Integrated Impact Assessment

on

Proposals for Improving Stroke Outcomes for Coventry and Warwickshire

Summary

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Prepared by: The Strategy Unit, Midlands & Lancashire CSU
For: North Warwickshire, Warwickshire South and Coventry & Rugby CCGs
Revised in December 2018 following recommendations an external peer review of the health and health impact elements of the Integrated Impact Assessment
CCGs

The Strategy Unit

PUBLIC HEALTH WARWICKSHIRE

Contents

This document provides a summary; a full technical document is also available

Background

Commissioners, providers and users of stroke and TIA services across Coventry and Warwickshire have been working together alongside expert advisors to re-design those services, in order to improve outcomes, reduce inequalities and increase the equity of services for patients across the area. This includes trying to prevent people having a stroke and then looking at how hyper-acute, acute and rehabilitation services can best be configured. This is being done in the context of the latest clinical evidence and guidance for stroke services alongside an extensive range of local clinical and non-clinical engagement. The information in this report will enable stakeholders to contribute to the consultation process with due regard to the public sector duties around equality and health inequalities. All stakeholders are invited to identify any further impacts or mitigating actions not addressed in the report.

What are Stroke and TIA?

A stroke is a serious, life-threatening medical condition that occurs when the blood supply to part of the brain is cut off. Strokes are medical emergencies and urgent treatment is essential because the sooner a person receives effective treatment for a stroke, the less damage is likely to occur.

Strokes can be fatal or cause damage that can in the worst cases leave people disabled, affecting their ability to communicate, as well as physical and mental damage. This can have a huge effect on not only people who have had them, but also on families and carers

There is also a related condition known as a transient ischemic attack (TIA), where the supply of blood to the brain is temporarily interrupted, causing a 'mini-stroke' often lasting between 30 minutes and several hours. TIAs should be treated seriously as they are often a warning sign that a patient is at risk of having a full stroke in the near future. However, the effects of TIA can pass quickly and tend to leave no lasting damage.

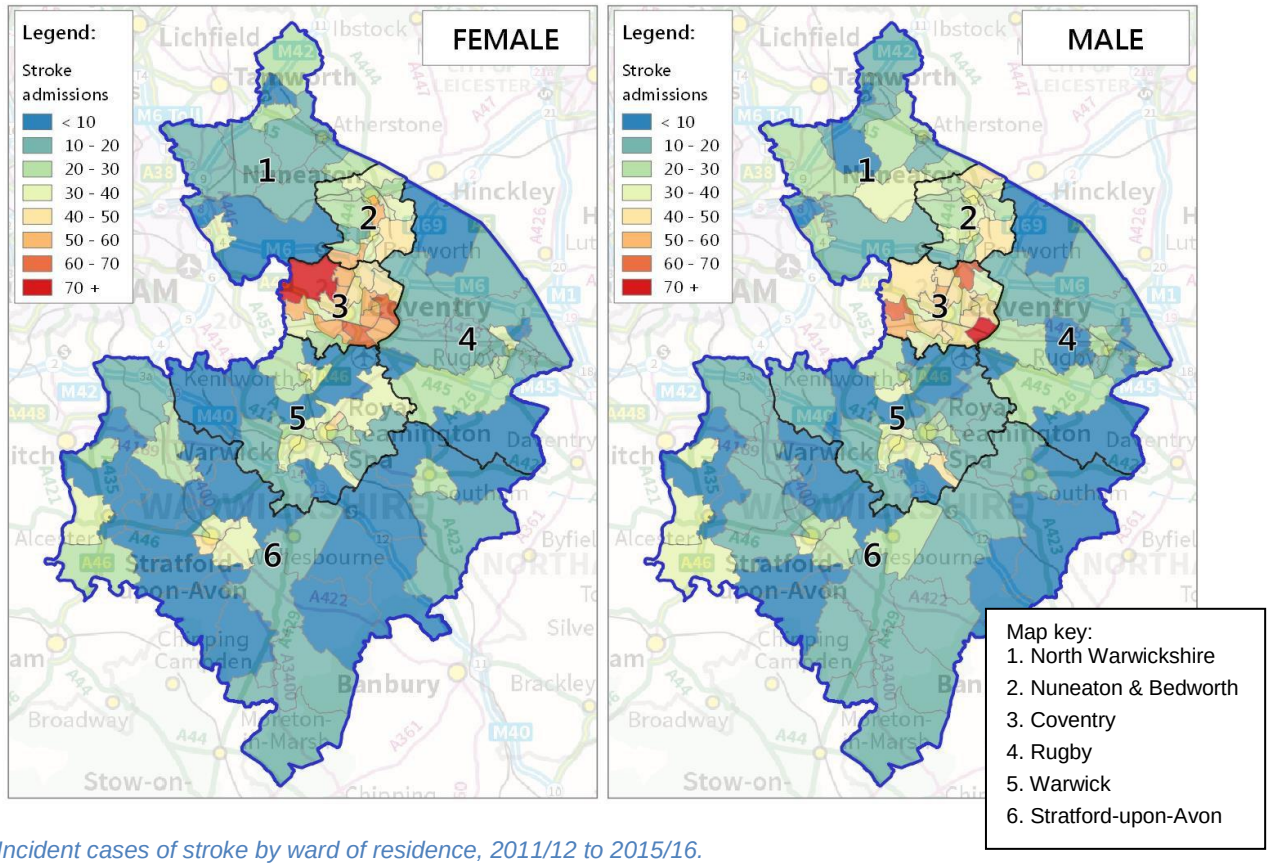
Factors that can influence the risk of having a stroke or mini-stroke include pre-existing atrial fibrillation, heart failure, hypertension or diabetes. The extent of these conditions can be managed by adopting healthier lifestyles; therefore many strokes and TIA are preventable.

How many people have a stroke?

Across Coventry and Warwickshire, there are around 1,300 strokes and 500 TIA each year that are treated in one of the acute hospitals in the area, the vast majority of which are local residents. In absolute terms, the highest number of people who have a stroke and live in in Coventry and Nuneaton, although as stroke risk is very dependent on age, the highest rates occur elsewhere in more rural areas of north and south of Warwickshire.

With better treatment, management and prevention of stroke the incidence and mortality rates have fallen over the past few decades, however; despite this, it is projected that nationally there will be an extra 31,000 first time strokes per year by 2025 due to population changes and the prevalence of lifestyle choices and conditions that increase the stroke risk[14].

The prevalence of stroke suggests the protected groups that require the most consideration in relation to the impact of stroke service redesign are older people, BME groups and those from socio-economically disadvantaged areas (section 1 Technical Document) which experience some of the greatest health inequalities.



Incident cases of stroke by ward of residence, 2011/12 to 2015/16.

What is an IIA and why do we need it?

The term Integrated Impact Assessment (IIA) has been used to describe many different procedures, but essentially any process which attempts to cover more than one type of impact assessment in a single process can be called an IIA. The objectives of this IIA are to determine the potential impact of the three proposed scenarios for stroke service redesign on the following; travel and access, health and equality.

Within each of these areas are a number of key determinants which assist in examining how fully the proposed scenarios may have an impact on communities and individuals. The aim of IIA is to make recommendations to enhance potential positive outcomes and minimise negative impacts of a proposal. Additionally, the IIA will allow external reviewers to ensure the decision-making bodies have taken account of potential impacts when making their decisions on service change, and to aid the Coventry and Warwickshire CCGs in meeting their requirements under the Equality Act [2010] by considering the needs of nine specific protected groups (section 5.3 Technical Document) and the Health and Social Care Act 2012 which introduced for the first time legal duties to reduce health inequalities, with specific duties on CCGs and NHS England " *The CCG have a duty to have due regard to the need to reduce inequalities between patients in access to health services and outcomes achieved"*.

Whilst an IIA was initially undertaken in 2015 by Public Health Warwickshire reviewing the impact in terms of travel, access, determinants of health and equality on the original list of potential service configurations, the requirements of the improvement have been expanded in response to public engagement and the initial IIA. The new model now includes investment in prevention of more strokes and additional rehabilitation and recovery options to help mitigate some of the potential negative impacts initially identified on equality and health inequalities. At this point the options that are clinically viable for this more comprehensive stroke service

reduced. A further engagement process was completed in June/July 2017 and an updated IIA commissioned from the Strategy Unit at Midlands and Lancaster CSU, including more detailed mapping of travel journeys, enhanced equality and inequalities impact analysis and additional focus on the impacts on carers and visitors for those new proposals. The updated IIA also more clearly quantified the impact of the scenarios by scoring the potential effect of the changes and an assessment of the scale of the impact. This document provides a summary; a full technical document is also available which includes the more detailed description of the methodology.

Methodology

The study area includes the County of Warwickshire and the City of Coventry. The assessment included the direct impacts on patients, particularly those self-presenting to non-Stroke Units, and the potential impact on those who would visit them during their stay in hospital. The IIA is split into three sections although there is overlap between the three areas.

The IIA is a desktop exercise and included a scoping piece of work (literature review, screening of groups/outcomes/impact and undertaking social-economic analysis) to review the impact of the proposed service changes on the equality groups and also to identify likely health impacts and outcomes including impacts on inequalities on groups and geographically. The assessment of travel considers changes in journey times by both private and public transport and review the current accessibility to each site of interest based on publicly available information. Postcode-level access contours for different times of day and modes of travel will provide a high-level perspective on potential impacts for the equality groups and using the lowest-level resident geography in the activity datasets (lower super output area) we will evaluate the likely changes in journey times under each scenario for the patient and visitors/carers to inform the HIA and the travel and access impact assessment.

Having described the potential nature of the impact of changes to stroke services in Warwickshire and Coventry, a score for each of identified groups or impacts has been allocated based on relative positive or negative impact to provide an overall impact score for each scenario, notwithstanding any mitigating actions. Scoring for nature of the impact is:

- High positive impact: 2
- Low positive impact: 1
- Neutral Impact: 0
- Low negative impact: -1
- High negative impact: -2

Stakeholder engagement is recognized as fundamental to high quality impact assessments. This review was commissioned as a desktop exercise to identify and outline key issues and takes into account previous engagement work. This IIA would enable wider stakeholder consultation and more detailed subsequent assessment. Following the production of the IIA, it is recognized that this then requires that public consultation is carried out to engage on potential equality and health inequality issues raised here and appropriate mitigations put in place as appropriate.

As part of the improving Stroke Outcomes process more detailed consideration and modelling is underway regarding implications for workforce and activity. These assessments will provide vital information but the results were not yet available to inform this IIA.

Stroke and TIA services

Current Services

There are three key elements of a stroke services;

1 A Hyper-Acute Stroke Unit (HASU) for the most specialist type of stroke care. Patients are normally treated here when they have first had a stroke (usually up to 3 days). These are available in a small number of hospitals. Services include: thrombolysis (clot dissolving); immediate access to brain scans; experienced stroke physician 24 hours a day. 'Mini strokes' also treated here

2 Acute Stroke Unit (ASU) A specialist stroke unit where patients are treated after the initial few days of having a stroke and after having been in a Hyper-Acute Stroke Unit .

3 Rehabilitation services which are delivered in a variety of settings including at home or a another appropriate setting

There are currently 93 stroke beds available across the three main providers offering a mixture of hyper-acute care, acute care and inpatient rehabilitation. As part of a wider regional review of stroke services, Coventry and Warwickshire have moved towards the centralisation of all hyper-acute stroke care to University Hospital Coventry and Warwickshire (UHCW) as a tertiary service. UHCW therefore, sees the most serious patients and those suspected strokes conveyed by ambulance within the last 4 hours of onset of symptoms. Others, or those that have passed the4 hours, are cared for in acute beds nearest to their home – George Eliot Hospital (GEH) (north Warwickshire) and South Warwickshire Foundation Trust, Warwick Hospital (SWFT) (south Warwickshire), and UHCW for Coventry and Rugby residents. Some other community facilities do provide supported rehabilitation for a small number of patients in Rugby and Leamington locations. In addition, an Early Supported Discharge (ESD) service is being piloted in Coventry and Rugby, and there is a Stroke Outreach Team at GEH and SWFT who support patients back into the community. Therefore, within the current model, the amount of time patients spend in hospital can vary significantly depending on where they live and there are inequalities across the area in the current service provision and health outcomes.

Why should services change?

This document describes how stroke services are currently provided across Coventry and Warwickshire and the clinical and public health outcomes data, sets out the issues and inequalities with the current services. The latest and best evidence for improved stroke outcomes strongly suggests that centralised and specialised assessment and treatment services will reduce mortality, disability and the length of time that stroke and TIA patients have to spend in hospital away from carers, family and friends. The widely followed 2015 NHS Midlands and East service specification has been used as the basis for re-designing stroke services in Coventry and Warwickshire to achieve these improved outcomes for patients.

What are the new proposals?

The current proposal will effectively expand the hyper-acute offer to all patients who have stroked and present within 72 hours, and combine acute stroke services into UHCW ensuring that all patients are seen and treated throughout the most critical stage by the same specialist team. This does mean that there will not be acute stroke beds in Nuneaton or Warwick and that patients self-presenting to those A&E departments with stroke and complex TIAs can be admitted to; these patients will be transferred to UHCW hyperacute unit who have the specialists to best manage patient care.

Additional early supported discharge services will be rolled out across the entire geographical area as well as extended specialist community rehabilitation teams to enable more patients to recover at home. These new services are expected to reduce length of acute hospital stay from an average of 22 days to 11 days, as has been achieved in areas who have already implemented this model, and reducing acute length of stay further to 7 days from year 2 of the comprehensive service being in place

In addition an improved prevention offer for atrial fibrillation could save 97 people a year from having strokes ('The Size of the Prize on CVD prevention', Public Health England and NHS England).) This evidence indicates that there is significant clinical and financial benefit potentially from this intervention and it has been factored into the activity and financial modelling for the proposed service.

The current model and proposed changes are summarised below:

Proposal	Description
Scenario 1 Do nothing Current Services	There is not a standard AF service across Coventry and Warwickshire. Prescribing initiatives scheme and implantation of GRASP AF tool (South Warwickshire) Patients from across Coventry and Warwickshire who are identified as within 4 hours of onset of stroke symptoms "eg FAST positive" are transferred to UHCW. Other patients attend or are taken by Ambulance to their local Hospital, namely UHCW for Coventry and Rugby residents; GEH for north Warwickshire residents; Warwick Hospital for south Warwickshire residents. GEH and SWFT have a Stroke Outreach team to support people to return home. Early supported discharge service pilot is provided in Coventry and Rugby, and Coventry and Rugby patients can transfer to 6 stroke rehab beds at St Cross. South Warwickshire patients can transfer to the Leamington Rehabilitation Hospital. TIA services are provided at each hospital, a 7 day service at UHCW and GEH and a 5 day service at SWFT
Scenario 2A Proposed Model	Identifying and treat people with atrial fibrillation whose drug therapy is not optimised for those where it reduces the risk of stroke across Warwickshire; and a central TIA service for everyone.. All patients with a suspected stroke or TIA will attend or be transferred to the HASU at UHCW; once their hyper-acute phase is complete (up to 3 days), some patients may be fit to go home with early supported discharge, others who need longer stroke rehabilitation will move to the acute stroke unit at UHCW, and remain there until they can be discharged. For those patients suitable for ESD (estimated 40%) or community rehabilitation (approx. 30%) they will be discharged to home or their usual residence. Those requiring bedded rehabilitation (currently estimated 30% of stroke patients) specialist stroke rehabilitation beds will be available at both GEH and Leamington Spa Hospital (LSH) until they are able to return home or to another appropriate care setting.
Scenario 2B Proposed Model plus	As above, however to address the concerns raised by Coventry and Rugby representatives in the public engagement (June/July 2017) for those patients requiring bedded rehabilitation from Coventry and Rugby, beds in suitable care homes in Coventry could be commissioned, to which a team will provide stroke specialist in-reach service that equates to the bedded rehab at GEH and LSH.

Description of service configuration proposals reviewed in this IIA, as at December 2017

Summary of New Pathways with Timescales.

Summary of Changes

There are three fundamental differences between the current configuration of services and the proposed changes being assessed under this IIA.

Change 1: The impact of all stroke patients being assessed and treated at UHCW for the entirety of their inpatient acute care instead of being treated at SWFT or GEH respectively; this can be applied to both alternative scenarios.

This suggests that the change to assessing all stroke patients at UHCW instead of UHCW, SWFT or GEH would impact on 621 people). The impact will be felt largely by stroke patients outside of the 4 hour window, in the north of Warwickshire who would previously have been treated locally at GEH and those in the south who would previously have been treated locally at SWFT. Virtually all stroke patients from Coventry and Rugby are already admitted to UHCW, so negligible impact will be felt in relation to them for this aspect of the proposed service change.

Therefore, whilst there are likely to be negative travel and access impacts of the proposed changes, the clinical evidence and assessments suggest there should be significant health improvements in terms of reduced mortality, reduced disability and complications and improved recovery as well as the equality of service provision for all.

Change 2: The impact of expanding early supported discharge and community rehabilitation at home to reduce length of stay for the whole of the Coventry and Warwickshire area. The service is only currently available to Coventry and Rugby patients. The change would apply equally in both scenario 2a and 2b, and will equate to around 621 patients receiving additional, best evidence based stroke rehabilitation care.

The clinical case proposes that the improved / extended ESD and community rehabilitation support services will reduce the length of stay (for hyper-acute and acute phases combined) down to 11 days initially and to 7 days after 2 years of operation. The shortened length of time in hospital will therefore mitigate, to some extent, the further travel for some carers and visitors.

Change 3: The impact of bedded rehabilitation for a minority of complex patients being provided at a selection of local sites but not at UHCW; this can be applied differentially to scenarios 2a and 2b.

It is estimated that 30% of all stroke patients will require some form of bedded inpatient rehabilitation after their acute phase of care – equivalent to 390 patients according to commissioner modelling, additional travel would be for those in Coventry and Rugby (estimated 142). The average duration of current inpatient rehabilitation episodes (assuming all spell length of stays > 7 days) for local patients is 56 days.

The provision of inpatient bedded rehab at GEH and LSH will generally only impact Coventry and Rugby patients adversely, who would previously have received inpatient bedded rehabilitation at UHCW or St Cross) and a smaller number and to a lesser extent for patients previously receiving that care at SWFT. Scenario 2b will mitigate some of the effects of this with more localised provision in suitable care home beds with extensive in-reach support.

Full details of the business case for the Options and the detailed clinical service reviews are provided in the Improving Stroke Outcomes suite of documents including appendices.

Estimated scale of impact

The following table summarises the potential scale of the impact for each of the elements of service changes on patient numbers and estimated numbers of those by district and in the quantifiable equality population groups. These are considered a broad estimate of the scale of impacts for consideration alongside the following impact assessments. The impact on carers and visitors can be assumed to follow a similar distribution in the absence of additional information to the contrary.

Element of the Service Change	Description	Estimated numbers impacted	By Area	By Equality group
1. Centralisation	All Stroke patients **not currently** treated at UHCW for hyperacute and acute stage	726	Coventry – 19	Age (over 65s) - 582
			North Warwickshire - 84	BAME - 89
			Nuneaton & Bedworth - 86	Males - 346
			Rugby - 32	Female - 380
			Stratford - 133	Deprived areas - 58
			Warwick - 191	Pregnant/maternity - 13
			Out-of-Area - 81	
1. **Centralisation (TIA)**	All TIA patients not currently treated at UHCW.	165	Coventry - 1	Age (over 65s) - 135
			North Warwickshire - 23	BAME - 24
			Nuneaton & Bedworth - 44	Males - 79
			Rugby - 3	Female - 86
			Stratford - 25	Deprived areas - 9
			Warwick - 41	Pregnant/maternity - 3
			Out-of-Area - 28	
2 ESD and community rehabilitation	All stroke patients **suitable for ESD and community recovery and rehabilitation** post-acute stage (70%) including those currently receiving ESD and community rehab	952	Coventry - 245	Age (over 65s) – 683
			North Warwickshire - 76	BAME - 137
			Nuneaton & Bedworth - 199	Males - 510
			Rugby - 86	Female - 442
			Stratford - 99	Deprived areas - 131
			Warwick - 123	Pregnant/maternity - 21
			Out-of-Area - 123	
3. Complex and bedded rehabilitation	All stroke patients requiring inpatient rehabilitation post-acute stage (30%) including those currently receiving inpatient rehab	408	Coventry - 105	Age (over 65s) - 323
			North Warwickshire - 33	BAME - 65
			Nuneaton & Bedworth - 85	Males - 190
			Rugby - 37	Female - 218
			Stratford - 42	Deprived areas - 45
			Warwick – 53	Pregnant/maternity - 5
			Out-of-Area – 53	

Estimates of impacts for the proposed changes by district and assorted equality groups, based on 2015/16 data. Source: The Strategy Unit.

Summary of the impacts

The impact assessment has focused on three main areas:

1. Travel and access
2. Health and Determinants of Health
3. Equality

The following summaries outline the likely impact in each of those areas, the assessment scores (page 5) and potential mitigations for each scenario. The do nothing scenario is included for comparative purposes and is used to baseline the scores against.

Where possible impacts have been divided into patients and carers impact, with the exception of the health section which has focused on the direct health impacts on the patient. It should be noted that some of the assessments are interlinked e.g. the impact of travel will be greater on some population groups and the health benefits will vary depending on age or gender. Not all groups protected under this legislation have been considered in scope for this service change as highlighted in section 2.2 of the technical document.

The technical document provides a full account of the scores for each element of the IIA. For example the EIA scores can be found in section 5.3 of the technical and appendix 7.8. This can be used to identify the appropriate mitigation to minimise the described equalities impact as part of the final decision-making process as required by the relevant local guidance[63].

	Scenario	Assessment score	Summary of impacts	Summary of potential mitigations
Travel and access impacts:	1	0	• Patients will continue to receive the majority of acute care nearest to their home. However the current configuration of rehabilitation services is considered inequitable in terms of access. The lack of optimization of AF drug therapy will continue to result in strokes that could have been avoided.	• Supported discharge and community rehabilitation require investment and expansion to all areas to provide universal (equitable) services.
	2A	-6.5	• Improved prevention means and estimated 63 more people a year will be prevented from having a stroke and will not have to be transported to UHCW, or their relatives and carers need to travel to hospital. • Patients, who self-present at GEH or Warwick with a stroke, could be seen as disadvantaged as their journey to the hyperacute service is a longer journey. However as soon as they are diagnosed with a stroke, they will be blue lighted to UHCW, where they will receive 24/7 optimally organized care. • Visitors and carers that live in North Warwickshire, Warwick and Stratford-upon-Avon district will be particularly disadvantaged in terms of longer and further journeys for acute care. • Those relatives and carers living in those areas and reliant on public transport will be most severely impacted. • Relatives and Carers from Coventry and Rugby will be negatively impacted by the provision of bedded rehab in Nuneaton and Leamington only • Access to and parking at the UHCW site may become more difficult.	• Existing public transport routes should be easily accessible, well lit and subsidised; • Awareness of existing direct and non-direct public transport services should be promoted to all patients and visitors; • Voluntary transport options should be discussed with patients and visitors. • Consider provision of shuttle services to UHCW for patients and their carers between hospitals in Nuneaton and Warwick. • Consider the continued provision of rehabilitation beds in Rugby (Hospital of St Cross) in addition to GEH and LSH. • Review the parking provision and/or system at UHCW site. Subsidy of parking at other car parks nearby the UHCW site may be an option for some. • Ensure that anyone travelling to visit patients throughout the stroke and TIA pathway are aware of any subsidisation schemes.
	2B	-5.5	• Impacts as above, although Coventry and Rugby rehab patients should not have to travel as far for their inpatient support	• As above

	Scenario	Assessment score	Summary of impacts	Summary of potential mitigations
Health and Determinants of Health impacts:	1	0	• Patients will continue to receive the current arrangement of services; therefore direct and indirect health impacts will not arise, including improved direct health outcomes	
	2A	+34	• Overall, the proposed changes are designed to improve outcomes for the patients involved - more likely to survive, recover quickly with lower risk of complications and permanent disability and spend more time at home with support. For stroke patients, the scale of the impact is estimated to be 726 for the hyper and acute phase, 952 patients for the ESD and community rebab and 408 patients for complex bedded rehab). • Approximately 63 people a year will be prevented from having a stroke. • For around 108 patients self-conveying to GEH or SWFT A&E departments there may, in a small number of cases (estimated 30 per year), be potential for delays to scanning or treatment that might reduce its' overall effectiveness. However; the most serious cases will likely have already travelled by ambulance directly to UHCW. • In the short-term, negative impacts may be felt by some carers / regular visitors in relation to increased and unfamiliar travel (an estimated 602 for the acute element of the pathway and a further 213 for the rehabilitation part of the pathway) – reduction in income, challenges to employment and affected mental wellbeing related to several changes in treatment locations. This should however, in theory, be offset by the reductions in length of stay and improved supported discharge offering proposed by the changes.	• Engagement with all groups, especially equality groups, to improve treatment, access to services in regular and non-acute settings and appointment compliance. • Many strokes are preventable. Therefore, commissioners of primary care should review their engagement with public health and the NHS Health Check Programme to identify at risk patients earlier, commence treatment and prevent stroke. • To reduce the potential risk (albeit small) for delays in scanning or treatment, a comprehensive and timely communication campaign, focusing on North and South Warwickshire, should be implemented to encourage anyone experiencing stroke-like symptoms to call an ambulance or take themselves directly to UHCW for assessment.
	2B	-4	• As above, however additional local provision of rehab care for Coventry and Rugby patients would mitigate some of the disruption and social impact arising from scenario 2A. • However, the clinical and health benefits in this scenario have been assessed as raising concerns with particular regard to staffing	• As above • Additionally, some assurance over the clinical quality and comparability of non-acute bedded rehab services should be undertaken before services are commissioned.

	Scenario	Assessment score (between -24 and +24)	Summary of impacts	Summary of potential mitigations
Equality impacts	1	0	No additional differential impacts on equality groups will arise, however the current configuration of services is inequitable as some services are already location or case dependent.	
	2A	+18	• The centralisation of specialist stroke and TIA services in UHCW will ensure the same level of advanced clinical support for all patients and is likely to generate improved outcomes for people who currently don't access the hyperacute assessment and treatment for the first 72 hours. • Coventry and Nuneaton areas are where the majority of strokes occur, and are also the area where the most deprived and diverse communities live including the most maternal age females. As such, they will benefit from having nearby services (within 9 miles). • Whilst some older patients and their relatives/carers may be disproportionately affected by increased travel times, the improved outcomes and shortened lengths of stay expected from the proposals are likely to more than offset the negative impacts.	• Commissioners should assure themselves that translation services are available on request; • Improvements to staff training on equality and diversity should be considered; • Commissioners should consider implementing 'reasonable adjustments' in order to ensure that the experience of disabled individuals is enhanced; • Barriers to services are experienced by all of the equality groups. Commissioners should ensure that individuals from such communities are fully engaged with redesign proposals. • Emergency departments should have staff available who 'understand and can address stroke patient with mental health conditions or learning disabilities (with) access to appropriate specialist services…' • Diversity monitoring should be in place as well of monitoring of interpreter needs to support evidence-based service provision. Sufficient rehabilitation beds for men and women should be made available at any non-hospital sites. • Consider visiting hours, especially during winter, to reduce amount of time visitors spend traveling in the dark.. • Carers would benefit from specialist support closer to home. Clarifying the support carers will receive as part of community rehabilitation would be useful.
	2B	+22	As above, however additional local provision of bedded rehabilitation care for Coventry and Rugby patients would further enhance some of the impact on deprived and ethnic populations arising from scenario 2A.	• As above

Summary of overall impacts and conclusions

The comparable scores across all the impact domains are such:

Scenario	Travel & Access	Health			Equalities
		Health Impact	Health Inequalities Impact	Determinants of Health	
1	0	0	0	0	0
2a	-6.5	+20	+15	-1	+18
2b	-5.5	+3	-7	+1	+22

The assessment and scoring suggest that both proposals for centralisation of all acute care and rehabilitation would have an overall positive impact on the study population compared to the do-nothing scenario, reducing the inequalities in the current/do nothing scenario. Scenario 2a offers the greatest gain in terms of the direct health benefits to patients. If the scoring is considered alongside information on the scale of the impact in terms of the volume of patients affected by the proposed changes, the impacts would be magnified further, as the clinical model for 2a is considered more effective and viable than in option 2b. Scenario 2b offers the most flexible rehabilitation pathway and appears to provide the greatest extent of positive impacts in terms of equality of access, particularly in respect of those in the population with protected characteristics. However, it should be noted that some of the equality groups would constitute a relatively small volume/scale of stroke patients (e.g. pregnant/maternal women and those from BAME groups), thus additionally their carers and visitors. Similarly, the number of strokes from areas that might be affected more by changes to travel are lower than in some of the more urban areas.

Overall, the IIA demonstrates both quantitative and qualitative evidence that the proposed scenarios could have major benefits for the Warwickshire and Coventry populations including vulnerable groups. The key benefits relate to the ability of the changes to achieve:

- Everyone within 72 hours of the onset of stroke to have the benefit of assessment in a Hyper Acute Stroke Unit ('HASU');
- Increased timeliness and equitable access to hyper acute, acute and rehabilitative care for all Coventry and Warwickshire residents, removing inequalities in the current provision;
- Improved workforce development opportunities, and recruitment and retention of Stroke specialist staff
- Reduced levels of mortality and morbidity for people who have suffered a Stroke
- Reduce levels of dependency for people after suffering a stroke
- Improved cognitive function for people after suffering a stroke
- Improvements in stroke prevention for all patients reducing the current inequalities

The assessment and scoring suggest that both proposals for centralisation of all acute care and rehabilitation would have an overall positive impact on the study population compared to the do-nothing scenario. Whilst the centralisation will invariably negatively impact on patients and visitors travel and access, particularly from the North and South of Warwickshire, the expected health benefits, greater proportion of time recovering at home and a reduction in inequalities from the exemplar service provision across the area in the proposals should more than offset them.

The information in this report will enable stakeholders to contribute to the consultation process with due regard to the public sector duties around equality and health inequalities. All stakeholders are invited to identify any further impacts or mitigating actions which have not been highlighted in the report.

List of Abbreviations

ESD – Early Supported Discharge

GEH – George Eliot Hospital

HIA – Health Impact Assessment IIA – Integrated Impact Assessment

LoS – Length of Stay

LSH – Leamington Spa Hospital

SWFT – South Warwickshire Foundation Trust (Warwick Hospital)

TIA – Transient Ischemic Attack

UHCW – University Hospital Coventry and Warwickshire