Appendix 14b: Integrated Impact Assessment
Inpatient Gastroenterology and Trauma and Orthopaedics

1. Introduction

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 (IIA) on proposed solutions. This document contains the analysis conducted to determine the impacts of the two pilot studies which have been evaluated as successful, so our approach to the IIA is to assess the impact of these pilots being reversed; these are.

- In October 2017 Trauma was centralised to Gloucestershire Royal Hospital and elective Orthopaedics to Cheltenham General Hospital.
- In November 2018, Gastroenterology inpatient services were centralised to Cheltenham General Hospital

This report is to be read in conjunction with Annex II (Appendix 14a) prepared by the Strategy Unit at NHS Mid and South Essex University Hospitals Group.

Contents

2. Impact Assessment Key Findings

2.1 Positive Impacts

Gastroenterology

The majority of gastroenterology patients are in the 18 to 64 year age range. However, there are a number of patients with identified needs. With 25% of Gloucester city population living in deprived areas and the rates of homelessness being slightly greater in Gloucester it was important to ensure that access to the service was equitable. Although the inpatient ward is currently based at Cheltenham General Hospital there is full access to gastroenterology services at GRH; with 7 day per week emergency endoscopy provision and a rostered gastrointestinal consultant and registrar at Gloucestershire Royal Hospital to assess patients who are referred either from ED or other specialist areas ensuring the same level of emergency care are available at both sites.

Outpatient clinics are unaffected and will be maintained at Cheltenham General, Gloucestershire Royal and Community Hospitals creating no impact on travel times.

Trauma & Orthopaedics

25% of Gloucestershire city population are living in deprived areas, approximately 32,000 people. Therefore, centralising trauma (emergency orthopaedics) to Gloucestershire Royal Hospital provides improved access to the right specialists to manage the care of this higher risk community.

Rates of homelessness are slightly higher in Gloucester than surrounding areas; this group have a significant requirement for trauma services.

As part of the initiative a trauma triage service was set up. This means that anyone who comes into the Emergency Department at Cheltenham General Hospital, Gloucestershire Royal Hospital or any of the Minor Injury Units will have an independent review of their case notes and X-rays by a senior orthopaedic surgeon, 7 days a week. This enables the service to prioritise those requiring immediate treatment. Those that do not need to attend the hospital again are contacted by Advanced Nurse Practitioners to give advice by telephone. This prevents unnecessary journeys to hospital which is especially helpful for the elderly or those with physical disability or learning difficulty.

Despite some patients from the west of the county having to travel further for elective (planned) orthopaedic surgery the move of elective care to Cheltenham General Hospital has enabled the provision of ring-fenced wards with 80% lower chance of cancellation due to emergency trauma patients requiring the attention of specialist staff.

The way the inpatient beds are organised now (in the pilot) includes 17 single rooms at Cheltenham General Hospital and 18 at Gloucestershire Royal Hospital which gives flexibility to maintain privacy and dignity, allowing segregation of gender and availability of single rooms for those with learning disabilities etc.

Outpatient clinics are unaffected and will be maintained at Cheltenham General, Gloucestershire Royal and Community Hospitals creating no impact on travel times.

2.2 Negative Impacts

During the period of the pilot the impact of the change has been monitored and where necessary mitigations have been put in place to address negative impacts identified.

Gastroenterology

There are some patients who will attend Gloucestershire Royal Hospital who may require a longer stay and therefore need to transfer to Cheltenham General Hospital for admission. There is a process in place to transport these patients.

There are some patients with long term conditions that may need multiple admissions and some of these will live in the west of the county requiring a longer journey. However the dedicated ward environment, specialist team and improved outcomes resulting from care provided by the specialist team mitigates the additional journey time.

Trauma & Orthopaedics

There are some patients who attend A&E at Cheltenham General Hospital who may need to transfer to Gloucestershire Royal Hospital for admission. This has been mitigated by working with the Ambulance Service to ensure that patients who are likely to require admission are taken directly to Gloucestershire Royal Hospital. Senior orthopaedic doctor input is available for patients in A&E at both Cheltenham General and Gloucestershire Royal Hospitals and there is a process in place to transfer patients who require admission.

Not all elective (planned) orthopaedic surgery is undertaken at Cheltenham Hospital due to theatre capacity constraints. The planned services that remain at Gloucestershire Royal Hospital are those with the strongest clinical links to trauma e.g. spinal services. A ring-fenced separate ward area has been created at Gloucestershire Royal Hospital which included a £200,000 estates renovation.

3. Equality Impact Assessment (EQIA)

3.1 Age

By 2040 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%. Population projections in the older age categories far exceed national averages.

EQIA Summary for Age

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot	**Long term Impact** 1135 people are admitted per year for gastroenterology treatment only 8 are age 17 or under. 588 are aged 18-64 years and 544 are over the age of 65 years. It is recognised that those at the upper end of this age band may use adult services. Broadly speaking, older people are more likely to have underlying long term health conditions, more likely to attend A&E and are more likely to be admitted to acute care than younger people. As a result older people may benefit disproportionately from an improved service. However, previous engagement work has suggested that older people tend to raise transport and access issues more often than younger people so concentrating services on one site may impact this group more	**Overall Impact : Positive** **Large Positive Impact** Centralising gastroenterology enhances patient safety, improve outcomes and reduce LOS as it allows for more patients to be seen by a senior reviewer which is associated with increased patient discharges and improved clinical outcomes. **Potential Small Negative Impact** Prior to the changes it was thought that 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. However, this has not been raised in the patient feedback.	**Overall Impact : Negative** **Large Negative Impact** Centralising gastroenterology enhances patient safety, improve outcomes and reduce LOS as it allows for more patients to be seen by a senior reviewer with increased patient discharges and improved clinical outcomes. **Small Positive Impact** 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. However this has not been demonstrated

Formalise Trauma & Orthopaedic Pilot	8248 people are admitted per year for treatment within the Trauma and Orthopaedic service 489 are age 17 or under. 3866 are aged 18-64 years and 3894 are over the age of 65 years. Within the Trauma and Orthopaedic services there are two groups of elderly patients who use the service. Those are the patients who suffer from deteriorating conditions i.e. arthritis and require planned joint replacement and those who sustain injury associated with frailty for example fractured neck of femur. While the service under discussion is an adult service with the paediatric services remaining unchanged and therefore the 0-19 age group will NOT use these services, it is recognised that those at the upper end of this age band may use adult services. Broadly speaking, older people are more likely to have underlying long term health conditions, more likely to attend A&E and are more likely to be admitted to acute care than younger people. As a result older people may benefit disproportionately from an improved service. However, previous engagement work has suggested that older people tend to raise transport and access issues more often than younger people so concentrating services on one site may impact this group more	**Overall Impact : Positive** **Large Positive Impact** Centralising elective orthopaedic services to CGH enhances patient safety, improve outcomes and reduce LOS. Centralising trauma to GRH: Hip fractures are managed by the trauma service now based at Gloucestershire Royal Hospital during the pilot. These patients almost always arrive by ambulance straight to Gloucestershire Royal Hospital where there is a specialist ward staffed with both orthopaedic and care of the elderly specialist doctors and a team of highly specialised nursing and therapy staff in a ward with a therapy room and modifications for those with dementia. **Potential Small Negative Impact** Prior to the changes it was thought that 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. However, this has not been raised in the patient feedback.	**Overall Impact : Negative** **Large Negative Impact** Decentralising planned orthopaedic services will lead to increased cancellations and poorer outcomes. For trauma services there would not be a centralised service to provide timely surgical provision **Small Positive Impact** Patients over 65 may find it easier to attend for surgery nearer to home. Although it should be noted that outpatient care remains unchanged, including community sites.

3.2 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.

EQIA summary for Disability

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot	**Long term Impact** Forest of Dean is the only district locally that exceeds the national average in terms of the proportion of residents living with a disability. People with disabilities may have an increased risk of developing secondary conditions that are more likely to result in the need for acute care. Evidence shows that people with learning disabilities have poorer health than the general population, much of which is avoidable, and that the impact of these health inequalities is serious; people with learning disabilities are three times as likely as people in the general population to have a death classified as potentially avoidable through the provision of good quality healthcare. Men with learning disabilities die on average 13-20 years younger than men in the general population and women with learning disabilities die on average 20-26 years younger than women in the general population. These inequalities result to an extent from the barriers which people with learning disabilities face in accessing health care. Studies suggest that people with a disability are also more likely on average to have negative experiences of using acute hospital services due to a	**Overall Impact : Positive** **Large Positive Impact** Centralising gastroenterology enhances patient safety, improve outcomes and reduce LOS as it allows for more patients to be seen by a senior reviewer which is associated with increased patient discharges and improved clinical outcomes. **Small Negative Impact** Patients with disabilities need to travel further for inpatient admission although this has not been raised in patient feedback.	**Overall Impact : Negative** **Large Negative Impact** Reversal of the changes will lead to a poorer service for all patients including those with disabilities, with deteriorating patient outcomes and greater LOS. **Small positive Impact** Patients with disabilities may find it easier to have inpatient care nearer to home

Formalise Trauma & Orthopaedic Pilot	perceived lack of understanding and sensitivity to their disability, and generally "being treated differently". For example, in a recent national survey, 33% of A&E patients with a mental health condition and 31% with a learning disability said they were not reassured by staff when distressed. This is compared with 21% of A&E patients without a disability. Communication issues have also been highlighted particularly for people with a sensory disability. For example, in a survey of deaf people in Manchester, nearly half (46%) had considered complaining about their experience in A&E, with communication difficulties being the main reason. Providing services from a calmer, site with a shorter overall length of stay may well benefit those with disabilities as they may be more affected by such factors than the general population. Overall, given the evidence around increased need in this population, it is possible that people will disabilities will benefit more from an improved service with faster access to specialists and a more streamlined provision than the general population. However, if modifications around adequate access and/or staff's understanding of the diverse needs of this group are not met then this section of the population could be disadvantaged. In addition, moving services to Cheltenham is further from the Forest of Dean where the highest proportion of those with disabilities lives. This represents a potential dis-benefit if not mitigated	**Overall Impact : Positive** **Large Positive Impact** Centralising trauma and orthopaedics enhances patient safety for all patients. The current 17 single rooms at Cheltenham General Hospital and 18 at Gloucestershire Royal Hospital which gives flexibility to maintain privacy and dignity, allowing availability of single rooms for those with learning disabilities etc. **Small Negative Impact** Patients with disabilities need to travel further for inpatient admission although this has not been raised in patient feedback.	**Overall Impact : Negative** **Large Negative Impact** Reversal of the changes will lead to a poorer service for all patients including those with disabilities and the bed configuration may need to change. **Small positive Impact** Patients with disabilities may find it easier to have inpatient care nearer to home

3.3 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.

EQIA Assessment for gender:

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot	**Long term Impact** There is no conclusive evidence to suggest that access to and experience of acute hospital care differs solely on the basis of a person's sex. While there are slightly more women in the population, men are marginally more likely to require unplanned care and so overall the effect is likely to be neutral. In terms of staff impact nursing staff is more likely to be female so centralisation on CGH site may have impact on family commitments. The gastroenterology service admits 1135 patients a year of which 517 (45.6%) are female and 544 (54.4%) are male.	**Overall Impact :** There have not been any impacts identified specific to gender within this service	**Overall Impact :** There have not been any impacts identified specific to gender within this service

Formalise Trauma & Orthopaedic Pilot	**Long term Impact** As part of the centralisation of trauma and Orthopaedic inpatients there will be an increase at CGH from GRH. There is no conclusive evidence to suggest that access to and experience of acute hospital care differs solely on the basis of a person's sex. While there are slightly more women in the population, men are marginally more likely to require unplanned care. In terms of staff impact nursing staff is more likely to be female so centralisation on CGH site may have impact on family commitments The trauma and orthopaedic service service admits 8248 patients a year of which 4418 (53.5%) are female and 3830 (46.5%) are male.	**Overall Impact : Positive** **Positive Impact** Centralising trauma and orthopaedics enhances patient safety for all patients. The current bed configuration is 17 single rooms at Cheltenham General Hospital and 18 at Gloucestershire Royal Hospital which gives flexibility to maintain privacy and dignity, allowing segregation of gender	**Overall Impact : Negative** **Negative Impact** Reversal of the changes will lead to a poorer service for all patients and the possibility that the bed configuration may change.

3.4 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. The highest proportions 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 accounts 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.

EQIA Assessment for Pregnancy

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot	There are no changes to current pregnancy, maternity or neonatal services. There is no identified evidence to indicate that pregnant women and mothers of new-born children have disproportionate of differential needs in relation to acute hospital services. However, the majority of inpatient gastroenterology services will now be located on the opposite site to the obstetrics and paediatrics service. It is envisaged that the hot consultant cover will be able to provide specialist input to any obstetric/maternity patients on the GRH site to ensure they are not disadvantaged.	**Overall Impact : Positive** **Large Positive Impact** Centralising gastroenterology enhances patient safety, improve outcomes and reduce LOS as it allows for more patients to be seen by a senior reviewer which is associated with increased patient discharges and improved clinical outcomes. **Small Negative Impact** There will be a negligible impact on those who have recently given birth	**Overall Impact : Negative** **Large Negative Impact** Changing the service back would decrease patient safety, improve outcomes and reduce LOS. **Small Negative Impact** There will be a negligible impact on those who have recently given birth

Formalise Trauma & Orthopaedic Pilot	There are no changes to current pregnancy, maternity or neonatal services. There is no identified evidence to indicate that pregnant women and mothers of new-born children have disproportionate of differential needs in relation to trauma and orthopaedic services.	**Overall Impact** **Large Positive Impact** Elective surgery is planned and therefore patients who have given birth in the last 26 weeks who require orthopaedic admission at CGH have time to organise the resources required. It is far more likely that someone in this category may sustain trauma and require admission to GRH. This is significantly positive as all Women's and Children's services are located on this site.	**Overall Impact : Negative** **Large Negative Impact** Changing the service back would decrease patient safety, improve outcomes and reduce LOS. For trauma patients it would separate this patient group from on-site Women's and Children's facilities

3.5 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.

EQIA Assessment for Marital Status:

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot Formalise Trauma & Orthopaedic Pilot	**Long term Impact** This protected characteristic applies to workforce matters. Geographical distribution of people with the varied characteristics is not known at small area scale. It is not envisaged that centralisation of services will have an impact	**Overall Impact : Neutral** There is currently limited data to ascertain any impact of the changes for those who are from any particular marital status.	**Overall Impact : Neutral** There is currently limited data to ascertain any impact of the changes for those who are from any particular marital status.

3.6 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.

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).

EQIA Assessment for Ethnicity:

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot and Formalise Trauma & Orthopaedic Pilot	**Long term Impact** Studies of secondary care usage have found that ethnicity is a significant predictor of acute hospital admission with BAME group's overall being more likely to access emergency services than the general population. Previous national surveys show higher levels of dissatisfaction with NHS services amongst some minority ethnic groups. Patients from Pakistani, Indian and Bangladeshi backgrounds report poorer experiences than patients from other white and BAME groups. In addition, cultural factors can mediate access to acute hospital care. Nationally, it has been reported that minority ethnic communities may have poor access to health services for reasons including language barriers, lack of culturally sensitive services and negative attitudes about communities. Conversely there is also evidence of how some members of BAME groups, particularly recent migrants, may be disproportionately more likely to access acute hospital services, owing to a lack of awareness of local primary care provision. For example, recent research by Dudley CCG highlighted that a disproportionately high proportion of BAME attendees at A&E were not registered with a local GP and so had no other access route	**Overall Impact : Positive Large Positive Impact** 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.	**Overall Impact : Negative** **Large Negative Impact** Reversing the centralisation of services would negatively impact patient safety, improve outcomes and LOS

	to health services. The district with the highest proportion of BAME residents is Gloucester meaning that travel distances to specialist services are likely be longer for this group. However, recent CCG engagement has suggested seeing the right specialist is more important to people than where they see them. Overall, improvements to services configuration and delivery may therefore have a disproportionate benefit to BAME communities due to a higher service usage and the facts they may be more negatively impacted by current service design issues.		

3.7 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[1]. 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. The prevalence of the LGB population in Gloucestershire is estimated to be around 5% - 7%[2].

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot and Formalise Trauma & Orthopaedic Pilot	**Long Term Impact - Neutral** The LGBTQ+ community is estimated to form 5% - 7% of the Gloucestershire population. A major recent UK survey found that this group on average report poorer levels of general health. Research into this group's experiences of accessing healthcare indicates that they have more negative experiences, on average, than heterosexual patients and may also face specific challenges associated with disclosing their sexuality and being visited by friends and same-sex partners in healthcare settings. One of the few studies to have included findings specifically on this group's experiences of acute hospital services highlighted instances of discrimination and reported that 70% of gay and bi men felt they were treated with respect and dignity in A&E compared to 78% of the general population. The absence of current data makes the impact hard to assess although based on current findings a reduced length of stay may have a disproportionately beneficial impact on this group.	**Overall Impact – Neutral** 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. We anticipate that changes to this patient group would be negligible.	**Overall Impact: Neutral** We anticipate that changes to this patient group would be negligible.

[1] Stonewall, 2015, Mental Health, Stonewall health briefing 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 Accessed 18/12/201
[2] https://inform.gloucestershire.gov.uk/media/2087689/equality-profile-2019-final.pdf

3.8 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.

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.

EQIA assessment for Religion

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot Formalise Trauma & Orthopaedic Pilot	**Small Scale Impact** No evidence has been identified to indicate that this group has significant differential or disproportionate needs in relation to acute hospital services like gastroenterology or T&O. It is envisaged that best practice around provision for people with religious or other beliefs will continue to be provided over both sites so access will be unchanged.	**Long Term Impact** No impact Both CGH and GRH have a team of Chaplains who provide spiritual and pastoral care and support for all faiths to help people find strength comfort and meaning at what can be a very difficult time in their lives.	**Overall Impact: Neutral** No impact Both CGH and GRH have a team of Chaplains who provide spiritual and pastoral care and support for all faiths to help people find strength comfort and meaning at what can be a very difficult time in their lives.

3.9 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[3]. Transgender people encounter significant difficulties in accessing and using health and social services[4]. Numbers of people identifying as transgender across the county is increasing with current estimates at 0.6% people aged 16 and over[5].

EQIA assessment for Gender reassignment

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot Formalise Trauma & Orthopaedic Pilot	**Impact: Neutral** The estimated prevalence of gender re-assignment is 0.6% in Gloucestershire. There is a paucity of data both on the size of this group within Gloucestershire and on health service use or experience. One study of this group's experiences of health services in general has identified certain barriers, including a lack of access to knowledgeable, competent, and trans-friendly providers. Service reconfiguration alone is unlikely to impact this although a reduced length of stay and ongoing wider trust activity around LGBT+ inclusivity may have a positive impact on this group.	**Overall Impact: Neutral** There is limited evidence regarding the impact to those who have undergone gender reassignment, however, impacts may mirror those of sexual orientation	**Overall Impact: Neutral** Proposed changes to services are expected to maintain inclusive support service approach.

[3] House of Commons Women and Equalities Committee, 2016, Transgender Equality. www.publications.parliament.uk/pa/cm201516/cmselect/cmwomeq/390/390.pdf Accessed 24/01/2019

[4] Stonewall (2015) Unhealthy Attitudes www.stonewall.org.uk/sites/default/files/unhealthy_attitudes.pdf Accessed 24/01/2019

[5] https://inform.gloucestershire.gov.uk/media/2087689/equality-profile-2019-final.pdf

4. Health Inequalities Impact Assessment (HIIA)

25% of Gloucester city's population are living in deprived areas, approx. 32,000 people. 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 provides 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 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 services 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.[6] Therefore by centralising services patients with comorbidities could receive a better quality of specialist care. In Particular, emergency services (such as Trauma), 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.

[6] https://www.kingsfund.org.uk/projects/mental-health-and-long-term-conditions-cost-co-morbidity

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[7].

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%).

HII Assessment for Deprivation

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot	**Long term Impact** 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	**Overall Impact : Small Negative** **Small Negative Impact** 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[8] Engaging with lower income areas within Gloucester City is important to understand if they currently struggle to access healthcare at CGH	**Overall Impact : Negative** **Negative Impact** Decentralising Gastroenterology services will lead to greater cancellations and poorer outcomes **Small Positive Impact** Some patients may find travel easier

[7] https://inform.gloucestershire.gov.uk/media/2094524/gloucestershire_deprivation_2019_v13.pdf

[8] 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

Formalise Trauma & Orthopaedic Pilot	neither Stroud nor Cotswold fall under the most deprived quintile. Overall, an estimated 72% of the population living in the most deprived areas appear to live closer to GRH (based on district level map information) and this equates to around 35,000 people.	**Overall Impact : Positive** **Positive Impact** The deprivation level is higher around Gloucester and this group of patients are more likely to require the unplanned services. This with trauma services based at GRH the impact is positive. **Small Negative Impact** 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[9]	**Overall Impact : Negative** **Negative Impact** Decentralising planned orthopaedic services will lead to greater cancellations and poorer outcomes. For trauma services there would not be a centralised service to provide timely surgical provision **Small Positive Impact** Patients find it easier to attend for surgery nearer to home. Although it should be noted that outpatient care remains unchanged, including community sites.

4.2 Looked after children

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[10].

There is no change to children's service for either gastroenterology or Trauma and Orthopaedics. All inpatient children's services remain at GRH.

[9] 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

[10] https://www.rcpch.ac.uk/resources/looked-after-children-lac

4.3 Carers or 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[11].

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%).

HII Assessment Carers

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot and Formalise Trauma & Orthopaedic Pilot	**Long term Impact** 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.	**Overall Impact : Neutral** There is currently limited data to ascertain any impact of the changes for those who are carers.	**Overall Impact : Neutral** There is currently limited data to ascertain any impact of the changes for those who are carers.

[11] https://researchbriefings.files.parliament.uk/documents/POST-PN-0582/POST-PN-0582.pdf

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[12]. Being homeless also comes with a higher risk of delayed discharge from hospital, lengthening stays or cause repeated admissions to hospitals[13].
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[14]

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).

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.

[12] Morton , Jane. Primary Health Care (2014+); London Vol. 27, Iss. 8, (Sep 2017): 25. DOI:10.7748/phc.2017.e1289
[13] https://publichealthmatters.blog.gov.uk/2018/02/09/the-inequalities-of-homelessness-how-can-we-stop-them-dying-young/
[14] https://publichealthmatters.blog.gov.uk/2018/02/09/the-inequalities-of-homelessness-how-can-we-stop-them-dying-young/

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot and Formalise Trauma & Orthopaedic Pilot	**Long term Impact** 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 current pilot location of services at CGH. The Gloucestershire Public Health Team have completed but not yet published a homeless heath needs assessment. Findings suggest the homeless population are higher than average users of acute services. Barriers to people who are homeless receiving good care were reported in a recent study to be around insensitive, impersonal or unkind behaviour from service providers, not receiving the support they felt was needed, and lack of communication between multiple providers .	**Overall Impact : Neutral** There is currently limited data to ascertain any impact of the changes for those who are homeless	**Overall Impact : Neutral** There is currently limited data to ascertain any impact of the changes for those who are homeless

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[15].

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.

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.

HII Assessment – Substance Abuse

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot	**Long term Impact** Those with drug and alcohol problems tend to be high users of gastroenterology services as a result of the complications arising from drug and alcohol abuse. As a result improved services are likely to benefit this group. As for other groups transport may be an issue where this characteristic co-exists with poverty.	**Overall Impact : Positive** **Large Positive Impact** Centralising gastroenterology enhances patient safety, improve outcomes and reduce LOS as it allows for more patients to be seen by a senior reviewer which is associated with increased patient discharges and improved clinical outcomes. **Potential Small Negative Impact** Prior to the changes it was thought	**Overall Impact : Negative** **Large Negative Impact** Centralising gastroenterology enhances patient safety, improve outcomes and reduce LOS as it allows for more patients to be seen by a senior reviewer with increased patient discharges and improved clinical outcomes.

[15] Schlossarek S et al U: Psychosocial Determinants of Cannabis Dependence: A Systematic Review of the Literature. Eur Addict Res 2016;22:131-144.

		that Patients with substance misuse 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. In the patient feedback this has not been evidenced.	
Formalise Trauma & Orthopaedic Pilot	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	**Large Positive Impact** Patients who undertake substance abuse will be more prevalent in the Gloucester area which gives best access for this patient group	**Impact Negative** Reversing the pilots would reduce the benefits of centralisation.

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.

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.

HII Assessment – Mental Health

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot and Formalise Trauma & Orthopaedic Pilot	**Small Scale Impact** 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.	**Long Term Impact** No impact identified	**Overall Impact: Neutral** No impact identified

4.7 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.[16] 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.[17]

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%.

HII Assessment- Diabetes Mellitus

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot and Formalise Trauma & Orthopaedic Pilot	**Neutral Impact** Both CGH and GRH have a team of Diabetic specialists who provide support to services at both sites	**Long Term Impact** No impact	**Overall Impact: Neutral** No impact

[16] https://www.diabetes.org.uk/about_us/news_landing_page/uks-poorest-twice-as-likely-to-have-diabetes-and-its-complications

[17] ***Association of glycaemia with macrovascular and microvascular complications of Type 2 diabetes: prospective observational study*** British Medical Journal 2000; 321: 405-412.

4.8 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 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.[18]

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'.[19]

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.[20] 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.

HII Assessment- Neurological Conditions

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot and Formalise Trauma & Orthopaedic Pilot	**Neutral Impact** Both CGH and GRH have a team of neurology specialists who provide support to services at both sites	**Long Term Impact** No impact	**Overall Impact: Neutral** No impact

[18] 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-withneurological-conditions

[19] 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

[20] 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

4.9 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.[21]

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.

HII Assessment- Falls among the elderly

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot	**Long term Impact** Older people may benefit disproportionately from an improved service. However, previous engagement work has suggested that older people tend to raise transport and access issues more often than younger people so concentrating services on one site may impact this group more	**Overall Impact : Positive** **Positive Impact** Centralising gastroenterology enhances patient safety, improve outcomes and reduce LOS **Potential Small Negative Impact** Prior to the changes it was thought that 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. In the patient feedback this has not been raised.	**Overall Impact : Negative** **Negative Impact** Centralising gastroenterology enhances patient safety, improve outcomes and reduce LOS. **Small Positive Impact** 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. However this has not been demonstrated

[21] https://www.rcpe.ac.uk/sites/default/files/anderson.pdf

Formalise Trauma & Orthopaedic Pilot	The Trauma and Orthopaedic services are directly affected by patient falls as many patients who are admitted after falling are seen by the trauma team.	**Overall Impact : Positive** **Large Positive Impact** Centralising trauma to GRH: Hip fractures are managed by the trauma service now based at Gloucestershire Royal Hospital during the pilot. These patients almost always arrive by ambulance straight to Gloucestershire Royal Hospital where there is a specialist ward staffed with both orthopaedic and care of the elderly specialist doctors and a team of highly specialised nursing and therapy staff in a ward with a therapy room and modifications for those with dementia. **Potential Small Negative Impact** Patients who fall in CGH and require surgical orthopaedic treatment will be transferred to a trauma ward at GRH.	**Overall Impact : Negative** **Large Negative Impact** For trauma services there would not be a centralised service to provide timely surgical provision **Small Positive Impact** Patients who fall in CGH and require surgical orthopaedic treatment would no longer be transferred.

4.10 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.[22]

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.[23][24][25]

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

HII Assessment – overweight and obese

Proposed Change	Scale of Potential impact	Evidence of Potential Impact and duration	Potential Impact if changes reversed
Formalise Gastroenterology Pilot and Formalise Trauma & Orthopaedic Pilot	**Neutral Impact** Obesity is often linked to a large number of co-morbidities which mean obese patients are more likely to be positively impacted by the centralisation of services resulting in specialist care being provided in one place. They would be negatively impacted if these services reverted to their original configuration.	**Overall Impact : Positive** **Positive Impact** Centralisation of specialist services improves clinical outcomes for patients with co-morbidities.	**Overall Impact : Negative** **Negative Impact** Centralising gastroenterology enhances patient safety, improve outcomes and reduce LOS. For trauma services there would not be a centralised service to provide timely surgical provision

[22] https://www.niddk.nih.gov/health-information/weight-management/health-risks-overweight

[23] 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]

[24] 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]

[25] 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]