

# East Sussex Healthcare

NHS Trust

**Report to:**

East Sussex Health Overview and Scrutiny Committee (HOSC)

**Date: 25 September 2012.**

**By:**

Amanda Harrison- Director of Strategic Development- East Sussex Healthcare Trust (ESHT).

**Title of Report:**

Updated travel and access report pertaining to 'Shaping our Future' strategy document

**Purpose of Report:**

To highlight the issues associated with travel and access that will be considered during the option appraisal process outlined in the 'Shaping our Future' strategy document

**Introduction:**

East Sussex Healthcare Trust commissioned a report from an independent specialist travel and access research company, who were asked to provide information on patient and public access to hospitals, based on the proposals outlined in the 'Shaping our Future' strategy document.

## Travel and Access

(updated September 2012)

### 1.0 Introduction

We want people in East Sussex to get the right care at the right time in an environment that is designed to meet their specific needs. Currently services at Eastbourne District General Hospital (DGH) and Conquest Hospital in Hastings are failing to provide excellent care for every patient. People are not always seen by specialists as early as they should be. Too many planned operations are being cancelled too often. Hospital staff work incredibly hard to provide high quality services to patients, but we know that with some important changes to the way things are organised we can do much better.

We are already making improvements to the quality and safety of many services in East Sussex. However, we believe some services need more significant change. Stroke, general surgery and orthopaedic services are currently organised in a way that means we cannot provide the best possible care for local people.

The proposed changes will mean the majority of patients would continue to receive services at the hospital of their choice, most often the site closest to their home. About 7% of all in-patients may need to go to a different hospital, which is about 3,500 people a year; but this may not always be further away depending on where they are admitted from. The majority of patients admitted to stroke, emergency surgery and emergency orthopaedics are likely to travel by ambulance and a few by car. Carers and visitors will use both cars and public transport.

Under the proposed changes:

	The number of patients who <b>might</b> need to travel further per week if the service is sited at Eastbourne DGH	The number of patients who <b>might</b> need to travel further per week if the service is sited at Conquest Hospital
Stroke	7	8
Emergency and high risk in-patient general surgery	41	62
Emergency and high risk in-patient orthopaedic surgery	25	28

The preferred options for stroke, emergency general surgery and emergency orthopaedics would mean that routine and planned care would continue to be provided at both Eastbourne DGH and Conquest but emergency and high risk inpatient care

would be delivered from a single site only. The interdependencies associated with these services mean that emergency care for general surgery and orthopaedics would need to be located on the same site. Stroke services do not need to be co-located with emergency general surgery and emergency orthopaedics.

We recognise the importance that patients and their visitors place on the time it takes them to travel to hospital.

We have commissioned an independent specialist to undertake research on travel times to local hospitals including those outside of East Sussex. The objectives of the independent research were to:

- Evaluate travel time and the impact of single siting some services at either Eastbourne DGH or Conquest.
- Evaluate impact for patients and visitors.
- Model the journey time to the nearest hospital.

The journey times measured were to the following Acute hospitals:

- Eastbourne (DGH)
- Hastings (Conquest)
- Brighton (The Royal Sussex County Hospital - RSCH)
- Tunbridge Wells (Pembury Hospital)

We included travel times to other hospitals as we already know that people who live on the northern and western boundaries of the county are more likely to use hospitals in Brighton and Tunbridge Wells. To the East of the county patients will also access the hospital in Ashford. The Princess Royal Hospital in Haywards Heath does not provide emergency surgery or emergency orthopaedics so we have not included it in this analysis, but we know that patients living in the north west of the county may already utilise it for other services. The data that is used is taken from a number of sources which take into account speeds on both major and minor roads, which are then validated against a recognised mapping system.

We will work with stakeholders during the consultation to gather more information on the impact that increased travel times might have. We have met with members of the Infrastructure and Development team in the Economy, Transport and Environment Department of ESCC to discuss this report and we will be working with them on reviewing the feedback from the consultation to ensure that any mitigating actions can be discussed and where appropriate taken forward.

The research has incorporated the following factors<sup>1</sup>:

NB: % figures in this document have been rounded to the nearest full figure

Mode / Period /Factor	Patients	Visitors
Mode:		
Car	✓	✓
Blue Light	✓	
Public Transport		✓
Journey period		
7.00-9.00am	✓	✓
2.30-4.30 pm		✓
6.00- 8.00pm		✓
Geodemographic groups		
All residents	✓	✓
Deprivation	✓	✓
Car ownership	✓	✓
Age	✓	

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Car Ownership data from: <http://www.nomisweb.co.uk/> An advanced query was used to extract car ownership data as LSOA level for East Sussex.

## 2.0 Who might be disadvantaged by increased travel times?

The majority of patients who require stroke services, emergency surgery and emergency orthopaedics are likely to be aged over 65 so we know we need to understand the impact of increased travel times for this population. We also know that people who are more deprived are likely to feel the impact of increased public transport costs or fuel costs more than others. Again we have tried to recognise the impact on this group in particular.

Ambulance times are generally faster than car times. Diagnosis, stabilisation and, in some cases, treatment starts once the ambulance staff reach the patient. Therefore key times for the ambulance service are about the time that it takes to reach the patient, not how long it takes to get them to a hospital. Reaching every patient quickly is a priority for the ambulance service, so their highly trained staff can support the patient and liaise with the hospital to ensure they are ready for the patient's arrival.

## 3.0 Travel time by car:

Data	Description	Source
Road Network	Ordnance Survey Mastermap Integrated Transport Network (ITN)	Ordnance Survey provided via Multi-Client Contractor Licence (MCCL) agreement
Public Transport Network	Traveline data covering East Sussex, Kent, Brighton & Hove and West Sussex	National Public Transport Data Repository: <a href="http://data.gov.uk/dataset/nptdr">http://data.gov.uk/dataset/nptdr</a>
Origins (journey start points)	Codepoint data covering East Sussex	Ordnance Survey via MCCL agreement
Destinations (journey end points)	Four hospital sites used in the study	East Sussex NHS Healthcare Trust provided the list.
Geo-demographic data	Population, car ownership and Index of Multiple Deprivation data	Office for National Statistics (ONS) mid year population estimates 2010 Census 2001 (Nomis)

## Population and travel times by car

Total number of East Sussex population that can reach one of Eastbourne (DGH), Hastings (Conquest), Brighton (RSCH) or Tunbridge Wells (Pembury) in 30 minutes by car	All ages	65+
Current configuration	505,131	118,671
If services were sited at Conquest- Hastings	395,851	82,464
If Services were sited at Eastbourne DGH	401,958	98,038

Total % of East Sussex population that can reach one of Eastbourne (DGH), Hastings (Conquest), Brighton (RSCH) or Tunbridge Wells (Pembury) in 30 minutes by car	All ages	65+
Current configuration	98%	98%
If services were sited at Conquest	70%	68%
If services were sited at Eastbourne DGH	78%	81%

For those that have access to a car:

- The data tells us that currently 98% of over 65 year olds can access one of the four hospitals we identified by car within 30 minutes.
- The data tells us that if we single site our services at Hastings then 68% of over 65 year olds can access one of the four hospitals we identified by car within 30 minutes.
- The data tells us that if we single site our services at Eastbourne then 81% of over 65 year olds can access one of the four hospitals we identified by car within 30 minutes.

## Index of Multiple Deprivation (IMD) and Health IMD

The IMD combines a number of indicators that cover a range of economic, social and housing issues to give a single deprivation score. It allows different areas to be ranked and measured according to their level of deprivation. The IMD 2007 score is based on 38 indicators grouped in seven domains: income; employment; health deprivation and disability; education, skills and training; barriers to housing and services; crime; and living environment. Each domain's contribution to the overall score is weighted differently, with income and employment deprivation weighted the most. Health IMD is a sub set of IMD. The health domain combines four indicators about a range of health issues to give an overall score for the level of health deprivation experienced in a small area. The indicators used in this domain are: Years of Potential Life Lost (YPLL); Comparative Illness and Disability Ratio; Measures of acute morbidity, derived from Hospital Episode

Statistics; The proportion of adults under 60 suffering from mood or anxiety disorders based on prescribing, suicide mortality rate and health benefits data.

### Index of Multiple Deprivation and travel times by car

Total numbers of deprived population that can reach one of Eastbourne (DGH), Hastings (Conquest), Brighton RSCH) or Tunbridge Wells (Pembury) in 30 minutes by car	IMD	Health IMD
Current configuration	105,003	107,461
If services were sited at Conquest	74,055	69,702
If services were sited at Eastbourne DGH	54,570	54,989

Top 20% most deprived population that can reach one of Eastbourne (DGH), Hastings (Conquest), Brighton (RSCH) or Tunbridge Wells (Pembury) in 30 minutes by car	IMD	Health IMD
Current configuration	99%	100%
If services were sited at Conquest	70%	65%
If services were sited at Eastbourne DGH	51%	51%

For those that have access to a car:

- The data tells us that currently 99% of the most deprived population in East Sussex can access one of the four hospitals we identified within 30 minutes by car.
- The data tells us that if we single site our services at Hastings then 70% of the most deprived population in East Sussex can access one of the four hospitals we identified within 30 minutes by car.
- The data tells us that if we single site our services at Eastbourne then 51% of the most deprived population in East Sussex can access one of the four hospitals we identified within 30 minutes by car.

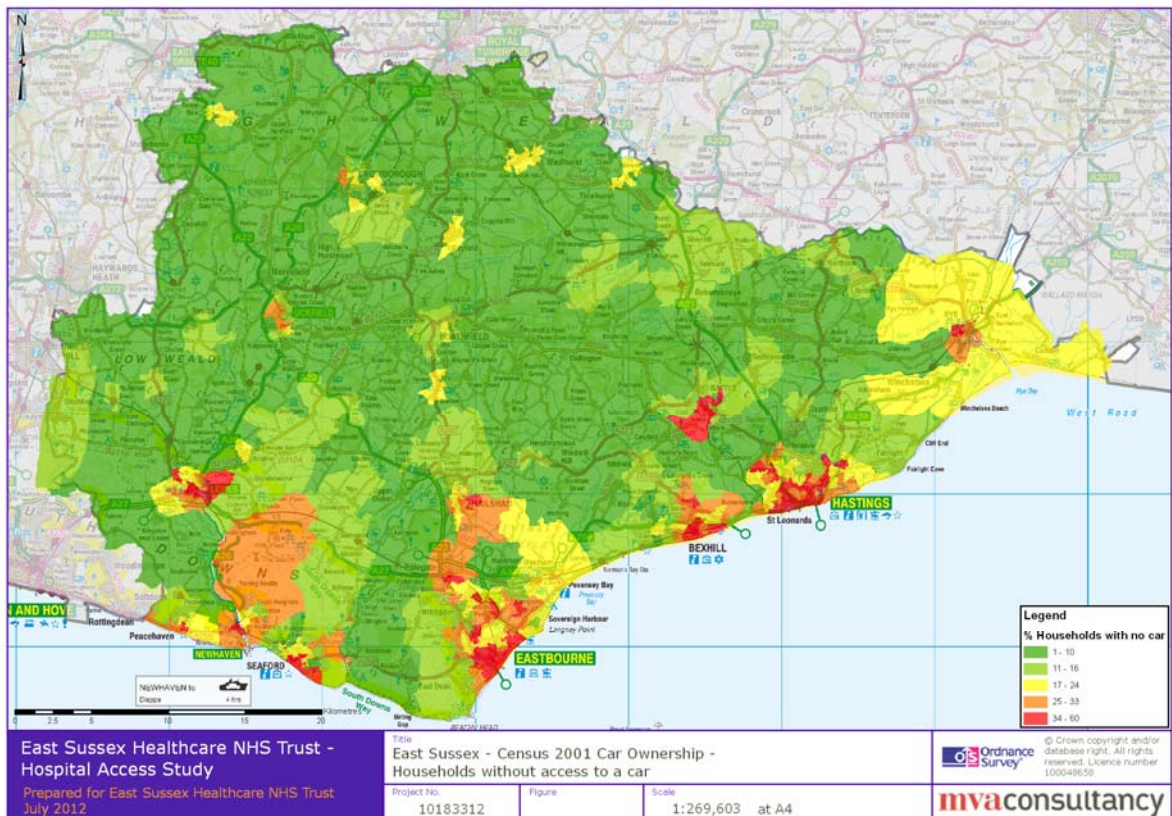
### Car ownership threshold travel times

Households in East Sussex, that have access to a car, that can reach one of Eastbourne (DGH), Hastings (Conquest), Brighton (RSCH) or Tunbridge Wells (Pembury) in 30 minutes by car	
Current configuration	210,739
If services were sited at Conquest	148,755
If services were sited at Eastbourne DGH	165,782

% of households in East Sussex, <b>that have access to a car</b> , that can reach one of Eastbourne (DGH), Hastings (Conquest), Brighton (RSCH) or Tunbridge Wells (Pembury) in 30 minutes by car	
Current configuration	98%
If services were sited at Conquest- Hasting	69%
If services were sited at Eastbourne DGH	77%

- The data tells us that currently 98% of households in East Sussex **that have access a car** can travel to one of the four hospitals we identified within 30 minutes by car.
- The data tells us that if we single site our services at Hastings then 69% of households in East Sussex **that have access a car** can reach one of the four hospitals we identified within 30 minutes by car.
- The data tells us that if we single site our services at Eastbourne then 77% of households in East Sussex **that have access a car** can travel to one of the four hospitals we identified within 30 minutes by car.

**Map 1: This map** shows the % of households within East Sussex who do not have access to a car. The red areas identify where a higher % of households do not have access to a car.





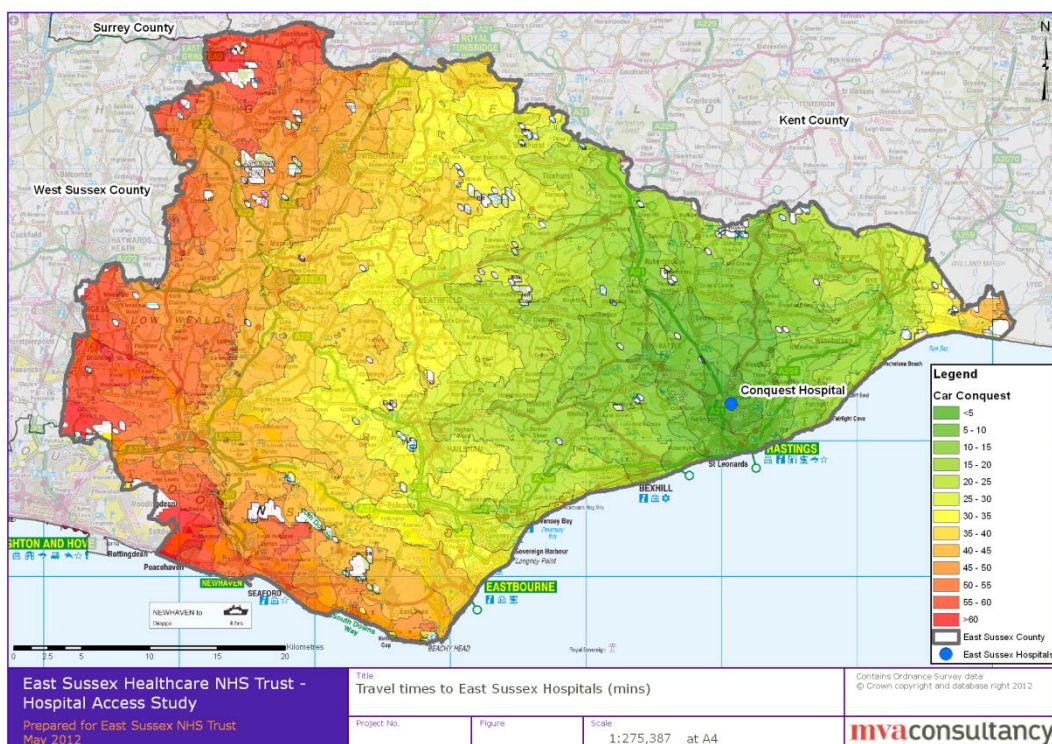
Households with and without access to a car in East Sussex	Number of households	No car	1 car	2+cars
Eastbourne	40,819	32%	46%	23%
Hastings	37,611	34%	44%	22%
Lewes	39,758	21%	46%	33%
Rother	38,218	21%	46%	33%
Wealden	58,214	14%	40%	46%
Total	214,620	23%	44%	32%

- The data tells us that between 66% and 86% of households in East Sussex have access to a car.
- The data tells us that the total % of households that do not have access to a car across East Sussex is 23%.

### Travel times by car to Eastbourne DGH and Conquest

The following maps show the likely travel times by car during the morning peak period to each site from all parts of East Sussex. Travel times by ambulance will be slightly shorter than this. The green areas identify a short travel time moving through to red which show a longer travel time. We do not have data for the un-coloured areas within the East Sussex boundaries.

**Map 2:** Travel times to Conquest by car 7am-9am



### Travel times if services are single sited at Conquest

If services are single sited at the Conquest, travel times are unchanged for patients and their visitors who live in Hastings and its environs to the north and east of Hastings and in the west as far as Bexhill.

For patients who live in and around Eastbourne, travel times could increase by up to 40 minutes if services are sited at Conquest.

For patients who live in Seaford, Newhaven and points north of this, travel times to Conquest might be an hour or more. Many of these patients will already be using hospitals in Brighton or Tunbridge Wells as Eastbourne is not their closest hospital. We do not have data for the un-coloured areas within the East Sussex boundaries.

**Map 3:** Travel times to Eastbourne DGH by car 7am-9am



### Travel times if services are single sited at Eastbourne DGH

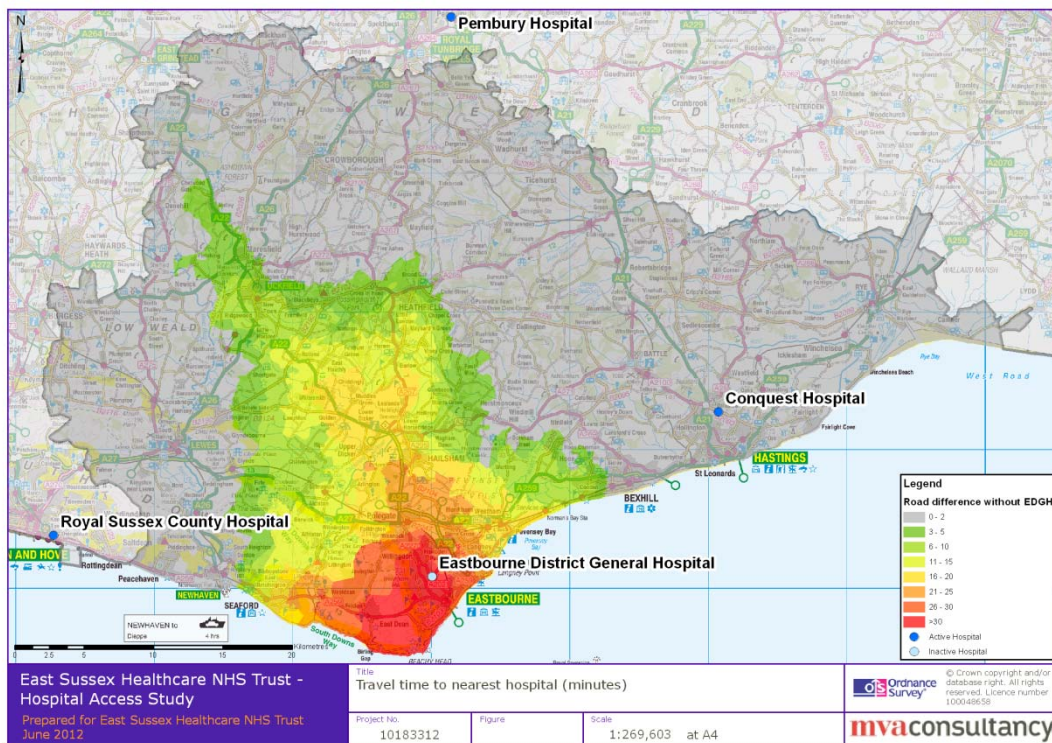
If services are single sited at Eastbourne DGH, travel times are unchanged for patients and their visitors who live in Eastbourne and its environs, to the north and west of Eastbourne and in Bexhill.

For patients who live in and around Hastings, travel times to Eastbourne DGH could be up to 50 minutes. This is the group of patients whose travel times to hospital would be most affected. From Hastings, alternative acute hospitals in Tunbridge Wells and Ashford would have similar travel times of 50 minutes.

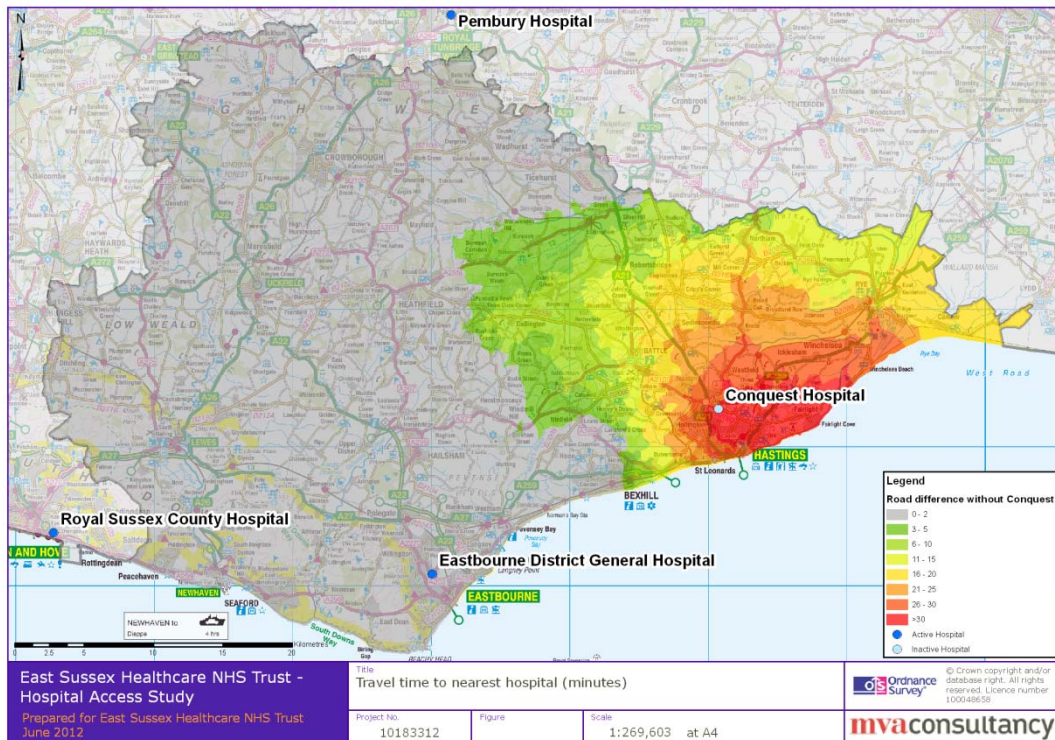
For patients who live in the far east of the county, travel times to Eastbourne DGH would be an hour or more. Some of these patients will already be using the hospital in Ashford.

For people living in the northern boundaries of the county it is likely they are already travelling to Tunbridge Wells as Eastbourne is not their closest hospital.

**Map 4:** This map shows the difference in travel time for patients requiring emergency or higher risk surgery, emergency or higher risk orthopaedics or stroke services by car if those services are not available at Eastbourne DGH. The red areas show that people living in these areas would greatest increase in travel time through to the grey area which would have no difference in travel time



**Map 5:** This map shows the difference in travel time for patients requiring emergency or higher risk surgery, emergency or higher risk orthopaedics or stroke services by car if those services are not available at Conquest. The red areas show that people living in these areas would greatest increase in travel time through to the grey area which would have no difference in travel time



#### 4.0 Travel time by public transport (based on 3pm -5pm)

##### Population and travel times

The tables below show the travel times for the East Sussex population for all ages and specifically for those over 65 years old.

Total number of East Sussex population that can reach one of Eastbourne (DGH), Hastings (Conquest), Brighton (RSCH) or Tunbridge Wells (Pembury) in 60 minutes by public transport	All ages	65+
Current configuration	431,430	102,482
If services were sited at Conquest	266,777	62,339
If services were sited at Eastbourne DGH	361,651	87,250

% of East Sussex population that can reach one of Eastbourne (DGH), Hastings (Conquest), Brighton (RSCH) or Tunbridge Wells (Pembury) in 60 minutes by public transport	All ages	65+
Current configuration	85%	86%
If services were sited at Conquest	54%	54%
If services were sited at Eastbourne DGH	72%	75%

- The data tells us that currently 86% of over 65 year olds can access one of the four hospitals we identified by public transport within 60 minutes.
- The data tells us that if we single site our services at Hastings then 54% of over 65 year olds can access one of the four hospitals we identified by public transport within 60 minutes.
- The data tells us that if we single site our services at Eastbourne then 75% of over 65 year olds can access one of the four hospitals we identified by public transport within 60 minutes.

##### Index of deprivation and travel times

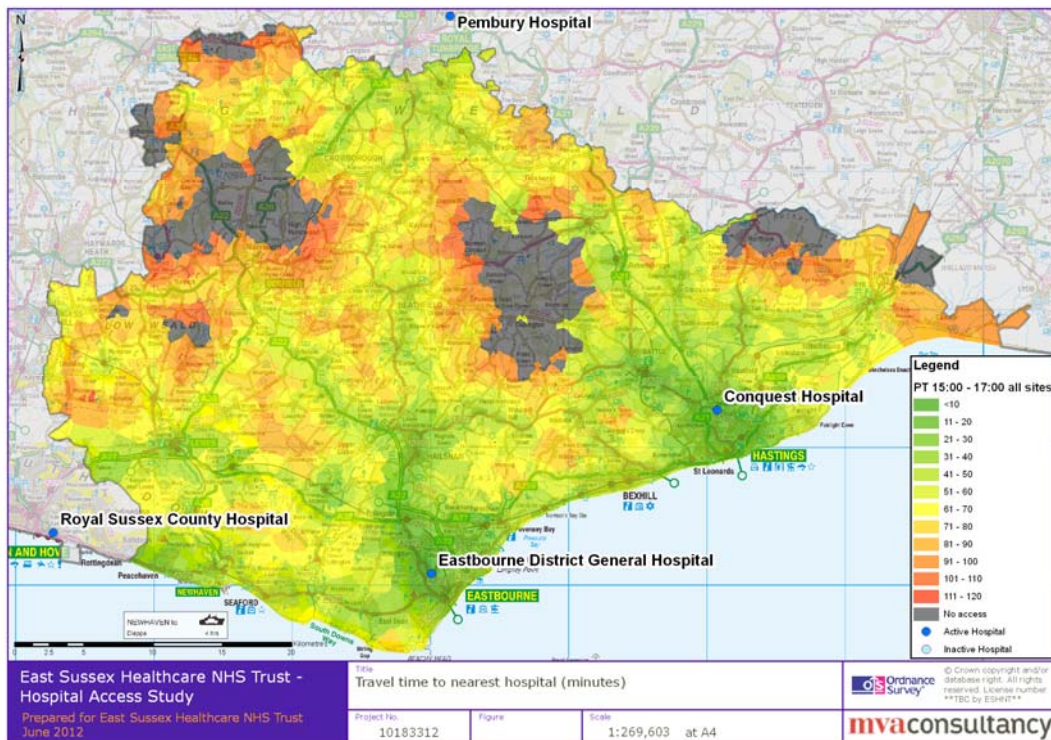
The following tables show the travel times and the impact on the population in terms of deprivation:

Top 20% most deprived population that can reach one of Eastbourne (DGH), Hastings (Conquest), Brighton (RSCH) or Tunbridge Wells (Pembury) in 60 minutes public transport	IMD	Health IMD
Current configuration	102,916	107,382
If services were sited at Conquest	69,288	55,668
If services were sited at Eastbourne DGH	87,903	79,824

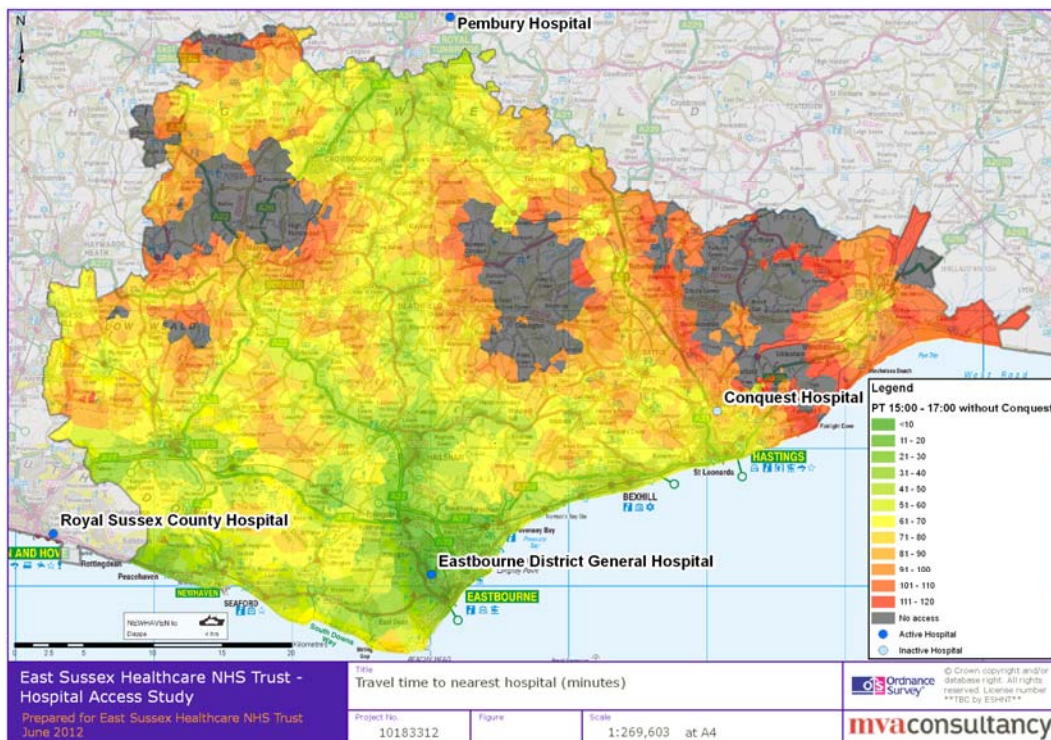
Top 20% most deprived population that can reach one of Eastbourne (DGH), Hastings (Conquest), Brighton (RSCH) or Tunbridge Wells (Pembury) in 60 minutes by public transport	IMD	Health IMD
Current configuration	97%	100%
If services were sited at Conquest	65%	52%
If services were sited at Eastbourne DGH	83%	74%

- The data tells us that currently 97% of the most deprived population in East Sussex can access one of the four hospitals we identified within 60 minutes by public transport.
- The data tells us that if we single site our services at Hastings then 65% of the most deprived population in East Sussex can access one of the four hospitals we identified within 60 minutes by public transport.
- The data tells us that if we single site our services at Eastbourne then 83% of the most deprived population in East Sussex can access one of the four hospitals we identified within 60 minutes by public transport.

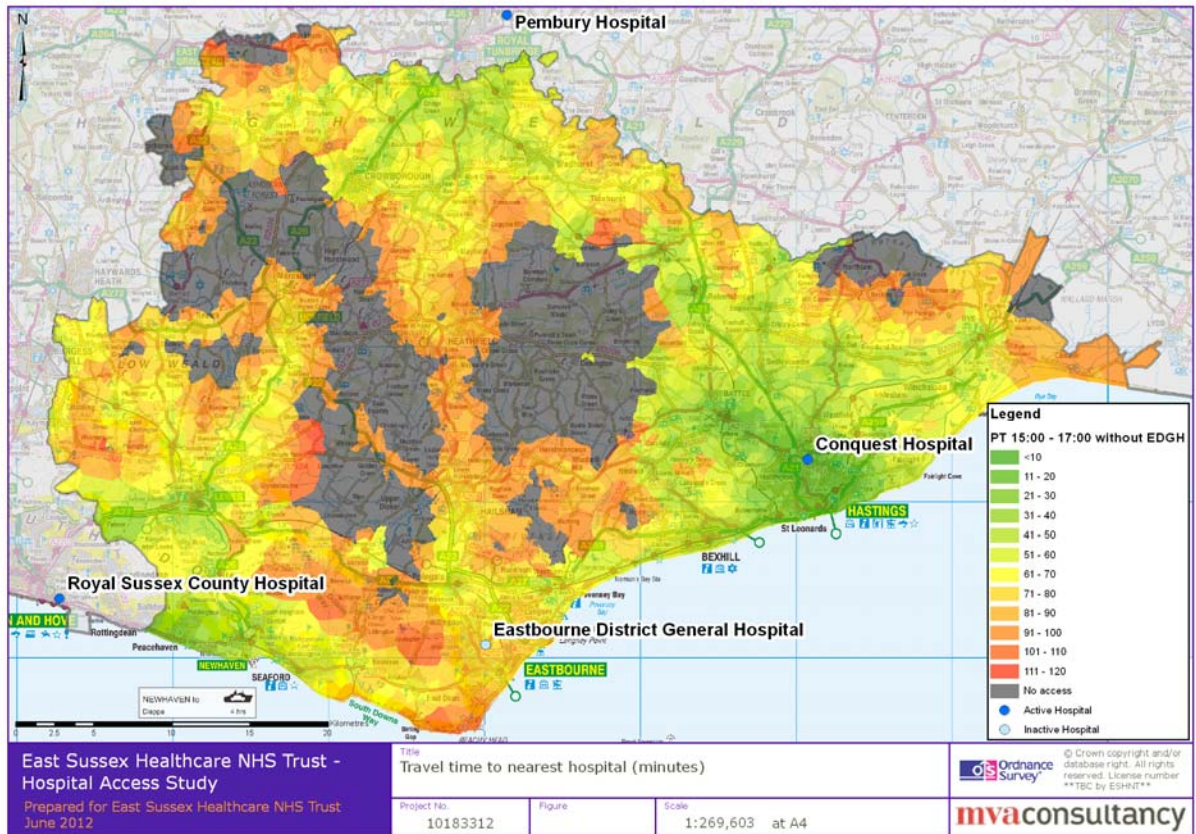
**Map 6:** This map shows access by minutes to Eastbourne DGH, Conquest, Brighton (RSCH) and Tunbridge Wells (Pembury) by public transport between 3pm and 5pm. There are some areas in the county that cannot access any of these 4 hospitals within two hours.



**Map 7:** This map shows how long it would take to travel by public transport between 3pm and 5pm to Eastbourne DGH, Brighton (RSCH) and Tunbridge Wells (Pembury) if services were not sited at Conquest.

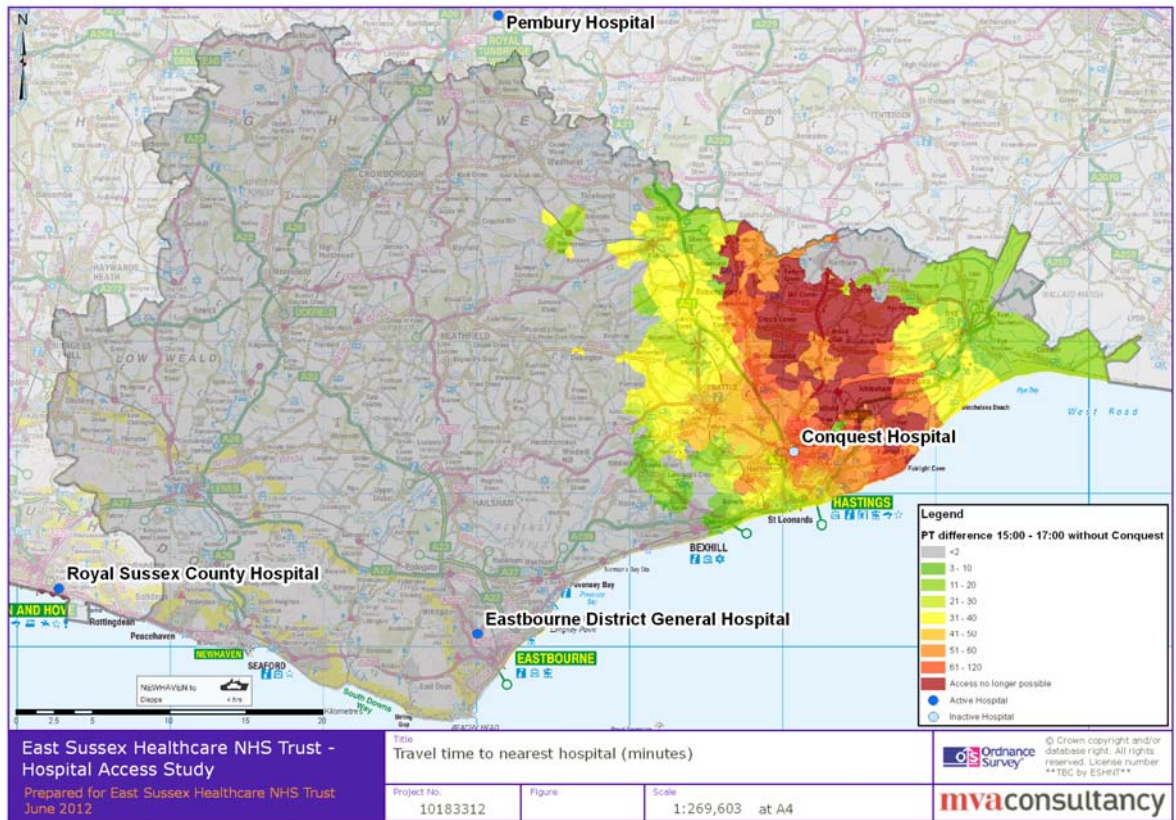


**Map 8:** This map shows how long it would take to travel by public transport between 3pm and 5pm to Conquest, Brighton (RSCH) and Tunbridge Wells (Pembury) if services were not sited at Eastbourne DGH.

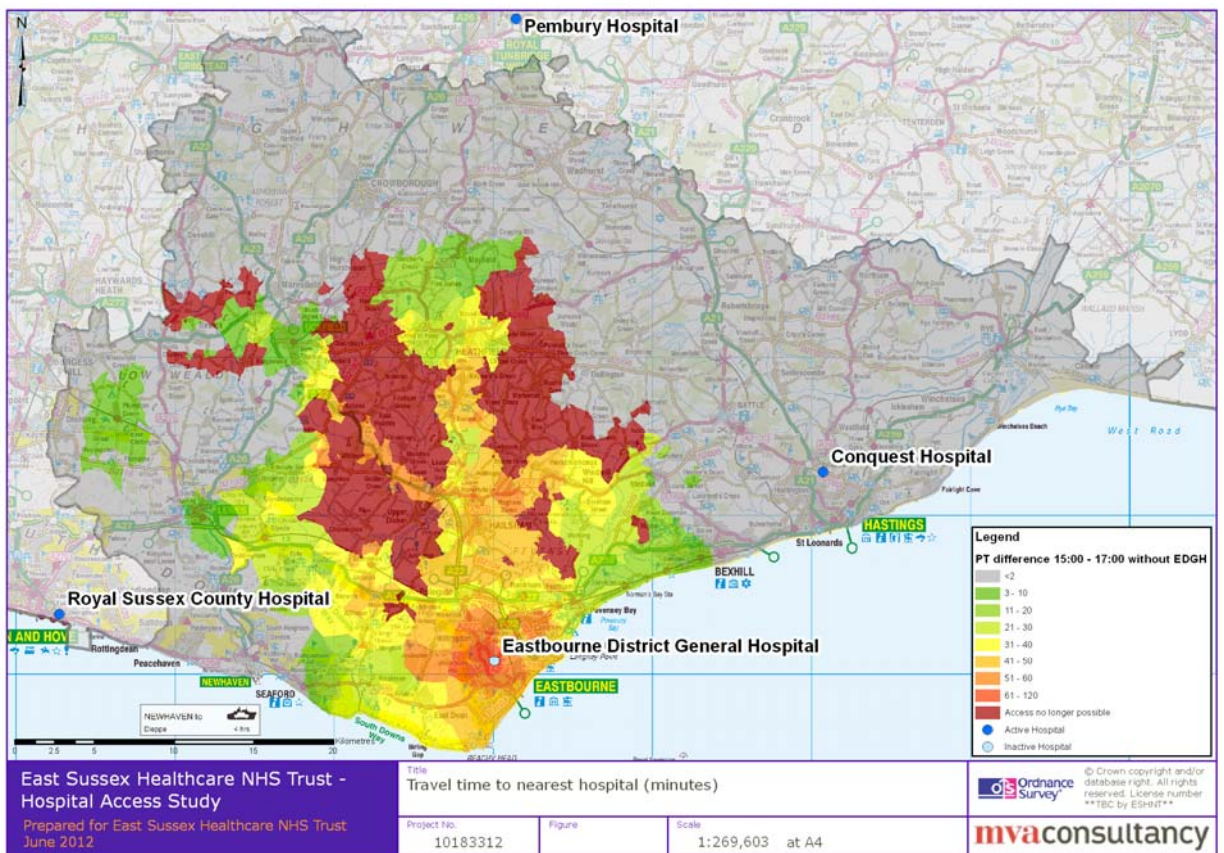




**Map 9:** This map shows the areas that would have an increased travel time or for whom travel by public transport would not be possible to hospitals in Tunbridge Wells, Brighton or Eastbourne. The grey areas show that travel times would be the same or up to a two minute increase, through to red areas where public transport would not be available.



**Map 10:** This map shows the areas that would have an increased travel time or for whom travel by public transport would not be possible to hospitals in Tunbridge Wells, Brighton or Hastings. The grey areas show that travel times would be the same or up to a two minute increase, through to red areas where access on public transport between 3pm and 5pm would not be possible.



**Conclusion:**

It is clear that travel times will increase if the proposed case for single siting for stroke, emergency and high risk general surgery and emergency and high risk orthopaedics is accepted. Travel times will increase for a small number of patients who require those specific services.

It is important to recognise that for a significant proportion of the East Sussex population neither Eastbourne DGH nor Conquest is their nearest hospital and they are likely to be accessing services in West Sussex, Kent and Brighton and Hove. When considering the additional travel time for patients this should be viewed as the additional time it would take to get to any hospital that would provide these services, not only those provided by East Sussex Healthcare Trust.

During the consultation will be continuing to explore the data provided by the independent consultancy and will be ensuring that the impact of change on travel times is recognised in the decision making process. We will continue to work with the Infrastructure and Development team in the Economy, Transport and Environment Department of ESCC to ensure that any mitigating actions can be discussed and where appropriate taken forward.

