Access to Transport

1 Key findings

Access to Transport in Cambridgeshire,

- Transport barriers are not experienced equally through the population and are impacted by social exclusion, living in rural areas, access to a car and the skills and confidence to use available transport.
- Transport is an enabler or gateway to services and interventions.
- Some areas have a high numbers of individuals with limiting conditions, no access to a car and with long trips to GPs or hospitals.
- In some areas there is higher proportion of A&E attendances brought in by ambulance, often in the outskirts of towns.
- Some areas have been highlighted as having several features or "flags" which indicate there may access to transport issues.
- Users often highlight the complexity in planning journeys, the length of time and expense in making journeys.
- An example of successful mapping and partnership work has been underway in Fenland, led by the District Council. This approach has enabled targeted work to address issues in transport and access to health care for local residents.
- Community transport provides an important contribution to journeys to health services especially hospital appointments.
- There are concerns about whether community transport can meet demands on their services.

Future focus on

- Ensuring a system-level perspective on health and transport planning.
- Use of local evidence and partnership work to improve access to health services, especially in wards with a high number of flags.
- Making clear and relevant transport information about local transport options easily available, such as when health appointments are booked.
- Exploration of additional bus provision or novel alternatives to increase non-private transport options, such as more effective use of school buses and taxis.

2 Introduction: What impact does access to transport have on health

2.1 Transport, social isolation and the wider determinants of health

There are a range of wider determinants of health that have an impact on individual health and wellbeing, and will be associated with the experience of social isolation, loneliness or social exclusion. These factors are depicted in the Dahlgren and Whitehead model of wider determinants[1].

Figure 1: Model of wider determinants of health & wellbeing

Source: Cambridgeshire Health and Wellbeing Strategy 2012-17[1]

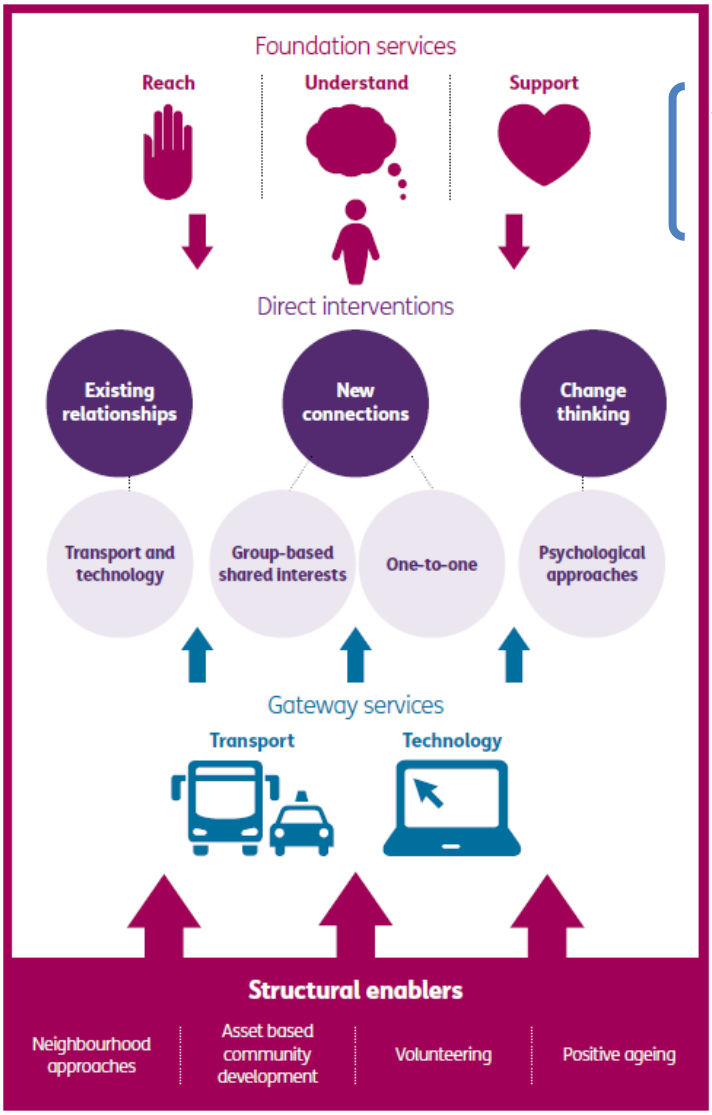
The availability and accessibility of means of transport is an important determinant of health and wellbeing as transport is fundamentally an enabler of access to services and social opportunities.

Nonetheless, even when transport is available and accessible, there may be other important access barriers that limit travel and mobility, and limit social participation.

There is a lack of strong evidence for a direct association between an absence of transport options and increased levels social isolation. The importance of transport links for ensuring quality of life and preventing loneliness is frequently and very highly cited in qualitative evidence on the views of vulnerable groups, including those who may have social exclusion characteristics. The importance of transport locally is advocated by many Cambridgeshire residents. This includes participants within a focus group on transport drawn from across the County Council-funded partnership boards and facilitated by Cambridgeshire Alliance for Independent Living.

A recent report drawing from expert opinion on 'Promising approaches to reducing loneliness and isolation in later life[2] characterised transport as a gateway service (Figure 1) – '*playing a critical role in directly enabling existing relationship and a vital supporting role in those interventions designed to support new social connections*'. The authors note that transport initiatives have not been evaluated in terms of loneliness and that there is a limited evidence base.

Figure 1 Model showing transport as a gateway service to interventions

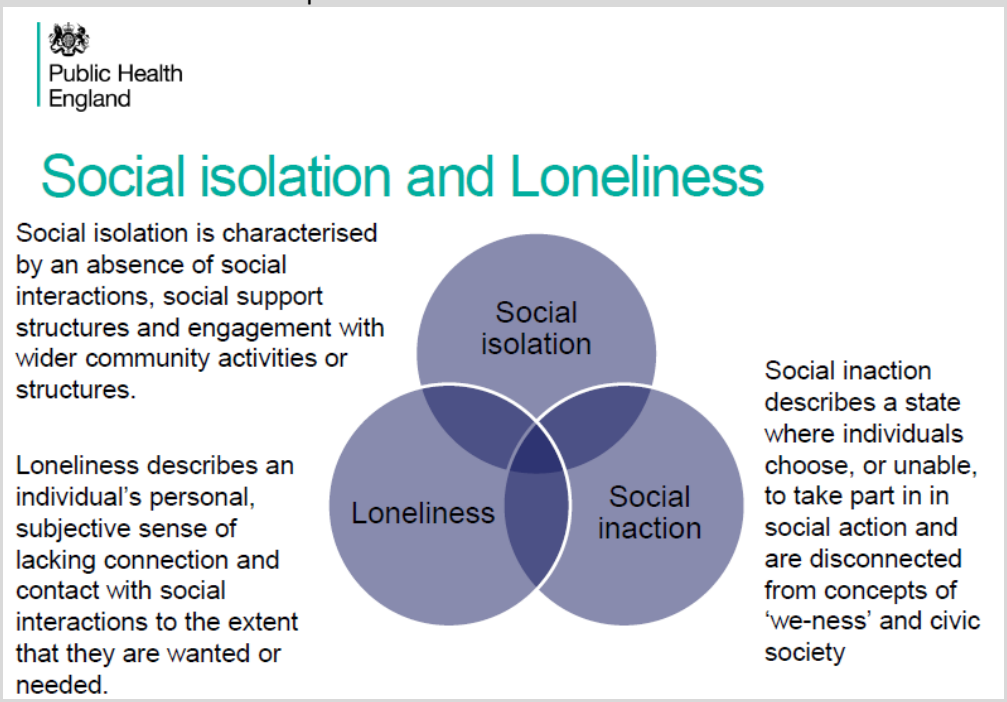


Transport is an enabler or gateway to services and interventions.

Figure 2: Social Isolation and Loneliness Fact Sheet

SOCIAL ISOLATION AND LONELINESS FACT SHEET

Social isolation, social inaction, and loneliness are interrelated but distinct concepts that describe detrimental social experiences:[3]



The converse positive social experiences are often described as **social capital, social inclusion, strong and supportive social networks,** and **social participation**, and **independence in later life** for an individual. At a wider societal level a positive description of social experience would include **neighbourliness, community engagement, cohesion and resilience.**

There are some common risk factors for isolation, exclusion and loneliness including:[4]

- Personal circumstances eg socioeconomic status; age.
- Personal characteristics eg poor mental physical or mental health.
- Transitions and changes in life circumstances eg caring responsibilities; bereavement.

Social exclusion, isolation and loneliness are problems of considerable significance due to their adverse impacts on physical and mental health.[5] For example, a recent meta-analysis of 148 longitudinal studies estimated a 50% greater likelihood of survival for individuals with strong social ties; the health effect for those with poor social relationships and network was comparable to smoking 15 cigarettes a day.[6]

2.2 What factors make people vulnerable to transport barriers?

Transportation and travel provide the means to navigate the environment near and far, providing mobility and access to services and opportunities. There are multiple forms of access barriers', the factors or issues that make it more difficult to reach and use health and other key services explored extensively in the literature. These were included within the governmental 2003 Social Exclusion Unit report,[7] which identified five main barriers in accessing services:

1. The availability and physical accessibility of transport.
2. Cost of transport.
3. Services and activities located in inaccessible places.

4. Safety and security.
5. Travel horizons.

Some of these are non-transport factors that may also act as barriers in accessing services. For example, when considering how patients accessing primary care services, important factors include the availability of GPs, design of premises, home visits, number of appointments, waiting times, out of hours care, choice, and health beliefs and health literacy.[8]

This section of the Transport and Health JSNA will focus on the transport barriers – the availability of appropriate transport options and the accessibility of available transport options. It will also consider the factors that may mean an individual, household, or community, are particularly vulnerable to barriers associated with accessing and using transport, often described as 'transport disadvantage' including:

- Social exclusion
- Rurality
- Car dependency and driving cessation
- Transport knowledge and skills

2.2.1 Social exclusion

Social exclusion has been used as a paradigm to describe marginalisation, poverty and disadvantage, beyond the control of the excluded persons. Individuals and communities with lower incomes and socioeconomic status may be particularly vulnerable to transport and access barriers. A detailed report by the Social Exclusion Unit examined the links between social exclusion, transport and the location of key services.[9] The summary on the relationship between transport and social exclusion noted:

- People may not be able to access services as a **result** of social exclusion. For example, they may be restricted in their use of transport by low incomes, or because bus routes do not run to the right places. Age and disability can also stop people driving and using public transport.
- Problems with transport provision and the location of services can **reinforce** social exclusion. They can prevention people from accessing key local services or activities, such as jobs, learning, healthcare, food shopping or leisure. Problems can vary by type of area (for example urban or rural) and for different groups of people, such as disabled people, older people or families with children.
- The effects of road traffic also **disproportionately impact on socially excluded areas and individuals** through pedestrian accidents, air pollution, noise and the effect on local communities of busy roads cutting through residential areas. (See Air Pollution Section)

Research has established that the relationship between social exclusion and transport is highly-context and person-specific. Therefore, not all socially excluded people are necessarily transport disadvantaged, and being transport disadvantaged does not always result in social exclusion.[10]

2.2.2 Rurality

There are particular challenges to transport provision in rural areas due to the dispersed population and the reduced cost effectiveness of public transport options. Although car ownership levels are higher in rural areas, there are a significant proportion of households

without access to a car. It was noted, in a governmental report on social exclusion, that those living in rural areas without a car face particularly acute problems. This is because as a result of high car use by others in the area, demand for public transport services has declined.[11]

The report on Rural Communities from the UK Government Environment, Food and Rural Affairs Committee, published in July 2013 addressed rural transport[12], noting that:

- People living in Villages and Dispersed areas travel 10,000 miles per year on average, compared to 6,400 miles per year in urban areas.
- On average, expenditure on transport accounts for 17.7% of total expenditure for rural residents compared with 14.5% for urban residents.

The number of households with good transport access to key services or work has declined for town/fringe areas from 86% of households in 2007 to 83% in 2011; over the same period the figures for villages decreased from 52% to 27% and for hamlet/isolated dwellings decreased from 41% to 29%.[13]

The Rural Services Network describe the pressures [on bus transport]: rural bus services are under severe financial pressure from the combined effect of fuel prices, reducing local authority revenue budgets, less reimbursement for concessionary fares and a 20% cut to Bus Service Operator Grant. Rural operators also say that 'red tape' is still increasing.[14]

Community transport has expanded in recent years for a number of reasons including cutbacks in mainstream public transport because of budget reductions in local government, a reduced commitment by the Health Service to provide non-emergency transport, an increased recognition of the role community transport can play, and changing demographics.

An international meta-synthesis of 12 qualitative studies by Brundisini and colleagues was published in September 2013.[15] They considered the experiences of patients with chronic disease living in rural and remote areas, in terms of accessing health care evaluating themes of geography, availability of health care professionals and rural culture. Transportation was one of the major barriers in access to health care services, with travelling to appointments associated with significant costs in several studies. One study also found that individuals with chronic diseases lacked access to or knowledge about the means for reaching health services.

The number of village households with good transport access to services almost halved between 2007-2011

2.2.3 Car Dependency and Driving Cessation

Car and van ownership, and their licensed use, offer significant opportunity and flexibility for travel for individuals and households across England. The National Travel survey for 2013 found that 64% of all trips in England were made by car (as a driver or passenger) and that 74% of all adults aged 17+ in England held a full car driving licence in 2013 – an estimated 32 million licence holders.[16] Car ownership data for Cambridgeshire for those with limiting long term illness is shown in Map 1.

There are increasing numbers of older drivers; this is due to ageing of existing licence holders rather than large numbers of newly qualified drivers in older age groups.[17] There are, therefore, more drivers who have been familiar with and reliant on using a car for the majority of their lives. It is acknowledged that for the majority of older drivers, driving cessation is a process, with an element of self-regulation including reducing distance travelled and driving journeys undertaken in adverse conditions or in the dark, before complete cessation.

Driving cessation in older drivers is usually gradual with reduction in trips and trip lengths.

Some conditions, such as a stroke, mean that individuals are suddenly unable to drive

The UK Driving and Vehicle Licensing Authority issue medical standards of fitness to drive, most recently updated in November 2014.[18] DVLA requires confirmation at the age of 70 that no medical disability is present, and thereafter licences are granted for three years. Some health conditions or change in health status may result in a driving license being suddenly revoked. For example, a person must not drive for one month following a transient ischaemic attack (TIA).[19]

Conditions that may preclude people of all ages from driving include:

- Neurological disorders
- Cardiovascular disorders
- Diabetes Mellitus
- Psychiatric Disorders
- Drug and Alcohol misuse and dependence
- Visual disorders
- Renal and Respiratory disorders

There is research evidence that those who anticipate, plan and give-up driving on a gradual basis experience less negative transitional effects than those who have to be told to give-up driving or do so on the spur of the moment. This transition will necessitate learning alternative ways of travelling. Expert opinion suggests that support for life beyond the car is needed at a younger age (while older people are driving) to help build solutions and confidence in transport use beyond the car and should involve emotional support, as well as practical support.[20]

Social trips may be more impacted by the loss of private transport

The evidence from driving cessation indicates that some journeys eg those that allow engagement in social activities, and with social networks, are potentially affected differently and more detrimentally by transportation barriers than travel to access key services. For example a study of older people in New Zealand on coping without a car found that: "*while 'serious' transport requirements may be provided for by alternative means, the 'discretionary' trips that contribute significantly to the quality of life may be lost when private transport is unavailable*".[21] Similarly research on driving cessation in Canada derived '*it is the ability to attend leisure activities rather than instrumental activities of daily living which is most limited*'.[22]

2.2.4 Transport knowledge and skills

Making use of public and community transport infrastructure requires knowledge and skills of finding information about the services that are available, and how to access and use them. Particular vulnerable groups have been identified by the Department for Transport who may benefit from 'travel training': training that aims to help people travel independently and without fear to work, to education, to other key services, or simply for leisure:

- People with learning difficulties of all ages, requiring individualised training appropriate to their situation for specific journeys or the whole network.
- People with disabilities, ranging from physical or cognitive disabilities to mental impairments, reduced sensorial abilities, again people of all ages.
- Children and young adults with Special Educational Needs (SEN).
- Children (often at/or approaching transitional stages).
- People who do not know how to and/or do not feel safe or confident using public transport.
- Older people who find themselves without the use of the car for the first time in many years, either through their own deteriorating health or the death of a spouse/partner that drove them.
- Ethnic minority groups, particularly when English is not the first language.
- Unemployed people who might not, for a number of reasons, be able to access and/or remain in employment.
- People who have started to use specialist transport services such as dial-a-ride.

By contrast, taxis offer a higher level of convenience and flexibility. However, those in lower socioeconomic groups use taxis more frequently, and spend a higher proportion of their budget on taxi journeys.[23]

As noted in the known transport barriers above, 'travel horizons' or willingness to travel is also a component of access. There is evidence that narrower travel horizons may limit social and employment opportunities, due to a lack of information or confidence about travelling a further distance, even where the services are available and affordable.[24]

One of the proposed solutions to supporting individuals with their transport needs is providing information, support and the opportunity to make arrangements online.

For example, 'choose and book' is a national scheme to allow patients to select and book their outpatient appointments at a time that is more convenient to them.[25] This allows individuals to select appointments that may be more suitable for their use of public transport, or the times that their concessionary pass is valid. Some GP practices also include the opportunity to book appointments online.

Another example is that one private company providing bus services in Cambridgeshire is planning to introduce an app to help people to plan and make bus journeys.

These examples both require sufficient digital literacy to benefit from the opportunities. Local residents will need to have access to appropriate equipment such as a smart phone, tablet, or computer, and have the skills and confidence to benefit from them. There is, therefore, a risk that those who are most vulnerable do not benefit from these approaches.

2.3 What are the health impacts of transport barriers to health services?

2.3.1 Impacts of barriers in accessing health care services

A literature search was undertaken to review the health impacts of transport barriers in accessing health services for routine appointments and health care for illnesses and long term conditions. There is very limited evidence available on transport barriers and health outcomes in England or the UK. The only available systematic review on transportation barriers and health care access was published by Syed and colleagues in 2013.[26] They reviewed 61 studies, all undertaken in the United States, and all including an assessment of transportation barriers and access barriers for primary care or chronic disease care. Care must be taken when generalising to the UK.

The studies comprised a wide range of possible measures of 'health care access' including utilisation of health services, attendance of appointments for treatment, late arrivals to an appointment, having a regular source of care, and access to medication. However, most studies were small and there is limited evidence linking transport barriers to health outcomes.

Two studies focussed on those parents of children who had missed health care appointments – of those with a history of missed appointments, about 50% identified transportation barriers as the primary reason.

Distance is not the only issue in accessing health services.

Five studies focussed on pharmacy and medication access; all reporting an inverse association between transport barriers and prescription fill rates. One very small study linked this to avoidable admissions, identifying that 67% of diabetic ketoacidosis admissions in a study of 56 admissions were related to stopping insulin. 50% of those who stopped insulin cited either lack of money for insulin or for transportation to collect their medicine.[27]

The systematic review found evidence that there is not a linear relationship between distance from health services on their access and utilisation. Although it is documented that rural patients may face problems with transport, there were different but important barriers in urban settings.

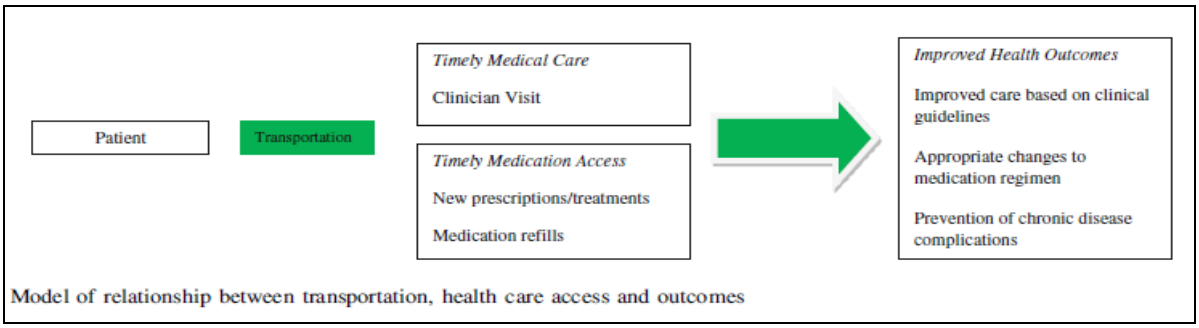
There is only weak evidence linking transport issues with health outcomes

The review identified evidence of demographic differences in transportation barriers. Even after controlling for socioeconomic status, access to health care was superior for white populations compared to ethnic minorities. An analysis of US national survey data and transportation statistics estimated that '3.6 million people do not obtain medical care due to transportation barriers. These individuals were more likely to be older, poorer, less educated, female and from an ethnic minority. Individuals carrying the highest burden of disease also faced the greatest burden of transportation barriers.[28] The review of ethnic groups concluded that 'individuals carrying the highest burden of disease also faced this greatest burden of transportation barriers'.

Of further interest were the findings from natural experiments eg where strikes or changes in funding disrupted travel, and which showed a variable impact on visits to doctors or nurses, or on the use of community clinics versus hospital clinics and emergency departments. This might be interpreted that not all appointments and attendances at health services were viewed as equivalent and equal by patients, and alternative solutions to transportation barriers may be attempted for certain types of appointments.

As a result of the findings from across the studies, the researchers developed a model to portray the relationship between transport and health outcomes (Figure 3). However, there is not comprehensive evidence presented for each of the links and elements within the model.

Figure 3: Model of potential relationship between transportation, health care access and outcomes



Model of relationship between transportation, health care access and outcomes

The individual studies considered within the systematic review highlight some of the factors that lessen transport disadvantage, for example – holding a driver's license or knowing someone who regularly provides lifts to a family member, which was found to be associated with utilisation of health services in the rural Appalachians.[29]

Previous travel patterns in reaching health services may also prove informative; a study of caregivers at a child health clinic in Texas found that the strongest predictors of non-attendance included 'not using a car to travel to the last kept appointment; and not keeping an appointment in the past due to transportation problems'.[30]

2.3.2 Impacts of transport barriers on quality of life for patients and carers

Transport barriers may have a detrimental impact on quality of life for patients and carers, and wider wellbeing indicators for a range of reasons, including:

- Time and stress involved in arranging transport.
- Time and stress involved in making the journey.
- Cost implications of travel as a proportion of the household budget.
- Impact of transport barriers on wider wellbeing including as a factor in social isolation.

A Centre for Health Economics study from 2010 considered hospital car parking and the impact of access costs.[31] Travel costs (including parking charges) for a course of treatment ranged from £60 to £400. Although there was a variety of methodologies in estimating time costs, four to five hours was often cited as the overall time involved in attending an outpatient appointment. The highest costs were incurred by those attending regularly for courses of treatment, and those living furthest from the health care setting. For patients

with chronic conditions that affected their ability to work, their reduced income amplified the burden of access costs.

Of note, is the burden of stress and anxiety that was associated with using the hospital car park. Difficulties with parking – time spent queuing for a space, finding the correct change – were commonly cited as stressful and negative events for patients. The study concluded that the stress caused by hospital parking is largely avoidable.

3 Local data: Where do people with 'transport disadvantage' live in Cambridgeshire and how are they accessing health care services?

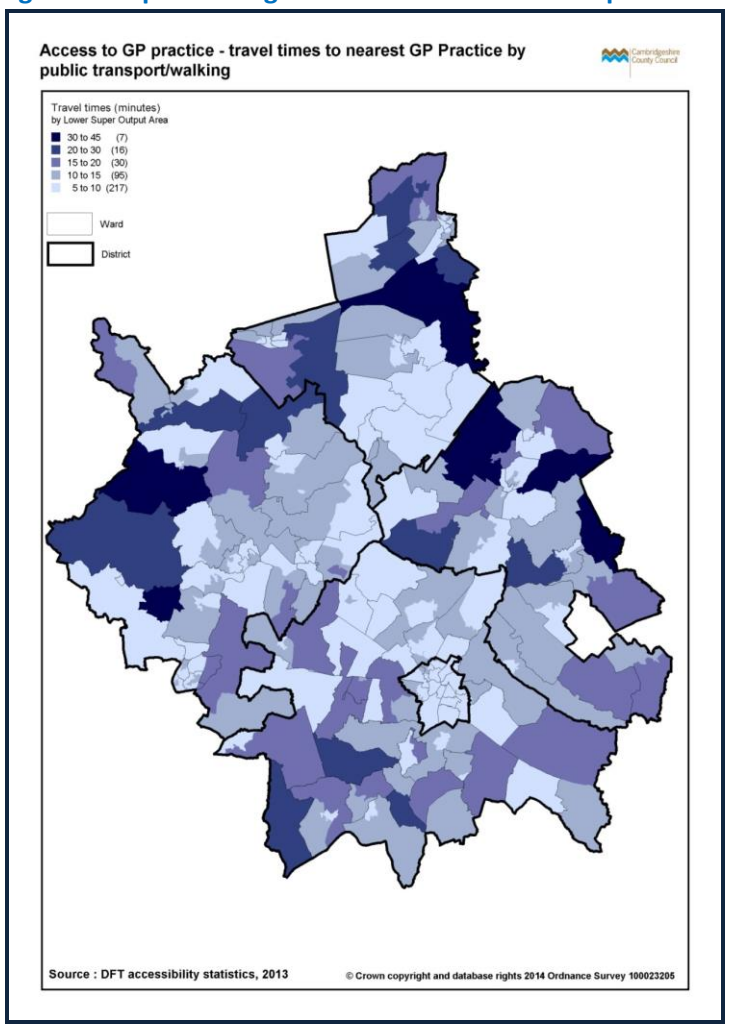
3.1 Distance to key health services by car and public transport

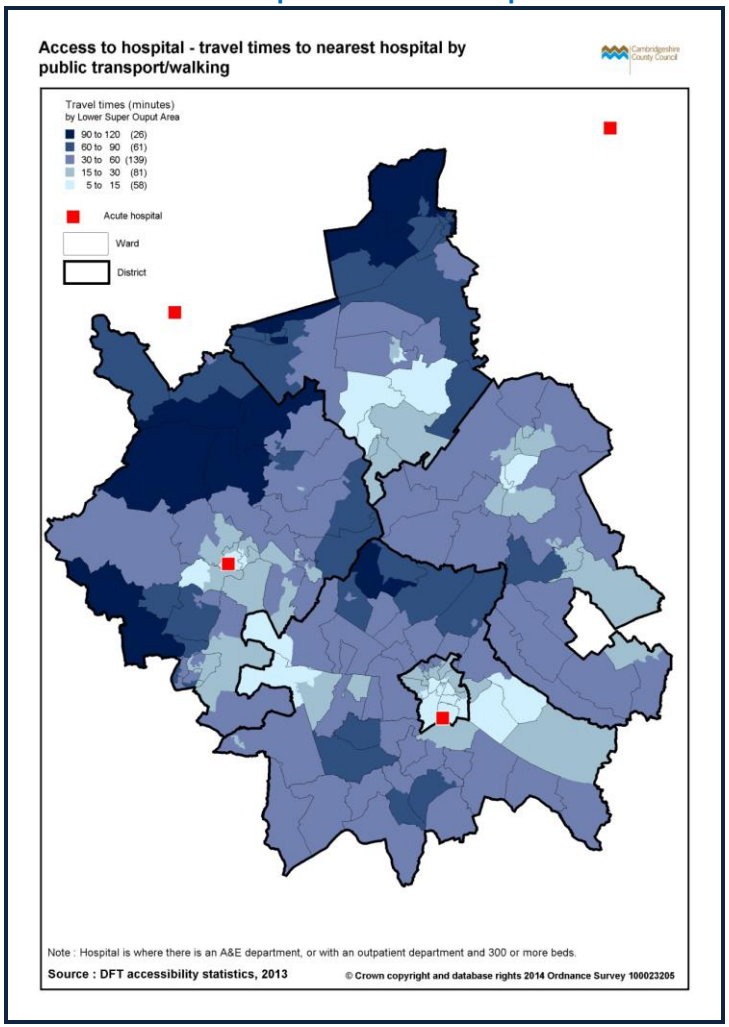
The Department for Transport has provided estimates of travel time to key services in 2013 by public transport/walking. The statistics are based on the calculation of theoretical journey times, they are not based on real journeys. They are, however, based on actual public transport times, and average traffic speeds on the road network.

The maps in Figure 4 show that there is an area between Wisbech and March in Fenland, several areas to the east of East Cambridgeshire and several areas to the west of Huntingdonshire that have poorer access to GP practices than other areas in Cambridgeshire. In general, central and south Cambridgeshire have relatively good access to GPs.

In general, areas to the north of Fenland, north and south-west of Huntingdonshire and the north of South Cambridgeshire have relatively poor access to hospital by public transport/walking.

Figure 4 Maps showing travel times to GP and hospitals based on estimates from Department for Transport



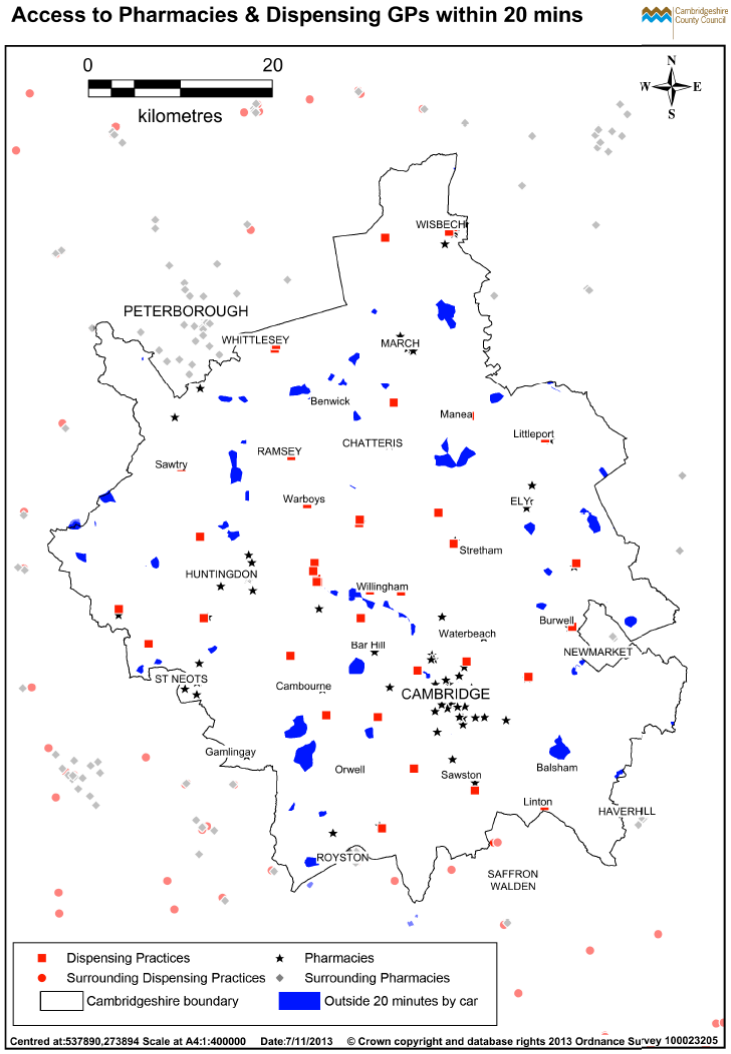


Access to pharmacies

The 2014 Pharmacy Needs Assessment reported good access to pharmacies in Cambridgeshire (Pharmacy Needs Assessment, PNA 2014) with estimates that only 0.02% of the population or 67 postal addresses in Cambridgeshire are more than 20 minutes away from a pharmacy or dispensing surgery by car.

Home delivery services can help to provide medications to those who do not have access to a car or who are unable to use public transport. Of those completing the questionnaire, 62 pharmacies (63.9%) and 13 dispensing GP practices (34.2%) reported that they provide free delivery services to their patients. In addition, some providers deliver to specific patient groups and/or specific regions, some for free and others for a charge. In total, 78 pharmacies (80.4%) and 23 dispensing GP practices (60.5%) have some form of delivery service in operation (PNA 2014), though this may not be to someone's home.

Map 1: Access to Pharmacies and Dispensing GPs within 20 minutes



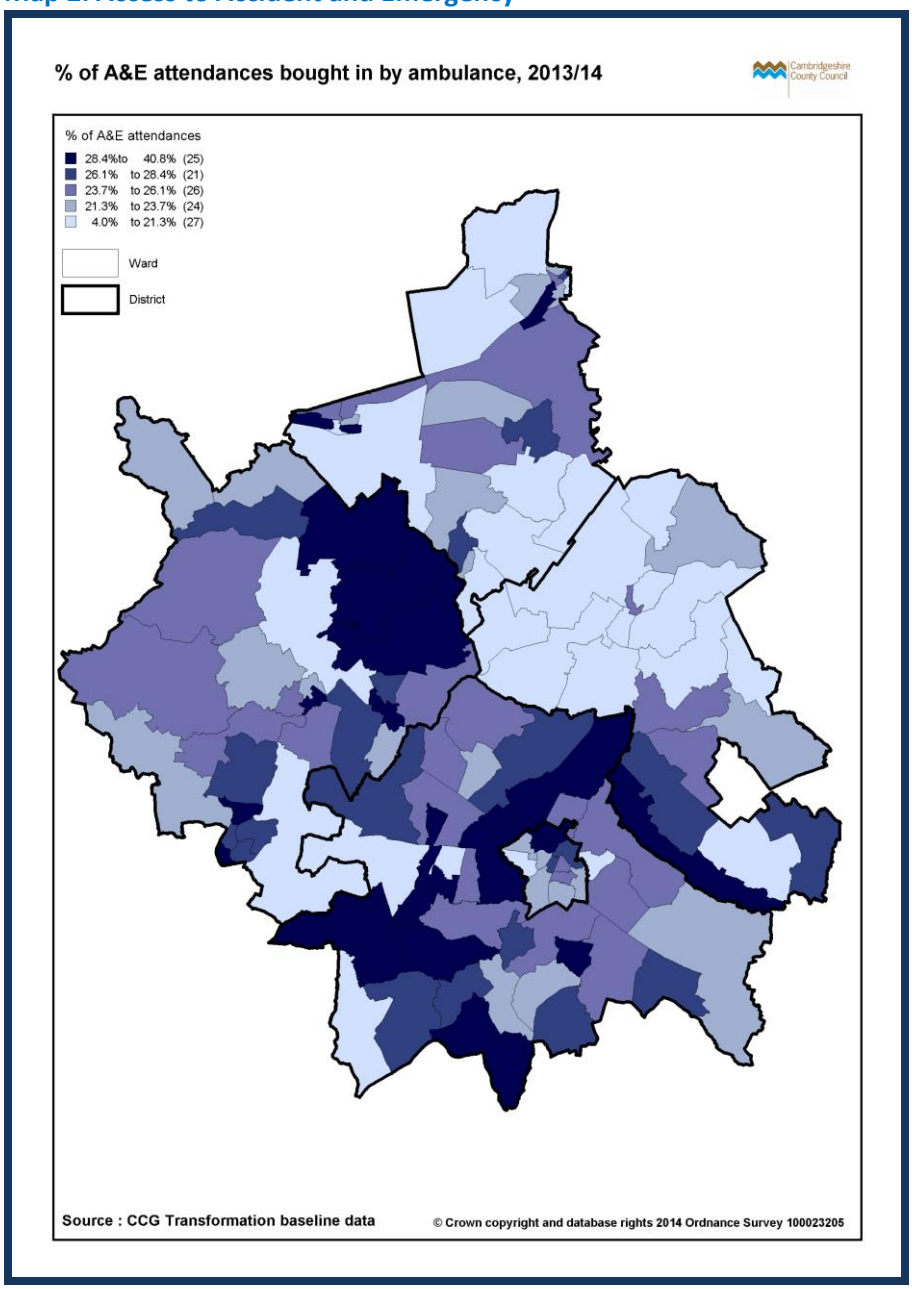
3.2 Access to Accident and Emergency

The map below shows the percentage of A&E attendances in 2013/14 that were bought into hospital by ambulance across Cambridgeshire. As can be seen the higher proportions are to the South of Cambridgeshire, most notably to the north-east of Huntingdonshire, the west

of South Cambridgeshire and the outskirts of Cambridge City. The data include minor injuries units ie North Cambridgeshire Hospital and Doddington in Fenland and Princess of Wales in Ely.

Multiple factors could affect the proportion of patients attending A&E by ambulance; one of which may be lack of access to transport in an emergency health situation.

Map 2: Access to Accident and Emergency



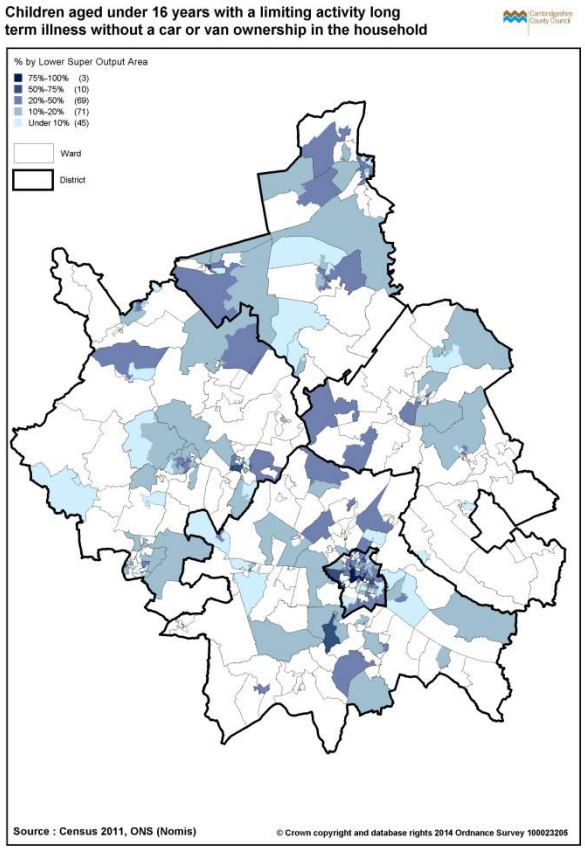
3.3 Access to car/van for people with a limiting activity long term illness

Map 3 show the proportions of children, working age adults and older people who have a limiting long activity long term illness and who do not have access to a car/van within their household from the 2011 Census.

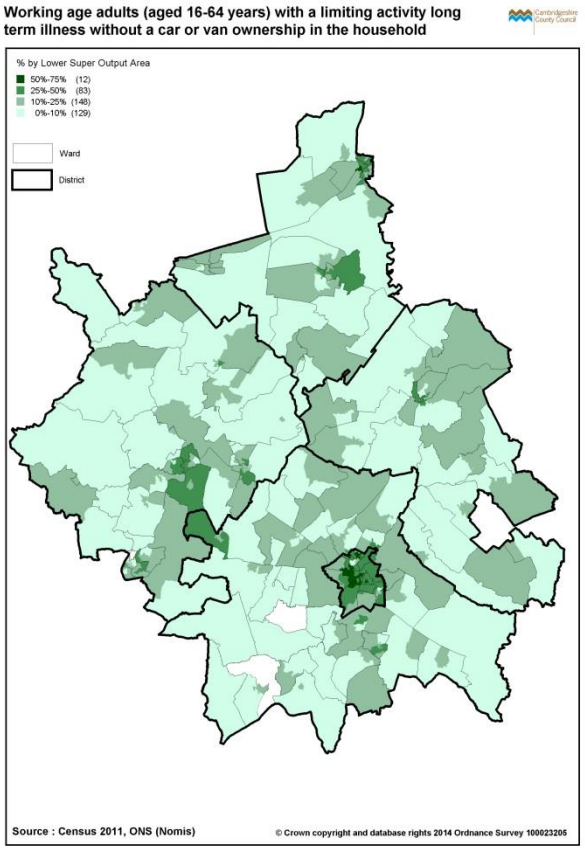
The pattern differs by each population and is more apparently disperse in the older people population ie there are small pockets of areas all over the county where older people have a long term illness and have no access to a car/van. Cambridge has the highest proportions but overall car and van ownership is relatively low in the City.

Map 3: No access to car/van for people with a limiting activity long term illness, 2011

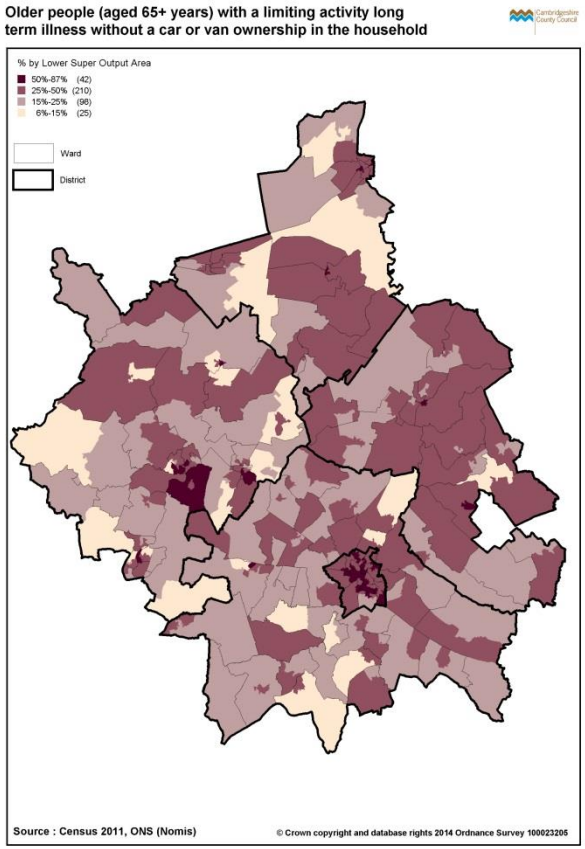
- Children (under 16 years old)



- Working age (16-64 years)



- Older people (65+ years)



3.4 Patterns of health demand in Cambridge by Ward

3.4.1 Ward level data and methods

Several health-related datasets have been analysed to examine patterns of accessibility to health and other services across Cambridgeshire. As a result a ward level workbook has been made available at www.cambridgeshireinsight.gov.uk that presents data for the following indicators:

1. Demography including population estimates, forecasts and deprivation.
2. Average time taken by public transport/walking to key services including GP practice, hospital, employment, primary school, secondary school, further education, food store, town centre.
3. Household access to car and van:
   - Overall
   - Children and young people with a limiting long term illness.
   - Adults of working age with a limiting long term illness.
   - Older people with a limiting long term illness.
4. Numbers, rates and proportional flows to local hospitals for:
   - Emergency admissions.
   - Elective inpatient admissions.
   - Day case attendances.
   - First outpatient attendances.
   - Did not attend first outpatient attendance.
   - A&E attendances.
   - A&E attendances brought in by ambulance.

These data can be used on an individual ward basis by councils, councillors, NHS and 3rd sector organisations providing information on where people are seeking hospital care, the number of individuals with health issues and no access to a car

Figure 5: Sample of information available in Access workbook online and an example (data for Huntingdon North)

ACCESS - WARD DATA

Top areas in Cambridge City

Top areas in rest of Cambridgeshire

	WARD	POPULATION [1] Total	Under 5 years Number	Under 5 years %	% 5-14	% 15-44	% 45-64	% 65-74	% 75-84	85+ years Number	85+ years %	DEPRIVATION [2] IMD score	ACCESS TO SERVICES (average travel time) Hospital	GP	Employment
			Flag Top 20%							Flag Top 20%		Flag 20% most deprived	Flag Longer than an hour	Flag Longer than 20 mins	Longer than 20 mins
Cambridge City	Abbey	10,180	790	7.8%	10.4%	51.3%	20.5%	4.7%	3.5%	180	1.8%	25.3	18	7	7
	Arbury	9,330	580	6.2%	8.8%	48.9%	21.5%	6.6%	5.4%	240	2.6%	20.8	30	8	8
	Castle	10,310	290	2.8%	3.9%	73.9%	11.2%	4.4%	2.7%	120	1.2%	7.5	27	7	5
	Cherry Hinton	9,020	660	7.3%	10.3%	43.1%	23.5%	8.0%	4.8%	270	3.0%	14.2	13	6	6
	Coleridge	9,660	510	5.3%	9.3%	53.2%	19.2%	6.0%	4.3%	260	2.7%	13.7	10	6	7
	East Chesterton	9,660	620	6.4%	9.9%	49.1%	20.6%	6.6%	4.5%	280	2.9%	23.3	24	7	7
	King's Hedges	9,420	660	7.0%	10.1%	49.0%	20.9%	6.7%	4.1%	200	2.1%	27.2	33	8	12
	Market	7,480	170	2.3%	3.5%	77.5%	9.9%	3.3%	2.3%	90	1.2%	11.4	11	5	5

Source: Analysis by Cambridgeshire County Council

Example of data available for a ward: Huntingdon North

- 640 children aged under five years.
- 40 people aged 85+ years.
- Most deprived quintile.
- 308 people with limiting long term health or disability with no access to car or van.
- There were 224 elective admissions, 740 day case admissions, 2884 outpatient attendances, 2061 A&E attendances, 727 emergency admissions .
- 9.9% of people did not attend their first outpatient appointment and gave no warning of their non-attendance .
- 92% of day case admissions were to hospitals in Peterborough or Cambridge.
- 92% of A&E attendances were to Hinchingbrooke Hospital.
- 21% of A&E attendance were brought in by ambulance.

This data is available for all wards in Cambridgeshire

3.4.2 Identification (or flagging) of areas that may have access to healthcare issues

As the data is complex, a flag system was also created to help identify wards that may potentially have problems with access to healthcare.

Following consultation with the Stakeholder group, it was decided to split the analysis into Cambridge City and the rest of Cambridgeshire as there were apparent differences. Flags have been created for the wards with highest numbers of people affected by each issue (rather than highest percentages), to provide an estimate of the scale of by transport disadvantage.

The flags that were used are:

- Top 20% of wards with a high number of under five year olds.
- Top 20% of wards with a high number of 85+ year olds.
- Top 20% most relatively deprived wards.
- A ward where it takes on average longer than an hour to get to the nearest hospital by public transport/walking.
- A ward where it takes on average longer than 20 minutes to get to the nearest GP practice by public transport/walking.
- Top 20% of wards with the highest number of people who have a limiting long term illness or disability and have no access to a car or van in their household.
- Top 20% of wards with the highest number of emergency admissions per elective admission.
- Top 20% of wards with the highest proportion of non-attendance for first outpatient appointments (where the patient gave no warning of non-attendance).
- Top 20% of wards with the highest proportions of A&E attendances that were bought in by ambulance.
- Top 20% of wards with the highest percentage of A&E attendances to emergency admissions.

It is important to note that transport and access issues are only one possible reason for a ward having a higher number of flags, and that there are many other factors that could influence these numbers, such as being able to obtain a GP appointment.

3.4.3 Wards with the highest number of flags in Cambridgeshire

The total number of flags per ward give an indication of areas that may potentially have higher access to healthcare issues. An example of the data available for each district is given below.

The areas that had the highest number of flags were:

Cambridge City

- King's Hedges
- Abbey

Rest of Cambridgeshire

- Fenland – March East
- Fenland - Medworth
- Fenland - Waterless
- Fenland – Hill
- Huntingdonshire – Huntingdon East
- Huntingdonshire – Huntingdon North
- Huntingdonshire - Ramsey
- Huntingdonshire – St Neots Priory Park

These areas tend to be amongst the most relatively deprived in Cambridgeshire.

These data are available for every ward in Cambridgeshire (available on www.cambridgeshireinsight.gov.uk). An example of the Access to Healthcare Flags is given for Fenland.

ACCESS - WARD DATA

Top areas in Cambridge City

Top areas in rest of Cambridgeshire

	WARD	Number of Access to Healthcare Flags
Fenland	Bassenhally	2
	Benwick, Coates and Eastrea	2
	Birch	1
	Clarkson	4
	Delph	1
	Doddington	1
	Elm and Christchurch	3
	Hill	5
	Kingsmoor	4
	Kirkgate	3
	Lattersey	3
	Manea	3
	March East	6
	March North	4
	March West	3
	Medworth	6
	Parson Drove and Wisbech St Mary	2
	Peckover	4
	Roman Bank	2
	Slade Lode	1
	St Andrews	2
	St Marys	3
	Staithe	4
	The Mills	0
	Waterlees	6
	Wenneye	1
	Wimblington	0

4 Local views: What are the transport barriers in accessing health care and services?

4.1 Consultation on subsidised bus services

As part of the equality impact assessment for the proposed changes to subsidised bus services in Cambridgeshire a public survey was carried out in 2011. The consultation highlighted the following issues:

- The number of responses was good enough to ensure statistically significant results.
- The majority of respondents (81.8%) did not support the County Council's decision to withdraw funding for subsidised bus services.
- The highest identified impact was on people with a disability being able to do essential shopping to a slightly lesser extent the same was true for people looking after a family and older people.
- People studying reported a high impact on being able to reach their place of education (although there were fewer people in this situation).
- Being able to access NHS services was also identified by many as an area of high impact.
- Whilst over 36.9% of those currently using the subsidised services said that there were no suitable alternatives for them to use 53% of people would look to some form of shared/paid transport either through sharing cars with friends, using taxis or through formal car sharing schemes or community transport.

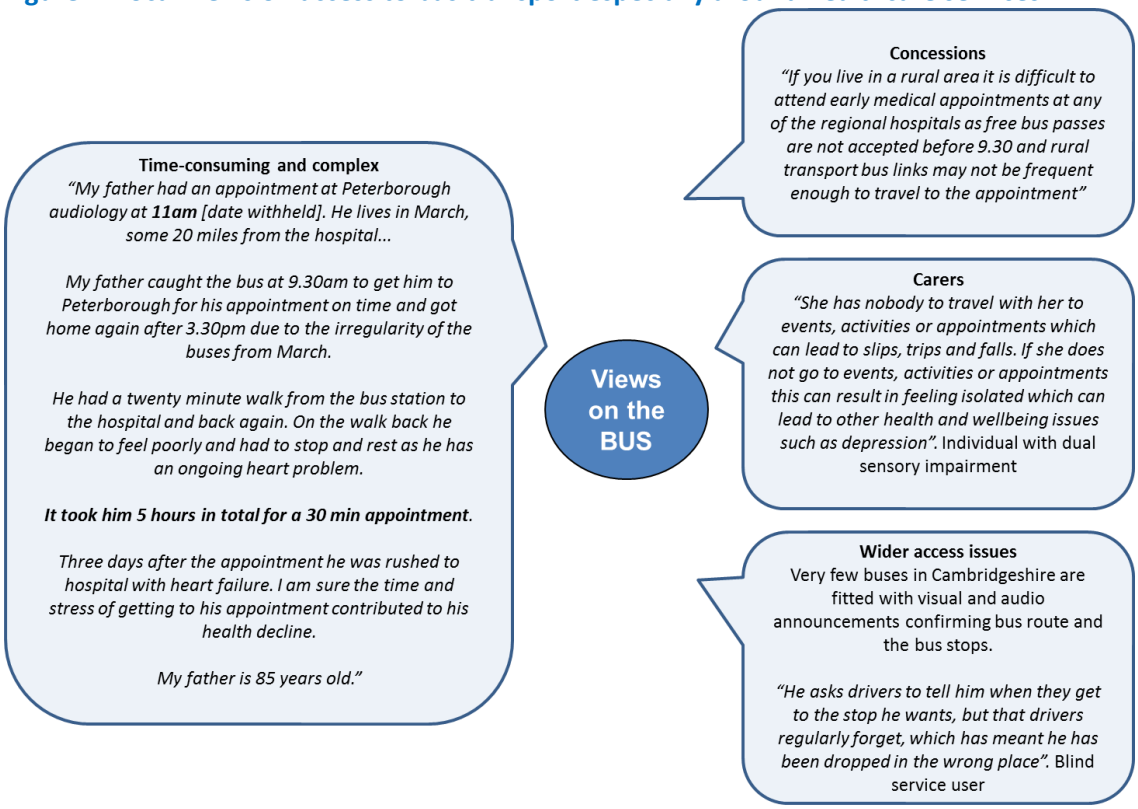
4.2 Case studies and narratives on accessing health services

Cambridgeshire Alliance for Independent Living is contracted by Cambridgeshire County Council to facilitate partnership boards, to bring together service users for participation and engagement with the local authority. Transport has been highlighted as a particular concern across the Carers', Older People, Learning Disabilities', and Physical Disabilities' and Sensory Impairment boards. A transport focus group was recently established with representatives from across the partnership boards. The transport focus group highlighted several key points in their report for this JSNA.

Figure 6: Photo of passenger using a community car scheme.

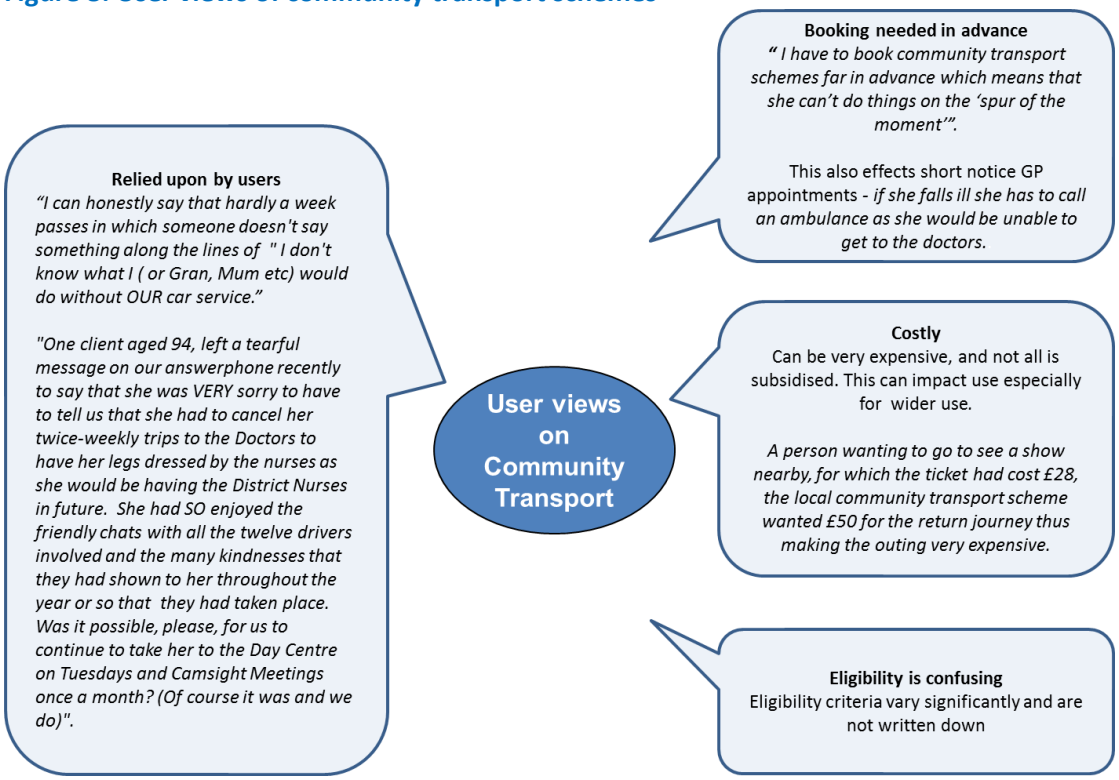
Source: Care Network Cambridgeshire.

Figure 7: Local views on access to bus transport especially around healthcare services



Community transport schemes play an important role in providing transport for residents in Cambridgeshire as they access services and opportunities. Figure 8 summarises some of the user views provided by the transport focus group and the Care Network drivers.

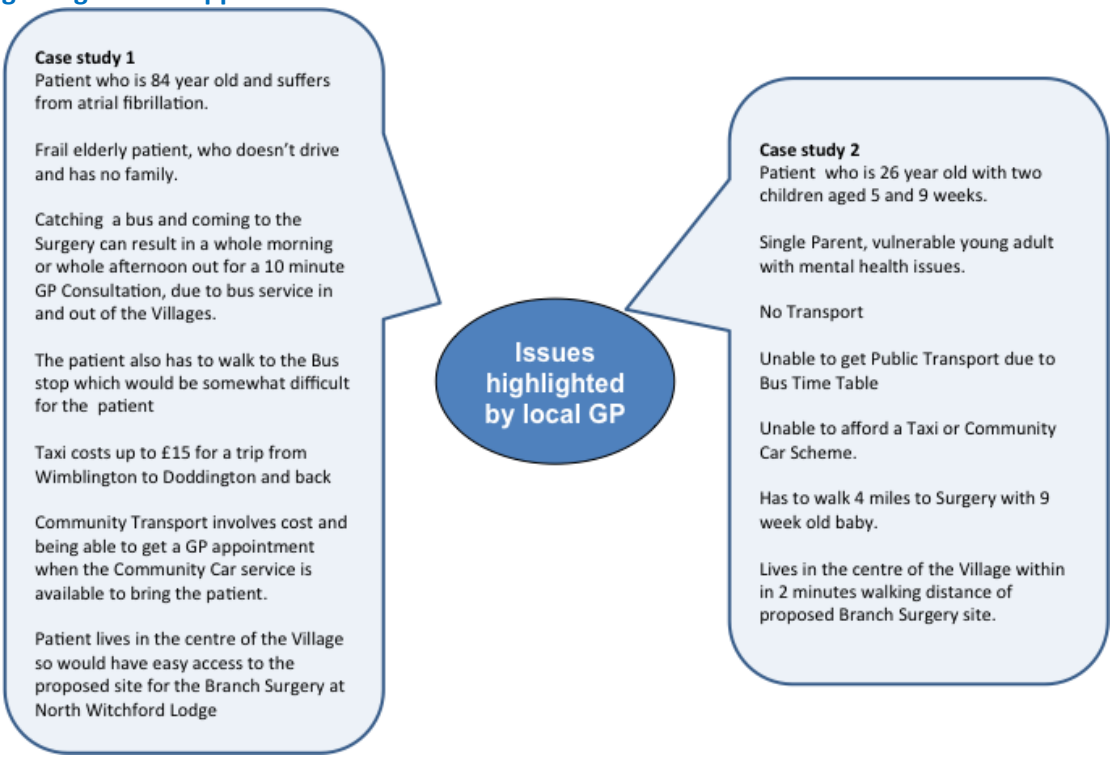
Figure 8: User views of community transport schemes



Access to hospital has been raised as problematic for people who rely on public transport. Since the new Peterborough City Hospital was opened in 2010, access by bus has become more difficult. Of the respondents to a consultation with residents on transport and access in Whittlesey, 43% found it difficult, very difficult or impossible to access Peterborough Hospital. Many residents also travel to Hinchingbrooke, Doddington and Stamford hospitals, which are also difficult journeys to make if you do not have access to a car.

Access to GPs can also be problematic for people, especially in rural areas where healthcare services are widely dispersed and where the public transport services can be infrequent (Figure 9).

Figure 9 Two case studies from a local GP highlighting the issues some patients face in getting to a GP appointment



Care Network Cambridgeshire is involved in facilitating and running schemes in areas of the county and conducts an annual survey of these groups to hear their views and concerns. 41 community car schemes responded to their 2014 survey – mainly comprising schemes running in South Cambridgeshire and Huntingdonshire. There were 475 volunteer drivers associated with these schemes, 60 of whom had joined in the previous year. Most of the schemes reported that the majority of their volunteers were over 65 years and live in a rural area or village themselves. The major concerns for the schemes highlighted in the survey were financial instability (11 responses) and insufficient helpers, volunteers or organisers (17 responses). Only one scheme reported a concern about the lack of people using the scheme.

This aligns with the perspectives of voluntary and community sector organisation stakeholders to this JSNA noting several points they have made in terms of volunteer community car schemes:

- There are many small scale schemes in Cambridgeshire.
- The coverage is not 100% across the County, although in some Districts is fairly comprehensive.
- Schemes have differing operating patterns and eligibility criteria.
- The smaller schemes are often relying on one or two volunteer drivers – they may be particularly feeling under pressure.
- Some schemes report concerns about recruitment of new volunteers.
- Some drivers report that they find the hospital trips particularly stressful, particularly the parking arrangements and getting caught with parking tickets.

Care Network spoke to a driver for one of these schemes and shared his story and perspective.

He is both the co-ordinator and driver of a busy social and medical car scheme in South Cambs. His drivers pride themselves on offering more than a journey. They take passengers to their appointments at GP surgeries and wait with them, they help them find their way to where they need to go for hospital appointments and liaise with staff to ensure they are they at the right time to pick them up and take them home again. Volunteers enjoy helping their community and the conversations they have with clients.

A big issue for the car scheme is parking and access to surgeries and Addenbrooke's. The roads around Addenbrooke's are often very busy, it can be hard to know how long to allow to get someone to an appointment on time. They have parking permits at Addenbrooke's but these sometimes go wrong and can be complex to sort out. GP surgeries have less and less space for parking, making it hard to take passengers in and wait with them.

The scheme also struggle to find new volunteers. This is made harder by the system for getting DBS checks and ID badges, which can be time-consuming - during which time some volunteers lose interest. The co-ordinators have less 'view' of this process now [it is organised by the County Council], meaning they can lose volunteers without realising, thinking they are still waiting for their badges.

The numbers of journey the scheme makes is always increasing, they know there might be cuts to the subsidies they get from the County Council which leads to uncertainty and anxiety about the sustainability of the scheme.

4.3 Regional travel for hospital services

Addenbrooke's (Cambridge University Hospitals' Foundation Trust) is a regional and supra-regional tertiary referral centre with populations travelling from outside Cambridgeshire for specialist health services. Those responsible for transport and travel planning decisions for Addenbrooke's, and the wider biomedical campus, are cognisant of the numbers and levels of out of area journeys and the demand on infrastructure including car parking, park and ride services, and other forms of public transport. Other local authorities, for example, colleagues from Norfolk County Council, are monitoring trends in their residents travelling to

Addenbrooke's and the means of transportation available and used to access health services.

There are significant time and financial costs incurred in travel for appointments and transport, and therefore some residents will be disproportionately affected. National evidence indicates that the majority of patients accept the necessity of traveling further distances for specialist services. Principles such as flexible appointment times (Choose and Book) with a preference for early afternoon appointments, and interventions to reduce the number of trips required for a course of treatment, are advocated by patients and service users; some of this may be mediated by increased patient choice.[32]

Data on the numbers of Cambridgeshire residents travelling to other major hospitals outside of Cambridgeshire is provided in the ward level data sheets (available on www.cambridgeshireinsight.gov.uk). It is not clear from the data available whether the hospital attended is due to necessity in accessing a particular specialist service or due to patient choice and preference.

4.3.1 Liver resection

A specific question was raised about the consequences of a decision to centralise liver metastases surgery to Addenbrooke's as part of the reconfiguration of liver resection services for Cambridgeshire, Norfolk and Suffolk. The service changes were considered by a Joint Health Overview and Scrutiny Committee raising concerns about transport and access issues.

As part of the analysis a patient travel survey was conducted on 152 cancer patients in July – September 2014, referred for liver metastases from hospitals across the East of England. The main findings were that:

- 88.9% of these cancer patients travel by car.
- No evidence that distance to travel alters the referral centre proportion of elderly patients.
- No difference in mean age of patients referred from different referral centres.

The provision for car travel was examined (including car parking, disabled spaces, costs, and park and ride services). Provision of public transport, and hospital and other forms of transport were considered, and the opportunities for financial assistance noted. Further considerations included the timing of clinics, with cancer patients priorities to early afternoon appointments, pre-clerking combined with the clinic visit, and day of surgery admission.

The Joint Health Overview and Scrutiny Committee recommendation number 8 was that Local Authority Health and Wellbeing Boards should explore innovative solutions to transport issues for patients and their families/carers who need to access specialised health care services. For Cambridgeshire this JSNA is part of that process.

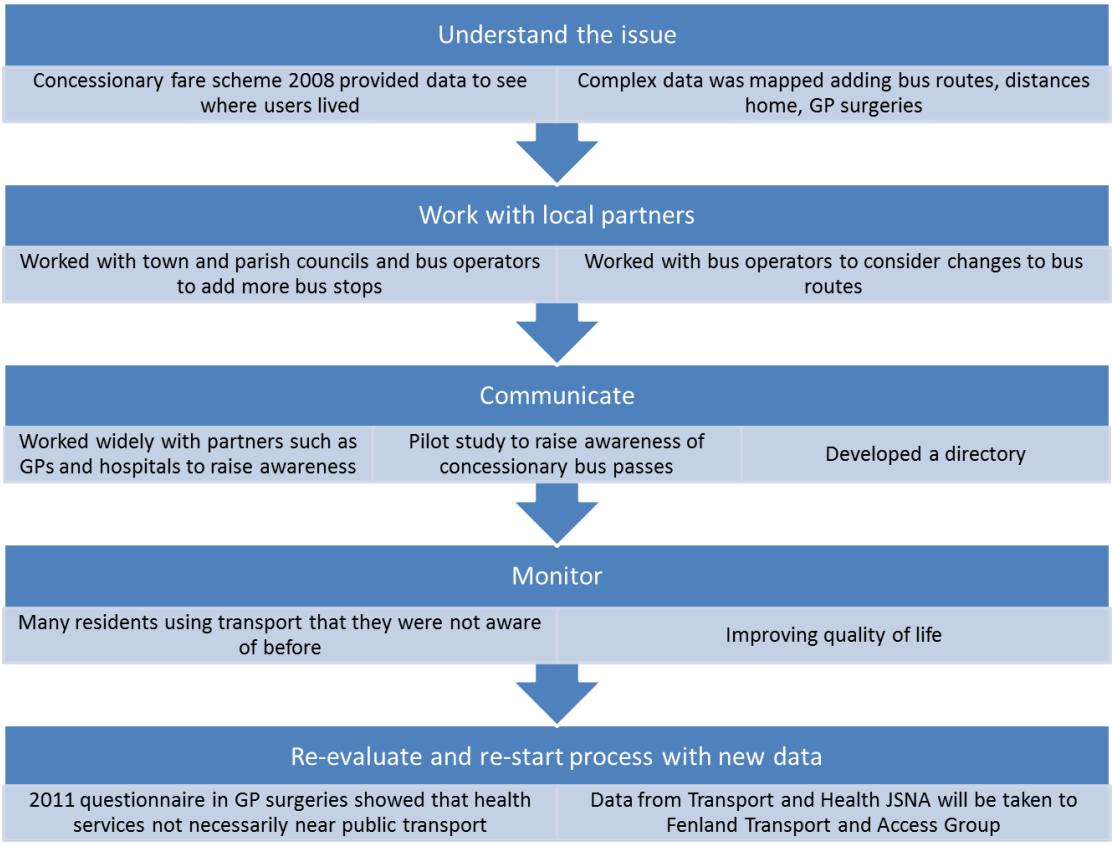
5 Addressing local need: What may help address transport to health services?

5.1 Effective interventions

5.1.1 Case study: mapping and improving transport in Fenland

Work has been underway at Fenland District Council using detailed mapping to review current patterns, and partnership working to improve transport and access to service (Figure 10).

Figure 10: Process used to improve transport in Fenland



The Fenland District Council transport development manager reported that "*Improving access to transport and enabling people to get to essential services and facilities including healthcare appointments is one of our key challenges. Even where public transport is available the service may be very limited and therefore may not enable residents to attend appointments*"

Their process of detailed mapping, working with partners such as town and parish councils, bus operators, GPs and hospitals and communication strategies has resulted in a successful uptake with partners and service users:

- "*Our local surgeries and hospitals now regularly phone or email to order additional copies of our printed material. They use the information to provide to their patients.*

This helps us to raise awareness amongst people we may not normally have the opportunity to meet"

- *"Many residents are now using transport services that they were not aware of before and now have an improved quality of life. Without the use of the maps it would not have been possible to provide information in this way"*

5.2 Current assets: What current transport is used to access health services?

5.2.1 Community transport

There are a range of forms and models of community transport provision. Several perspectives from the small community car schemes are described in Section 4.2.

The overview data (Table 1, Figure 11) from the district car schemes for 2013-14 shows that 53% of these journeys are made for health appointments – both GP and prescription trips, and appointments at the hospitals.

Table 1: District car scheme journey numbers

Type of Journey	Number	Percentage
Social Journeys	19032	47%
Medical Journeys	12936	32%
Hospital appointments	8019	20%
Hospital visits	204	1%
Total journeys	**40191**	**100%**

Figure 11: Percentage of district car scheme journeys by purpose

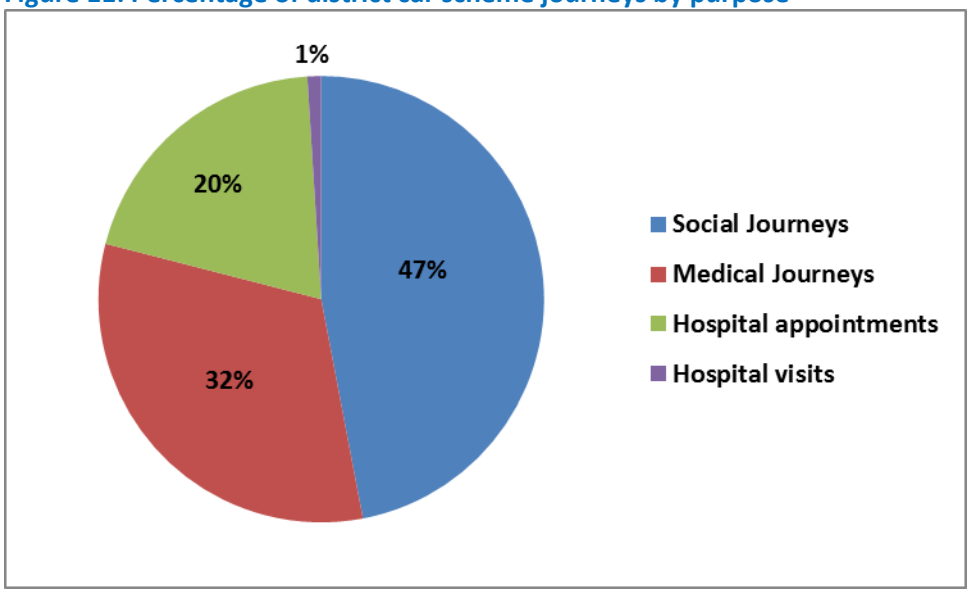


Table 2 shows the breakdown of the destination of the hospital journeys for each of the Districts in terms of numbers of journeys. Addenbrooke's is the destination for the largest number of trips.

Table 2: Number of trips to hospital by district car schemes 2013-14

	Addenbrooke's	Hinchingbrooke	Ely Princess Elizabeth	Kings Lynn (QE2)	Peterborough (Edith Cavell)	Papworth	Fulbourn	Wisbech (North Cambs)	Doddington	Other	Total Hospital journeys
East Cambs	664	49	326	0	0	2	0	0	0	151	1192
Fenland	82	246	7	511	487	60	2	527	575	39	2536
Hunts	97	601	0	0	300	55	0	1	0	20	1074
South Cambs	2737	42	20	0	0	62	29	0	0	327	3217
TOTALS	**3580**	**938**	**353**	**511**	**787**	**179**	**31**	**528**	**575**	**537**	**8019**

There are other models of community transport in operation locally, including the taxicard scheme, which support travel to access health services. In 2013-14 3575 trips were made by taxicard, of which 1001 (28%) were for health care. Table 3 shows the majority of these journeys were to primary and community/allied health care.

Table 3: Taxicard trips for health care, 2013-14

	Addenbrooke's	Hinchingbrooke	Papworth	GP / opticians/ other health related	Total health care related journeys
Number of journeys	450	4	6	541	1001

Additional local community transport assets include the 'Dial-a-ride' and 'Rural hoppas' schemes which provide an important role in transport for social outings, and shopping, trips that are relevant to wider health outcomes including social participation and nutritional status.

5.2.2 Hospital transport

Addenbrooke's Hospital patient transport service is responsible for about 160,000 patient trips each year. Transport requests are logged through the referring GP or through one of their call centres.

Current transport eligibility for patient transport for Addenbrooke's is considered in terms of any possible alternative arrangements (friend or relative, other transport schemes) and as per the medical conditions criteria on their application form:

Hospitals will where *possible*, book appointments to fit in with your public or private transport needs.	
****Please note you will be re-assessed at each attendance****	
Do you have any of the following conditions/medical needs?	☐
I have a mental heath problem/illness or severe mental impairment as a result of a learning disability	☐
The Patient has Alzheimers / Dementia / is confused	☐
I have great difficulty getting around because of disability in my legs (Temporary or permanent)	☐
I have a severe mobility problem as a result of heart, lung or breathing difficulties	☐
I have a severe eyesight problem either short or long term	☐
I have an uncontrolled illness(such as epilepsy/uncontrolled diabetic)	☐
I am elderly frail, with a clear medical condition causing the frailty	☐
I am having treatment which has physical side effects.(This might include some treatments for cancer)	☐
I am going for treatment and my doctors says I will not be able to go home on my own but I can get to the appointment on my own.(return journey only)	
I need to bring a child who has a physical disability or special needs.	☐

Initial booking are made on the system, repeat bookings are organised by the relevant clinics and recorded in patient case notes, and the booking is sent direct to the East of England ambulance service who plan and provide the journey. Therefore, the hospital transport service has limited data on the details of journeys provided. They were unable to break the information down by area/district.

5.2.3 Public transport

There is a web of bus routes and services across the county.

Cambridge City has been considered as a 'Better Bus Area' in securing funds for travel in and around the city.[33] Provision in other areas of the County is more similar to other rural areas with commercially viable routes and services in place. There are higher levels of infrequency and routes are generally in the direction more towards the market towns and Cambridge city.

No local data, further to that described in 4.1. from the consultation on subsidised bus services, was identified on the use of local public transport to access health services.

5.3 Next steps: What further can be done to overcome transport barriers in accessing services in Cambridgeshire?

5.3.1 System level perspective on transport and health

There may be benefits to applying a system level lens across health and transport, and ensuring that transport is considered within the high level commissioning and governance mechanisms for health and social care. At population level there is a highly relevant correlation as those who have more clinical health needs due to long term or limiting conditions may be those who face most transport barriers in accessing services, associated with their socioeconomic status. Cambridgeshire and Peterborough Clinical Commissioning Group is currently undertaking a multi-year System Transformation programme to review how to address the significant challenges in the local health economy. There is an opportunity therefore for the detail within this JSNA, and potentially further intelligence on transport to be highlighted and inform this work, as decisions about the structure of health services and health care are considered.

This overview work could be in conjunction with community based, local conversations about challenges and barriers, recognising that many of the solutions are developed at a local level, and the unmeasured role of 'informal community transport' ie friends and family members in providing assistance with transport and travel.

5.3.2 Increasing transport provision

There is a level of fragmentation within the local transport systems due to the range of stakeholders, providers, commercial arrangements, economic drivers, and variety of passenger needs and wants.

It is clear that public transport is limited in its ability to provide sufficient transport to health care and services for Cambridgeshire residents and there are strains on the community transport schemes. Therefore, additional provision to meet the need for transport in accessing health, particularly for households who do not have access to a car is sought.

Additional bus provision – routes and services – could ameliorate some of the transport barriers to health services. The mapping data in section 3 may provide indications of areas within the County that are particularly underserved, and where further consideration of potential health needs should be focussed.

Novel approaches to transport provision may include more effective use of current assets. One example from other areas is using school buses to provide community transport in addition to school journeys. There is also the potential to make more use of current flexible taxi licensing arrangements such as providing hospital transport for part of the day and traditional taxi services at other times.

Some stakeholders also suggested that a community car scheme based at a hospital eg Addenbrooke's as the hub with drivers travelling to pick up patients and provide drop offs after appointments, might allow more efficient planning around hospital journeys, in comparison to the car schemes from villages being drawn into out of area journeys to hospital.

5.3.3 Disseminating information and advice about transport options

Cambridgeshire residents will benefit from clear and useful information about local transport options being available to them. Several district councils have taken the lead in this work, and there are directories of transport available for Fenland and South Cambridgeshire. There is an opportunity to extend the reach of this information. Stakeholders felt that key 'hosts' and gateways for this information are local libraries, voluntary and community sector organisations, parish councils, through the Patient Advice and Liaison Service, and in GP practices.

Stakeholders recognised the trusted role of staff in GP practices in advising their patients on transport options - alternatives in travelling to the practice, and options for travelling to hospital and other health services. However there is some concern that this is not recognised by staff within primary care, in light of the complex and pressured demands of their work, and the potential value in providing transport advice to people is missed.

One novel approach for elective and outpatient travel to hospital is where travel information is embedded within appointment letters, matched to the postcode for which the letter is sent to provide tailored and personal information on the transport options for attending the appointment. If this approach was adopted (and particularly if phased in), it might be useful

to monitor whether there is any comparative impact on 'do not attend' rates. Similarly there could be advantages in links from the 'choose and book' website for local hospitals to other relevant transport websites such as 'Traveline'.

5.3.4 Reducing need to travel to health services

There is an increasing recognition that fragmented care for long term conditions such as diabetes involves patients attending many appointments for different aspects of care, tests, checks and review. There are opportunities in developing integrated care pathways and in providing person centred care to achieve more in each consultation and reduce single purpose trips.

Furthermore, there are alternative approaches to assessing and supporting health status and conditions including telephone consultations, tele-health, and technology for remote monitoring.

These fall outside of the scope of this particularly work, but are acknowledged as important factors in reducing the requirement to make journeys to health services. They offer the potential for time and money savings to patients and their carers, and where evidence informed, the opportunity to achieve improved health outcomes.

5.3.5 Further analysis of data, barriers, and opportunities

There is an important gap in data in terms of the means of travel that Cambridgeshire residents are using to reach their GP practice, and the length and potential transport barriers they may face.

Within the scope of this JSNA there was not the opportunity to consider access to wider forms of community health services such as dentistry and dental treatment, chiropody/podiatry, and other services which contribute to health.

As highlighted the Department for Transport data on travel time is modelled from data on previous transport infrastructure, such as bus services from 2013 which may no longer be operational. It is acknowledged that the times taken may have increased, however the extent of this is unclear.

There was also recognition of the importance of out of hours' services in accessing health, and the lack of data available to review this. An example was given that the referral for out of hours' for residents in Ely is often to the hospital in Doddington. However, there are no public transport options for travelling to Doddington in the evenings or overnight.

The stakeholder group felt strongly that qualitative approaches to work with a range of local people around the barriers that they faced in making journeys would provide insight. They felt a useful starting point would be work within the health services – whether acute or primary care – to explore how people travelled to these services, and if they faced challenges in reaching them and possible solutions for these.

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