

# Part 1

## Planning for access and inclusion for people with disabilities



making a difference



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# People with disabilities

## Background to disability

A disability may be defined as any physical, sensory, neurological, intellectual, cognitive, or psychiatric condition that can impact on a person's lifestyle and / or everyday function.

According to the Australian Bureau of Statistics, in 2006, more than 405,000 Western Australians were identified as having a disability. There are many types of disabilities, including sensory, physical, intellectual, cognitive, neurological and psychiatric disabilities. As a result some people may have difficulty with mobility, hearing, vision or communication.

Disabilities can occur at any time in a person's life. For some, the disability begins at birth. For others, it can be the result of a sporting or motor vehicle accident. Other people acquire disabilities later in life through various illnesses or ageing.

Some disabilities can affect a person's ability to communicate, interact with others, learn or get about independently. A disability can impact on a person's employment, education, recreation, accommodation and leisure opportunities.

Disabilities may be short or long term. Some are episodic and many people may have more than one disability.

## Causes of disability

The causes of disability vary. As a person ages the severity of the disability can change.

Disabilities may be:

- genetically determined;
- environmentally determined; or
- of unknown cause.

A genetically determined disability is usually inherited from the parents. However, a new genetic error can occur leading to symptoms of the condition. Examples of this are cystic fibrosis and muscular dystrophy.

An environmentally determined disability results from an accident, injury, disease or infection. Examples include acquired brain injury, spinal cord injury and diabetes.

Sometimes a disability is of unknown origin. This is the case with many physical and intellectual disabilities and with some forms of mental illness.

Disabilities vary according to individual circumstances, however the following generally applies.

## **People who are Blind or have vision impairments**

People with significant vision loss can be totally blind or have low vision. Some causes of vision loss are:

- glaucoma
- diabetes
- cataract
- trauma to the eye through an accident, injury or disease

## **People who are Deaf or have hearing impairments**

People who have a hearing impairment or are Deaf can have a hearing loss ranging from the very mild through to profound. The majority of people have mild hearing impairments and communicate verbally. People who are Deaf may communicate in Auslan (Australian Sign Language).

## **Cerebral palsy**

Cerebral palsy (CP) is a term used to describe a number of conditions that cause abnormalities of movement and posture. The degree of disability can range from minimal to severe. People with cerebral palsy may also have difficulty in communicating and with mobility.

## **Multiple sclerosis**

Multiple sclerosis (MS) affects the central nervous system and interferes with the transmission of nerve impulses throughout the brain and nervous system.

Symptoms can include sensory changes, muscle weakness, fatigue, pins and needles, numbness or blurred vision. MS can also affect mobility and muscle coordination, bladder control, speech, balance, concentration and memory.

## **Intellectual disability**

For many people who have an intellectual disability the cause is unknown. For others there may be a well-described syndrome. The majority of people with an intellectual disability live in the community, supported by a range of services to meet their needs.

Intellectual disabilities can occur in various degrees of severity and each person's abilities will differ accordingly.

## **Paraplegia and quadriplegia**

Both paraplegia and quadriplegia result from injury to the spinal cord. This injury causes muscle paralysis and sensory loss. Injury to the spinal cord occurs at different levels and this determines the severity of the condition.

The most common causes of spinal injury are falls and diving and traffic accidents.

Most people with these conditions experience problems with mobility and often use a wheelchair.

## **Other disabilities**

There are many other disabilities that have a significant impact on the lives of people and may affect their ability to access information, or to use a service or facility. These include:

- arthritis
- acquired brain injury
- stroke
- psychiatric and behavioural disabilities

## **Planning to overcome barriers to access and inclusion**

The main type of disability in Western Australia is physical disability, which affects nearly three quarters of people with disabilities.

Planning to provide good access for people with disabilities will also provide benefits to other members of the community who may be disadvantaged in terms of access. Examples include:

- parents with prams, and seniors who find it difficult to negotiate steps or steep gradients;
- people who have a temporary disability through accident or illness;
- tourists and people from culturally and linguistically diverse backgrounds who may find it difficult to read signs or understand information; and
- small children who have difficulty climbing steps or understanding information.

People with disabilities face barriers to everyday activities such as hearing what is said, seeing small print, climbing stairs and understanding signage. The impact these barriers have on the life of the person concerned can be major, particularly if the individual has multiple disabilities.

Often people with disabilities are unable to do many of the things most of us take for granted, such as:

- visit the local library or other community centres;
- read and understand public notices and newsletters;
- use public transport;
- participate at the local swimming pool or recreation centre;
- hear what is said at a public meeting; and
- shop at the local shops.

The exact impact of a disability on the life of an individual varies according to a number of factors including:

- the specific nature and severity of the disability;
- the person's strength, stamina, size, weight and age;
- the person's ability to cope; and
- the physical, social and economic environment within which the person is living.

Other factors that need to be considered when planning services for people with disabilities include:

- the impact not only on the person with the disability, but also on their family and carers;
- the additional disadvantages facing people with disabilities, their families and carers in rural or remote communities;
- additional specific opportunities and supports needed by people from a non-English speaking background;
- the increased likelihood of disability as people get older; and
- the continuing rise in the number of people with disabilities as the Western Australian population ages.

It is important to note that many environmental barriers can be avoided with informed planning.

Creating a community which is accessible and inclusive will minimise the effect of disability.

# Barriers to access and inclusion

## What does access and inclusion mean?

Access and inclusion means different things to different people. Processes and outcomes for access and inclusion cannot be prescriptive, and must take into account the diverse needs of individuals and the nature, strengths, priorities and resources of a community. The common elements of access and inclusion are the removal or reduction of barriers to participation in the activities and functions of a community, by ensuring that information, services and facilities are accessible to people with various disabilities.

A person's ability to access information, services and facilities is affected by a number of factors, including the degree and type of disability, which can vary considerably between individuals.

## An example of how access and inclusion matters

To appreciate the diverse facets of access and inclusion, imagine that you are a person who uses a wheelchair and you wish to visit your local community centre. You are able to drive your own car and therefore do not have to try to use public transport.

When visiting your community centre:

- You ring to check the accessibility of the venue and are assured that it is accessible. You arrive and park in an accessible parking bay, however you cannot get to the footpath as there is no ramped kerb from the parking bay to the footpath.
- You make a long detour through the parking area and when you get to the front door find it is too heavy for you to open. You wave and someone opens the door for you.
- You get to the reception counter and, although it is high, you can partially see the receptionist and get your query answered.
- You are directed to the enrolment desk for community courses. Your chair cannot fit under the desk. You go back and wait in line until the receptionist is available to help you fill in your form.
- You prepare to pay your enrolment fee. The cashier's desk, however, is upstairs and, as there is no lift you have to wait while the receptionist arranges for the cashier to come to you with a receipt book.
- You wait in the foyer for the cashier and look at the noticeboard. You see a flyer and pamphlets promoting a community consultation about proposed changes to zoning in your district. As a resident you are interested, however, you cannot reach the pamphlet dispenser. You also notice the venue for the consultation, and know that it is not wheelchair accessible.
- You bump into a friend and decide to have a coffee. However you skip the idea when you see that the entrance to the coffee shop is up three steps.
- You decide to visit the toilet prior to going home and are pleased to find that it is accessible.

To demonstrate the application to a Disability Access and Inclusion Plan (DAIP), the access and inclusion barriers encountered in the above example have been applied to the six desired outcomes.

- **Barriers to services and events:** The reception desk in the foyer was too high for a person in a wheelchair to be able to communicate comfortably and therefore access services at the centre.
- **Barriers to physical access:** In this instance the kerbs, footpaths, weight of doors, access to desks, the cashier counter and the steps to the coffee shop all created physical barriers.
- **Barriers to accessible information:** It was good that there was a notice board in the community centre foyer, however, the information was out of reach for a person in a wheelchair.
- **Barriers due to lack of staff awareness:** The receptionist remained behind the desk and was unaware that it would have been preferable for her to come from behind the counter and sit at eye level with the person in the wheelchair when answering queries.
- **Barriers to participate in public consultation:** The person with the disability did not have the same opportunity as others to participate in the community consultation because neither the information or the consultation venue were accessible.
- **Barriers to participate in making a grievance:** Staff awareness, counter heights to write a complaint and information not available in an alternative format meant that it would be difficult to make a grievance complaint for this person.

In addition to the above DAIP outcome areas, there were also barriers to opportunities to socialise. The lack of physical access at the coffee shop resulted in the loss of an opportunity to socialise with a friend and inclusion into the community.

If a person with a hearing or vision impairment was visiting the same local community centre as the one used in the above example, they would have faced different barriers.

Identifying solutions to access barriers requires careful thought and informed planning. Solutions to access barriers may not always involve major expenditure and can benefit the whole of the community.

## **Designing access for people of all ages and abilities**

The following section highlights design implications for access. There are many different types of disabilities, but there are implications for service planners and providers in three major areas of disability:

- physical, including people who use wheelchairs, people who have difficulty walking and people who have difficulty with finger or hand control;
- sensory (vision, hearing); and
- people with disabilities that affect communication and thought processes.

## **People with physical disabilities**

### **People who use wheelchairs**

Although the number of people who use wheelchairs is small compared with other physical disability groups, the implications for designers are, in many ways, the greatest. If the needs of a person who uses a wheelchair are considered by designers of facilities used by the general public, then the vast majority of people (including people with prams, goods or shopping trolleys) will also benefit.

Design considerations for people who use wheelchairs include:

- avoidance of abrupt vertical changes of level (eg kerbs, steps, ruts, gutters) to ensure a continuous accessible path of travel;
- avoidance of excessive slope (camber) across the direction of travel on a footpath, which makes control of the wheelchair difficult;
- provision of adequate forward reach and available clearance under basins, tables and benches to allow access for the person using the wheelchair as well as their wheelchair footrests and front wheels;
- provision of adequate doorway width and space within rooms to allow for wheelchair dimensions and turning circles; and
- avoidance of surface finishes which hamper wheelchair mobility (eg gravel, grass or deep-pile carpet) and surfaces that do not provide sufficient traction (eg polished surfaces).

### **People who experience difficulty walking**

People who experience difficulty walking may have disabilities that arise from medical conditions including stroke, lower limb amputation, cerebral palsy, Parkinson's disease and arthritis.

This description includes those people who:

- use a walking aid (crutches, stick, frame, guide dog);
- wear a leg brace or have an artificial limb;
- have limited physical stamina;
- have stiff or painful back, hips, knees or ankles;
- have uncoordinated movements;
- walk slowly; and
- have balance problems.

Design considerations for people who experience difficulties walking include:

- specific attention to steps and handrail design to ensure adequate support and a feeling of confidence and ease when negotiating steps;
- provision of cover from weather, as slowness of movement can result in greater time spent along walkways and getting into buildings;
- provision of seating in waiting areas, at counters and along lengthy walkways to reduce fatigue;

- awareness that a ramp can prove difficult for some ambulant people, steps and lifts providing useful alternatives;
- identifying access hazards associated with doors, including the need to manipulate a handle while using a walking aid and difficulty moving quickly through swinging doors;
- providing surface finishes that are slip-resistant, evenly laid and free of hazards to minimise risk of injury; and
- minimising street clutter caused by signs and billboards and placing these away from the main pedestrian flow.

## **People who have difficulty holding and/or manipulating objects**

Problems associated with manipulation and holding may be due to arthritis, neurological conditions (such as Parkinson's disease, multiple sclerosis or cerebral palsy), nerve injuries and upper limb (finger, hand or arm) amputation.

Design considerations include:

- the operation of fittings such as door handles, switches, lift buttons and taps, (generally levers are preferable to knobs); and
- the operation of switches or buttons (large switches or push buttons that can be used by the palm of the hand are preferable to switches or lift buttons that need finger operation) while sensor devices may assist some people.

## **People with sensory disabilities**

**People with sensory disabilities may have partial or complete loss of sight or hearing.**

Design considerations for people who may have partial or complete loss of sight include:

- providing ways they can identify changes in direction, changes in level, hazards and obstacles such as projecting signs and windows;
- attending to the size, colour, colour contrast, location, illumination and type of signs;
- providing for clear, even illumination levels in and around buildings so they are not dangerous and confusing;
- planning so that a person who is unable to see will know whether a lift has arrived at the floor or whether it is going up or down; and
- being aware that escalators can be difficult to use and that well-designed stairs or ramps are a useful alternative.

Considerations when designing facilities or services for people who are Deaf or who have a hearing impairment include:

- providing information that is both written and spoken in public buildings such as transport terminals and airports (eg visual display boards as well as voice announcements); and
- providing an audio loop system or other appropriate hearing augmentation systems to assist people who use hearing aids in public places such as auditoriums and conference facilities.

## **People with disabilities affecting communication and thought processes**

People with a wide variety of disabilities, including intellectual, cognitive and psychiatric disabilities, may have significant difficulty when it comes to asking for and understanding information. Clear information also assists children and people from culturally and linguistically diverse backgrounds.

Design and service provision considerations when planning for people who have intellectual, cognitive or psychiatric disabilities include:

- need for clear signage;
- need for clear pathways through a building;
- provision of information with clear instructions;
- service provision through personal assistance; and
- well-planned, uncluttered environments.

This section on Designing for Access and Inclusion has been taken from *Designing for Access - Beyond Minimum Requirements*, a paper presented by Helen McAuley of ACROD National at an Australian Standards seminar on access.