.7% are Muslim and a large proportion did not state their religion.</p>		

<p>C3 - EGS centralised to GRH</p>	<p><b>Small Scale Impact</b></p> <p>General surgery activity data states that approximately 45% of patients seen at GRH are Christian compared to 53% at CGH. 0.4% of patients are CGH were Hindu and a further 0.4% Muslim.</p>
<p>C11 - GI day cases to CGH</p>	<p><b>Small Scale Impact</b></p> <p>In this solution (including the impacts of all changes that will co-occur with this solution in the overall model) it is estimated, 4349 patients in total may be subject to change, approximately 16 a day. 2535 patients would move from CGH to GRH 1814 patients would move from GRH to CGH</p> <p>Using general surgery as a proxy we know that 45% of patients at GRH who would attend CGH in the proposed change are Christian and 1% are Muslim.</p>

<p>C5 - Elective colorectal to CGH</p>	<p><b>Small Scale Impact</b></p> <p>GRH conducted 910 colorectal surgeries in Feb 19 to Jan 20. 42% of patients were Christian, the large majority remaining stated they had no religion or did not state their religion.</p>		
<p>C6 - Elective colorectal to GRH</p>	<p><b>Small Scale Impact</b></p> <p>CGH conducted 584 colorectal surgeries in Feb 19 to Jan 20. 51% of patients were Christian, the large majority remaining stated they had no religion or did not state their religion.</p>		

## 2.7. Gender reassignment

The Equality Act 2010 protects transgender people. It is therefore important this is clearly understood and followed within the organisation, for both patients and staff who are transgender.

Transgender people are more likely to report mental health conditions and to attempt suicide than the general population<sup>16</sup>. Transgender people encounter significant difficulties in accessing and using health and social services<sup>17</sup>. Numbers of people identifying as transgender across the county is increasing with current estimates at 0.6% people aged 16 and over<sup>18</sup>.

### 2.7.1. EQIA Summary for Gender Re-assignment

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<b>Small Scale Impact</b>  The estimated prevalence of gender re-assignment is 0.6% in Gloucestershire.	There is limited evidence regarding the impact to those who have undergone gender reassignment, however, impacts may mirror those of sexual orientation (see above)	<b>Overall Impact: Neutral</b>  Proposed changes to services are expected to maintain inclusive support service approach. It is recommended to ensure transgender people are included in the consultation
B2 - IGIS hub and vascular centralised to GRH			
C3 - EGS centralised to GRH			
C11 - GI day cases to CGH			
C5 - Elective colorectal to CGH			
C6 - Elective colorectal to GRH			

<sup>16</sup> House of Commons Women and Equalities Committee, 2016, Transgender Equality .

[www.publications.parliament.uk/pa/cm201516/cmselect/cmwomeq/390/390.pdf](http://www.publications.parliament.uk/pa/cm201516/cmselect/cmwomeq/390/390.pdf) Accessed 24/01/2019

<sup>17</sup> Stonewall (2015) Unhealthy Attitudes [www.stonewall.org.uk/sites/default/files/unhealthy\\_attitudes.pdf](http://www.stonewall.org.uk/sites/default/files/unhealthy_attitudes.pdf) Accessed 24/01/2019

<sup>18</sup> <https://inform.gloucestershire.gov.uk/media/2087689/equality-profile-2019-final.pdf>



### 3. Health Inequalities Impact Assessment

#### 3.1. Key Findings

##### Potential Positive impacts

25% of Gloucester city's population are living in deprived areas, approx. 32,000 people. Therefore centralising emergency general surgery, acute medicine and IGIS to the Gloucestershire Royal Hospital provides improved access to the right specialists to manage the care of this higher risk community. Deprivation is linked to co-morbidities and poorer health outcomes, therefore, centralising services to form different hubs with co-located specialities across both sites with enhanced quality of care and reduced waiting times will benefit all those living in deprivation across the County.

The centralisation of services will provide more comprehensive and co-located specialised care, which could be beneficial for carers who are caring for someone with multiple conditions. Centralisation also means services will be ring fenced, ensuring fewer cancellations, reduced waiting times and improved clinical outcomes, resulting in improved self-care. These benefits will help to support carers to reduce their time attending hospital with the person they are caring for and improve the health outcomes of both the person they are caring for and, in turn, potentially their own health.

There are 79 people registered with Gloucestershire's homeless healthcare team and it has been identified this cohort are significantly most likely to use A&E and community care services and evidence suggests those who are homeless are more likely to have multiple health conditions. Given rates of homelessness are slightly higher in Gloucester than surrounding areas; centralising emergency general surgery to Gloucestershire Royal Hospital provides improved access to the right specialists to manage the care of homeless people who present with multiple conditions.

There is a strong association between physical health and mental health. People with long-term conditions, such as diabetes or cardiovascular disease, have significantly raised rates of depression, anxiety and other mental health problems. Evidence suggests they receive poorer quality care than those with a single condition.<sup>19</sup> Therefore by centralising services patients with comorbidities could receive a better quality of specialist care. In Particular, emergency services where the majority of patients with mental health conditions are already attending as 1.2% of all A&E attendances last year were for mental health conditions, the large majority attending Gloucestershire Royal Hospital A&E.

##### Evidence Based Recommendations

1. It is recommended that carers are engaged with as part of the consultation with a specific interest in understanding what practical support may be required to help them navigate changes, specifically around disability access, travel information and required facilities.

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<sup>19</sup> <https://www.kingsfund.org.uk/projects/mental-health-and-long-term-conditions-cost-co-morbidity>

2. Engaging with those living in lower income areas is important to understand if they currently struggle to access healthcare and if they think the proposed centralisations and movement of services will improve their access to healthcare.
3. It is recommended those with mental health conditions are represented through public engagement and representative organisations for mental health to identify how the proposed changes will impact them if they are required to travel further, attend a new location or have appointments in different hospitals
4. Engage with homeless communities to understand what challenges they may face, if any, is needed. Particularly if the centralisation of specialist services is perceived by this cohort to improve the quality of their care and also to understand if they will find the proposed move of services a challenge.

### **Potential Negative Impacts**

Carers and unpaid carers are likely to experience the clinical benefits of better quality of care for the patient, shorter waiting times and specialist services working in a multi-disciplinary approach which could help to reduce their number of hospital visits. It is possible, however, in some instances a carer may need to attend both sites based on the proposed changes (although unlikely), or in the event the patient deteriorates, they may need to transfer to Gloucestershire Royal for emergency surgery if they are currently at Cheltenham General. These events have been estimated to happen for less than 1 patient a day, meaning that, the benefits outweigh the risks for carers.

Enhanced clinical outcomes outweigh the negative impacts of travel for the majority of cohorts, however, it is important to consider the possible impact of additional cost in travel for some either through fuel costs or public transport fares for all patients, but particularly considering those in low income households. It is important to consider that this is outweighed by enhanced clinical outcomes as centralising services will likely reduce waiting times and therefore parking fees and in all the proposed solutions, over half of all patients impacted will see a neutral impact in travel (a change +/-20 mins).

### **Evidence Based Recommendations**

1. Ensuring good and proportionate levels of engagement with carers throughout any consultation on proposed service changes will be essential. Hearing their views on changes to care delivery, as well as practical support for using services in future themselves, or with those for whom they care, specifically around disability access, travel information and required facilities, will be vital.
2. Engage with those living in low income households regarding travel options and distances to services.

## 4. HIA analysis

### 4.1. Deprivation

In general, Gloucestershire is not a very deprived county; looking at the 151 upper-tier authorities, Gloucestershire has a rank of 126, putting it in the least deprived quintile for overall deprivation. An average IMD rank for each of the six districts in Gloucestershire shows that even the most deprived district (Gloucester City) falls in the middle quintile (middle 20%) for deprivation out of 326 English authorities. Tewkesbury, Cotswold, and Stroud districts are in the least deprived quintile, with Cheltenham in the second least deprived quintile. However there are pockets of deprivation and 13 areas of Gloucestershire are in the most deprived 10% nationally. These 13 areas account for 20,946 people (3.4% of the county population). Comparison of data between 2015 and 2019 indicates that there have been minimal changes to the increase/ decrease in levels of deprivation in the county<sup>20</sup>.

Figure 17 shows that Gloucester City has the highest proportion of population living in the most deprived quintile at around 25% and this is 2.5 times higher than the equivalent proportion for Cheltenham (10%).

#### **Deprivation: Inequality in life expectancy**

According to the latest available data, men who reside in the least deprived IMD quintile in Gloucestershire live 8.4 years longer on average compared to those who live in the most deprived areas; this is statistically similar to the regional average of 7.4 years but significantly better than the national average of 9.5 years (see Figure 18)<sup>21</sup>.

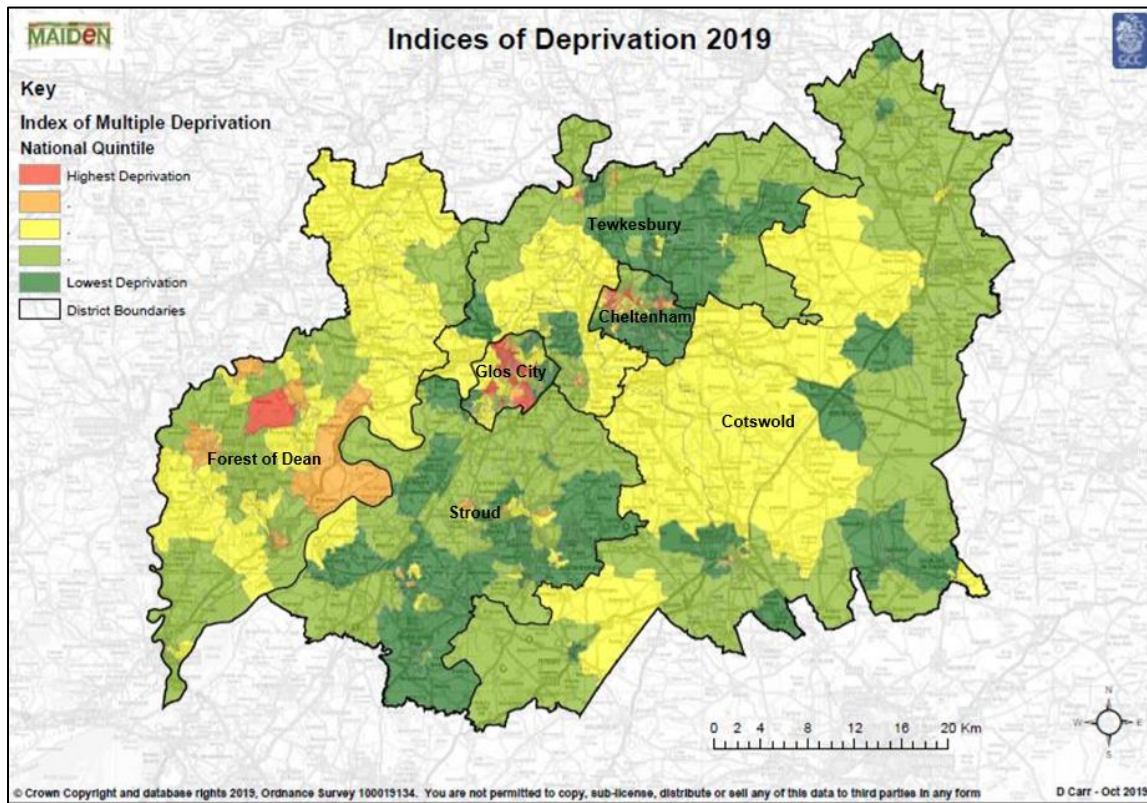
The inequality in life expectancy among females also showed a similar trend with women living in the least deprived quintiles of Gloucestershire living 5.4 years longer on average than their counterparts living in the most deprived areas; this was significantly better than the national average but similar to the regional rates (see Figure 22).

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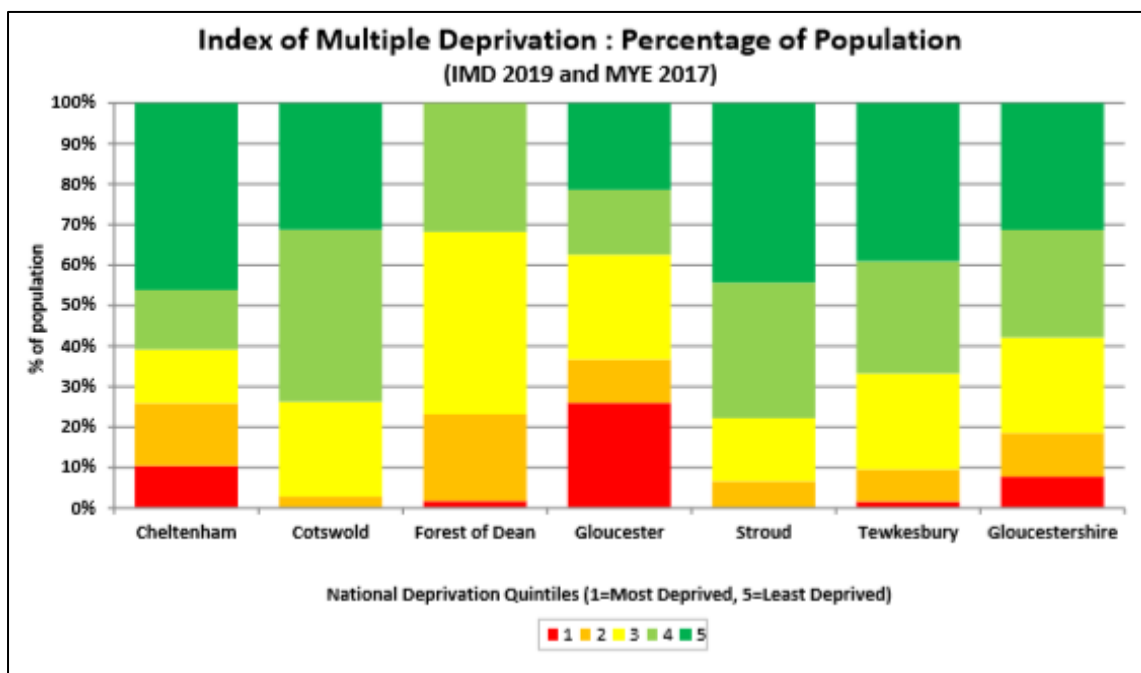
<sup>20</sup> [https://inform.gloucestershire.gov.uk/media/2094524/gloucestershire\\_deprivation\\_2019\\_v13.pdf](https://inform.gloucestershire.gov.uk/media/2094524/gloucestershire_deprivation_2019_v13.pdf)

<sup>21</sup> <https://fingertips.phe.org.uk/search/life%20expectancy#page/0/gid/1/pat/6/par/E12000009/ati/102/are/E10000013>

**Figure 16:** Overall Index of Multiple Deprivation 2019 Map of Gloucestershire by IMD 2019 Quintile<sup>22</sup>.

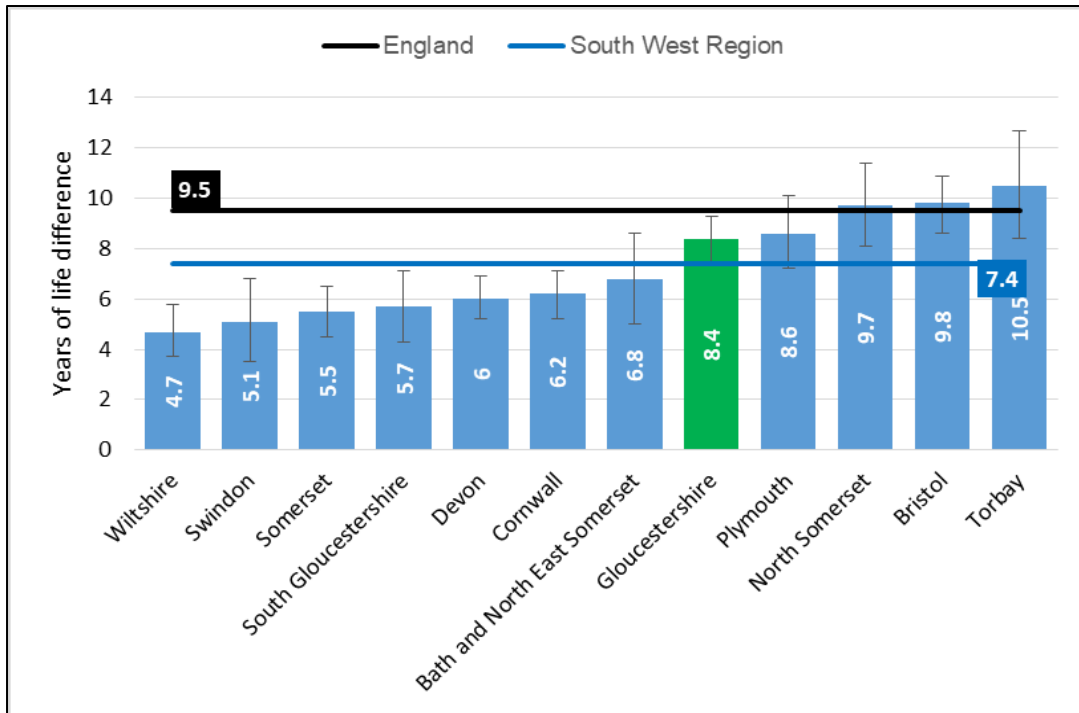


**Figure 17:** Overall Index of Multiple Deprivation 2019 – Percentage of Population by Quintile and District.

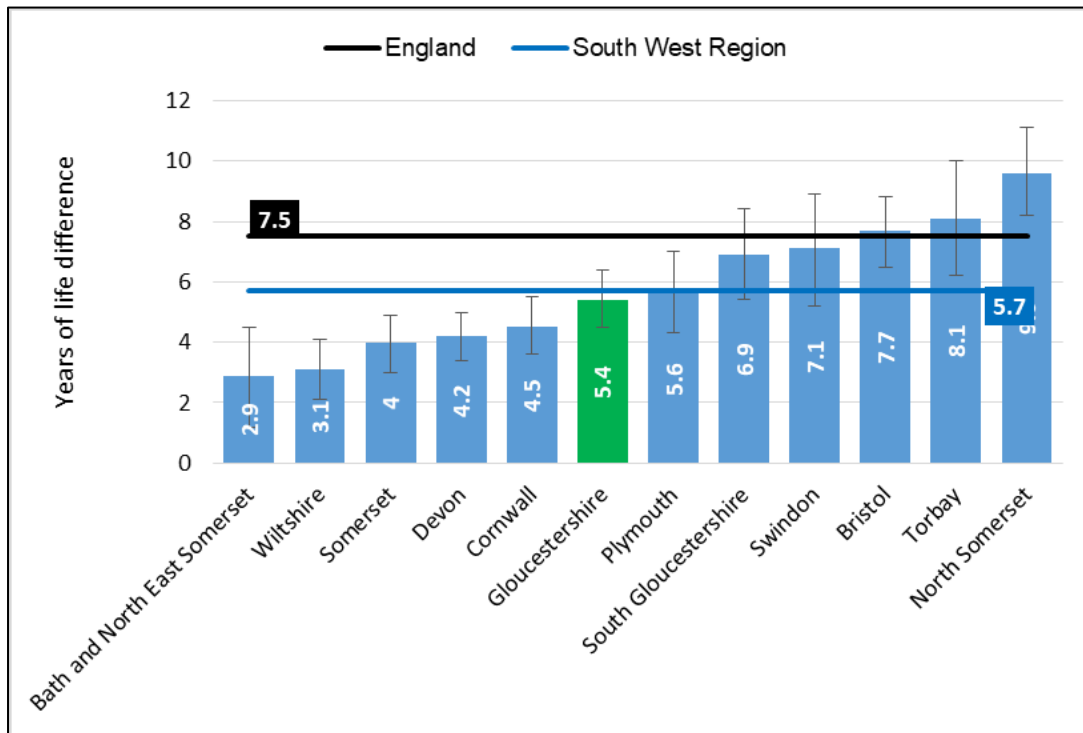


<sup>22</sup> [https://inform.gloucestershire.gov.uk/media/2094524/gloucestershire\\_deprivation\\_2019\\_v13.pdf](https://inform.gloucestershire.gov.uk/media/2094524/gloucestershire_deprivation_2019_v13.pdf)

**Figure 21:** Graph showing number of years of inequality in life expectancy among males living in the most deprived and least deprived IMD quintiles; 2016-2018<sup>23</sup>



**Figure 22:** Graph showing number of years of inequality in life expectancy among females living in the most deprived and least deprived IMD quintiles; 2016-2018





#### 4.1.1. HIIA summary for Deprivation

Proposed Change	Scale of Potential impact	Evidence of Potential Impact	Nature of potential impact and recommendations
<p>A3, B2, C3 and C6 Centralise/move various services to GRH</p>	<p><b>Large Scale Impact</b></p> <p>Approximately 7.7% of the Gloucestershire population live within the most deprived IMD quintile which equates to just over 48,000 people being potentially impacted. 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 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.</p>	<p><b>Long Term Impact</b></p> <p>The lack of affordability for private vehicles in low-income households, combined with limited public transport services in many peripheral social housing estates, considerably exacerbates the problem (of inequalities to healthcare) in many parts of the UK<sup>24</sup></p> <p>People in the most deprived areas in England can expect to have two or more health conditions at 61 years, which is 10 years earlier than people in the least deprived areas, according to research carried out by the Health Foundation<sup>25</sup></p> <p>The more deprived areas in both England and Wales experienced a higher number of deaths from leading causes such as heart</p>	<p><b>Overall Impact: Positive</b> <b>Large Positive Impact</b></p> <p>Given that around 35,000 people, accounting for 72% of the population living in the most deprived areas live closer to GRH; centralising/moving services to GRH provides improved access to the right specialists to manage the care of those living in the most deprived areas. Services will be providing specialist care where residents are more likely to have multiple conditions.</p> <p>In the event proposed change B2 were to happen, vascular services would also be centralised to GRH. Based on research, those in deprived areas are more at risk of conditions that may benefit from specialised vascular services and this area has the highest proportion of residents in deprivation.</p>

<sup>24</sup> Lucas et al, 2019; Inequalities in mobility and Access in the UK Transport System: Evidence Review:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/784685/future\\_of\\_mobility\\_access.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/784685/future_of_mobility_access.pdf)

<sup>25</sup> <https://www.health.org.uk/news-and-comment/news/people-in-most-deprived-areas-of-england-develop-multiple-health-conditions-10-years>

		<p>diseases, chronic respiratory diseases and lung cancer than less deprived areas<sup>26</sup></p>	<p><b>Moderate Negative Impact</b>                  However, patients who live in the most deprived areas nearer to CGH (approx. 13,000) may need further support to access services in the new location if their journey becomes longer and they are less familiar with the centralised location.</p>
<p>C5, C11 services to CGH</p>	<p><b>Large Scale Impact</b></p> <p>Approximately 7.7% of the Gloucestershire population live within the most deprived IMD quintile which equates to just over 48,000 people being potentially impacted. At 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 Stroud nor Cotswold fall under the most deprived quintile. Overall, an estimated 72% of the population living in the most deprived areas live closer GRH (based on a map view of these areas being geographically closer) and this equates to around 35,000 people.</p>	<p><b>Long Term Impact</b></p> <p>Inequalities in the provision of transport services are strongly linked with where people live, and the associated differences in life expectancy, access to employment, healthcare, education, are all influenced by deprivation.</p> <p>The lack of affordability for private vehicles in low-income households, combined with limited public transport services in many peripheral social housing estates, considerably exacerbates the problem in many parts of the UK<sup>27</sup></p>	<p>Engaging with lower income areas within Gloucester City is important to understand if they currently struggle to access healthcare and if they think the proposed centralisations and movement of services from CGH to GRH will improve their access to healthcare.</p>

<sup>26</sup> <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/howdoesdeprivationvarybyleadingcauseofdeath/2017-11-01>

<sup>27</sup> Lucas et al, 2019; Inequalities in mobility and Access in the UK Transport System: Evidence Review: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/784685/future\\_of\\_mobility\\_access.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/784685/future_of_mobility_access.pdf)

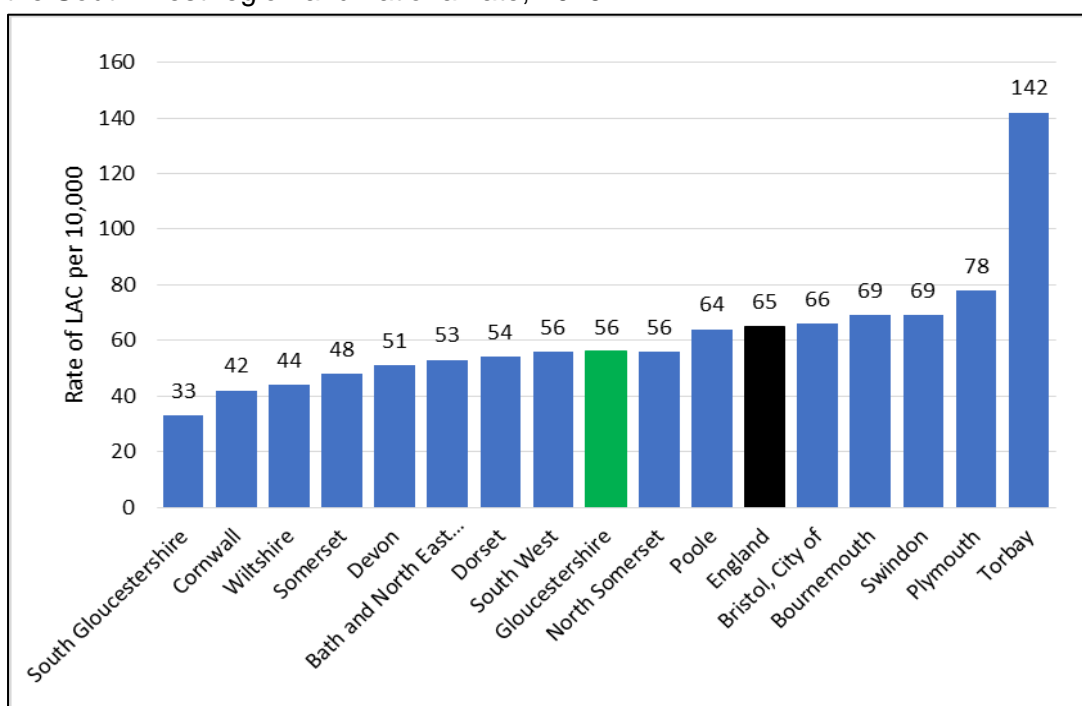


#### 4.2. Looked After Children (LAC)

According to data from the department for Education, there are just under 80,000 children who are in care in England. Most are taken into care over fears of abuse or neglect. They are vulnerable to health inequalities, and exhibit significantly higher rates of mental health issues, emotional disorders (anxiety and depression), hyperactivity and autistic spectrum disorder conditions<sup>28</sup>.

In Gloucestershire there were 718 looked after children in 2019; this equated to a rate of 56 per 10,000 persons, which is lower than England (65 per 10,000); however it is worth noting that the rate of LAC has increased by a third from 2015 to 2019<sup>29</sup> (see Figure 18).

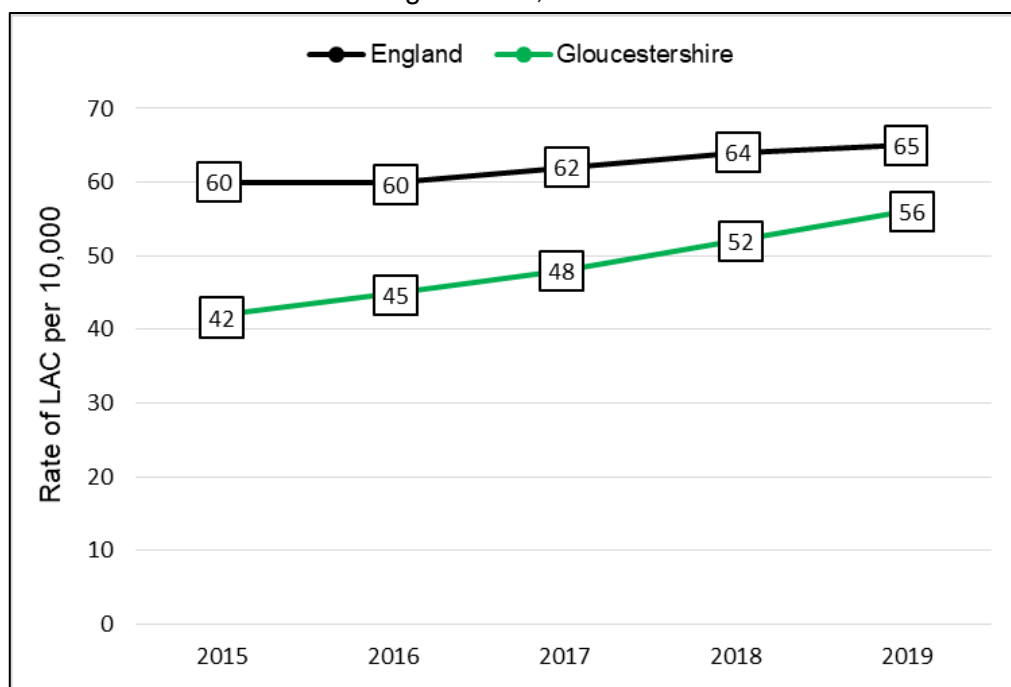
**Figure 18:** Graph showing the rate of looked after children per 10,000 in local authorities in the South West region and national rate, 2019



<sup>28</sup> <https://www.rcpch.ac.uk/resources/looked-after-children-lac>

<sup>29</sup> <https://www.gov.uk/government/statistics/children-looked-after-in-england-including-adoption-2018-to-2019>

**Figure 19:** Graph showing the rate of looked after children per 10,000 in Gloucestershire and England rate, 2015 to 2019



#### 4.2.1. HIIA summary for Looked After Children (LAC)

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<b>Small Scale Impact</b>  In Gloucestershire there were 718 looked after children in 2019; this equated to a rate of 56 per 10,000 persons, which is lower than England (65 per 10,000); however it is worth noting that the rate of LAC has increased by a third from 2015 to 2019	<b>Long Term Impact</b>  There is limited evidence regarding the impact to those who are looked after children; however evidence suggests that they are vulnerable to health inequalities, and exhibit significantly higher rates of mental health issues, emotional disorders (anxiety and depression), hyperactivity and autistic spectrum disorder conditions <sup>30</sup> .	<b>Overall Impact: Neutral</b>  Proposed changes to services are expected to maintain current inclusive support service approach. It is recommended to consult with a representative distribution of the population.
B2 - IGIS hub and vascular centralised to GRH			
C3 - EGS centralised to GRH			
C11 - GI day cases to CGH			
C5 - Elective colorectal to CGH			
C6 - Elective colorectal to GRH			

<sup>30</sup> <https://www.rcpch.ac.uk/resources/looked-after-children-lac>

### 4.3. Carers and Unpaid Carers

Increasing numbers of people are living with complex health needs and disabilities and require help with everyday activities. These people are often cared for, informally and unpaid, by family, friends, and neighbours.

Around 6.5 million carers in the UK provide care worth an estimated £57 billion to £100 billion per year. The number varies across the UK with a higher proportion of carers in Wales and Northern Ireland<sup>31</sup>.

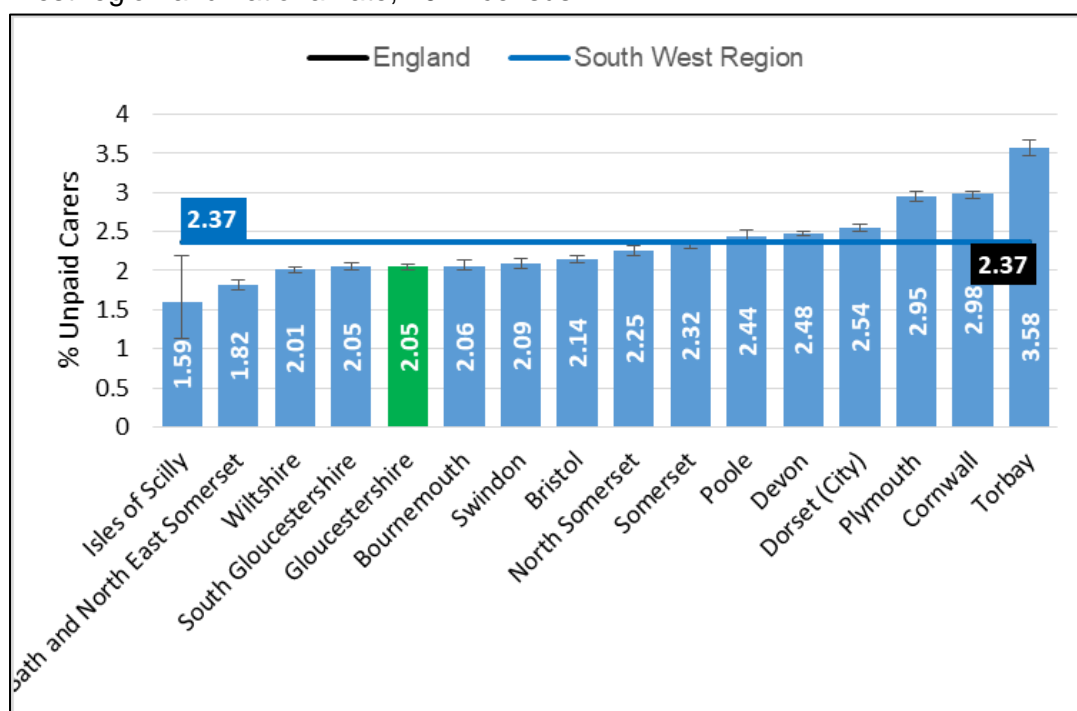
Providing unpaid care can affect carers' education, employment, relationships, household finances, health and well-being. Effects on carers tend to worsen with the more care provided. Support for carers can be provided by a range of organisations, such as employers and governments, and it can include financial, employment-related, respite care, and emotional and social support. Some carers, such as those from ethnic minorities, can find it difficult to access support. Respite breaks, training, and counselling can improve carers' mental health and reduce stress.

There is very little publically available data on the prevalence of unpaid and paid carers; according to the 2011 census the prevalence of unpaid carers within the Gloucestershire population was 2.05% and this was significantly lower than both regional and national averages (2.37%).

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<sup>31</sup> <https://researchbriefings.files.parliament.uk/documents/POST-PN-0582/POST-PN-0582.pdf>

**Figure 20:** Graph showing the prevalence of unpaid carers in local authorities in the South West region and national rate, 2011 census



#### 4.3.1. HIIA Summary for carers and unpaid carers

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<b>Small Scale Impact</b> According to the 2011 census the prevalence of unpaid carers within the Gloucestershire population was 2.05% and this was significantly lower than both regional and national averages, however, unpaid carers are likely to be under-represented.	<b>Long Term Impact</b> Caring responsibilities can have an adverse impact on the physical and mental health, education and employment potential of those who care, which can result in significantly poorer health and quality of life outcomes. These in turn can affect a carer's effectiveness and lead to the admission of the cared for person to hospital or	<b>Overall Impact: Positive</b> <b>Large Positive Impact</b> The centralisation of services will provide more specialist care which could be beneficial for carers who are caring for someone with multiple conditions. The waiting times will be reduced and fewer cancellations will help to support carers who often have to plan and make arrangements. Overall, centralised services will provide
B2 - IGIS hub and vascular centralised to GRH			
C3 - EGS centralised to GRH			
C11 - GI day cases to CGH			
C5 - Elective colorectal to CGH			
C6 - Elective colorectal to GRH			

		<p>residential care. 84% of carers said that caring has had a negative impact on their health and evidence suggests there is a 23% increased risk of stroke for spousal carers.</p> <p>Carers attribute their health risk to a lack of support, with 64% citing a lack of practical support.<sup>32</sup></p>	<p>shorter lengths of stay, faster diagnostics and minimised waiting times which will help carers who have to attend hospital regularly.</p> <p>It will also result in ring fenced services which means more access to services and therefore better health outcomes for the patient and improved self-care.</p> <p><b>Moderate Negative Impact:</b></p> <p>If, however, centralisation results in extended travel time or a more complex journey, this could lead to carers finding this more challenging.</p> <p>Carers may have to attend a different site or even both sites and contend with the challenges that come with this, for example, parking which is reportedly a challenge from engagement with the public.</p> <p>It is also possible that carer and patient may need to transfer to another site in the event of patient deterioration in certain circumstances. This is in a very small number of circumstances, however.</p> <p>It is recommended that carers are engaged with</p>
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<sup>32</sup> <https://www.england.nhs.uk/commissioning/comm-carers/carers-facts/>

		<p>as part of the consultation with a specific interest in understanding what practical support may be required to help them navigate changes, specifically around disability access, travel information and required facilities.</p>
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#### 4.4. Homelessness

The number of rough sleepers identified by the Ministry of Housing, Communities and Local Government are extremely small in Gloucestershire identifying just 19 people. Therefore this report will look at the impact to those statutorily homeless. This is identified as the count of households who are living in temporary accommodation provided under the homeless legislation.

As such, statutorily homeless households contain some of the most vulnerable members of our communities and are at a higher risk of long term conditions, mental health, smoking and various other illnesses, thus this cohort require a higher provision of care<sup>33</sup>. Being homeless also comes with a higher risk of delayed discharge from hospital, lengthening stays or cause repeated admissions to hospitals<sup>34</sup>.

Numerous risk factors are associated with the likelihood of someone becoming homeless, and these broadly fall under individual circumstances and the wider forces. The risks range from drug and alcohol issues, bereavement, or experience of the criminal justice system, to the wider determinants of health such as inequality, unemployment, and housing supply and affordability<sup>35</sup>

The rate of homelessness in Gloucestershire varies substantially by district. The highest rates are seen in Gloucester with 219 households accepted as homeless, equating to a rate of 4.12 per 1000 households; this is significantly higher than both county and national rates and double the rate of Cheltenham at 2.09 (see Figure 22).

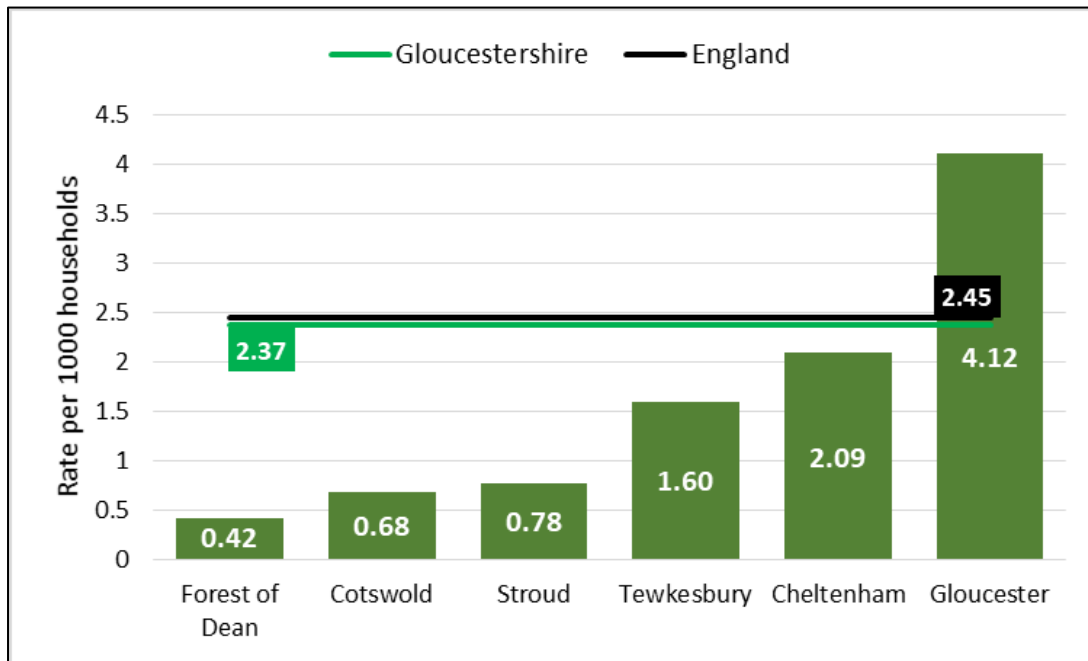
<sup>33</sup> [Morton, Jane](#). Primary Health Care (2014+); London [Vol. 27, Iss. 8](#), (Sep 2017): 25.

DOI:10.7748/phc.2017.e1289

<sup>34</sup> <https://publichealthmatters.blog.gov.uk/2018/02/09/the-inequalities-of-homelessness-how-can-we-stop-them-dying-young/>

<sup>35</sup> <https://publichealthmatters.blog.gov.uk/2018/02/09/the-inequalities-of-homelessness-how-can-we-stop-them-dying-young/>

**Figure 22:** Graph showing rate of acceptances per 1000 households in Gloucestershire districts compared with Gloucestershire and national averages, 2017/18



Locally sourced data provided by NHS Gloucestershire Clinical Commissioning Group and Gloucestershire County Council indicates there are 40 rough sleepers in Gloucestershire currently.

Gloucester 17, Cheltenham 9, Cotswold 7, Forest of Dean 3, Stroud 2 and Tewkesbury 2.

There are also 79 people registered with Gloucestershire’s Homeless Healthcare team. This group are more likely to be male and are far younger than the overall CCG cohort. This cohort used A&E and community care services more, as well as mental health services.

#### 4.4.1. HIIA summary for Homelessness

Proposed Change	Scale of Potential impact	Evidence of Potential Impact	Nature of potential impact and recommendations
<p>A3, B2, C3 and C6 Centralise/move various services to GRH</p>	<p><b>Small Scale Impact</b></p> <p>On average 2.37 per 1000 households are homeless in Gloucestershire. In Cheltenham 108 households are accepted as homeless, in Tewkesbury this figure is 61 households and in Cotswold 26. This means approx. 195 homeless may currently be living closer to CGH and therefore could be impacted by the proposed move of services to GRH from CGH (based on a map view of these areas being geographically closer)</p> <p>There are 79 people registered with the Homeless Healthcare team.</p>	<p><b>Long Term Impact</b></p> <p>Homeless people are at a higher risk of long term conditions, mental health, smoking and various other illnesses, thus this cohort require a higher provision of care<sup>36</sup>. Being homeless also comes with a higher risk of delayed discharge from hospital, lengthening stays or cause repeated admissions to hospital<sup>37</sup>.</p> <p>Those known to Gloucestershire's homeless healthcare team are more likely to be male and are far younger than the overall CCG cohort. This cohort used A&amp;E and community care services more, as well as mental health services.</p>	<p><b>Overall Impact: Positive</b></p> <p><b>Large Positive Impact</b></p> <p>Given rates of homelessness are slightly higher in Gloucester; a centralising/moving services to GRH provides improved access to the right specialists to manage the care of homeless people who present with multiple conditions.</p> <p>Services in these solutions will be located near the highest proportion of homeless people in Gloucestershire, improving access to specialist care without additional travel.</p> <p>Homeless people are more likely to have long term conditions and multiple conditions which means centralising and co-locating services will provide support for more</p>

<sup>36</sup> [Morton, Jane. Primary Health Care \(2014+\); London Vol. 27, Iss. 8.](#) (Sep 2017): 25. DOI:10.7748/phc.2017.e1289

<sup>37</sup> <https://publichealthmatters.blog.gov.uk/2018/02/09/the-inequalities-of-homelessness-how-can-we-stop-them-dying-young/>



<p>C5 and C11 move various services to CGH</p>	<p><b>Small Scale Impact</b></p> <p>The highest rates of homelessness acceptances are seen in Gloucester with 219 households accepted as homeless, equating to a rate of 4.12 per 1000 households; this is significantly higher than both county and national rates and double the rate of Cheltenham at 2.09. In addition to this Stroud has 39 homeless households and Forest of Dean 15. Making the assumption that these areas are closer to GRH, there are approximately 273 homeless who may be impacted by the proposed move of some services to CGH. (based on a map view of these areas being geographically closer)</p>	<p><b>Long Term Impact</b></p> <p>Homeless people are some of the most vulnerable and needy members of our communities and are at a higher risk of long term conditions, mental health, smoking and various other illnesses, thus this cohort require a higher provision of care. Being homeless also comes with a higher risk of delayed discharge from hospital, lengthening stays or cause repeated admissions to hospitals.</p>	<p>complex needs such as these.</p> <p><b>Small Negative Impact</b></p> <p>Patients who are homeless, especially those from outside of Gloucester district may need further support to access services in the new location if their journey becomes longer and they are less familiar with the centralised location.</p> <p>Therefore engaging with homeless communities to understand what challenges they may face, if any, during consultation is needed. Particularly if the centralisation of specialist services is perceived by this cohort to improve the quality of their care and also to understand if they will find the proposed move of services a challenge.</p>
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#### 4.5. Substance Abuse

There is evidence to suggest that young people who use recreational drugs run the risk of damage to mental health including suicide, depression and disruptive behaviour disorders. Regular use of cannabis or other drugs may also lead to dependence. Among 10 to 15 year olds, an increased likelihood of drug use is linked to a range of adverse experiences and behaviour, including truancy, exclusion from school, homelessness, time in care, and serious or frequent offending<sup>38</sup>.

Patients with substance use disorder diagnoses, specifically those with drug use-related diagnoses, have higher rates of recurrent acute care hospital utilisation than those without substance use disorder diagnoses<sup>39</sup>.

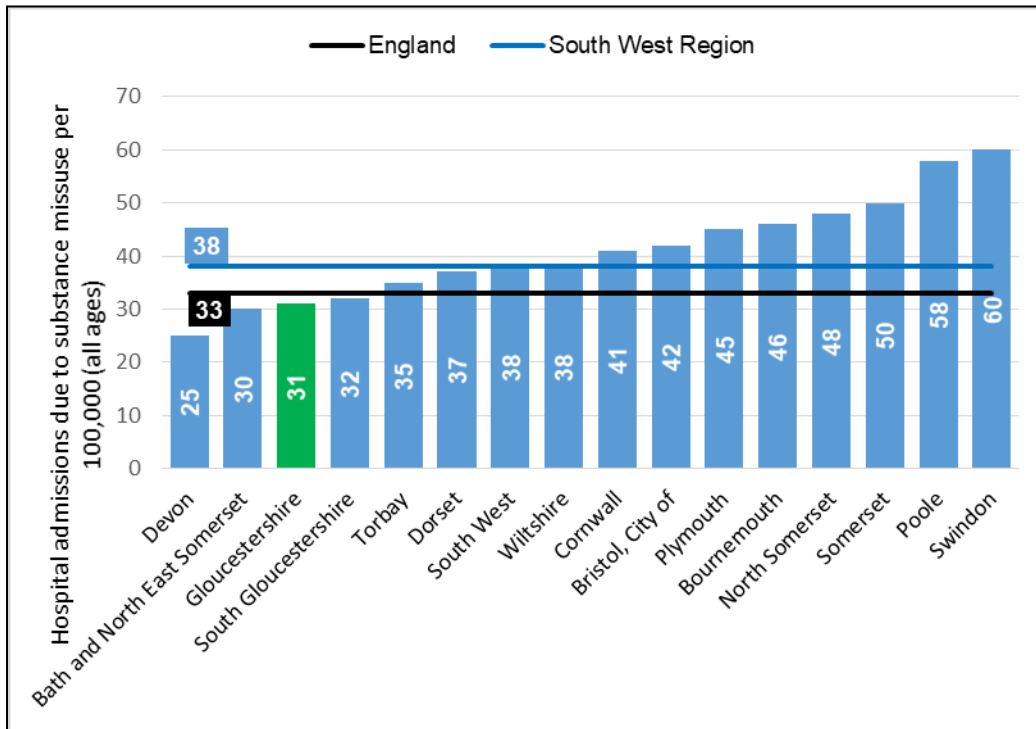
The age standardised hospital admissions due to substance misuse in Gloucestershire is among the lowest in the South West region at 38 per 100,000 persons; lower than both regional and national rates, although there is a lack of data to determine statistical significance or comparisons. The age standardised mortality rate due to substance misuse is highest in the district of Gloucester with a rate of 7 per 100,000 over the period from 2016 to 2018; this is significantly higher than both Gloucestershire and England rates. All other districts had a rate similar to national and county rates or lower.

**Figure:** Age standardised rate of hospital admissions due to substance misuse per 100,000 within local authorities within the South West region compared with regional and national rates, 2018/19

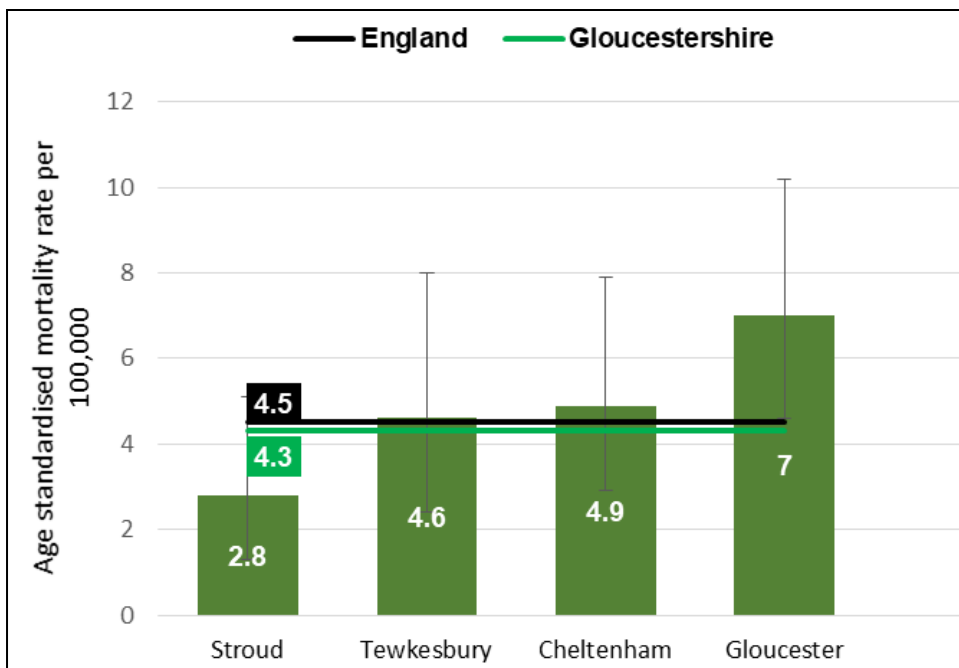
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<sup>38</sup> Schlossarek S et al U: Psychosocial Determinants of Cannabis Dependence: A Systematic Review of the Literature. Eur Addict Res 2016;22:131-144.

<sup>39</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6034987/>



**Figure:** Age standardised mortality rate due to substance misuse per 100,000 within Gloucestershire districts, compared with county and national rates, 2016 - 2018



\*Numbers were too low for Cotswold and Forest of Dean

## HIA Summary for Substance Misuse

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<b>Moderate Scale Impact</b>  The age standardised hospital admissions due to substance misuse in Gloucestershire is among the lowest in the South West region at 38 per 100,000 persons; lower than both regional and national rates; however mortality rates suggest that the district of Gloucester City has the highest rates of deaths due to substance misuse, significantly higher than county and national averages.	<b>Long Term</b>  Patients with substance use disorder diagnoses, specifically those with drug use-related diagnoses, have higher rates of recurrent acute care hospital utilisation than those without substance use disorder diagnoses <sup>40</sup> .	<b>Neutral Impact</b>  Proposed changes to services are expected to maintain current inclusive support service approach.
B2 - IGIS hub and vascular centralised to GRH			
C3 - EGS centralised to GRH			
C11 - GI day cases to CGH			
C5 - Elective colorectal to CGH			
C6 - Elective colorectal to GRH			

#### 4.6. Mental Health

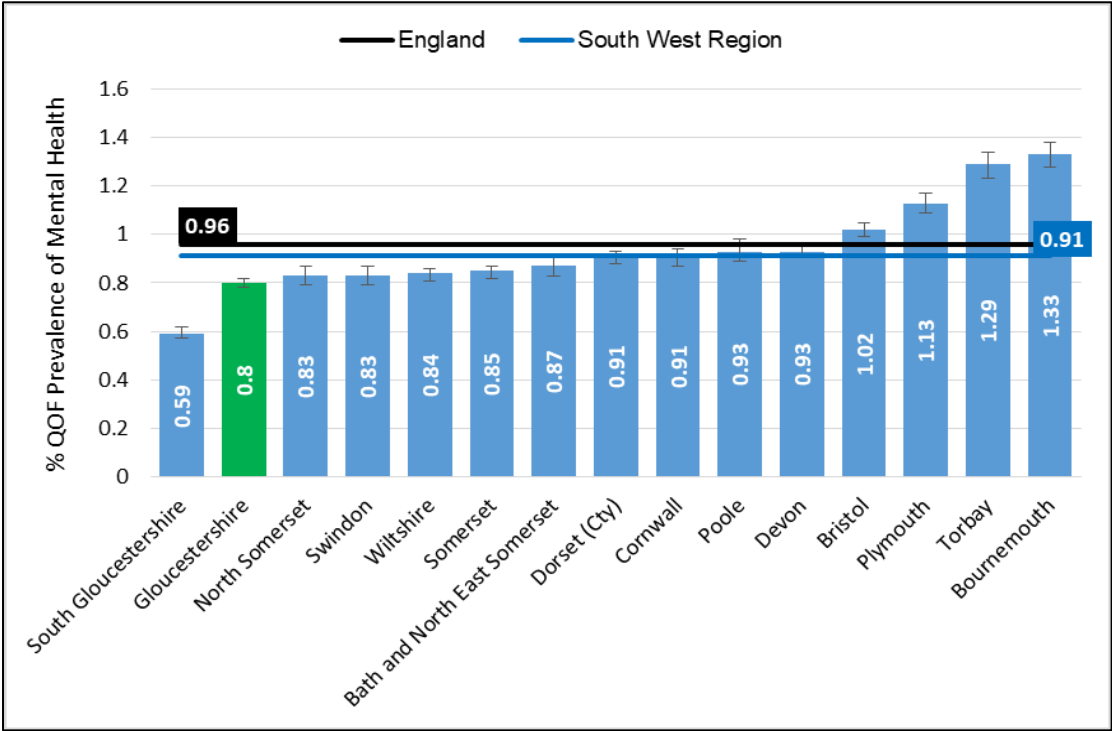
The prevalence of mental health disease within the GP practice registered population within Gloucestershire is among the lowest in the South West region at 0.8%; significantly lower than both regional and national averages (see Figure 24).

During 2018/19, 351 people attended CGH ED and 1447 attended GRH with a mental health issue. This total of 1798 across the 2 sites equates to 1.2% of all attendances during this year. This data clearly demonstrates that more people attend GRH than CGH with mental health related issues.

**Figure 24:** Graph showing QOF prevalence of the registered population with a mental health disease in local authorities in South West compared to regional and national averages

<sup>40</sup> Walley et al (2012) Acute care hospital utilization among medical inpatients discharged with a substance use disorder diagnosis. [J Addict Med.](#) 2012 Mar;6(1):50-6. doi: 10.1097/ADM.0b013e318231de51

2015/16 to 2017/18



### 4.6.1. HIIA Summary for Mental Health

Model	Scale of Potential Impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<p><b>Moderate Scale Impact</b></p> <p>The prevalence of mental health disease within the GP practice registered population within Gloucestershire is among the lowest in the South West region at 0.8%; significantly lower than both regional and national averages, however, a number of mental health conditions are undiagnosed or underrepresented.</p> <p>During 2018/19, 351 people attended CGH ED and 1447 attended GRH with a mental health issue. This total of 1798 across the 2 sites equates to 1.2% of all attendances during this year. This data clearly demonstrates that more people attend GRH than CGH with mental health related issues.</p>	<p><b>Long Term Impact</b></p> <p>There is a strong association between mental and physical ill health. People with long-term conditions, such as diabetes or cardiovascular disease, have significantly raised rates of depression, anxiety and other mental health problems. Evidence suggests that many of these people receive poorer quality care than those with a single condition.<sup>41</sup></p>	<p><b>Overall Impact: Positive</b></p> <p><b>Large Positive Impact</b></p> <p>By centralising services patients with comorbidities could receive a better quality of specialist care. Particularly emergency services where the majority of patients with mental health conditions are already attending.</p> <p><b>Moderate Negative Impact</b></p> <p>Patients with anxiety disorders and other mental health disorders which may be exacerbated by change in routine or need to travel may find these challenging.</p> <p>It is recommended those with mental health conditions are represented through public engagement and representative organisations for mental health to identify how the</p>
B2 - IGIS hub and vascular centralised to GRH			
C3 - EGS centralised to GRH			
C11 - GI day cases to CGH			
C5 - Elective colorectal to CGH			
C6 - Elective colorectal to GRH			

<sup>41</sup> <https://www.kingsfund.org.uk/projects/mental-health-and-long-term-conditions-cost-co-morbidity>

		proposed changes will impact them if they are required to travel further, attend a new location or have appointments in different hospitals
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## 5. Health Impact Assessment

### 5.1. Key Findings

#### Potential Positive Impacts

Diabetes tends to be prevalent with other co-morbidities such as, heart conditions, meaning that this cohort is likely to be impacted by the centralisation of services as they are likely to use several different services due to having multiple conditions. This means centralising services will improve their quality of care by reducing waiting times, faster diagnostics and a multi-disciplinary approach to conditions.

Obesity is often linked to a large number of co-morbidities which mean obese patients are significantly more likely to be impacted by the proposed changes. The movement of services could result in specialist care being provided in one place leading to a better quality of care.

Patients who fall regularly are one of the cohorts more likely to be impacted by the proposed changes as they will usually attend hospital more than other cohorts in the population. 1,812 people per 100,000 in Gloucestershire are admitted to hospital due to falls. This cohort may benefit from the centralisation of services in the same way as over 65s because frailty can correlate with age, see "Age" section of the EQIA.

#### Evidence Based Recommendations

1. It is recommended to engage through existing forums with patients or via representative organisations for frailty and falls cohorts to understand how frailty needs to be considered in the proposed changes.
2. Cardiovascular patients need to be engaged with regarding the IGIS and vascular co-location to how the IGIS hub will benefit them .

## 6. HIA analysis

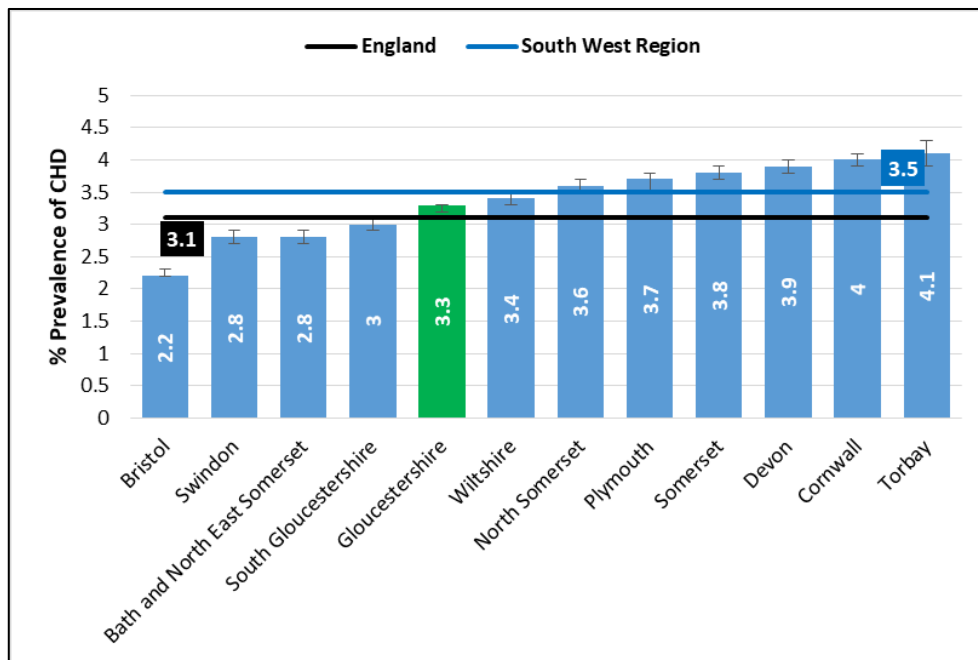
### Cardiovascular disease

Cardiovascular disease (CVD) is responsible for 26% of all deaths in the UK. This equates to approximately 160,000 deaths each year or an average of 435 people each day and at least 42,000 of these deaths occur prematurely.<sup>42</sup> There are multiple risk factors for cardiovascular disease; these include old age, ethnicity, deprivation, gender, smoking, obesity etc.<sup>43</sup>

The more deprived areas in both England and Wales experienced a higher number of deaths from leading causes including cardiovascular and other related conditions than less deprived areas.<sup>44</sup>

The prevalence of cardiovascular disease within the GP practice registered population within Gloucestershire is 3.3%, which is significantly lower than the regional average (3.5%) but significantly higher than the national average (3.1%) see Figure 25.

**Figure 25:** Graph showing QOF prevalence of chronic heart disease in the registered population in local authorities in South West compared to regional and national averages, 2017/18



<sup>42</sup> <https://www.heartuk.org.uk/downloads/heart-uk-state-of-the-nation-report-2018.pdf>

<sup>43</sup> <https://ada.com/cardiovascular-disease-risk-factors/>

<sup>44</sup>

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/howdoesdeprivationvarybyleadingcauseofdeath/2017-11-01>



Proposed Change	Scale of Potential impact	Evidence of Potential Impact	Nature of potential impact and recommendations
<p>A3, B2C3 and C6 Centralise/move various services to GRH</p>	<p><b>Large Scale Impact</b></p> <p>The prevalence of cardiovascular disease within the GP practice registered population within Gloucestershire is 3.3%, which is significantly lower than the regional average (3.5%) but significantly higher than the national average (3.1%).</p> <p>Over the period between April 2018 and March 2019, there was a total of 3,783 cardiology/vascular patients seen across GRH and CGH; 3,334 (88%) of these patients were seen at CGH.</p> <p>While there is insufficient data to ascertain whether there is a higher prevalence of cardiovascular patients living nearer to CGH compared to GRH; it can be denoted that the vast majority of cardiology patients are currently seen at CGH and proposed changes are most likely to impact this cohort.</p>	<p><b>Long Term Impact</b></p> <p>There are multiple risk factors for cardiovascular disease; these include old age, ethnicity, deprivation, gender, smoking, obesity etc.<sup>45</sup></p> <p>The more deprived areas in both England and Wales experienced a higher number of deaths from leading causes including cardiovascular and other related conditions than less deprived areas.<sup>46</sup></p> <p>Approx. 35,000 people, accounting for 72% of the population living in the most deprived areas live closer to GRH; centralising/moving services to GRH provides improved access to the right specialists to manage the care of those living in the most deprived areas who are at a higher risk of cardiovascular disease.</p>	<p><b>Overall Impact: Negative</b></p> <p><b>Large Positive Impact:</b></p> <p>In the event proposed change B2 were to happen, vascular services would also be centralised to GRH. Based on research, those in deprived areas are more at risk of conditions that may benefit from specialised vascular services and this area has the highest proportion of residents in deprivation. The centralisation of services will result in cardiovascular patients experiencing reduced waiting times, less cancellations and improved clinical outcomes as a result of the co-location of specialities.</p>

<sup>45</sup> <https://ada.com/cardiovascular-disease-risk-factors/>

<sup>46</sup> <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/howdoesdeprivationvarybyleadingcauseofdeath/2017-11-01>

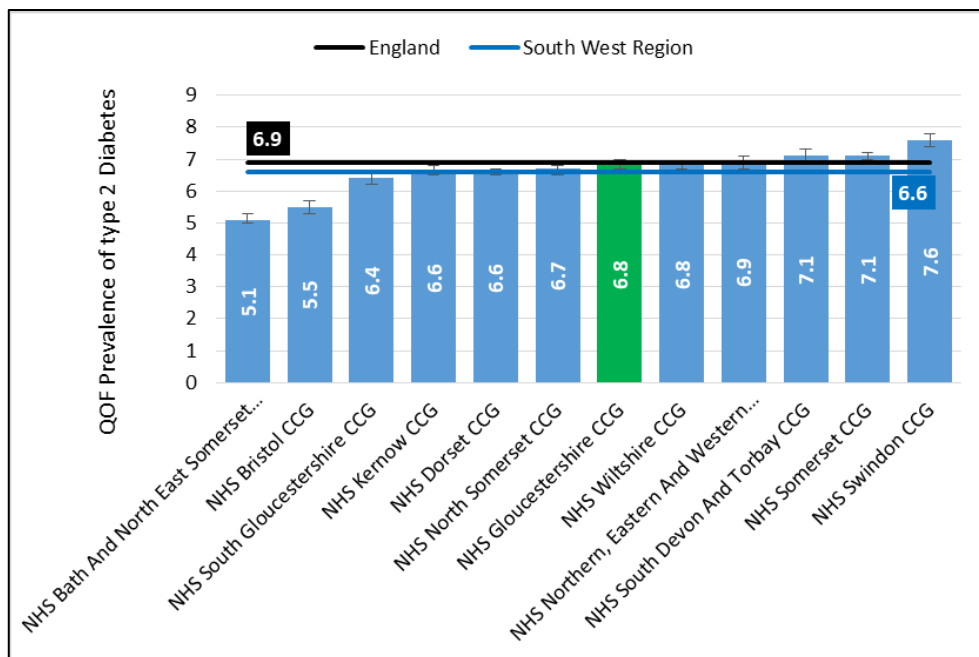
C5, C11 to CGH	<p><b>Large Scale Impact</b></p> <p>The prevalence of cardiovascular disease within the GP practice registered population within Gloucestershire is 3.3%, which is significantly lower than the regional average (3.5%) but significantly higher than the national average (3.1%).</p> <p>Over the period between April 2018 and March 2019, there was a total of 3,783 cardiology/vascular patients seen across GRH and CGH; 449 (12%) of these patients were seen at GRH.</p>	As above	

### 6.1. Diabetes Mellitus

Research suggests that those living in the most deprived areas within the UK are 2.5 time more likely to be suffering from Diabetes.<sup>47</sup> Those suffering from diabetes also have a high likelihood of coming from a BME background; Type 2 Diabetes is up to 6 times more likely in people of South Asian descent and 6 times more likely among Afro-Caribbean's.<sup>48</sup>

The prevalence of Type 2 Diabetes within the GP practice registered population within Gloucestershire is similar compared to the South West region and national average at 6.8% (see Figure 26).

**Figure 26:** Graph showing QOF prevalence of the registered population with a Diabetes Mellitus in local authorities in South West compared to regional and national averages, 2017/18



<sup>47</sup> [https://www.diabetes.org.uk/about\\_us/news\\_landing\\_page/uks-poorest-twice-as-likely-to-have-diabetes-and-its-complications](https://www.diabetes.org.uk/about_us/news_landing_page/uks-poorest-twice-as-likely-to-have-diabetes-and-its-complications)

<sup>48</sup> *Association of glycaemia with macrovascular and microvascular complications of Type 2 diabetes: prospective observational study* British Medical Journal 2000; 321: 405-412.

### HIA summary for Diabetes Mellitus

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH B2 - IGIS hub and vascular centralised to GRH C3 - EGS centralised to GRH C11 - GI day cases to CGH C5 - Elective colorectal to CGH C6 - Elective colorectal to GRH	<b>Small Scale Impact:</b> The prevalence of Type 2 Diabetes within the GP practice registered population within Gloucestershire is similar compared to the South West region and national average at 6.8%	<b>Long Term Impact</b>  There is limited evidence regarding the impact to those who are Diabetics; however, evidence suggests that those living in the most deprived areas within the UK are 2.5 time more likely to be suffering from Diabetes. <sup>49</sup> Those suffering from diabetes also have a high likelihood of coming from a BME background; Type 2 Diabetes is up to 6 times more likely in people of South Asian descent and 6 times more likely among Afro-Caribbean's. <sup>50</sup> This cohort may face challenges and perceived challenges in access to services in general, especially those within BME background <sup>51</sup>	<b>Overall Impact: Positive</b>  <b>Positive Impact</b> Diabetes is prevalent with other co-morbidities such as, heart conditions, meaning that this cohort is likely to be impacted by the centralisation of services as they are likely to use multiple services due to having multiple conditions. This could mean centralising services will improve their quality of care and enhance clinical outcomes.  It is recommended to use existing forums to engage with patients with long term conditions and also to engage with representative organisations for long term conditions such as diabetes.

## 6.2. Neurological Conditions

The number of people living with neurological conditions in England is rising and will continue to increase. This is due in part to advances in neonatal healthcare meaning more children with neurological conditions survive beyond birth and into adulthood. Public Health

<sup>49</sup> [https://www.diabetes.org.uk/about\\_us/news\\_landing\\_page/uks-poorest-twice-as-likely-to-have-diabetes-and-its-complications](https://www.diabetes.org.uk/about_us/news_landing_page/uks-poorest-twice-as-likely-to-have-diabetes-and-its-complications)

<sup>50</sup> *Association of glycaemia with macrovascular and microvascular complications of Type 2 diabetes: prospective observational study* British Medical Journal 2000; 321: 405-412.

<sup>51</sup> <https://bmjopen.bmj.com/content/6/11/e012337>

England's 2018 Neurology Mortality reports show that number of deaths in England relating to neurological disorders rose by 39% over 13 years, while deaths in the general population fell by 6% over the same period.<sup>52</sup>

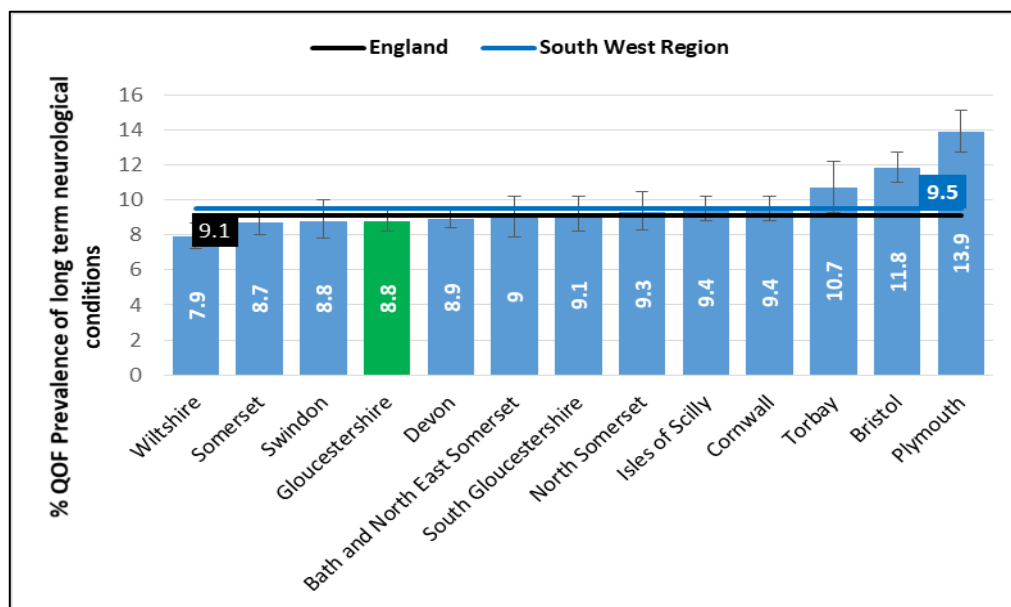
According to the NHS & CQC 2017 Adult Inpatient Survey, Patients with neurological conditions reported poorer experiences for confidence and trust, respect and dignity, respect for patient-centred values and overall experience of care. In response to the NHS 2016 patient experience survey, just 41% (n=2,132) of patients described the health services they received for their neurological condition as 'good' or 'excellent'.<sup>53</sup>

The 2013-14 NHS England survey of patients of GP practices found that people with long-term neurological conditions have the lowest health-related quality of life of any long-term condition.<sup>54</sup>

The prevalence of neurological conditions among the registered population is similar in Gloucestershire compared with the South West Region and National rates at 8.8%.

The rate of hospital admissions for epilepsy among under 19s is 87.5 per 100,000; this is statistically similar to the South West regional average (71.5) but statistically higher than the national average (70.6) by a small margin.

**Figure 27:** Graph showing prevalence neurological conditions among the registered population in local authorities in South West compared to regional and national averages, 2017/18

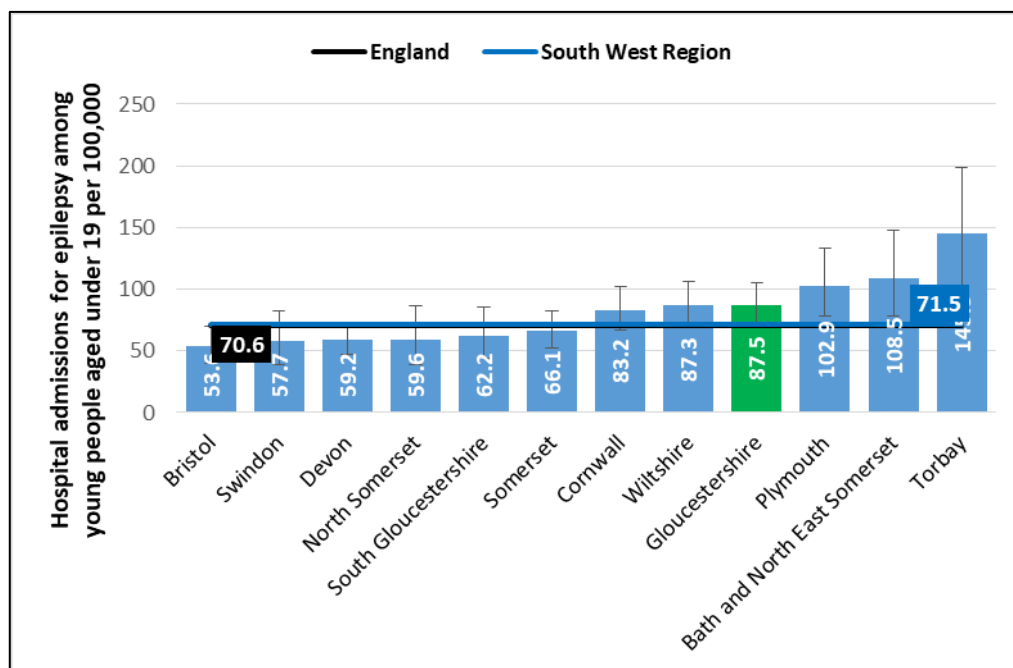


<sup>52</sup> Public Health England (2018) Deaths associated with neurological conditions in England 2001 to 2014: Data analysis report. Available online at <https://www.gov.uk/government/publications/deaths-associated-with-neurological-conditions>

<sup>53</sup> The Neurological Alliance (2017): Falling short: How has neurology patient experience changed since 2014? Available online at [http://www.neural.org.uk/store/assets/files/668/original/Neurological\\_Alliance\\_Falling\\_Short\\_-\\_How\\_has\\_neurology\\_patient\\_experience\\_changed\\_since\\_2014.pdf](http://www.neural.org.uk/store/assets/files/668/original/Neurological_Alliance_Falling_Short_-_How_has_neurology_patient_experience_changed_since_2014.pdf)

<sup>54</sup> The Neurological Alliance (2017): Falling short: How has neurology patient experience changed since 2014? Available online at [http://www.neural.org.uk/store/assets/files/668/original/Neurological\\_Alliance\\_Falling\\_Short\\_-\\_How\\_has\\_neurology\\_patient\\_experience\\_changed\\_since\\_2014.pdf](http://www.neural.org.uk/store/assets/files/668/original/Neurological_Alliance_Falling_Short_-_How_has_neurology_patient_experience_changed_since_2014.pdf)

**Figure 28:** Graph the rate of hospital admissions for epilepsy among under 19s per 100,000 in local authorities in South West compared to regional and national averages, 2016/17



### HIA summary for Neurological Conditions

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<b>Moderate scale Impact:</b> The prevalence of neurological conditions among the registered population is similar in Gloucestershire compared with the South West Region and National rates at 8.8%. The rate of hospital admissions for epilepsy among under 19s is 87.5 per 100,000; this is statistically similar to the South West regional average (71.5) but statistically	<b>Long Term Impact</b>  According to the NHS & CQC 2017 Adult Inpatient Survey, Patients with neurological conditions reported poorer experiences for confidence and trust, respect and dignity, respect for patient-centred values and overall experience of care. In response to the NHS 2016 patient experience survey, just 41% (n=2,132) of patients described the health services they received for their neurological condition as	<b>Overall Impact: Positive</b>  <b>Moderate Negative Impact</b> For patients with long term neurological such as Parkinsons and MS, the relocation of services could prove challenging if they are required to travel further.  It is recommended to engage through existing forums with patients Or via representative organisations.
B2 - IGIS hub and vascular centralised to GRH			
C3 - EGS centralised to GRH			
C11 - GI day cases to CGH			
C5 - Elective colorectal to CGH			
C6 - Elective colorectal to GRH			

	higher than the national average (70.6) by a small margin.	'good' or 'excellent'. <sup>55</sup>  The 2013-14 NHS England survey of patients of GP practices found that people with long-term neurological conditions have the lowest health-related quality of life of any long-term condition. <sup>56</sup>	
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### 6.3. Falls among the elderly

A rapidly ageing population means that doctors in all specialties are likely to encounter older people with falls. Falls in the elderly are common and associated with major morbidity and mortality. Falls cause injuries, fractures, loss of confidence and independence, depression and death. Recurrent falls and fear of falling are the most common reasons for an older person to require nursing home care. An initial fall may be a manifestation of an acute illness and may be the only presenting feature. However, it is known that an index fall is a risk for future falls and approximately half of those who fall once are likely to do so again.<sup>57</sup>

The rate of emergency hospital admissions due to falls among those aged over 65 per 100,000 in Gloucestershire is among the lowest in the South West region; a rate of 1,812 per 100,000 at Gloucestershire makes it significantly lower than both regional and national averages.

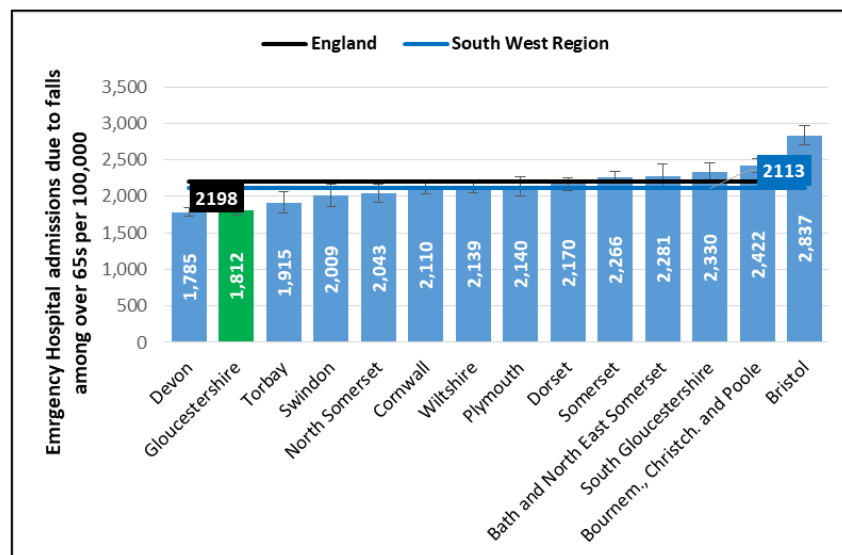
**Figure 29:** Graph the rate of emergency hospital admissions due to falls among over 65s per 100,000 in local authorities in South West compared to regional and national averages, 2018/19

<sup>55</sup> The Neurological Alliance (2017): Falling short: How has neurology patient experience changed since 2014? Available online at [http://www.neural.org.uk/store/assets/files/668/original/Neurological\\_Alliance\\_Falling\\_Short\\_-\\_How\\_has\\_neurology\\_patient\\_experience\\_changed\\_since\\_2014.pdf](http://www.neural.org.uk/store/assets/files/668/original/Neurological_Alliance_Falling_Short_-_How_has_neurology_patient_experience_changed_since_2014.pdf)

<sup>56</sup> The Neurological Alliance (2017): Falling short: How has neurology patient experience changed since 2014? Available online at [http://www.neural.org.uk/store/assets/files/668/original/Neurological\\_Alliance\\_\\_Falling\\_Short\\_-\\_How\\_has\\_neurology\\_patient\\_experience\\_changed\\_since\\_2014.pdf](http://www.neural.org.uk/store/assets/files/668/original/Neurological_Alliance__Falling_Short_-_How_has_neurology_patient_experience_changed_since_2014.pdf)

<sup>57</sup> <https://www.rcpe.ac.uk/sites/default/files/anderson.pdf>





### HIA summary for falls among the elderly

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH B2 - IGIS hub and vascular centralised to GRH C3 - EGS centralised to GRH C11 - GI day cases to CGH C5 - Elective colorectal to CGH C6 - Elective colorectal to GRH	<b>Large Scale Impact:</b> The rate of emergency hospital admissions due to falls among those aged over 65 per 100,000 in Gloucestershire is among the lowest in the South West region; a rate of 1,812 per 100,000 at Gloucestershire makes it significantly lower than both regional and national averages.	<b>Long Term Impact</b>  Falls cause injuries, fractures, loss of confidence and independence, depression and death. Recurrent falls and fear of falling are the most common reasons for an older person to require nursing home care. An initial fall may be a manifestation of an acute illness and may be the only presenting feature. However, it is known that an index fall is a risk for future falls and approximately half of those who fall once are likely to do so again. <sup>58</sup>  This cohort focuses on those aged over 65; see “Age” section of the EQIA (pages 5-10). Although it is to be noted that this cohort is a particularly	<b>Overall Impact: Positive</b>  <b>Positive Impact</b> Patients who fall regularly are likely to be a cohort impacted by the proposed changes as they will likely attend hospital more than other cohorts in the population. 1,812 people per 100,000 in Gloucestershire are admitted to hospital due to falls. This cohort may benefit from the centralisation of services in the same way as over 65s because frailty correlates with age, see “Age” section of the EQIA (pages 5-10).

<sup>58</sup> <https://www.rcpe.ac.uk/sites/default/files/anderson.pdf>



		vulnerable subset of the elderly population, hence more provision of care needs to be given.	It is recommended to engage through existing forums with patients Or via representative organisations for frailty and falls.
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#### 6.4. Overweight or Obese

Excess weight and obesity is a risk factor for various health conditions, including type 2 diabetes, high blood pressure, cardiovascular disease, fatty liver disease, various cancers and kidney disease.<sup>59</sup>

Overweight and obese individuals are less likely to access healthcare and are less likely to receive evidence-based and bias-free healthcare when they do engage according to various studies.<sup>60,61,62</sup>

The prevalence of overweight and obesity in Gloucestershire is 61.4%; this is similar to both regional and national rates.

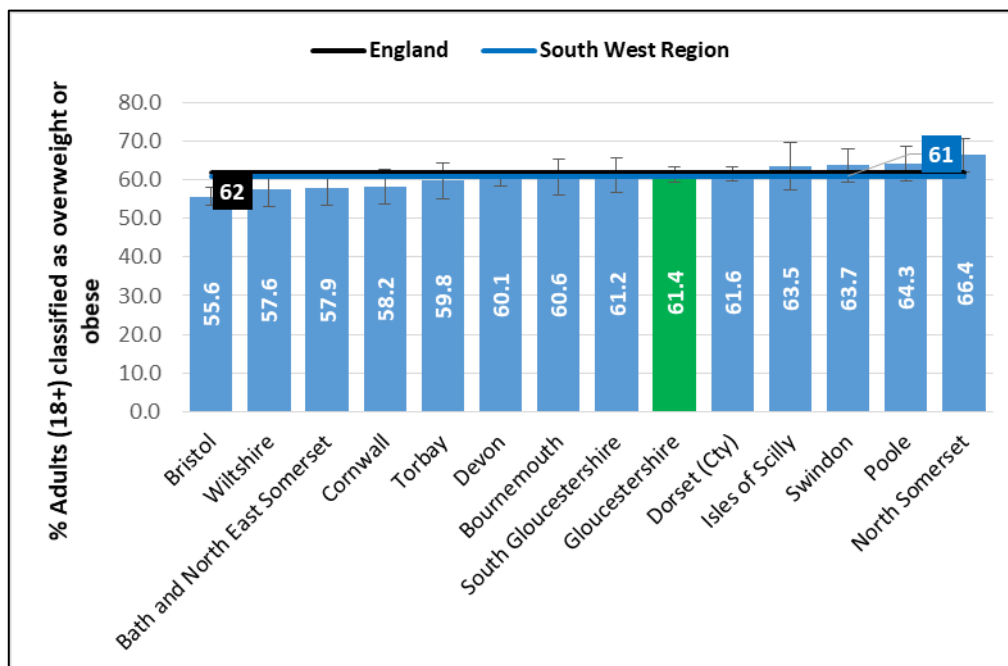
**Figure 30:** Prevalence of overweight and obese among the population aged 18 and over in local authorities in South West compared to regional and national averages, 2018/19

<sup>59</sup> <https://www.niddk.nih.gov/health-information/weight-management/health-risks-overweight>

<sup>60</sup> Aldrich T., Hackley B. (2010). The impact of obesity on gynecologic cancer screening: an integrative literature review. *J Midwifery Womens Health* 55, 344–356. 10.1016/j.jmwh.2009.10.001 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]

<sup>61</sup> Forhan M., Salas X. R. (2013). Inequities in healthcare: a review of bias and discrimination in obesity treatment. *Can. J. Diabetes* 37, 205–209. 10.1016/j.jcjd.2013.03.362 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]

<sup>62</sup> Phelan S. M., Burgess D. J., Yeazel M. W., Hellerstedt W. L., Griffin J. M., van Ryn M. (2015). Impact of weight bias and stigma on quality of care and outcomes for patients with obesity. *Obes. Rev.* 16, 319–326. 10.1111/obr.12266 [[PMC free article](#)] [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]



### HIA summary for Overweight and Obesity

Model	Scale of Potential impact	Evidence of Potential Impact	Nature of Potential Impact and recommendations
A3 - Centralise acute medicine to GRH	<b>Large Scale Impact:</b> The prevalence of overweight and obesity in Gloucestershire is 61.4%; this is similar to both regional and national rates.	<b>Long Term Impact</b> Research suggests statistically significant associations for overweight with the incidence of type II diabetes, cancer, cardiovascular diseases asthma, gallbladder disease, osteoarthritis and chronic back pain <sup>63</sup> . Overweight and obese individuals are less likely to access healthcare and	<b>Overall Impact: positive</b> Obesity is often linked to a large number of co-morbidities which mean obese patients are more likely to be impacted by the proposed changes. The movement of services could result in specialist care being provided
B2 - IGIS hub and vascular centralised to GRH			
C3 - EGS centralised to GRH			
C11 - GI day cases to CGH			
C5 - Elective colorectal to CGH			
C6 - Elective			

<sup>63</sup> Guh, D.P., Zhang, W., Bansback, N. *et al.* The incidence of co-morbidities related to obesity and overweight: A systematic review and meta-analysis. *BMC Public Health* 9, 88 (2009). <https://doi.org/10.1186/1471-2458-9-88>

<p>colorectal to GRH</p>		<p>are less likely to receive evidence-based and bias-free healthcare when they do engage according to studies.<sup>646566</sup></p> <p>Evidence suggests that this cohort may face challenges and perceived challenges in access to services in general and also are at a higher risk of mobility related barriers.<sup>67</sup></p>	<p>in one place leading to a better quality of care.</p> <p>It is recommended to engage through existing forums with patients Or via representative organisations.</p>
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<sup>64</sup> Aldrich T., Hackley B. (2010). The impact of obesity on gynecologic cancer screening: an integrative literature review. *J Midwifery Womens Health* 55, 344–356. 10.1016/j.jmwh.2009.10.001 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]

<sup>65</sup> Forhan M., Salas X. R. (2013). Inequities in healthcare: a review of bias and discrimination in obesity treatment. *Can. J. Diabetes* 37, 205–209. 10.1016/j.jcjd.2013.03.362 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]

<sup>66</sup> Phelan S. M., Burgess D. J., Yeazel M. W., Hellerstedt W. L., Griffin J. M., van Ryn M. (2015). Impact of weight bias and stigma on quality of care and outcomes for patients with obesity. *Obes. Rev.* 16, 319–326. 10.1111/obr.12266 [[PMC free article](#)] [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]

<sup>67</sup> <https://www.ncbi.nlm.nih.gov/pubmed/20059707>