

DEFINING VULNERABILITY

Although not classified as disabled, or necessarily being impaired, there is a large section of the population who may have difficulties with normal day-to-day activities within a city environment that is not designed to be accessible.

Vulnerability within the terms of accessibility includes exposure to danger, accident and damage as a result of the use or engagement with motorized forms of transport, means of access to them and/or to the track upon which they operate. An accessible environment must be designed to favour non-motorized over motorized users throughout the built environment. Non-motorized users clearly include able bodied individuals examples of whom can be seen opposite. Disabled users tend to sit on the far end of vulnerability but this is not always the case. Those who are temporarily vulnerable can be more vulnerable as they have not developed the skills and techniques to navigate their way around in the same way as a permanently disabled person would.

ABLE-BODIED PEOPLE

- Children
- The elderly
- Pregnant women and/ or parents with infants
- Parents with buggies
- Cyclists
- Powered two wheelers
- First aid and emergency service personnel
- People carrying heavy shopping bags
- Tourists or visitors with heavy luggage
- People unfamiliar with country's language or norms (see figure 2)

DISABLED PEOPLE

- Disabled people with a range of impairments, both temporary and permanent
- People with temporary injuries that limit their mobility
- Wheelchair users – manual & powered chairs & scooters
- People who need to travel with a companion (see figure 1)



Figure 1 / Defining vulnerability



Figure 2 / Defining vulnerability

If we look in more detail at these groups we find:

PEOPLE WHO USE A WHEELCHAIR:



Although this is a relatively small user group there is a wide range of users some of whom may have more than one form of impairment.

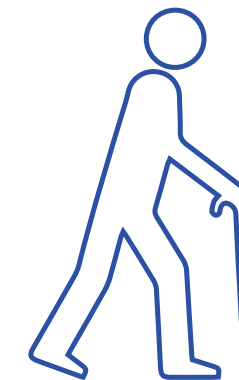
Short-term users: typically people who have damaged a lower limb or due to other illness lack the physical strength to be fully mobile. This group may not develop the skills of long term wheelchair users and almost certainly do not perceive themselves as being disabled. In terms of legislation they may not even be classed as disabled unless their impairment lasts longer than a given period of say 6 or 12 months. People with sports injuries often fall into this category.

Long-term users: typically people who have suffered permanent loss of limbs or ability to use limbs and/

or who lack the physical strength to be fully mobile. Physical mobility may also be accompanied by various degrees of mental impairment. As well as people with recognised forms of impairment there will also be the elderly and infirm and increasingly those people whose weight restricts their mobility.

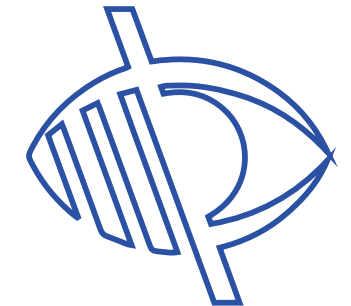
Wheelchair design continues to develop both for standard and powered versions. Some users may be accompanied by a helper / helpers whose needs should also be recognised.

PEOPLE WHO HAVE MOBILITY IMPAIRMENT:



This group is made up of those people who can walk but require walking aids and for whom walking long distances may be difficult and/ or uncomfortable e.g. the elderly. They will benefit from designs that reduce travel distances and/or the need to stand for long periods. This group will also include those people who use a prosthetic device.

PEOPLE WHO HAVE A VISUAL IMPAIRMENT:



This group includes those who are totally blind as well as people with visual impairments who may have some degree of vision. For the completely blind the lack of obstructions and the provision of tactile and audible guidance are going to be important. For the partially sighted clear pathways, signage, colour contrasts and non-reflective surfaces are going to be important.

PEOPLE WHO ARE HARD OF HEARING:



This group includes those who are totally deaf and often rely on sign language or require interpreters and TTY (text telephone) services. However, the majority in this group are people who have some level of hearing and benefit from assistive hearing devices and systems.