Features

Transport Accessibility

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Transport for Everyone

The purpose of transport is to provide access—to homes, to jobs, to shops, to friends. Seen from this viewpoint, it is clear that transport should be accessible to everyone because people excluded from the transport system are excluded from the activities of daily life.

In practice, transport systems are difficult to use for very many people. Indeed, the proportion of the population with problems in using transport can be as high as 20%. This group, or so-called 'People with Mobility Handicaps', includes people with severe impairments, but also includes those carrying luggage, with baby buggies, and frail people with difficulty walking long distances. The numbers are increasing because people are living longer, and age and disability are closely correlated.

This article reviews the progress that is being made, looks at some particular issues, and suggests how to achieve barrier-free access to transport.

In Europe, about 110 to 120 million people in the population of 450 million have some degree of impairment. Although the percentage of people with impaired mobility who use wheelchairs is small, public debate often focuses just on this group. An essential starting point in any discussion of barrier-free access to transport is the realization that people with some degree of impairment are not a small minority but are a significant and growing part of the population.

Current Progress

Improving transport for people with impaired mobility is not a new topic and there has been varied progress in many countries as summarized in broad terms below.

Perhaps the most forceful in terms of legislative power is the US Americans with Disabilities Act (ADA). Canada also has strong human rights laws and some European countries are starting to move in the same direction. In terms of specific progress, buses with low floors are widespread in Germany and are now being adopted in many European cities. The most striking progress in integrating specialized and public transport services is in Sweden and Finland with service routes that combine the fixed-route features of public transport with close access to people's homes using small, fully accessible mini-buses. Taxi access is best in the UK where the well-known London taxi cab is the model for a fully-accessible taxi. Car adaptations are improving everywhere and Italy has made significant contributions here through imaginative and well-designed improvements to steering and hand controls, allowing very severely disabled people to drive safely. Improved train access was pioneered in Switzerland through introduction of MOBILIFT, a platform-based lift and later followed by others. The Netherlands and Japan with their sophisticated tactile systems for indicating pedestrian routes are in the forefront for people with impaired vision. France has worked to make information provision and signs clear and easy to understand. Coaches remain a problem because of their high floors, but Canada and other countries have built models that are easily accessible, especially to people in wheelchairs. Aviation and airports have improved almost everywhere.

Consultation with disabled people has improved. Many countries have set up arrangements whereby people with disabilities are consulted on new infrastructure and policy measures. The Disabled Persons Transport Advisory Committee (DPTAC) in the UK and the *Comité de Liaison pour le Transport de Personnes Handicapées* (COLITRAH) in France are just two examples where consultative structures have been put in place.

There is wide political support for improving access to transport. At the international level, political support has been a priority of the European Conference of Ministers of Transport (ECMT), which brings together the transport ministers from 39 European countries and from the

Tactile surfaces warn visually-impaired people of hazards
(UK Department of the Environment, Transport and the Regions, DETR)

Check-in for wheelchair users at Oslo Airport *(Norwegian Association of the Disabled)*

Direct access for wheelchair users on new Paris Météor Metro *(RATP-Audiovisuel)*

countries belonging to the Organisation for Economic Co-operation and Development (OECD). Several resolutions have been adopted and numerous reports published, forming the basis of the political support. The European Union (EU) also actively supports full integration of people with disabilities, both in the social affairs and transport directorates. Although there is political support at the international level, implementation is a national and local responsibility and this is where political goodwill often fails to be turned into visible improvements.

The most far-reaching changes are occurring in the legislative and policy framework and I will look at these in more detail.

Changing Legal and Policy Framework

There are substantial differences between national policies. Some countries (like the USA and Canada) have legislation and regulations that are the result of a highly proactive policy in favour of the mobility impaired. Other countries, especially in central and eastern Europe and developing countries, have introduced very few

measures. Quite a few countries, like the UK, Austria, Finland and Hungary, set out the basic rights of disabled people in accordance with the concept of non-discrimination or equality between citizens. In most countries, this non-discriminatory legislative framework gives disabled people or associations representing them, the right to take legal action for non-compliance with regulations.

There have been many recent developments and, with few exceptions, the laws and regulations in force in Europe and OECD countries date from the 1990s. The binding nature of national or regional provisions is strengthened in some countries by enforcement mechanisms and penalties, although enforcement varies greatly between countries. Six general lessons have emerged from the experience of many countries in introducing new legislative arrangements.

First, legislative 'cultures' differ between countries, making exact comparison difficult. For example, legal provisions that seem very similar have quite different outcomes—as for example between Canada and Hungary. Moreover, laws often have loopholes that are open to different interpretations. New laws are not always

strictly enforced, and some countries are more willing to take legal proceedings.

Second, legislation alone is not sufficient to guarantee improved accessibility. On one hand, legislation needs to be supported by detailed regulations. On the other hand, legislation needs to be backed by information campaigns, by training programmes for all related groups (including architects, town planners and transport providers) and by monitoring to ensure that projects achieve what was originally intended.

Third, a careful balance must be struck between legislation being either too general or too detailed. Most general legislation has clauses with terms like 'reasonable' access or 'acceptable' cost. These terms can result in controversy and can hinder implementation. However, such an approach may be necessary to allow phased introduction. Detailed legislation should not be too specific (for example, in terms of vehicles or equipment) and any specifications should allow a range of solutions and should not prevent innovation. Legislation that is too restrictive can be counterproductive.

Fourth, there is little point in introducing legislation that does not have the support

Train-mounted lift in Sweden   (Swedish State Railways)

of the affected groups and businesses. Although legislation can be passed, its provisions can easily be blocked by technical or other obstacles if there is no basic support. The US experience in the 1970s and 1980s led to much litigation, often with disappointing results, for example, to improve access to the public transport system. Many countries have used codes of practice or guidelines as a non-legislative way of winning broad support (for example, the UK for bus standards, and France for signalling and information provision). Guidelines are a broad trend across Europe and are now being developed gradually into a stricter regulatory framework.

Fifth, legislation must be enforced. This is easy enough when there are specific, defined physical standards to be met. However, assessing infringements of general anti-discrimination or civil rights legislation can be time-consuming, adversarial, and costly. Compliance can be ensured by 'carrot and stick' measures—incentives and penalties. For example, subsidies to public transport companies

can be linked to compliance with legal requirements.

Sixth, legislation must be regularly evaluated against national objectives and the experiences of other countries.

To summarize, a wave of new legislation on improving access is sweeping across Europe.

Removing Transport Barriers

Although legislation will improve the situation for disabled people, it is not the whole answer. The following discussion on barriers in the different transport modes illustrates that not all problems are easy to resolve.

Railways
Railway accessibility poses a number of unique problems. One very special problem is that railway equipment has such a long life that mistakes made now will take more than a generation to correct. More particularly, there is the practical problem of different platform heights, which are not

the same between or even within countries. This means that harmonizing methods of boarding and alighting from trains is not going to be easy. Even now, the International Union of Railways (UIC) is thinking in terms of two standards—760 and 550 mm—for platform heights. The present solutions for people boarding in wheelchairs are often expensive and sometimes unwieldy, or undignified.

In the early 1990s, a joint UIC–ECMT Working Group proposed a set of guidelines for improving access to trains. These guidelines were endorsed in 1992 by the ECMT and were also supported by the UIC. They focus on national intercity and international *Eurostar* trains, although similar principles apply to express, local, and suburban trains.

The guidelines specify the technical and practical standards to make rail travel possible for people with disabilities. For example, wheelchairs that can be accepted on trains should meet the ISO7193 standard (700-mm wide, 1090-mm high, and 1200-mm long). Wheelchair lifts must be able to carry loads of 250 kg and carriage doorways must have a clear width of 800 mm.

Ramps from platform to train can be used when the difference in vertical height is less than 250 mm. The guidelines also set out minimum requirements for wheelchair lifts, toilets, and other facilities on the train. For people with impaired hearing and sight, the guidelines make recommendations about colour contrasts, positions of handrails, step heights, surfaces, lighting, and signs.

These guidelines are now being promoted by many railways and by the European Commission, which has set up a special group involving international organizations, the railways and administrations in 17 countries in the framework of a programme on science and technology (the COST programme, Action 335) to further improve cooperation and implementation.

Buses and coaches

The emergence and success of low-floor buses starting in Germany and now throughout Europe, is a major advance in improving access for all people. In the best cases, completely level access to the bus is assured and movement inside the bus is also easy. Europe and the USA have taken different approaches. In the UK, new legislation requires access but does not specify the technical solutions; in the USA, all new buses must be equipped with lifts by next year, and the entire vehicle fleet must be fully accessible by 2012. In the EU, a general directive on standards for construction of buses has been under discussion for several years. Previous versions of these regulations did not take account of the needs of people with disabilities and there is a pressing need now that new regulations will permit a framework for innovative solutions to these needs.

The cost difference between traditional and low-floor buses is falling and is now only about 10%. Economies of scale will cut the difference further. In general, bus operators do not like ramps or lifts, which can mean extra costs of about 6% and slower operating times. Even if ramps or lifts are not used, buses must be able to get close to bus stops—illegally parked cars make this a universal problem.

Taxis

Taxis are the only mode of public transport available 24 hours a day all year round. They are fast and flexible but their ability (and willingness) to carry disabled people varies greatly. The main difficulty is the cost of adapting cars to accommodate disabled and older people and, especially, people in wheelchairs. Taxi operators argue that these costs cannot be afforded in an already very competitive marketplace. There are guidelines and political recommendations but implementation remains a problem.

The taxi operators have suggested a two-stage process to achieve better access. First, all taxis could be improved using small modifications like wider doors, better grips, more leg room and a swivel seat, so entry and exit is easier for all. Second, some taxis in every city would have special access for wheelchair users. However, many cities have not even made these small advances and the ECMT is cooperating with taxi operators to see how progress can be made.

Future Challenges

Overall, progress is slow, partly because of the long-term nature of the assets, but also partly because of arguments about funding. Disappointingly, too, some new equipment is not fully satisfactory from the accessibility viewpoint. Cities continue to buy high-floor buses, building accessibility rules are often ignored, and regional airports do not always achieve good practice. On the positive side, the situation with new urban rail systems and trams is encouraging—most new systems are being built with level access so that people in wheelchairs, or pushing baby buggies, etc., can board and alight with ease. The new Paris *Météor* metro and low step-free buses in Newcastle, UK, are good examples.

However, a great deal remains to be done. It is still far from easy for a disabled person to travel in comfort, dignity and confidence. Parts of a journey may be fine but some links and changes can be very difficult. The challenge is to create an integrated transport chain with no weak links.

Some countries, especially those where disability is ignored, and having few financial resources are compelled to start from a point that is a long way from best

Low, step-free buses provide free access for disabled passengers   (DETR)

Compact Fiat with roof-mounted wheelchair lift
(Portuguese Ministry of Equipment, Planning and Territorial Administration)

practice. They still have much to do to change attitudes and to win political support. Hopefully, ECMT's new *Guide to Good Practice* will help them learn from the earlier mistakes of other countries.

In this field, progress too often depends on a few motivated people, and a wider community of interest must be generated to bring about the needed changes. This community must include planners, architects, engineers, and policymakers. In most areas, the extra costs of providing full access and better quality are quite small and will benefit everyone. I think there are four key principles as follows:

Respect fundamental principles

Effective progress depends on maximizing a 'design-for-all' principle in combination with introduction of assisting technology where needed.

The needs of disabled people must be considered when new investments or improvements are made. New legislation must take account of accessibility as a matter of course. The goal of achieving autonomous mobility must be built into the new framework when markets are deregulated or companies privatized. Whenever new technology is introduced, it must be accessible to all disabled people, as well as elderly people.

There must be full recognition of the importance of these issues at the political and technical levels. In particular, town planners, architects, and engineers must be trained to understand the needs of disabled people. Finally, the extra costs of providing independent mobility must not impose higher fares on disabled people.

Balance legislative, technical and advisory actions

A combined approach is needed to achieve practical progress. It is important to strike the right balance between general legislation, for example, on civil rights or discrimination, and detailed regulations on technical standards and non-

legally binding guidelines or codes of practice. All these approaches must be combined for maximum effect at both national and international levels. Transition countries in central and eastern Europe, and others just starting to tackle this topic, should realize that there are low-cost measures such as staff training and personal assistance, signs, parking, and colour contrasts that can greatly improve the situation for many people.

Use market and resources

Both governments and operators must rise to meet the growing commercial opportunities of providing transport services for people with reduced mobility. Older people are more affluent than in the past and will want to continue travelling. Many operators are still slow to examine this new business opportunity.

Governments must find ways to improve coordination in allocation of resources. Many groups provide transport services for disabled people, including voluntary groups, local authorities, hospitals, and others. Governments and operators must cooperate in maximizing the potential for accessible mainstream public transport services that improve service levels to all passengers and can reduce the need for special services.

They must work together to develop common organizational and funding structures so that specialized services, which will continue to have a role for severely disabled people, are seen as a complement to accessible public transport and not as a substitute.

Improve and share information

Research to identify problems and find solutions must continue at national and international levels. Sharing information and experience is vital in order to use resources efficiently and to avoid making the same mistakes.

Conclusions

We need to achieve a quantum leap in the quality of transport provision. This does not mean making special improvements for a small minority. Well-designed improvements that take account of people with disabilities help everyone. Good examples are easily boarded low-floor buses and trains, shorter walking distances at stations and connections, and clear signs and information.

The longer-term objective should be the disappearance of the international blue wheelchair symbol, meaning that there is no need to identify separate facilities for disabled people, because they will be able to travel as easily as everyone else. ∎

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