

# GETTING THERE: TRANSFORMING AND INTEGRATING URBAN TRAVEL PROVISION FOR PEOPLE WITH DISABILITIES

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## SUMMARY

This paper reviews developments in conventional public transport and door-to-door services, from the perspective of elderly and disabled people's travel, concentrating on the major urban areas of England, outside of London. It shows how, in the face of financial pressures on funding for conventional public transport, use of demand responsive services may meet disabled people's needs and widen access for all.

**Key Words:** integration; specialised transport; improving mobility; urban travel

## INTRODUCTION

Most larger towns and cities in Britain have an urban form that is grounded in their often rapid growth during the industrialisation of the nineteenth century, although their underlying spatial structure often evolved from much earlier patterns of settlement. Consequently, although transport has played a vital part in the subsequent development and growth of those urban areas, the transport networks and patterns of public transport provision frequently reflect those historical influences on urban form and early twentieth century expansion, rather than current patterns of social and economic activity.

Just as the patterns of urban public transport provision have often been historically determined, so too have many of its policies and operating practices. Thus, potential users have traditionally been regarded as being in one of two distinct groups: 'normal people' with few or no difficulties in using conventional forms of public transport; and 'disabled people' who have substantial problems using conventional public transport and for whom specialist door-to-door services are needed. In reality, there is a complex spectrum of potential public transport users, with different and varying levels and types of disability, and with differing and changing travel needs.

This paper explores developments in conventional and specialised transport and assesses the role of door-to-door transport in providing enhanced mobility for all.

### 1. Age and Disability

Although this paper focuses on travel provision for people with disabilities, it is important to take account of the strong association between age and mobility

difficulties [Ling, 1998; Nobel and Mitchell, 2001; Metz, 2003]. The National Travel Survey 2010 [DfTa, 2011] shows that, in Britain, the proportion of adults experiencing difficulties in walking or using bus services increases substantially with age, and that this affects women marginally more than men. This results in adults with mobility difficulties making, on average, fewer journeys per year than other adults, as shown in Table 1, below.

<b>Adults with Mobility Difficulties by Age &amp; Gender and their Travel</b>						
	<b>Ages</b>	<b>16-49</b>	<b>50-59</b>	<b>60-69</b>	<b>70+</b>	<b>All 16+</b>
<b>Proportion with Mobility Difficulties</b>	Male	3%	10%	15%	35%	10%
	Female	5%	11%	21%	40%	13%
	All Adults	4%	10%	18%	38%	12%
<b>Trips per Person per Year</b>	With Mobility Difficulties	864	737	711	513	653
	Without Mobility Difficulties	1,042	1,101	992	838	1,025

Table 1: Proportion of Adults with Mobility Difficulties and their Amount of Travel [source NTS 2010]

Many of the transport policy initiatives aiming to help disabled people with mobility difficulties are implemented in parallel with similar or identical provisions for elderly people. Indeed, in some cases any differences in provision are so minor that many older disabled people, who already qualify for age related facilities, are either unaware of the additional benefits that their disabled status might entitle them, or do not find it worthwhile to undertake the application process needed to access them. Furthermore, some benefits for disabled people cease to be available once they reach a certain age. For these reasons, this paper will consider transport policies and issues concerning older people alongside those specifically related to people with disabilities. In doing so it will reflect upon the context in which provision for people with disabilities is made in practice, especially within transport operations.

## **2. Geographical Context**

In Britain, transport has been a devolved power since 2001, consequently policies and the administrative and financial arrangements differ between England, Scotland and Wales. There are also significant differences in the arrangements for local government and in the regulatory framework and funding for public transport between Greater London and the rest of England. As this paper is concerned primarily with travel within urban areas, it concentrates on the situation in the six metropolitan areas that comprise the major urban conurbations outside of Greater London. Where data is given for England as a whole, it should be appreciated that this will encompass not only Greater London and the six metropolitan areas, but also a widely varying mix of cities, large and smaller towns, and rural areas.

A further feature of significance is the role that the geography of urban areas plays on options for the provision of transport solutions. For example, the relocation of

local health, employment, or shopping opportunities, as a result of land use changes or service reconfigurations, has resulted in the loss of walking or direct public transport links. Street design and congestion caused by parked cars may make it difficult to provide conventional bus services but necessary to develop alternatives.

### **3. Travel by Elderly and Disabled People**

The most recently published National Travel Survey data for types of area [DfT, 2010] shows that on average residents of the six metropolitan areas used public transport as the main mode for 13.4% of their journeys, drove by car or van for 37.7% of them, travelled as a car or van passenger for 22.9% and walked for 24.1%; with the remaining 2.0% by other private modes, such as bicycle or motorbike. Within those journeys where the main mode was public transport, some 71% were by local bus. It must be remembered, however, that these data relate to all journeys made within Britain, both very short and very long ones, and by all people, including children. Current data for Greater Manchester shows that of journeys made on local public transport in 2011/12, some 84.3% were by bus, 8.5% on local trains and 7.2% on the Metrolink light rail system.

Traditionally, older people have used public transport and especially local buses for a higher proportion of their journeys than have younger adults, but this has been changing over the last couple of decades as the proportion of older people with a full driving license has increased, especially amongst women, and as more older people have been able to own a car, or have access to one as a passenger [DfTb, 2011]. The situation for disabled people is more complex; for some, their disability may prevent them from driving, or a reduced income, resulting in part from their disability, may preclude car ownership. For other disabled people, travelling by car, either as a driver or passenger may be considerably less difficult than using public transport.

In any event, there is likely to remain a proportion of older or disabled people for whom travel by car is not an option. There will be those who have for health, economic or other reasons to reduce or give up driving. There will be those who can no longer rely on others, be they partners, relatives, neighbours or friends, to drive them. Then there will be those who find that for some destinations, e.g. busy town centres where parking is difficult, or at some times, e.g. when the weather makes driving more challenging, they would prefer to travel by public transport. For all of these people, providing some form of public transport that meets their needs will facilitate their continued mobility and participation in an active and independent life.

The issues involved in sustaining independent mobility in these circumstances and the benefits that this can bring have been clearly identified through research and pilot studies in Greater Manchester [Ling and Murray, 2010]. Whilst the use of low-floor buses and improved transport infrastructure can be essential components of doing this, and eligibility for concessionary fares largely eliminates the financial barriers to public transport, a key part of the strategies needed to facilitate greater mobility lies in the provision of flexible and accessible transport connections to, from and sometimes in place of conventional public transport.

## **THE ROLE OF CONVENTIONAL PUBLIC TRANSPORT**

Traditionally, conventional public transport has been designed and operated with priority given to the needs and capabilities of the majority of its users. More recently, a combination of social pressures, legislative requirements and a commercial realisation of the economic significance of older users, has led to a greater emphasis on accommodating, if not actively catering for, elderly and disabled people.

### **4. The Influence of Evolving Models of Disability**

The 'social model of disability' has long been recognised as a more appropriate basis on which to frame and evaluate policy than more traditional 'medical' or 'functional' perspectives [Ling and Mannion, 1992]. This, along with the recognition that a lack of accessible facilities should be regarded as a 'human rights' issue, has led to legislative and policy requirements to re-design infrastructure and new vehicles to make them more accessible to disabled people. However, despite this and the recognition that the adoption of inclusive design principles brings benefits to a wider range of users than just those with permanent disabilities, practical and financial limitations mean that much of the existing transport infrastructure continues to present barriers to travel for some disabled people. Sometimes this is due as much to issues of social and operational culture as it is to ones of physical design: for example lifts at local railway stations may be locked out-of-use when the station is unstaffed during evenings and at weekends, despite trains services continuing to stop there, because of concerns about possible vandalism or misuse or the risks to personal safety of their potential users. However, progress with the development of accessible facilities does progressively lead to perceptual change in respect of standards which are publicly acceptable. A critical mass of improvements will lead to paradigm shifts as rising expectations are met and become the 'modus operandi'.

### **5. The Provision of Accessible Buses**

The Public Service Vehicle Accessibility Regulations 2000 [PSVAR], made under the provisions of the Disability Discrimination Act 1995 [DDA], impose requirements for the design of buses and coaches that include full wheelchair access and various features to help users with impaired vision and other disabilities. These regulations, which apply to vehicles licensed to carry 23 or more people on scheduled services, were introduced for new vehicles between 2001 and 2005, and have varying 'end dates', by which all existing vehicles not complying with their requirements must be withdrawn from normal passenger service. The 'end date' for smaller buses, weighing up to 7.5 tonnes, is 31<sup>st</sup> December 2014, that for full-sized single-deck buses is 31<sup>st</sup> December 2015 and for double-deck buses is 31<sup>st</sup> December 2016.

Although these legal requirements for fully accessible vehicles have taken some time to come into force, advisory specifications for improved design of buses, produced by the then Disabled Persons Transport Advisory Committee [DiPTAC], encouraged many bus manufacturers to develop improved vehicle designs during the 1990's. Consequently, by 2010/11 some 60% of buses in Britain had been issued with a certificate showing compliance with the DDA PSVAR requirements, and a further 25% had low-floor wheelchair access, but were not fully PSVAR compliant. These figures compare with 29% and 24% respectively for 2004/05 [DfT, 2011c].

It should be noted that these figures relate to Britain as a whole and that the proportions of low-floor accessible buses varies somewhat from area to area and from route to route. In London, where all local bus services are provided under a route franchising regime, all buses are PSVAR compliant. Elsewhere, the situation varies considerably. Comparable data is not available for all of the metropolitan areas, but some recent data is available for some individual conurbations. For example, in Greater Manchester 93% of local buses were low-floor vehicles in 2011/12, compared to 41.8% in 2004/05; whilst in the West Midlands about 85% of all buses were stated to be low-floor and wheelchair accessible by April 2012, compared to approximately 50% of low-floor buses in 2002/03; and in West Yorkshire by 2009/10 some 88% of the major operator's bus fleets were low floor easy-access, compared to about 25% that were wheelchair accessible in 2002/03.

The improving accessibility of vehicles also drives infrastructure improvements; although prioritisation exercises will often lead to a focus on, for example, key corridors where whole routes may benefit from raised kerbs or shelter upgrades. Where these standards cannot be delivered, the case for solutions tailored to meet individual needs through links to the core network may become stronger.

## **6. Concessionary Fares.**

Although concessionary [i.e. reduced] fares for travel on public transport by people of pensionable age or with certain disabilities have been provided in Britain since the Travel Concessions Act 1955, it is only since the Transport Act 2000 that a degree of uniformity has been introduced regarding their availability. Never-the-less, since 2001 different and generally more generous arrangements have been made in Scotland and in Wales to those applying in England; with the concessionary fares involved applying only to the residents of each country and not being available for travel outside their respective country.

Even within England, the provision of free travel on local bus services for journeys made at any time on a Saturday, Sunday or bank holiday, and between 09.30 and 23:00 on any other day, introduced in April 2006, was initially limited to travel within a resident's own Local Authority area; although in some areas specific arrangements were made to allow limited free 'cross boundary' travel into adjacent areas. The English National Concessionary Travel Scheme [ENCTS] extended this free local bus travel to journeys made anywhere in England from April 2008, subject to users holding the relevant National Concessionary Travel Pass. The development and provision of these concessionary fares on public transport in Britain was outlined at a previous TRANSED conference [Ling, 2004], whilst the impact of free fares within Greater Manchester was reported more recently [Ling, 2007]. Since April 2010, the age at which 'non-disabled' residents of England become eligible for the ENCTS has been changed to increase gradually month by month, in line with increases in the normal pensionable age for women, so that by October 2020 elderly people will not become eligible for this concessionary pass until they are 66 years old, rather than from age 60, as was the case until April 2010.

Despite this apparent move towards a more uniform and generous provision, there remain numerous additional wider travel concessions offered by individual Local Authorities for travel by their eligible residents on other public transport modes, or at different times on weekdays, or under different criteria than those applying to the

ENCTS. These wider concessionary travel arrangements, made on a discretionary basis, vary between Local Authorities, especially in the case of the concessions given to disabled people, as shown in Tables 2 and 3, below.

<b>Elderly People's Concessionary Fares in English Metropolitan Areas</b>							
Elderly Residents Full Fares = No Concession		Greater Manchester	Merseyside	South Yorkshire	Tyne & Wear	West Midlands	West Yorkshire
Bus Fare per ride for normal daytime services	Before 09:30 Mon-Fri	Full Fares	Full Fares	Full Fares Free after 09:00	Full Fares Free Travel to Hospital	Full Fares or £31 per 4 weeks	Full Fares
	At all other times	Free	Free	Free	Free	Free	Free
Local Train & LRT Fares	Before 09:30 Mon-Fri	Full Fares	Full Fares	Full Fares Free after 09:00	Full Fares	Full Fares or £46.50 per 4 weeks	Full Fares
	At all other times	Free	Free	Free	Full Fare or £25 per year	Free	Half-fare

Table 2: Elderly Concessionary Fares in English Metropolitan Areas for Local Travel [at mid-2012]

The ENCTS provides the same 'basic' concession of free travel on local bus services to people with one or more of seven specified categories of disability, regardless of their age. Some of the metropolitan areas give additional or extended concessions, either to all ENCTS qualifying disabled residents, or to only those with particular degrees or types of disability, as shown in Table 3. However, in South Yorkshire these extended concessions are withdrawn when the disabled person reaches 65, unless they are visually impaired or qualify for free travel by an accompanying carer.

<b>Extended Fares Concessions for Disabled People in English Met. Areas</b>							
Disabled Residents As Elderly = No Extension		Greater Manchester	Merseyside	South Yorkshire	Tyne & Wear	West Midlands	West Yorkshire
Local Bus Travel	Extra Concession	Free before 09:30 Mon-Fri	Free before 09:30 Mon-Fri	Free before 09:30 Mon-Fri	Free before 09:30 Mon-Fri	As Elderly	Free before 09:30 Mon-Fri
	Eligibility	Blind & Severely Disabled	All Disabled People	Disabled People aged < 65	Work/Study 15+ hours/week	All Disabled People	Blind People only
Local Train & LRT Travel	Extra Concession	Free before 09:30 Mon-Fri	Free before 09:30 Mon-Fri	Free before 09:30 Mon-Fri	Free with £25 per year Gold Card	As Elderly	Free at all times
	Eligibility	Blind & Severely Disabled	All Disabled People	Disabled People aged < 65	Work/Study 15+ hours/week	All Disabled People	Blind People only

Table 3: Additional Fares Concessions for Disabled People in English Metropolitan Areas [at mid-2012]

In some cases free travel is also provided to an accompanying carer, typically where the disabled person is likely to need assistance during their journey or at their destination. For example, South Yorkshire provides this concession for those disabled residents who are in receipt of specific nationally provided social security benefits, the higher rate Disability Living Allowance [DLA] mobility component or the higher rate Attendance Allowance, whilst West Yorkshire provides in to residents who suffer a high degree of loss of vision.

Whilst in some places recent trends have been to reduce the provisions of such additional discretionary concessions, in other places they have been extended. For example, in 2011 Greater Manchester withdrew its previously available reduced fares for elderly and disabled residents travelling on local buses and trains before 09:30 on weekdays, retaining this concession only for the more severely disabled categories of resident, who are issued with a 'Concession Plus' version of the National Concessionary Travel Card. Similarly, at the start of 2012, West Yorkshire replaced its previously low flat fare for off-peak travel on local train services with a less generous half-fare concession. By contrast, South Yorkshire residents have retained their more generous travel concessions that include free travel on local train services into West Yorkshire after 09:00 on weekdays. Since 2010, Merseyside now provides its residents with a Local Travel Pass for older people, which continues to be available from age 60, giving free 'off-peak' travel on all modes of local public transport, including the Mersey ferries, within Merseyside and for a short distance beyond on certain local rail services.

## **7. Bus Operations**

Following so called bus deregulation in October 1986, most local bus services in Britain, outside of Greater London, have been provided on a commercial basis, with the operator determining the routes, frequencies and fares. Local authorities have then procured by competitive tender additional services that they feel are socially necessary but operators have deemed not to be commercially viable. Across the six metropolitan areas the total number of bus kilometres operated since 1987/88 has fluctuated somewhat from the 584 million vehicle km operated in 1984, reaching a maximum of 720 million vehicle km in 1994/95 and then falling to a minimum of 562 million vehicle km in both 2009/10 and 2010/11. Regardless of this variation in the total level of bus services, the proportion provided commercially has remained relatively steady, averaging some 86% of the total bus kilometres operated and varying between 83% in 1987/88 and a maximum of about 88% in both 1998/99 and 1999/00, with the proportion at 84.3% in 2010/11 [DfT, 2011c].

Over this same period the total number of passenger journeys made on local bus services within the metropolitan areas has fallen, from a pre-deregulation peak of 2068 million per annum in 1995/6 to 1732 million in 1987/88 and then steadily to 1055 million journeys in 2010/11. This has resulted in the average number of bus passenger journeys [i.e. bus boardings] per bus kilometre operated dropping from 3.6 in 1985/86 to 2.8 in 1997/98, then declining fairly steadily to 1.85 in 1993/94, since when it has fluctuated between 1.79 and 1.96, with a 2010/11 value of 1.88.

However, despite this apparent consistency in the proportion of commercially operated bus services, there has been a tendency for them to be increasingly concentrated on the busier 'trunk' routes and at times of greatest passenger

demand. This has left areas with lower demand, routes with smaller passenger flows and evenings and Sundays with either no or just infrequent services, unless the local authority has both the funds and the political will to further supplement the commercial network with additional tendered services.

In parallel with this decline in the number of bus passengers, there has been an increase in real terms in the average level of bus fares. This has been particularly marked in the six metropolitan areas, where their overall average fare charged per non-concessionary passenger has risen relative to inflation by some 46% between 1996 and 2011 [DfT 2011c]. It might be thought that this has little or no impact on the mobility of elderly or disabled people, since they benefit from concessionary fares and can travel for free for most of the local bus journeys they make [Ling and Howcroft, 2007]. However, local authorities have to reimburse bus operators for this concessionary travel and the level of this reimbursement is set with respect to the fares charged to non-concessionary adult bus passengers.

Consequently, above inflation increases in normal adult bus fares result in real increases in the cost to local authorities of concessionary fares reimbursement. Over the past 14 years, the concessionary fares reimbursement payments to bus operators in the six metropolitan areas have increased from £174 million in 1996/97 to £308 million in 2010/11 [DfT 2011c], an increase of 26.1% after allowing for general inflation. By contrast, the net amount paid to bus operators for subsidised bus services only increased over this period from £106 million to £127 million, a reduction in real terms of 14.8%. This change may partly be due to competition limiting rises in the cost for tendered bus services, since the real cost per bus kilometre operated of such services has fallen by some 12.8%, albeit fluctuating somewhat from year to year. However, the reduction in real expenditure on subsidised bus services is also a consequence of budgetary pressures on local authorities limiting their ability to fund socially needed services, especially those needed to replace services that have been reduced or withdrawn following revisions to the commercial operated network. Indeed, the bus kilometres operated on subsidised local bus services in the metropolitan areas fell slightly, from 90 million to 88 million vehicle km, between 1996/97 and 2010/11, despite the contemporaneous fall in commercially operated services, from 602 million to 473 million vehicle km.

## **8. Financial Implications**

These various changes in concessionary fares schemes, in commercial bus networks and rises in the real level of normal adult bus fares and in bus operating costs have had substantial financial implications for the various funding authorities. In the metropolitan areas of England, local public transport policy is set by their Integrated Transport Authorities [ITAs], formerly known as Passenger Transport Authorities [PTAs], who provide financial support via their Passenger Transport Executives [PTEs]. The funding of concessionary fares for elderly and disabled people, subsidised local bus services and support for specialist accessible transport is drawn from a budget for local public transport that also has to fund concessionary fares for children and young people, support for local train services and light rail operations, general public transport planning and promotional activities, as well as covering the recurrent costs of financing various capital investment in local public transport projects. The ITAs fund the majority of their recurrent, or so-called revenue expenditure from a precept on their constituent local Councils, whose ability to fund



local public transport is limited by competing demands for spending on their other local government responsibilities, within a total recurrent expenditure that is constrained by both the political acceptability of local tax rises and by specific central government restrictions both on the level of such taxes and on central government's financial support to local authorities through the revenue support grant.

Across the six metropolitan areas the combined effect of increases in payments of concessionary fares reimbursement and for subsidised bus services has been a rise in the total expenditure on these from some £280 million in 1996/97 to £435 million in 2010/11, a rise of some 10.7% in real terms. This increase has been especially concentrated in the period from 2006/07 onwards, before which total spending in real terms on local bus services by local authorities in the metropolitan areas had been falling year by year, largely as a consequence of the introduction of free off-peak concessionary local bus travel for elderly and disabled people. Although the financial impacts of this were mitigated to some extent by additional funding from central government to local authorities, there has been considerable controversy over the adequacy and especially over the distribution of this additional money.

Within Greater Manchester, these changes have been reflected in a re-distribution of funding between the different types of concessionary travel, with increases in the amount of travel by and in the relative concessionary fares reimbursement for elderly and for disabled people; and corresponding decreases for concessionary travel by children and young people, as is shown in Table 4.

<b>Trends in Concessionary Travel in Greater Manchester</b>							
		Elderly	Disabled	Children	Total	% Elderly	% Disabled
Concessionary Journeys per Year [million]	2005/06	34.7	6.6	38.3	79.6	43.6%	8.3%
	2011/12	44.0	9.7	20.8	74.5	59.1%	13.0%
	% change	+26.8%	+47.0%	-45.7%	-6.41%	+35.5%	+57.0%
Concessionary Reimbursement per Year [£ million out-turn]	2005/06	12.8	6.5	13.7	33.0	38.8%	19.7%
	2011/12	39.0	8.8	5.5	53.3	73.2%	16.5%
	% change	+204.7%	+35.4%	-59.9%	+61.5%	+88.6%	-16.2%

Table 4: Trends in Concessionary Travel and Concessionary Reimbursement in Greater Manchester

As can be seen, there has been a substantial relative re-distribution in both travel and reimbursement payments away from children and young people in favour of older and disabled people. Whilst this may be welcomed by many, in terms of the greater mobility it affords to elderly and disabled people, the longer term implications for social equity and sustainability objectives are less clearly advantageous.

## **DOOR-TO-DOOR TRANSPORT**

Although improvements in conventional public transport may now mean it is capable of being used more easily by a greater proportion of elderly and disabled people, there remains a substantial proportion who find it difficult or impossible to use.

Amongst users of Ring & Ride, Greater Manchester's main door-to-door transport provider, some 65% use the service because they have difficulty in getting to or from conventional public transport, whilst a further 18% cannot get on or off conventional public transport vehicles [GMATL, 2011].

## 9. The Role of Taxis

Taxis and private hire vehicles [PHVs], commonly known as mini-cabs and which must be booked in advance via an operator, provide a door-to-door form of transport that is relatively widely used by elderly and disabled people, despite their high prices. Across Britain as a whole, in 2009, some 1.2% of trips were made using 'other public transport' as the main mode, a modal classification within which taxis and PHVs comprise the predominant type of vehicle [Donabie, 2011]. However, for people living in single personal households, amongst whom a substantial and disproportionate portion are elderly or disabled, the percentage of trips made using 'other public transport' as the main mode was 2.3%.

Over the past ten or so years there has been some improvement in the proportion of taxis that are wheelchair accessible, although the situation in metropolitan areas remains rather varied; overall whereas in 2001/02 only about 76.8% of taxis in metropolitan areas were wheelchair accessible; by 2011 this had risen to 83.4%.

Table 5 shows the considerable variation between the different metropolitan areas, not only in the proportion of wheelchair accessible taxis, but in the relative numbers of taxis and PHVs; the great majority of PHVs are ordinary saloon type cars that are not wheelchair accessible, but which operate at fares that are normally significantly lower than those charged by taxis.

Taxis and Private Hire Vehicles in Metropolitan Areas in 2011							
		Greater Manchester	Merseyside	South Yorkshire	Tyne & Wear	West Midlands	West Yorkshire
Taxis	Number	2155	2282	1182	1831	3189	1154
	% wheelchair accessible	88.4%	95.1%	92.1%	50.6%	100.0%	48.2%
PHVs	Number	9737	6637	3115	3372	9155	10491

Table 5: Numbers of Taxis and PHVs in Metropolitan Areas and % Wheelchair Accessible Taxis

Although taxis and PHVs doubtless provide a means of mobility for some elderly and disabled people, the relatively high prices charged, especially by taxi operators, and the inaccessibility of some of their vehicles limits the extent to which they can meet the travel needs and aspirations of most elderly and disabled people. Even the minority who have given up their ENCTS pass in exchange for Travel Vouchers, which can be used to pay for taxi journeys as well as for all other public transport fares, will find the high costs of taxis a significant limitation on their use.

## 10. Specialised Public Transport Services

In Britain, a range of specialised transport services exist alongside conventional local public transport. Traditionally, these have catered for specific groups of people, rather than the public generally, and have included services provided to meet some specific statutory obligation, such as transport to attend hospital appointments or day-care centres, and services provided on a discretionary basis to cater for travel of a more general nature. Most of these specialised transport services have been intended for people with mobility difficulties, who find it difficult to use 'conventional public transport', and in many cases their use has been restricted to those meeting some eligibility criteria, related to their mobility problems or disability and to an accompanying carer or travelling companion [Ling, 2004].

Although many of these non-statutory specialist transport services originated largely within the voluntary sector, facilitated by the provisions of the Minibus Act 1977 and the Transport Acts of 1980 and 1985, and by the existence of diverse sources of funding for voluntary action, transport initiatives and employment creation [DETR 1999], their operations have increasingly developed to become a substantial source of transport opportunities for people with mobility difficulties [CTA, 2010; NIA, 2010].

### 10.1 Dial-a-Ride Services

One type of non-statutory specialist transport service that has been particularly adopted in urban areas is that providing dial-a-ride transport to elderly and disabled people. The role of such services in improving the quality of life of their users has been reported previously [Ling and Mannion, 1995]. However, the availability and conditions of use of such services vary considerably from place to place, both between and even within the six metropolitan areas. These variations have been commented on in various reports [Audit Commission, 1999; Ling 2004a; DfT, 2007] and can sometimes constitute a barrier to their use.

Local dial-a-ride services have been directly funded by the Integrated Transport Authorities [formerly the Passenger Transport Authorities], the principal local authority bodies responsible for public transport, in each of the six metropolitan areas, but there have been significant differences in the levels of provision, and in one metropolitan area the service ceased in 2011 in order to divert the funding to increase the support to local bus services.

An indication of the differences in charges, eligibility, availability and booking arrangements is given in Table 6. In all cases these specialist services are only available to registered users, who have to be residents of the metropolitan area and meet the schemes eligibility requirements. Some schemes, such as Greater Manchester's Ring & Ride, allow registration by people with temporary mobility difficulties, such as a broken arm or leg or a short-term illness which is making it very difficult for them to use ordinary public transport. Other schemes are more restrictive, limiting registration to people with permanent mobility problems; with the Merseylink scheme requiring renewal of registration every two years and limiting eligibility to people with severe disabilities, such as blindness or getting higher rate DLA mobility component or Attendance Allowance, social security benefits with strict medically related criteria, for which one must qualify before reaching the age of 65.

<b>Main Specialist Transport Services in English Metropolitan Areas [2011/12]</b>							
Dial-a-Ride C.T. in South Yorks.		Greater Manchester	Merseyside	South Yorkshire	Tyne & Wear	West Midlands	West Yorkshire
Fare per ride for 'normal' Journeys	Mon-Fri Before 09:30	£2.00 £3.20 return	Free	Vary by Distance £1.50 to £2.50+	No Longer Operated	60 p	£3.00
	At all other times	Concession £1.00 £1.60 return	Free			60 p	£3.00
Special Fares		Double Fare for Cross- boundary	None	£3.20+ Same Day Doncaster only		Standard Bus Fares for companions	None
Concessionary or Reduced Fares		ENCTS passes & Children	Free for Essential Companion	No reductions		Children half-fare Aged 5-16	Free for ENCTS pass holders
Eligibility for Service		Self-certify can't use PT	Higher Rate DLA	Self-certify can't use PT		Self-certify can't use PT	Self-certify can't use PT
Operating Times Standard Bookings		Mon-Sat 08:00-22:45 Sun varies	Mon-Sun 08:00-23:00	Varies: from Mon-Fri 09:00-17:00		Mon-Sun 08:00-23:00	Mon-Sat 09:00-17:30 Sun to 17:00
Travel Area Limits for Standard Fares etc.		Within each GM District	All of Merseyside to accessible PT	Within own LA District		Within each of 8 areas plus ½mile	Local Journeys Only
Booking Constraints for Standard Travel		Book on day before for areas not on BSD system 1 hour to 7 days before areas on BSD	Book 2-7 days before	Varies: to Must book 7 days before		Book up to 2 days before	Unlimited advance booking
Booking Times For Standard Travel		09:30-12:45 7 days/week for areas not on BSD system 0800-1600 areas on BSD	10:00-14:00 7 days/week	Varies: from Mon-Fri 13:00-16:00		08:00-23:00 7 days/week	Mon-Fri 07:30-16:00
Other Trip Limitations		None	10 journeys per month Not for NHS	None		Not for HNS hospital treatment	Specific areas on set days
Other Trip Opportunities		Cross boundary For extra fare	None	Group Travel 7 days/week		To adjacent areas Limited service	None
Booking for Special Trips		Negotiable but any time in advance	None	Same day Mon-Fri 08:00-17:00 Doncaster Only		Advanced booking Up to 12 journeys/year	None

Table 6: Services and Availability of Main Dial-a-Ride Specialist Services in the Metropolitan Areas

Although all the schemes allow for the registered user to also book for a companion to travel with them, some allow this extra person to be anyone travelling between the same pick-up and drop-off points, whilst other schemes restrict booking for companion travel to users who have a specific need for someone to assist them during the journey or at their destination. Some schemes allow these companion travellers to travel at no extra charge, other schemes charge the companion at the standard fare, yet others charge a different, sometimes higher fare to that paid by the accompanied user.

All of the schemes also impose some distance or area limitations on the journeys that can be made, with some allowing longer journeys for an extra charge. The schemes in the West Midlands and Merseyside expressly prohibit travel for hospital appointments, where NHS Patient Transport Services have a statutory responsibility to provide transport for those who meet their criteria, with Merseyside extending this prohibition so as to exclude travel to Day Care facilities and Special Schools; whilst the mode of operation of the West Yorkshire scheme makes it unable to cater for travel to day or time specific appointments of any kind.

Travel by these dial-a-ride services has to be pre-booked, usually by telephone, for both the outward and, if needed, the return journey. The need to pre-book for travel at specific times is, of itself, a constraint on undertaking activities spontaneously. However, the nature of the booking systems, their times of operation and the limitations of how far in advance the booking can or must be made all impose further restrictions on how readily these schemes meet the true travel needs of their users. Indeed, in Merseyside there is an explicit limit imposed of a maximum of 10 journeys per month for any one user, whilst in other schemes the inability to accommodate travel at the desired time or limitations in the booking system effectively ration use.

The reality of this is clearly shown in the publicity literature for many of the schemes, which include phrases such as: "Please note that due to its popularity you must give seven days notice for City Ride"; "You must book your journey (including the return journey) between 9.30am and 12.45pm the day before you want to travel"; "Because of demand for Door 2 Door services, the more flexible you are with your days and times of travel, the more likely we will be able to take you"; "If you are able to use accessible public transport, we may offer you a journey to an accessible bus stop or Merseyrail Station"; and "AccessBus is a very popular service and many journeys may be fully subscribed".

In addition to their main dial-a-ride services, described above, most of the six metropolitan areas have other, more localised services, typically provided by Community Transport organisations. These operate in various ways, some offering services similar to those described above but over more local areas or to particular groups of individuals, others specialising in providing group transport or transport associated with particular community activities. Although they all are doubtless valued by their users and enhance their mobility, the restricted range of their availability or operations limit the contribution they can make to the general mobility of disabled people.

## 10.2 Demand Responsive Services

In parallel with these 'go-anywhere' or 'many-to-many' specialist dial-a-ride services, many areas have also more recently introduced other forms of 'accessible transport' initiatives. These take a variety of forms, but two types of operation are particularly common: services targeted at providing access from a defined service area to specific destinations, typically a town centre or out-of-town shopping complex; and services aiming to provide for journeys anywhere within a relatively small defined area, or to link that area to a limited number of specific destinations elsewhere, such as hospitals, railway or bus stations, recreation centres and business parks. Prior booking is required for both types of operation, and they may, or may not, be restricted to pre-registered users, with or without eligibility limitations on usage. Typically, a premium fare of some type is charged for these services, often with concessionary pass holders being given reduced price, but not free, travel.

The former type of service often operate only on particular days and at specific timetabled times for arrival at and departure from the town centre or shopping complex that they serve; they may also follow a pre-set semi-flexible route from which they divert to pick-up and set-down individual users. In essence, users telephone to request a booking and are then offered a specific pick-up and return times to fit with the anticipated operating schedule. The latter type of service usually operates across its designated area during defined hours of operation, with potential users pre-booking and requesting a door-to-door journey at a time of their choosing, which may or may not be able to be accommodated.

These two types of operation are often categorised as forms of Demand Responsive Transport [DRT], the scope for which was the subject of an extensive review commissioned jointly by the Department for Transport and the Greater Manchester Passenger Transport Executive [Enoch, Potter, Parkhurst and Smith, 2004]. The nature of such services and their contribution to the mobility of older and disabled people has been identified in various reports [pteg, 2010; Laws et al, 2009; Mageean et al, 2003].

Amongst the metropolitan areas, Greater Manchester has the greatest provision of these DRT services, using of both types operation and running under the Shopping Link and Local Link brandings, respectively. They have been supported by Transport for Greater Manchester and its predecessor organisations since 1997, originally to replace unviable bus services, but increasingly to extend access beyond that provided by the conventional public transport system, both spatially and to a wider range of users. These services are available for use by anyone travelling within their designated areas, not just registered users or Greater Manchester residents, unlike Ring & Ride, Greater Manchester's main dial-a-ride service.

Greater Manchester now operates some 34 different Local Link DRT services across many parts of the conurbation, and Shopping Link services in 3 of its 10 Metropolitan Districts. They all require users to book prior to travel, by telephone or on the web for services operated by community transport operators. Shopping Link and Local Link services allow booking between one hour and up to seven days in advance. Telephone bookings can be made between 08:00 and 16:00, but those able to book on-line can do so 24 hours per day, and these are now some 12 % of DRT bookings.

The hours of operation of these DRT service vary somewhat: typically Shopping Link, which is intended mainly for older and disabled people, operates on Mondays to Fridays between 09:30 and 17:30, often serving different areas and destinations on each day of the week, and offering each area morning journeys on one day and afternoon journeys on another. The Local Link services, by contrast, typical operate daily, at least Monday to Friday and sometimes also at weekends, often with longer hours of operation, typically ranging from 08:30-17:00 through to 05:00-23:00, depending on the nature of the area served and purpose of the service. A few operations are split, for example 07:30-14:00 and 16:30-18:30, for operational reasons. Where weekend services operate these are often over reduced hours.

Currently, the fares charged on both Shopping Link and Local Link services are set at a level slightly above that typically charged for journeys of a similar distance on commercial bus services. However, unlike on normal bus services, most users with a concessionary travel pass do not travel for free after 09:30 on weekdays. As with Ring & Ride, only holders of the Greater Manchester 'Concession Plus' card travel free, all other users pay a fare which varies with the type of service and size of area served. Since 2009, the previously fairly wide variation in these fares has been reduced, with fares now largely standardised to one of three scales: Shopping Link fares; Band A Local Link fares, for small to medium sized operating zones; and Band B Local Link fares for larger operating zones or travel across two or more zones on the same vehicle. Currently, Shopping Link services, which only operate after 09:30, charge fares of £2.70 single and £4.00 return, with a reduction to £1.10 and £2.00 for children and both disabled and elderly persons ENCTS card holders. Local Link Band A fares are £2.00 single and £3.20 return, with return fares only available after 09:30. The corresponding Band B fares are £2.70 and £4.00. Half-fare reductions are given to children and to disabled ENCTS card holders at all times every day, but on weekdays, elderly ENCTS card holders only get these half-fares after 09:30.

The number of DRT services operated in Greater Manchester has been steadily increased, from 3 at the end of 2003 to 34 Local Link and 3 Shopping Link services at the end of 2011. Over this time the number of journeys made on these DRT services rose from some 59,500 in 2003/04 to about 345,000 per year by 2010/11, although provisional figures for the third-quarter 2011/12 show about a reduction in patronage of around 8% from the equivalent period in 2010/11.

It is notable that these services provide an important extension of mobility, with around a quarter of their users claiming to have been unable to make their journey were the DRT service cease. The door-to-door nature of these services make them particularly suited to older and disabled people, from whom demand for such services is likely to rise significantly over the next 15 to 20 years [Murray et al, 2011]

These DRT services are increasingly seen as also providing travel opportunities for those physically able to use conventional public transport in areas or at times when commercial services are not viable and where the costs of providing a subsidised conventional bus service might be difficult to justify because of relatively low levels of demand. This is likely to be particularly so where DRT services can provide the vital link between an area poorly served by conventional public transport and a suitable interchange point on the main public transport networks, such as a railway or bus station. The scope for such a role for DRT has been part of recent European funded projects involving Greater Manchester, findings from which are relevant to this paper.

## **11. Customer Focussed Mobility for Older and Disabled People**

Over the last four years, 2008 –12, Transport for Greater Manchester has been the Lead Partner for an European funded Interreg IVB Project involving 11 partners from North West Europe, entitled Improving Connectivity and Mobility Access [ICMA]. The project has focussed on bridging mobility gaps, particularly on the ‘first and last miles’ of journeys [[www.icma-mobilife.eu](http://www.icma-mobilife.eu)]. These connections help to determine modal choice and, in some cases, whether people can travel at all. In addition, for the past two years the ICMA Project has become a partner with three other mobility projects in the Interreg Programme [BAPTS, ROCK, and SINTROPHER] in a Strategic Initiative, the SYNAPTIC Cluster Project, focused on the promotion of seamless mobility.

For TfGM, who have a wider brief than the GMPTTE organisation it replaced in 2011, there is an interest in the continuum of mobility for older and disabled people in Greater Manchester which now extends beyond public transport provision to include, for example, road safety, cycling and walking, and wellbeing. This reflects the central premise of this paper, that provision of conventional or specialist public transport services no longer addresses customer needs. Smarter solutions are needed and these need to provide for each leg of any given journey, recognising the requirement that consumers of all public services increasingly expect holistic solutions. In transport terms this places the competition between the standard of service provided by the private car, whether or not particular individuals are able to access one, and other door to door solutions at the heart of the mobility debate.

The ICMA Project evidenced how this challenge is increasingly significant for transport planners and providers across Europe, even though the approach taken to finding solutions may vary considerably. Strengthening the DRT ‘offer’, through web based booking and vehicle tracking to enhance information services such as the notification of vehicle arrival by text message, has raised the quality of Local Link services in Greater Manchester and similar services in Strathclyde, in Scotland.

Mobility management, including the training of travel trainers, supported by on line learning materials, has raised awareness of conventional and specialist public transport options. In both Manchester and Offenbach, Germany, key target groups for the project, which recognised the need to differentiate between different types of user, have included older and disabled travellers, with approaches based on awareness raising and confidence building to facilitate the transition from ‘car driver/passenger’ to public transport user. Supporting individual change in this way can be contrasted with other, more muscular approaches to perceived ‘problems’ of ageing, such as the use of additional driving tests for older drivers and the fear this confers around losing licences. Positive interventions through ICMA included the development of mobility scooter training modules for new users in Dordrecht, Netherlands, extending the concept of travel training.

Technology is seen as a solution, or at least a catalyst, for many changes in mobility. ICMA partners tested smart ticketing solutions to promote integration in Frankfurt, GPS mapping to understand mobility patterns in Luxembourg and to help to implement barrier free planning in Genk, Belgium, and the enhancement of journey planning services in Nantes, France for people with disabilities.



The ICMA Project outcomes highlight the more dynamic planning environment needed to provide solutions for older and disabled people. These can be based on an urban form which retains strong public transport networks for key connections but must recognise the limits that this network will have in relation to the ways in which people now both choose and are required to travel to support their lifestyles. Demand responsive solutions have become an integral part of service delivery models within conurbations such as Greater Manchester. This process has involved an adaptation from services based on personal mobility criteria (such as difficulty boarding a bus) to a model that can also respond to the need for geographic or temporal inclusion. Within this process, wider access issues have been identified; a key component of a recently approved, 2012 bid for DfT funding is the expansion of Local Link services to enable greater access for all travellers to employment sites.

The SYNAPTIC Cluster Project, which will continue to 2013, is considering mobility issues at levels from local to the international journeys and the challenges that make these experiences less than seamless. However, the importance of 'first and last miles' connections remains a prominent and current area of concern [EU White Paper, 2011]. SYNAPTIC partners are engaged in the delivery of practical solutions which respond to the changing challenges of mobility in North West Europe.

The approach being taken by SYNAPTIC is reflected in a Declaration which states:

*"Our projects encompass a complete chain of sustainable door-to-door mobility. They share the belief that predictable and efficient door-to-door journeys are extremely important to passengers, who demand journeys without experiencing barriers and unnecessary delays when changing between types of public transport or between operators, and increasingly, when crossing national borders.*

*SYNAPTIC, therefore, has the objective to enhance the framework conditions for intermodality and to promote the development of seamless and integrated mobility networks to facilitate door-to-door journeys by public transport in North-West Europe in the present and in future programming periods."*

A series of round table sessions is also providing a further evidence base to promote mobility improvements. In March 2012, one of these round table sessions, In Genk, Belgium, brought together transport providers, local authorities, and passenger representatives to consider the transport needs of older people in a time of demographic change. The continuing need for customer focussed, smart and flexible mobility solutions was recognised as the basis for SYNAPTIC to carry the debate into the discussions which are currently shaping the next EU Programming Period of 2014 to 2020. The emphasis on a mobility continuum is set to be reflected in future project work.

The continuing involvement of TfGM in the transformation of urban travel opportunities for all has incorporated an evolutionary approach to the management and development of services which are particularly suited to travellers with disabilities and older people. The increasing use of technology, particularly to improve information and ticketing services, is predicted to lead to further improvements. However, the public transport base is one which comprises more accessible conventional services and supplementary provision to extend the reach of public transport into more local communities and to the doors of those who need additional support.

## CONCLUSIONS

From the analyses undertaken for this paper and its associated research studies it would appear that the following conclusions follow:

- Recent trends in the real level of commercial bus fares and thus in the level of reimbursements for free off-peak concessionary travel are placing increasing financial strain on the local funds available to support public transport services.
- Reductions in the commercially provided bus network are likely to result in greater need for subsidised alternative services, for which reduced funds will be available.
- Despite much increased use of low-floor buses, there will remain a substantial proportion of elderly and disabled people who find it difficult to use conventional public transport, partly due to problems getting to and from bus stops and routes.
- Door-to-door services can offer these elderly and disabled users the mobility they need, and in areas and at times when mainstream public transport is not readily available can also provide others with access to the wider PT network.
- Advances in the use of more sophisticated booking and scheduling systems, and in innovative fleet management can make the operation of door-to-door demand responsive transport services more cost effective, especially in urban areas.
- If the user base for demand responsive services is broadened from its traditionally restricted use by those unable to use conventional public transport, then it may become a cost effective means of replacing withdrawn commercial bus services.
- Such a widened role for demand responsive services can both sustain the door-to-door transport that is essential for some disabled people, whilst encouraging greater public transport use and reducing car dependency for a range of users.

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