NHS National Services Scotland

Wayfinding

Effective Wayfinding and Signing Systems guidance for healthcare facilities

Health Facilities Scotland
Property and Capital Planning

October 2007

Contents

Executive summary

The focus of this document is on assessing and improving wayfinding systems at healthcare sites. The term 'wayfinding' describes the processes people go through to find their way round an environment. The wayfinding process is fundamentally problem-solving and is affected by many factors which are covered in this section. People's perception of the environment, the wayfinding information available, their ability to orientate themselves spatially and the cognitive and decision-making processes they go through, all affect how successfully they find their way.

In order to develop an effective wayfinding system, a wayfinding strategy is needed. Simply putting up new signs in place of old ones, or where there is a blank wall, will rarely solve wayfinding problems or produce an effective wayfinding system.

The information people receive before they visit a site can enable them to prepare for their journey; plan how they will get to the site; estimate how much time they need to allow to get to their destination; and also provide other information about the site or appointment. However, pre-visit information is only useful if it is clearly presented and links with other information, such as signs, that people will see on their way to, and at, your site.

Before they can begin finding their way around your site people have to be able to get to the site, and then locate an appropriate public entrance, so it is important to ensure that road signs, signs at site entrances, and pre-visit information all enable people to find the site easily and to identify the most convenient site entrance, whichever method of transport they use.

Once people have entered your site, they need to find somewhere to park their car or get dropped off near their destination. They also need to identify the building they require, find a route to the building, find an entrance into the building, then a route through the building and finally identify their destination.

When developing a wayfinding system, sites should give as much consideration to the environmental factors, such as clearly defined pathways and architecturally prominent entrances, as they do to pre-visit information, signs and maps.

When people talk about finding their way they usually think of signs, but signs alone cannot overcome the wayfinding problems caused by a complex, illogical site layout, or inconsistent, conflicting wayfinding information.

However, signs do play a key role in any wayfinding system and need to link with the other wayfinding information people will receive. If signs are designed to be understandable for a first-time visitor, and people with visual impairments have been considered, they should be effective for all site users.

Each type of sign has features or uses which need to be considered in addition to the general issues discussed in Section 4. For example, directional signs have to clearly indicate direction in some way, and safety signs have to comply with standards for safety colours and sign layout in order to be effective.

To produce a more effective wayfinding system for your site, you need to evaluate the current system. By identifying the wayfinding problems your site users have, and the areas particularly in need of attention, you will then be able to improve your wayfinding system. The tools in this document are designed to help with this task and can be photocopied for use. Where necessary they should be modified to suit your site's requirements. When using questionnaires, you must distribute them with great care, as it is very easy to influence the answers that people will give.

Best practice guidelines are included throughout the document, with illustrations of recommendations to follow and practices to avoid. The implications of the NHSScotland corporate identity for wayfinding are discussed, and the guidelines support this initiative.

1. Introduction

In any publicly-accessed site, people can have problems finding their way. Getting lost is so much a part of life that solving wayfinding problems is often given a low priority, ignored, or dismissed as an unalterable and unavoidable aspect of the site's design. Too many people, given the task of improving wayfinding, limit the solution to developing attractive signs. However, many other issues which affect how people find their way need to be considered: how clearly staff direct people verbally, what destinations are called in appointment letters, architectural features of the site which make it easier, or more difficult, for people to see where they need to go, and many more factors which are discussed in this book.

Guidance from NHSScotland

1.1 Some readers of this document will be familiar with the 1984 edition of HTM 65: 'Signs', which this publication replaces. That document was published for a centrally controlled NHSScotland and so the book was prescriptive, outlining the single system for hospital signing which was to be used at all NHSScotland sites.

There was much to commend this system of mainly brown and white signs with Jock Kinneir's Health Alphabet, but wayfinding is not just signs.

Wayfinding

1.2 This guidance takes a different approach, explaining the main factors that affect how people successfully find their way around healthcare facilities. Rather than setting out a series of rules that must be followed by everyone, we acknowledge that each Board, and each site, has its own problems and priorities. We have provided information that will enable you to develop solutions that will suit your particular situation.

Where appropriate, we have included recommendations, and described good and bad practice, highlighting approaches to avoid as well as ones to adopt. We know that this book will be used by busy people, with very practical concerns, so we have divided it into five largely self-contained sections, including a number of paper-based tools – a checklist, a questionnaire and survey sheets – that can be photocopied (or, for NHSScotland users, downloaded from the Knowledge and Information Portal) and used to evaluate your site.

The focus of this document

1.3 The focus of this document is on assessing and improving wayfinding systems at healthcare sites.

The document is primarily written for people working with wayfinding systems at healthcare facilities on a day-to-day basis, such as estates and facilities managers and patient services managers, but will also be of interest to architects, sign manufacturers and other people who are involved or interested in the design and implementation of effective wayfinding systems.

Developing an effective wayfinding system

1.4 It is important to develop a wayfinding strategy for your site, and this is discussed in paragraph 3.1. However, this document focuses more on developing an effective wayfinding system that guides people along each stage of their journey through your site.

Simply putting up signs will rarely solve wayfinding problems, but signs do form a key part of any wayfinding system and are therefore discussed in some detail in Sections 4 and 5.

The Knowledge and Information Portal (KIP)

1.5 NHSScotland staff are able to download NHSScotland publications free of charge from The Knowledge and Information Portal (KIP). This is accessed using a unique username and password obtained by completing the application form on the homepage at http://knowledge.nhsestates.gov.uk

Wayfinding is not just signs

1.6 This document takes a rather broader perspective on helping people find their way round healthcare sites than the earlier Health Technical Memorandum (HTM) 65 ‘Signs’.

It is only by paying attention to the many factors that affect wayfinding (see paragraph 2.2), rather than just focusing on signs, that it is possible to understand what happens when people move around your site, and to do something to influence, or even better control, people’s behaviour.

What is wayfinding?

1.7 The term ‘wayfinding’ covers everything to do with how people find their way round environments.

Section 2 sets out what wayfinding means, including the people factors and aspects of the environment that affect people’s ability to find their way. The information that is relevant to developing successful wayfinding systems is also discussed in this Section.

Wayfinding is a subject that is receiving increasing attention, and if you are interested in finding out more about it, there is a selection of references in Appendix 1.

Wayfinding systems for all users

Disability Discrimination Act (DDA)

1.8 The final part of the 1995 Disability Discrimination Act came into force in October 2004. The DDA has major implications for wayfinding systems at all healthcare facilities. All sites will have to allow access to all areas, removing physical barriers or providing reasonable alternative access for disabled people. You will also have to provide accessible wayfinding information and aids such as large-print written directions, good lighting at information desks to enable people who are deaf or hard of hearing to lip-read and both audio and visual safety information in case of an emergency.

For more information on the DDA visit http://www.disability.gov.uk/dda

For more information on accessibility issues see HFN 14 'Accessibility – design issues'.

The NHSScotland corporate identity project

1.9 The National Health Service (NHS) in Scotland has a strong identity – the NHSScotland logo has a very high recognition rate amongst the public and carries high levels of trust and credibility. In the increasingly diverse healthcare environment, the NHSScotland brand can help to reassure and guide healthcare premises users and the public, especially by signposting access to NHSScotland services.

It is therefore important that the NHSScotland brand is represented consistently and prominently on all main signage for all NHSScotland organisations.

Specific guidelines giving direction on how to apply the NHSScotland corporate identity to main signage have been developed to ensure that your signs have clarity and impact.

Research-based approach to wayfinding

1.10 The observations and recommendations in this book are in part based on research carried out by The Information Design Unit of Enterprise IG between August 1997 and June 1998. This research is referred to as 'IDU 98' in this book.

Extensive literature review

1.11 The other main basis for this book was an extensive literature review. We have included a selection of references in Appendix 1.

Healthcare survey sites

1.12 A list of the healthcare sites involved in this research is included in Appendix 2.

Non-healthcare survey sites

1.13 A list of the non-healthcare sites involved in this research is included in Appendix 2.

Expert opinions and advice

1.14 The members of the expert panel are listed in Appendix 3.

2. What is wayfinding?

The term 'wayfinding' describes the processes people go through to find their way round an environment. The wayfinding process is fundamentally problem-solving, and is affected by many factors which are covered in this section.

People's perception of the environment, the wayfinding information available, their ability to orientate themselves spatially, and the cognitive and decision-making processes they go through, all affect how successfully they find their way.

How people find their way

Wayfinding is a problem-solving process

2.1 People make a series of decisions when wayfinding. The first is the decision to make a journey to a particular destination, the second and third are how they are going to get there (by car, bus, taxi, etc), and the route they will take. The subsequent decisions are based on a variety of factors relating to the person making the journey, the environment they journey through and the information they have. All wayfinding decisions are influenced by the previous decision, so they are interrelated.

If people successfully solve a wayfinding problem on their first visit and can remember the solution, they should not have a problem on their subsequent visits. This is also relevant for the return journey people have to make to get back out of a building and out of the site. People have to be able to follow a route in reverse.

Problems with the decision process arise when:

- people have never visited a site before and cannot understand the information available;
- people cannot remember or recognise the route they took last time;
- the environment and wayfinding system at the site have changed.

Arthur and Passini (1992) identify three key processes in the wayfinding process:

- decision making – decide to make a journey, and develop a plan of action to get there by making a series of connected decisions;
- decision executing – put the plan into action by setting out on the journey. Factors along the route may produce a change in the plan of action and affect decisions made along the route. People will look for information in order to create a mental model of the route and layout of the site;

- information processing – process the information using all available senses. Need to understand the information, including spatial information, and be able to utilise it in context.

Mental model of a site

People usually create a mental model (also referred to as 'mental image', 'mental map' or 'cognitive map') which simplifies the environment, and the routes through it, based on available information. When they arrive at a site, or continue along a route, they then try to match their mental model to the actual environment. This is a part of the process of decision executing.

Wayfinding problems connected to a mental model arise:

- if the actual environment and on-site information conflict with their mental model of the site and route, or do not appear to match the mental model;
- if they have to do a wayfinding task which requires them to alter their mental model, for example retracing their steps to the exit requires people to rotate the model in their head;
- if a site map which is being used to support a mental model portrays the site very differently to how they imagine or can see the actual environment.

Providing information, such as a schematic plan or map of the site, enables people to create a simple mental image.

Decision points

Decision points (also referred to as 'nodes' or 'choice points') are the points where people need to make a decision, using the available information.

The majority of people following a particular route may experience the same decision points (perhaps at a corridor intersection, or a lift lobby), but not everyone will behave or react in the same way.

The location of the key decision points at your site and what information is required at each point should be identified to form a basis for the wayfinding strategy and system at your site.

Environments that conflict with preconceptions

An individual will have an expectation, developed from various sources, of what an environment will look like – their mental model. They will also have a preconception of what wayfinding aids will be available to help them find their way around the environment. If the setting, and the wayfinding aids located in it, do not correlate with this expected image, wayfinding problems will often occur. People then have to try to generate an alternative mental model of the environment to help them find their way.

People will also have problems if the wayfinding aids give information that conflicts with what they can see in the actual environment.

Information processing

People will generally only look at information such as signs and maps for a very short time (possibly less than a second). If the information they require cannot be identified and understood easily and quickly, they will look for another source of information.

They will quickly make judgements on what information appears relevant to the task they need to complete. This process of quickly selecting information that appears to be relevant is necessary because of the excessive amount of visual information in most environments.

Information overload

Information processing is more difficult when there are a lot of elements which are not relevant. This can lead to information overload, when people reduce their intake of information so they can cope. They then become unable to see the information they require even if they are looking at it.

The clarity, understandability and legibility of the information received before a journey, on the way to a site and at a site, affect how easily people can process this information and subsequently find their way.

A typical journey

Having decided to make a journey, people will encounter a series of decision points along the route. They look for further information at these points in order to make a decision about which way to go next. It is possible to categorise these 'decision points' when visiting a healthcare facility – as shown in Figure 1.

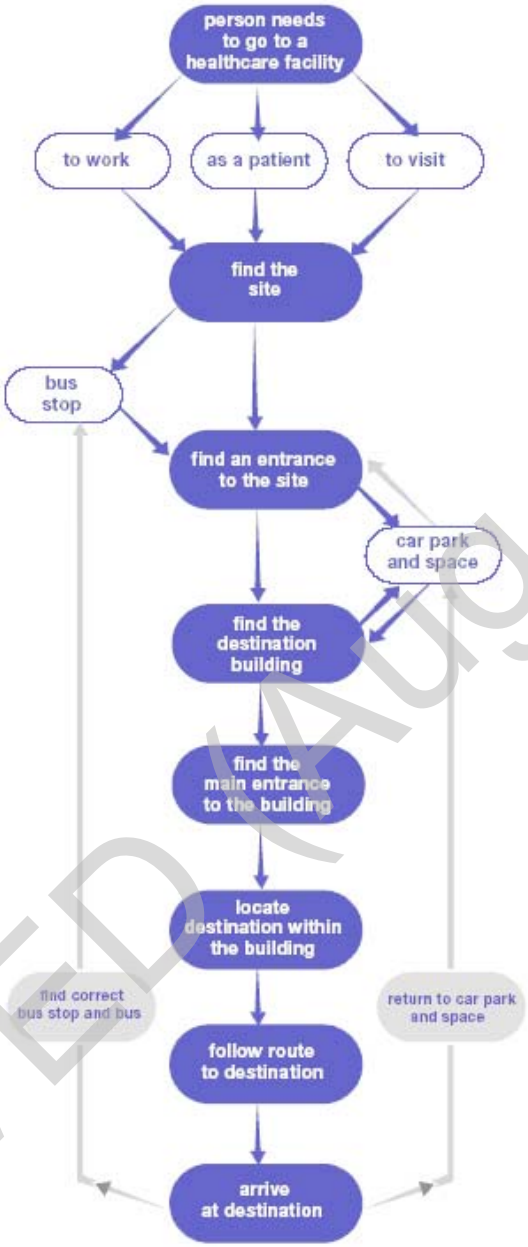


Figure 1: A typical series of tasks that require decisions to be made when going to a healthcare facility

Factors that affect wayfinding

People factors

2.2 The knowledge, experience and ability of the person making a journey affect what decisions they will make and how easily they will find their way.

People factors that influence the decisions they make

- prior knowledge of, and familiarity with, the environment;
- attitude to, and preconceptions about, the environment;
- emotional state;
- choice of mode of transport;
- sensory acuity, particularly visual and hearing acuity;
- ability to understand the language used on signs and spoken by staff;
- mobility – temporary limited mobility (for example because of a broken leg or using a pushchair or carrying a child), permanent limited mobility (deteriorating due to old age), or people using a wheelchair;
- ability to 'read' and understand site maps;
- ability to hear and remember spoken directions;
- sense of direction and ability to create an effective mental model of the site layout;
- preconceived image of the site, and how far this correlates with the actual environment and the wayfinding aids located in it.

Environmental factors

2.3 Features of the environment the journey is made through will affect how easy people find it to make appropriate decisions along their route.

Environmental factors that influence the decisions people make

- complexity of the site, routes, interiors of the buildings;
- recognisability and memorability of the site, routes and buildings from a previous visit;
- identifiability of the site entrance from all directions of approach;
- visual accessibility – whether the building entrance or the destination can be seen;
- possibility of creating a simple mental model of the layout of the environment;
- difference in areas and buildings at the site – in the architectural style, colour, size etc;

- identifiability of building entrances;
- visibility of an information desk on entering the building;
- number of changes in direction along each route;
- level of visual clutter detracting from, or obscuring, entrances and signs;
- clearly defined pedestrian pathways, externally and internally;
- prominent landmarks for people to notice, remember and recognise, internally and externally.
- The degree of cognitive impairment, not all people with cognitive impairment will be accompanied.

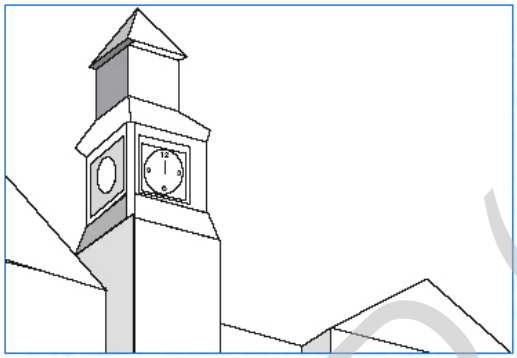


Figure 1.2: Environmental factors that influence the decisions people make include prominent landmarks for people to notice, remember and recognise

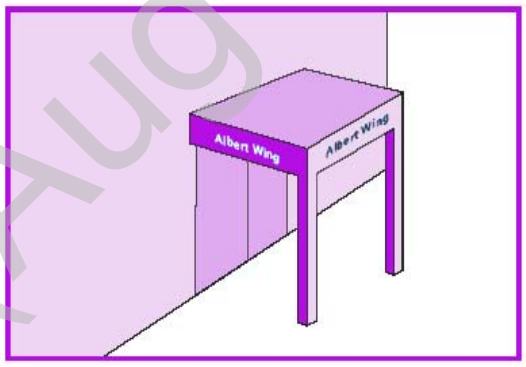


Figure 1.3: Identifiable building entrances

Information factors

2.4 People receive, see, and look for a range of information to help them find their way. The clarity, accuracy, legibility, positioning, prominence and understandability of this information will vary between sites, and often between different departments at the same site. The extent to which this information conflicts with what people can see in the actual environment will also influence how easily they find their way around a site. There are four types of information that enable people to complete all stages of their journey successfully.

Pre-visit information

The information received before a visit allows people to prepare before setting off, and usually includes one or a number of the following:

- appointment letters;
- site map sent with pre-visit information;
- spoken directions;
- written directions.

En-route information – getting to the site

The information people use to get to the site includes:

- road signs;
- site entrance signs;
- environmental information.

On-site information

The information people use to get around the site includes:

- signs;
- directories;
- site maps located at the site;
- environmental information;
- spoken directions.

Locational information

The success of a wayfinding system is judged by how easily a person gets to their destination, and knows that they have arrived.

The information people use to know that they have arrived at their destination includes:

- prominent and legible locational signs using terminology that links with pre-visit information and spoken directions;
- distinguishing environmental features such as toys at the entrance to a children's ward, or coffee smells and tables and chairs at a café;
- a reception desk with a locational sign indicating they have arrived at their destination;
- asking someone, such as a receptionist, if they have arrived at their destination provides reassurance for people.

Wayfinding is a multi-sensory task

The four senses used for wayfinding

2.5 When people are finding their way to a destination they use four of their senses (sight, sound, touch and smell) to varying degrees and sometimes subconsciously. If sites consider how people use all their senses when wayfinding, they can increase the effectiveness of their wayfinding system.

Sight

People with good vision glance around looking for information with which to make the next wayfinding decision. They do not generally look at the environment in a systematic way. Their attention may be caught by:

- something that is very prominent or eye-catching;
- something that looks interesting;
- something that looks as if it may be, or may lead to, their destination;
- a person who looks as if they know the site, to ask for directions;
- a map to locate a destination on;
- a directional or locational sign.

Sight is the most versatile sense for wayfinding because it can be used to see things both at a distance, and near to, unlike sound, which generally requires people to be near to the sound in order to use it effectively. Although sight is not the only sense people use to decide which way to go, it is the one most relied on. This is very apparent when someone loses their sight, or experiences reduced acuity.

Generally, healthcare facilities are used by a high proportion of people with visual impairments and older people, whose sight will have gradually deteriorated with age. The legibility of all wayfinding aids for people with impaired vision should be considered.

Figure 4: What a person with normal sight will see

Figure 5: What a short-sighted person without their glasses might see

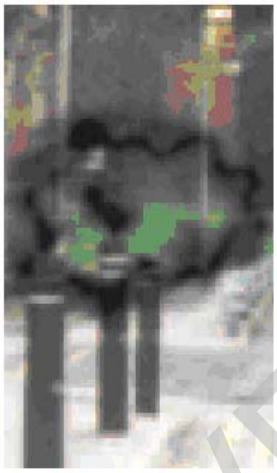


Figure 6: What a person with macular degeneration might see

Figure 7: What a person with cataracts might see

Touch

Environmental factors, such as changes in internal floor and external pathway texture to delineate different areas, are useful to all users. All people use their sense of touch to help them find their way, but those with visual impairments are especially reliant on tactile wayfinding aids.

Smell

Smell is not often included as part of a wayfinding strategy, but people will use it to identify and remember places: for example, people will identify a café by the smell of food and coffee.

Smells can affect people's emotional state in either a positive or a negative way, so the smells in an environment should always be considered, though for

wayfinding, smells are usually not specific enough to enable people to literally 'follow their nose'.

Sound

Healthcare facilities are often busy, noisy places. People use noises, sometimes subconsciously, to help them find their way. For example, a lift that is out of sight (through a closed door or round a corner) but which has a bell when the doors open, signals the lift is there. Spoken announcements inside the lifts, saying the floor number and perhaps other information too, are increasingly used. This type of audible wayfinding system can also be used effectively elsewhere, such as at pedestrian crossings or at pedestrian exits to car parks, telling people the name of the car park and that they need to pay for parking.

People often prefer to ask someone for spoken directions, reassurance and information rather than using signs and other wayfinding aids.

It is often necessary to screen out irrelevant sounds in order to hear a person speaking. Screening out sounds is harder than ignoring irrelevant sights, but people are generally accustomed to doing this.

As with sight, people's hearing deteriorates with age, so sites must always consider how to help people who are deaf or hearing impaired find their way around. There are some specific considerations, but having a clear and effective signage system is crucial.

Wayfinding with impairments

Inclusive design for wayfinding systems

2.6 Sight and sound are the two key senses used when wayfinding, and the loss or deterioration of either of these can lead to people experiencing major problems in finding their way. It is important that sites give all site users equal consideration when planning a wayfinding system, and that they provide wayfinding aids that will make it easier for disabled people to find their way.

The aim of many organisations representing people with disabilities, and also an issue raised by the Disability Discrimination Act (DDA), is that sites should be striving to produce a wayfinding system which can be used successfully by all site users – an all-inclusive wayfinding system. People with disabilities should be able to find their way round an environment, along the same routes as everyone else, as easily as people without disabilities. This will often prove to be the most cost-effective wayfinding system.

Most factors that influence how easily people with physical, sensory or cognitive impairments find their way are important for all users. There are some wayfinding aids specifically designed for people with particular impairments, but often non-impaired people would also find these aids helpful. An environment developed with the needs of people with physical, sensory or cognitive

impairments in mind will also be a much easier environment for all users to find their way around.

People with visual impairments

2.7 Many people cannot rely on their sight to locate and read wayfinding information – not only people who are registered blind or visually impaired but also people whose clarity of vision has gradually deteriorated with age, or people who have forgotten their glasses or who do not realise they need them, or who have a temporary visual impairment such as a migraine headache.

A person's type of visual impairment (there are huge variations in what people see), and their degree of visual acuity, determine how they will find their way. Only 4% of registered blind people have no sight at all. Many will be able to make out shapes, or contrasts in colour, and many will rely more heavily on their other senses, especially hearing and touch, to find their way.

Wayfinding aids for people with visual impairments

To enable people with severe visual impairment to find their way unaided, sites should consider providing:

- audio information – particularly in lifts but also in other locations;
- escorts to take people to their destination;
- Braille and embossed (tactile) signs – though the number of Braille readers is estimated to be only 1.2% of the estimated 1.7 million people who are partially sighted;
- if Braille and tactile signs are appropriate for your site users, people have to know where the signs are located, and they need to contrast with the surface they are attached to and be placed consistently at a height where people can touch them. There must be no obstructions in front of signs;
- tactile maps showing the site layout and main routes can be useful, but as with tactile signs, people have to learn to use them.

For further advice contact the Royal National Institute for the Blind (RNIB), or the Joint Mobility Unit in London.

Signs for people with visual impairments

Braille signs and embossed or tactile signs are often seen as the standard solution for providing wayfinding aids for visually impaired people and are used by people with no, or very little, sight. However, only a very small number of people can read Braille, so sites should consider whether Braille and tactile signs are the most appropriate solution or whether other wayfinding aids, such as escorts to take people to their destination, or audio information, would be more effective.

Standard signs that are clear and easy to read, that have sufficient colour contrast and use an appropriate typeface and type size, can be used by many visually impaired people as well as non-impaired site users.

Some key considerations

The Joint Mobility Unit provides advice on signs for visually impaired people in their 'Sign Design Guide – a guide to inclusive signage', which looks at the many factors of wayfinding and signs that affect how easily people with visual impairments can find their way. 'Building Sight' (1995), published by the RNIB, is another useful resource.

Sites should ensure:

- there are optimum lighting levels in all areas at all times of the day;
- there is a high contrast between doors and walls, floors and walls, furniture and surrounding surfaces, text and sign background and also sign background and the surface the sign is located on;
- internal and external pathways are clearly defined;
- the signs at their site follow the best practice guidelines on the following page, and also those in Sections 4 and 5;
- pre-visit information is available in large-print and audio formats.

People who are deaf or hearing impaired

2.8 There are many people who have difficulty hearing sounds clearly or screening out irrelevant noise. Usually people who are deaf or hearing impaired are not 'registered', so it is difficult for sites to know how many site users have trouble hearing voices and noises clearly, but older visitors, whose hearing may have gradually deteriorated over time, will often be hearing impaired.

It is particularly important for people who are deaf or hearing impaired that the signing system at your site is clear and easy to follow so they do not need to ask for directions. If the signs do not provide sufficient information, or clear information that relates to the actual environment, people may have difficulties and feel frustrated or stressed.

Most people without hearing impairments like to ask for directions and information, but a wayfinding system should not rely solely on people having to ask for directions at a particular stage of their journey as this can discriminate against, and cause embarrassment for, people who are deaf or hearing impaired. They may not hear the spoken directions clearly, and may mistake a term used for another word that sounds similar, which will cause wayfinding problems.

Wayfinding aids for people who are deaf or hearing impaired

The most important aids for helping people who are deaf or hearing impaired to find their way are:

- clear signs, maps and directions;
- clear, well-defined pathways;
- clear written directions with pre-visit information.

Your wayfinding system must be easy to understand and follow without people having to ask for directions. By following the guidelines in Sections 4 and 5 you should be able to ensure the information your site is providing is clear and easy to use. Other aids that would help deaf or hearing impaired people to find their way include:

- good lighting levels to enable people to lip-read;
- visual announcements, for example to show when the next person should go into a doctor's surgery;
- in lifts, visual announcements to show which floor a lift is on and also, if the lift breaks down, to show assistance is on its way;
- visual fire alarms;
- staff at information desks who can use sign language;
- escorts to take people to their destination;
- installing an induction loop at information desks to enable people with hearing aids to hear spoken directions. Sites should ensure there is no magnetic interference to affect hearing aids;
- a system which effectively amplifies specific sound, again to help people hear spoken directions.

For further advice contact the Royal National Institute for Deaf People (RNID) in London.

Some key considerations

It is especially important for people who are deaf or hearing impaired that:

- there are optimum lighting levels at all times of the day, in all areas, but especially at information desks, onto faces, to enable people to lip-read;
- staff are trained to speak clearly, facing the person;
- staff are available who can use sign language;
- staff are aware of any terms they use which sound like other words, such as names of specialisms, departments or landmarks;
- information desk staff have maps or written directions to help explain a route;

- sites reduce the levels of background noise that may make it difficult for the hearing-impaired listener to tune into a person's voice, such as phones ringing or loud music. This could include soundproofing areas such as information desks, and also considering the floor coverings used, to reduce loud footsteps, echoes and reverberations;
- the pre-visit information includes clear directions and a map;
- the signs are legible and easy to follow;
- sites are aware that magnetic interference can affect hearing aids and make every effort to alleviate this problem when installing a loop system;
- sites reduce the need for people to ask for directions by providing a clear wayfinding system.

Best practice guidelines – wayfinding aids for people with sensory impairments

Potentially dangerous situations for people with sensory impairments

2.9 When planning safety procedures, sites need to consider people with sensory impairments who, for example, may not be able to hear a warning or see a hazard, and are potentially in danger in an emergency situation.

- both visual and audio emergency alarms need to be installed;
- external routes and pathways need to be clearly defined so people with hearing impairments are not in danger from approaching vehicles they have not heard coming;
- vehicles using internal routes also need to consider visually- impaired and deaf or hearing- impaired people. These vehicles often use a horn to warn people they are coming round a corner, and expect people to get out of their way. Some people will not hear the horn, and people with visual impairments may not see them and may not know where they should move to get out of the way;
- people who are visually impaired may not be able to find an emergency exit without guidance. Emergency exits need to be very clearly marked with high-contrast signs, ideally at eye level. Lights marking an exit or escape route may be helpful for both visually- impaired and deaf or hearing- impaired people.

Improving wayfinding for people who are visually impaired

2.10 The following recommendations are relevant to all users and are covered in detail in Sections 4 and 5, but they are particularly important for people with visual impairments:

- audible signs should be used in lifts and considered for use in other locations for wayfinding information;
- all signs at your site should:
- have a high contrast between text and sign background;

- have a high contrast between the sign and the surface on which, or in front of which, it is located;
- have a matt finish or a gloss factor of no more than 15%, to reduce glare;
- be well lit to ensure optimum legibility, without glare;
- be positioned consistently, so people know where to find each type of information;
- use a larger type size for signs suspended from the ceiling than signs positioned at eye level (this is because the viewing distance will be greater);
- consideration should be given to the addition of the RNIB React - talking signs system at sites. If this system is installed, visually impaired visitors should be made aware of this in the pre-visit information that is given to them;
- pre-visit information should be available in large-print versions.

Contact the Royal National Institute for the Blind (RNIB) who will be able to provide advice on issues to consider for people with visual impairments (see Appendix 4).

Improving wayfinding for people who are deaf or hearing impaired

2.11 The following recommendations are relevant to all users, but particularly important for people who are deaf or hearing impaired:

- pre-visit information should clearly explain how to get to the destination, to reduce the need to ask for directions;
- information desk staff should have maps, to help explain a route;
- staff should be aware of any terms they use (for example names of specialisms or departments) which sound like other terms;
- staff should speak clearly, facing the person, and information desks should be well lit to enable people to lip-read;
- sites should be aware that magnetic interference can affect hearing aids, and make every effort to alleviate this problem;
- staff providing spoken directions should be trained in dealing sensitively with the needs of people who are visually impaired, deaf or hearing impaired;
- staff who can use and understand sign language should be available, with receptionists knowing how to contact them.

Contact the Royal National Institute for Deaf People (RNID) who will be able to provide advice on issues to consider for people who are deaf or hearing impaired (see Appendix 4).

The impact of a poor wayfinding system

Stress and resentment of patients and visitors

2.12 If people get lost, are unsure of the route for much of their journey, feel like they have walked further than necessary, or if they ask for directions but receive instructions which conflict with the actual environment, they are very likely to have a negative opinion of your site. People will complain to friends about getting lost and how difficult they found their journey, and this can have a negative effect on many other people's attitudes to your site.

A good wayfinding system will avoid these negative effects. However, it is not likely to get talked about. People do not tend to notice a good wayfinding system; they simply use it.

People visiting healthcare facilities are often worried or anxious. Research at twelve healthcare sites found that one in five patients and visitors were 'very worried' or 'quite worried' (IDU 98). Getting lost and feeling disorientated will add to their worry and cause further stress. The more stressed people get, the less information they will be able to take in, and therefore they will find retracing their steps on the return journey much more difficult.

If they have not allowed enough time, people worry that they are going to be late for their appointment as soon as they start to feel lost. They blame themselves for not being able to follow the signs and maps and find the way, they get frustrated when they make a wrong turn, they ask anyone who looks like they might know the way (which can lead to misleading directions), and eventually they may get angry, realising the signs are not clear and it is not their fault after all.

Inefficient and ineffective use of staff time

2.13 An ineffective wayfinding system which leads to people getting lost will waste staff, patient and visitor time. People will be late for appointments. Staff will spend more time providing directions to people who are lost, have arrived at the wrong destination, or people who simply need reassurance that they are going in the right direction.

Most sites expect staff to help people who appear to be lost, and at some sites staff are expected to take them to their destinations. This is an indication that the signs, landmarks and other wayfinding information at these sites are not clear. For most staff, escorting people is an inefficient use of their time, especially at larger sites, but for some healthcare facilities users, particularly those who are frail and elderly, it should be encouraged.

Volunteers are sometimes available to escort people, and this is an important role, but it is an unreliable system as volunteers are usually only available for short periods of time. If it is necessary at your site to take people to their destination, you should employ people as Guides. These Guides should be

trained to deal with visitors with a wide range of disabilities, for example, a visual impairment, a learning disability or a mental health problem.

The problem with relying on all staff to direct people, not just those who know the site and have been trained to provide clear directions, is that visitors may receive unclear or inaccurate directions.

Inaccessibility for people with disabilities

2.14 The Disability Discrimination Act (DDA) states that "sites and buildings must be accessible to all people". Healthcare facilities, by their very nature, have a large proportion of people with many types of temporary or permanent disability.

If the site is not accessible to everyone, people are being discriminated against and may feel, literally, excluded from the environment. Equally, if the wayfinding information is not legible for people with sensory impairments, the information is of little use to them.

If a route has stairs – which means that wheelchair users, people with pushchairs and those with limited mobility need to use a different route – this should be made clear before people reach the flight of stairs and find no obvious alternative route.

The importance of clear pre-visit information

2.15 People with sensory and mobility impairments often rely on information received before their visit to prepare for their visit and plan their route. If the information is not clearly written in an appropriate format, highlighting factors which may affect people with impairments such as routes with stairs, it will be of limited use.

Comments and case studies

2.16 Questionnaires filled in by over 1,000 users, visitors and staff at healthcare facilities throughout England (IDU 98) included comments on wayfinding systems. As could be expected, people generally only felt compelled to mention negative aspects of the wayfinding system, but the comments provide some insight into problems people encounter.

Note: You should not rely on your knowledge and views of your site when evaluating your wayfinding system. You should find out from patients, visitors and staff how people find getting around your site and the problems they experience. Make sure you ask people of all ages, people with impairments and people whose first language is not English.

About the signs

"too much information on one board"

"signage is too cluttered"

"the signs lack impact. They tend to blend with the decor"

"there are far more signs of late … but it is late when the hospital is 30-plus years old!"

About other wayfinding information

"there is no information of what is on each floor inside or outside the lifts"

"maps do not show all buildings and signs do not state all destinations"

About problems with the site

"the point that confuses everybody is the fact that the entrance is not at the front of the building"

About their emotional state

"angry because directions aren't clear"

"het up about driving round finding a parking space"

"anxious because I was late for my appointment due to car parking problems"

"parking upset me"

About the names used

"people tend to see the sign for 'J2 out-patients' and don't realise that A-Block is the main out-patients unit"

"staff are not informed of new departments or changes in names"

Many staff listed names and terms that they felt people found difficult to pronounce, spell or understand.

Fair For All survey

2.17 Health Facilities Scotland and Fair For All - Disability conducted a survey across several organisations, working groups and access panels, and a number of recurring issues and comments were raised:

- visitors rely on signs rather than maps;
- when lost, people generally look for another person to speak to or phone;

- signs with a combination of simple text and clear symbols are preferred;
- the frequency/continuation of signs could be improved;
- good colour contrast & a clear typeface are important;
- simple, clear graphics should be used;
- the use of tactile/Braille/talking signs would help visitors with visual impairments. Possibly install the RNIB React system at sites;
- the use of coloured lines on floors and coloured walls in corridors, etc, help to supplement a good signage system;
- staff should be trained on how to deal with visitors who may have hearing and/or visual impairments;
- dedicated Guides at larger sites would be of particular benefit.

When considering the Pre-Visit Information that was issued, some of the key issues that were highlighted are set out below:

- an indication of waiting time and/or length of appointment is desired. This makes for better co-ordination with public transport, carers/companions, places of work, etc;
- identify local landmarks;
- supply the full address of the facility, including the postcode. This enables patients to search for directions/maps on the Internet and to use Satellite Navigation Systems. Taxi drivers often require this level of information;
- provide details of parking provisions at or near the site, in particular, disabled parking, and how long it will take to get from the car park to the place of appointment;
- outline what will happen to the patient and whom they will see at their appointment;
- details of local public transport links, including nearest bus stop, railway station, etc;
- any maps which are provided should be to a suitable scale and legible.

These issues will be fully discussed in detail throughout this document.

Case studies

Inconsistent building names

2.18 Site A had spent a lot of money on new, well-designed external signs. A site map was produced at the same time. The main buildings were given non-descriptive names. However, the buildings had previously been called ‘A-Block’ and ‘B-Block’ etc and many of the staff were still referring to block names when giving spoken directions. Internal signs made no mention of the new names. Some appointment letters and site maps were still being sent out referring to ‘Blocks’.

This highlights the problem of introducing a new naming system. Persuading staff to change the names they use will inevitably be one of the hardest tasks.

Problems with colours

Site B decided to introduce a colour-coding system when they were producing new external signs. A colour was allocated to each main building. However, there were 11 buildings so they used two greens (a light green and a dark green) and two blues. This will potentially lead to confusion when people are trying to refer to the colours verbally and when differentiating between the colours visually. They used white text on all signs, including the yellow signs, which made the text illegible. Sites C and D had begun to develop a consistent signing system using just two colours for all their signs, internally and externally. They selected their corporate colours.

However, Site C had green and orange as its corporate colours. Site D had pale grey and turquoise. Neither colour combination provided enough colour contrast between the text and background, so legibility was significantly reduced.

Stages of a wayfinding project

Typical stages of a wayfinding project

2.19 Any successful wayfinding project designed to improve an existing wayfinding system will involve several stages.

An audit of your site should identify key wayfinding problems. It is important to get together the relevant people to develop a workable wayfinding strategy and effective wayfinding solutions for your site, within your budget.

Audit existing wayfinding system

- use the questionnaire in Section 6 to get user feedback;
- consult staff directly;
- use the site survey tool in Section 6.

Analyse audit findings

- you can use your own database software, or the tally sheet in Section 6, to collate the questionnaire responses;
- highlight problems recorded on the site survey response sheets.

Identify wayfinding problems

- look through the questionnaire responses and site survey sheets to identify areas, routes and decision points at your site where people experienced problems finding their way.

Prioritise wayfinding problems

- draw up a list of where at your site people experienced wayfinding problems, and the types of problem;
- prioritise the list, starting with potentially dangerous areas, then areas that are causing a large number of problems and areas that are not sufficiently accessible for people with disabilities.

Produce wayfinding business case

- guidance on wayfinding business cases is given in paragraph 2.20.

Contact appropriate people and companies

- wayfinding is a multi-disciplinary task requiring a range of expertise.

Develop strategy for improving wayfinding system

- a wayfinding strategy is essential for developing a consistent and effective wayfinding system and is discussed in detail in paragraph 2.2.

Discuss problems and develop solutions

- create a working group of people with varied experience and knowledge of your site to discuss and solve wayfinding problems;
- work closely with appropriate companies.

Implement solutions

- whilst new systems are being installed, use temporary signs where necessary and warn people in pre-visit information of the wayfinding changes.

Evaluate and refine solutions

- carry out further site surveys and get questionnaires completed to ensure the solutions are effective and the wayfinding system at your site has been improved;
- refine the system as necessary.

Maintain wayfinding solutions

- produce a strategy for auditing and maintaining your wayfinding system;

- carry out regular audits of the signs, directions given by staff, appointment letters and other pre-visit information;
- ensure all wayfinding information is consistent and provide staff training where necessary.

Building a wayfinding business case

2.20 You may well have to put together a business case for a wayfinding project involving areas covered in this book. A good business case seeks to justify the project with broader strategic arguments, as well as dealing with the more specific tactical issues of, for example, developing a new site map.

It is almost always easier to argue for something new if you have evidence to show that change is needed. Sites should collect evidence before preparing the business case. This evidence could be:

- data showing how many patients arrive late (or out of breath) for appointments;
- how much time staff spend on wayfinding-related activities;
- observational findings from a number of site surveys carried out by a variety of site users of different ages, and including people with physical and sensory impairments;
- evidence such as questionnaires or complaints forms showing that visitors have strongly negative feelings about your site.

Different sites and organisations will have their own approach to presenting business cases, but an indication of the type of information that should be included is shown below.

2.21 Contents of a typical business case

- executive summary - what is being proposed; the benefits; the costs;
- background - the current situation, including problems and opportunities;
- evidence findings - observations and data to support your case;
- options details of alternative options;
- costs, benefits and savings - estimates of costs, benefits and potential savings for each option;
- preferred option - reasons for preferring this option;
- funding level of funding required, proposal for achieving funding;
- project plan - outline timetable for implementing the project.

Possible costs, benefits and savings

2.22 Your business case will need to cover both the direct and the indirect costs of the new or improved wayfinding system.

The direct costs are likely to include some or all of the following:

- developing or refining the wayfinding system;
- designing the wayfinding aids (signs, maps, leaflets, letters);
- specification document for the wayfinding aids;
- purchasing and installing the wayfinding aids;
- implementing new systems (for example for appointment letters);
- communicating changes to staff, with training where necessary;
- maintaining your wayfinding system;
- changing the wayfinding system (for example when there are site alterations).

The indirect costs, which a well-thought-out and well-designed wayfinding system will reduce, are likely to include:

- less staff time spent giving directions;
- less time wasted when people are late for appointments;
- less time spent dealing with people who are anxious because they had difficulty finding their way and are therefore slower at taking in and understanding information.

3. Developing an effective wayfinding system

Section 2 has stressed the many factors and information sources that people will use, both consciously and subconsciously, to find their way to and around a site. This Section discusses the importance of planning your wayfinding, and outlines the many factors to be considered when developing a wayfinding system, whether you are updating an existing system, or introducing a completely new one.

It also provides guidance and information on the issues you need to consider in order to develop both an effective wayfinding strategy and an effective wayfinding system.

Developing a wayfinding strategy

What is a wayfinding strategy?

3.1 In order to develop an effective wayfinding system, a wayfinding strategy is needed. Simply putting up new signs in place of old ones, or where there is a blank wall, will rarely solve wayfinding problems or produce an effective wayfinding system.

A wayfinding strategy sets out the agreed policies and decisions about all the key issues which affect how people find their way round a site. These include issues which are beyond the scope of this book, such as traffic management, risk assessment and emergency planning, but the key factors that should be considered when developing a wayfinding strategy are discussed in this section. They are:

A multidisciplinary task

An effective wayfinding strategy should be developed by a number of people working as a multi-disciplinary team, which should ideally include experts in wayfinding and sign design. You should set up a working group to develop your wayfinding strategy.

Site users

It is important to consider the many different types of people trying to find their way around your site, such as people of different ages, people with impairments, and people who do not understand the language used on the signs.

Wayfinding information

The different types of wayfinding information provided by your site need to be consistent at each stage of a journey, throughout the site. There should be a strategy for identifying any additional information required, or any improvements that could be made in the wayfinding information at your site. Specific information from each department must be consistent with the general wayfinding information at your site.

Site layout and complexity

The layout and complexity of your site needs to be considered when agreeing your wayfinding strategy to identify any layout issues or site features that might make it difficult for people to orientate themselves.

Ways to simplify your site need to be considered, and the most appropriate simplification method for your site layout should be agreed as part of the wayfinding strategy.

Use of colour

For some but not all sites, colour-coding is an appropriate method for simplifying, dividing or explaining a site layout, internally and/or externally. However, there are a number of disadvantages to consider.

Terminology, abbreviations and multiple languages

A strategy for agreeing names for departments, buildings and other facilities at your site needs to be developed, including consultation with healthcare facilities users. Terminology, abbreviations and languages should be used consistently on all wayfinding information throughout your site.

Sign systems

The design, colour combinations, positioning, illumination and methods of construction for signs, maps, directories and other wayfinding information at your site need to be agreed as part of your wayfinding strategy.

Symbols

Use standard, internationally recognised symbols wherever possible. A strategy for the use of standard symbols and the development of new symbols needs to be agreed for your site.

Wayfinding as a multi-disciplinary team task

3.2 Developing an effective wayfinding strategy, and implementing a successful wayfinding system, requires many people with different skills working together. You should set up a working group to discuss wayfinding problems at your site. Exactly who needs to be involved depends on the nature of the wayfinding problems, but a successful wayfinding project may call for the involvement of many if not all of the following:

Site management:

- ensure that solutions are appropriate to their site and ensure the system is successfully implemented;
- ensure the signs at the site are updated and maintained when necessary;
- ensure main entrances and wayfinding aids are unobstructed and well-maintained.

Architects and construction teams:

- create designs, for example, a structure to emphasise the main entrance, and then the architect works with a construction team to build it.

Wayfinding consultants and sign designers:

- audit a site to identify the wayfinding issues and sign requirements, then design and specify a consistent sign system, ready for manufacture.

Sign manufacturers:

- manufacture and install the sign system.

Information designers, map designers and printers:

- evaluate and design the pre-visit information, for example the site map and the appointment letters, which must use the same terms as used on signs and other wayfinding aids.

Personnel, public relations and patient services departments:

- personnel are involved with staff training issues, such as how staff give directions, and need to ensure staff use the terms that appear on the signs. Public relations and patient services departments ensure healthcare facilities users receive clear, consistent information that gives a positive image of the site.

Site users – the people using the information

- It is crucial that you discuss your intended wayfinding system with the many different people who will be using it to find out whether they can understand the system, and whether they would use the planned

information. This ensures the most cost-effective use of available budget on appropriate wayfinding aids. Consulting all types of site users when developing the wayfinding strategy will also identify any special considerations, particularly for disabled people.

Considering site users

3.3 When developing a strategy for providing information of any type, it is always essential to consider who will be using the information and how they will be using it, in order to provide appropriate information.

First-time healthcare facility users

If your wayfinding system is clear and easy for first-time visitors to follow, it should be clear for all users.

Infrequent and frequent healthcare facility users

A number of factors will affect how easily people who have visited your site before can find their way. These include whether:

- departments have changed location;
- your site has few distinguishing features and landmarks;
- it is difficult to create a mental model of your site because it has a complex layout;
- it has been a long time since their last visit.

Visitors with some knowledge of your site may not pay much attention to wayfinding aids, so if a department is relocated they may have difficulty finding it if clear information is not provided.

Staff

When they first start work at a site, staff will need a similar level of information to first-time visitors. Staff will quickly become familiar with the parts of the site they work in and the location of general staff areas, but if they have to direct a visitor to another area their directions may not be accurate. When a department changes location, both staff and visitors may have difficulty finding it.

Visitors and staff with special needs

Your working group must consider and consult both visitors and staff with special needs, such as:

- people with permanent and temporary limited mobility, including people using wheelchairs;
- people with cognitive impairments and learning difficulties;

- people with sensory impairments (including people who are visually or hearing-impaired);
- people who do not understand the language used for signs and other wayfinding information.

Deliveries and service areas

People making deliveries may be unfamiliar with the site or may be infrequent visitors. Delivery routes and service areas should be differentiated on signs and should ideally use a separate route from public routes. Providing clear information to companies before they make deliveries to your site will avoid congestion and large delivery vehicles unnecessarily accessing public areas.

Consulting site users

Questionnaires can be used to identify users' requirements and how they find their way around your site. You can photocopy or print off the questionnaire in Section 5.

Consulting staff

A similar questionnaire can be produced to gather valuable information from staff, who will be able to provide information about the types of wayfinding problem they have seen site users experiencing.

Considering wayfinding information

3.4 The four key types of wayfinding information that need to be considered as part of the wayfinding strategy are pre-visit information, en-route information, on-site information (which includes a variety of wayfinding aids, including directional signs, and site maps), and locational information (which tells people they have arrived).

There are four key stages in a journey for which different wayfinding information is used. It is important that all wayfinding information is developed together, as part of the overall wayfinding strategy, to ensure the information is consistent.

- preparing for a visit - Pre-visit information:
- written information, appointment letter, printed site maps, spoken directions received over the phone;
- getting to the site - En-route information;
- road signs, prominent architectural features and site entrances;
- getting around the site - On-site information;
- locational signs, directional signs, directories, framed site maps, information desks, prominent building entrances, pathways;
- arriving at the destination - Locational information;
- locational signs, distinguishing features at the destination.

Prioritise wayfinding information

Not all users of your site need the same information. A wayfinding system should be designed primarily for the first-time visitor. So, for example, staff areas need to be identified, but they do not need to be given the same priority on directional signs as heavily-used public facilities such as toilets and cafés.

Similar information can be grouped together, particularly on signs but also on other wayfinding aids, for example information for all users, information for staff only, creating a hierarchy of information. By doing this it is possible to reduce the amount of information each type of user has to take in when finding their way around your site, and to make finding the relevant information quicker and easier.

Prioritising your wayfinding information should be an integral part of the wayfinding strategy, both to provide appropriate information for different users, and to ensure the available budget is spent appropriately.

Agree terminology and language issues

A wayfinding strategy needs to outline a policy for the use of terminology and languages for all wayfinding information at the site. The terms and abbreviations used for departments and specialisms need to be considered and evaluated for their understandability to site users before being used consistently on all wayfinding information.

There may be a need for multiple languages. The cost implications of providing in effect several signing systems need to be considered, but each healthcare facility must reflect the needs of its users.

Agree a signing strategy

A signing strategy needs to be developed to ensure that a consistent style for the signs is created. It should include agreed use of typeface and type size, text layout, colours, symbols, positioning, illumination, and construction of signs.

Considering your site layout

3.5 In order to predict wayfinding problems, it is important to consider the type of site for which you are developing a wayfinding strategy. There is no standard layout for healthcare facilities, or for healthcare buildings, and so there is no standard solution for wayfinding problems. The following are some key factors to consider.

Well-designed site layouts

Some sites have been well-designed, with circulation routes that have been carefully considered from the outset by the architects. At these sites, a wayfinding strategy for the site, and circulation flow around it, should already have been developed; wayfinding should be relatively simple, if the strategy works and is appropriate for the site and site users. If, however, people are having problems finding their way, the strategy should be modified.

Site layouts that have evolved

Most healthcare facilities have evolved over time, with buildings and extensions added where space allowed, and with scant attention paid to creating logical circulation routes and making it easy for people to find their way around the site. As part of your wayfinding strategy, it is important that you consider your site as a whole and decide how you are going to present and explain its layout. This will probably involve considering ways of simplifying the site.

It could also involve ways of dividing a larger site into smaller areas by naming buildings, entrances or areas. Colour-coding systems are often considered for this purpose and would form part of both the wayfinding and the signing strategies.

Identify key decision points

Along each route there will be certain places – such as a car park pedestrian exit, a main building entrance area, a corridor intersection, or a lift area – where most people need to make a decision about which way to go. These are referred to as key decision points.

Decision points are places where information is particularly required. By identifying them when developing the wayfinding strategy, and the amount and type of information required at each point, an assessment can be made of whether to simplify the site in order to reduce the information to a manageable, useable amount.

Identify main circulation routes

It is important that the main circulation system of a site or building is understandable for all users. This may be self-evident in a site which is open, visually accessible and has a simple one-way system around the site, or just one single corridor through the main building. However, in most buildings and sites the circulation system is not evident and often complex. A method for explaining the layout of the building and site, or simplifying the actual circulation routes, needs to be agreed as part of the wayfinding strategy.

Consider vertical access

In buildings that have public destinations on more than one level, the vertical access and vertical circulation routes can be as important as horizontal routes. The location of stairs, lifts or escalators needs to be clearly visible and recognisable once people have entered a multi-level building, and should be visible or clearly signed from directories which indicate that a change in floor is required.

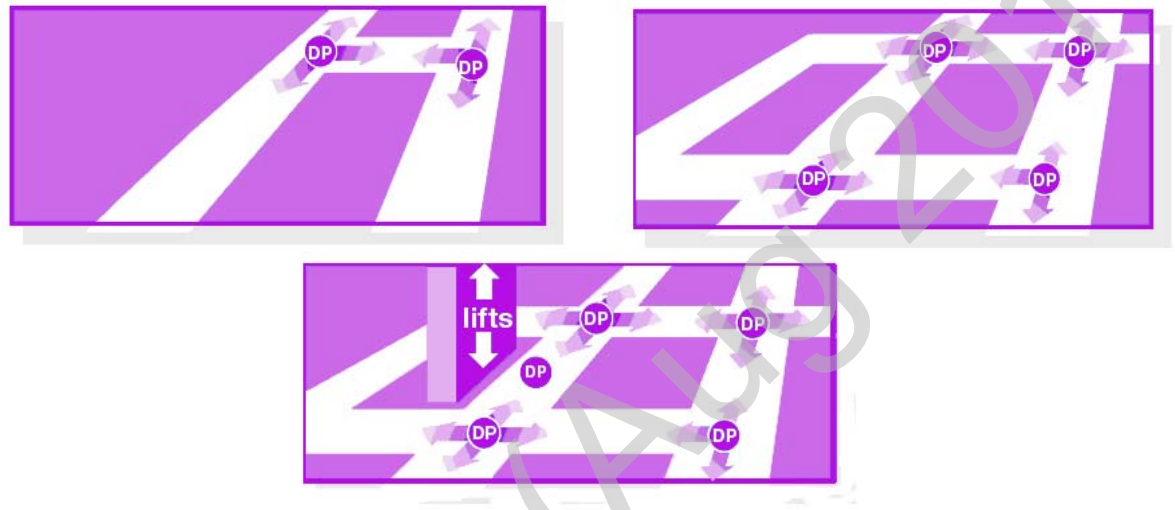


Figure 8: Examples of decision points (DP)

Agree a floor numbering system

Sites that have destinations on more than one level need to ensure that the floor numbering system is logical and does not lead to confusion.

Many sites have main public building entrances on different floors, and in some cases it is not apparent that you are entering above or below what has been called Ground Floor. People usually assume that when entering a building from the street, they will be on the ground floor, and then expect to go up to floors 1, 2, 3, or down to lower ground floor, and basements. If this is not the case at your site there should be a logical reason, which must be made clear with information to explain the floor numbering system.

Sites must clearly sign what floor people are entering a building on, and at what floor a lift has stopped. Generally, floor numbering should relate to the main entry floor, using numbers that indicate which floors are above or below the entry floor. Where there are main entry points on two or more floors, a decision needs to be made on which to call Ground Floor, and people should be made aware that there are entrances on different floors as they enter the building.

Explaining floor numbers

It is important that people know the floor they are on when they enter a building, particularly if it is not the ground floor or the building is on a slope. This enables people not only to orientate themselves, but also to use directories and follow verbal directions which refer to a floor number.

A diagram can be an appropriate method of showing changes in levels and the floor people are on when they enter a building. It could be included on site maps and pre-visit information, and located at entry points.

Naming levels below ground floor

If there are a number of floors below the entry floor, you might encounter problems agreeing names for these floors. Unfortunately there is no single solution.

Research that looked at possible terms for these below-ground levels, tested the following five alternatives for naming two floors below ground floor, all with a maximum of four characters (so they can be used on lift buttons and directories):

- A & B • 1 & 2 • Sub 1 & Sub 2;
- B1 & B2 (Basement);
- LL1 & LL2 (Lower Level).

It found that **Sub 1** & **Sub 2** was most preferred (Carpman et al). However, this research was carried out in the USA and it is likely that different names would be preferred in the UK. Our research found, as their's did, that hospitals do not like to use names like 'basement' for floors with public facilities as they have a negative image, but it is equally important that floor numbering is logical. Test the understandability of any floor names you are considering using at your site.

Consider visual accessibility and architectural differentiation

Some sites are visually accessible externally, with open spaces enabling people to actually see the building they need and see the routes to it. This is the ideal environment for people to get around easily with least need for wayfinding information.

Some sites have a variety of architectural styles that enable people to differentiate between the buildings more easily in order to understand where they are. For example, if there is a tall, prominent building at the centre of a site that is visible from all parts of the site, people will be able to identify the building, visualise where they are in relation to the tall building, and by differentiating between the architectural styles they will find it easier to orientate themselves.

However, many sites have been built up or allow parking on all available space and therefore appear cramped, with no clear view around the site, and are not

visually accessible. Many buildings have been extended or added in similar styles, with no easily recognisable differentiating features or architectural style, so at this type of site people are heavily reliant on wayfinding information.

Internally, some healthcare buildings are visually accessible and people can see and understand the building layout, including the vertical access and circulation routes. Others have distinctive styles or features enabling people to easily distinguish between different internal areas. However, many buildings have no open areas and people cannot see what is above or below them, what shape the building is or where to change level, and are therefore heavily reliant on wayfinding information.

Simplifying your site layout

3.6 As part of developing a wayfinding strategy, having considered the complexity of your site, you need to agree whether the site needs to be simplified to help people create a mental model of the layout, and also potentially to reduce the amount of information required at each key decision point. Simplification methods must be consistently referred to in all wayfinding information. Some key factors to consider are:

The complexity of your site

The complexity of a site's layout, and the routes around and through it, will inevitably affect:

- how easily people can find their way to a destination;
- how easily people can formulate a mental model of the site;
- how many decision points there are along a particular route;
- how well people remember the route when they retrace their steps after their visit.

Factors that affect site complexity and people's wayfinding ability:

- the size and layout of the site;
- the visual accessibility of the site;
- the architectural differentiation between buildings;
- the number of site entrances;
- the number of buildings and building entrances;
- the number of floors in each building;
- external building entrances being located on different levels;
- the number and orientation of circulation routes around the site;
- the number of intersections (or crossings) of circulation routes around the site;
- the number and location of prominent landmarks and site features.

Examples of simplification systems

Different methods have been developed to simplify sites. One commonly used simplification system is to divide sites by their geography, rather than by, for example, departments. This has the advantage of avoiding having to change a lot of signs and colour-coded features when departments are relocated. Geographic simplification systems currently being used at healthcare sites include:

- naming separate buildings 'Wings' or 'Blocks', with non-descriptive names such as Victoria Wing and Albert Wing, or A-Block and B-Block;
- naming separate buildings using general, non-descriptive names such as Bamber and Greenfield;
- dividing a large main building into 'Wings', with names such as North Wing and South Wing;
- naming or colour-coding the floors of a building;
- colour-coding different buildings, departments or entrances;
- using coloured symbols for different parts of a building;
- using internal 'street' names.

Benefits of simplifying your site

An effective simplification system can:

- make understanding the site, and creating a mental model, easier;
- reduce the amount of information on signs;
- make it easier for people to orientate themselves;
- make understanding the pattern of circulation routes easier.

Case Study - Effective simplification system

3.7 Site A had simplified its site by naming each large building on the site with names such as 'Chancellor's Wing' and 'Lincoln Wing'. The system was effective because:

- each building had its own prominent entrance, with external locational signs which were consistent in size, style and positioning;
- there was only one main site entrance, and it had a security point at which every driver had to stop and talk to security staff, who would point people in the direction they needed to go;
- an external information point near to the entrance, run by volunteers, provided spoken directions for pedestrians;
- appointment letters clearly referred to the 'Wing' the department was in;
- written directions clearly referred to the 'Wing' the department was in.

Case Study - Ineffective simplification system

3.8 Site B had installed new external directional and locational signs two years ago. Each large building on the site had been given a new, non- descriptive name replacing a 'Block' name. The system was ineffective because:

- the names were not used consistently;
- directional signs listed the department names;
- staff when giving spoken directions referred to 'C-Block' and 'E-Block';
- two site maps being sent out to people labelled the buildings as 'C-Block' and 'E-Block', but another two site maps (including a full-colour 'How to find us' leaflet) labelled the buildings with their non-descriptive names (Cranfield and Edmonton).

Problems arose because the simplification system had been implemented inconsistently, and had only been used on external signs and one site map. Other key elements of the wayfinding system had not changed in conjunction with the new signs.

Explaining the simplification systems

If your site uses a simplification method, it should be:

- used consistently on all wayfinding information;
- referred to in appointment letters and written directions;
- referred to when giving spoken directions;
- used on locational signs to show people which area they are in;
- used on directional signs to direct people to particular areas;
- shown on site maps, floor plans – and a three-dimensional diagram if the system works vertically;
- easy for staff to explain and for visitors to understand.

Considering colour-coding

3.9 Colour-coding is often seen as a way to solve wayfinding problems at a site. It can help to simplify a site, and can be used to reduce the amount of information on signs, but is not always an appropriate solution. Some key factors to consider are:

Disadvantages of colour-coding

- research has found that two out of three people did not notice colour-coding at healthcare sites with a colour-coding system (IDU 98);
- research has shown that people can remember no more than five colours before they find it difficult to differentiate between them (Arthur and Passini 1992);

- around 8% of men and 1% of women have colour-impaired vision, and will have difficulty differentiating between some colours, in particular red and green;
- as people get older their visual acuity deteriorates. Their perception of colour and their ability to differentiate between similar colours diminish;
- four of the available colours are called safety colours (red, green, yellow and blue) and are consistently used for different types of safety information. Therefore if the colours are used extensively at a site this may affect the effectiveness of safety signs. However, if directional and locational signs are in a style that differs visually from that used for safety information, these colours can be used; but careful consideration should always be given when using safety colours for non-safety information;
- colours fade with time, some more markedly than others. This will make it difficult to match a colour at a later date, when signs need changing or replacing, and may lead to there appearing to be two colours (such as a faded 'light blue' and a new 'dark blue'). The method used to apply the colour will affect its resistance to fading;
- increasing the number of colours used on signs increases the cost of the signs, and can also increase the cost of maintaining them;
- where architectural features such as doors and walls are colour-coded to mark a particular department, there could be a problem if the department moves. Colour-coding geographic areas of the site rather than specific departments avoids this problem.

Selecting colours for a colour-coding system

The number of colours that can be used for an effective colour-coding system is surprisingly limited, given the thousands of colours available. This is largely because only colours that have an agreed name should be used, so they can be referred to with little room for confusion.

This requirement means that there are really only eight suitable colours (plus black, white and grey), and while the precise colours used can vary, you should not use two variants of the same colour, such as dark green and light green.

Effective colour-coding systems

To be really effective, a colour-coding system:

- has to be appropriate for the site;
- has to be used extensively and consistently on all wayfinding information (signs, maps, directories) and also on architectural features;
- has to be identifiable as a colour-coding system rather than simply a decorative use of colour;
- has to be noticeable and understandable for first-time visitors.

Figure 9: Eight colours are suitable for colour- coding systems

Figure 10: Black, white and grey can also be used

Note: The colour of text used on each background. Black or a dark colour should be used for text on lighter hues for optimum contrast. White should be used on darker background colours.

Best practice guidelines – colour-coding

Recommendations

- sites should not rely entirely on colour-coding as a wayfinding aid. It should be used to support other information;
- only colours that can easily be differentiated visually, and easily described verbally, should be used for colour-coding;
- colour combinations used for sign backgrounds and text should always have a high contrast, to ensure optimum legibility;
- for a colour-coding system to be effective and noticeable, the system must be used consistently and prominently throughout the site, and on all information;
- the colour-coding system should be 'introduced' at the entrances to the site or building by a colour-coded sign. It is not necessary to actually explain the system, but a sign which shows that colours are being used alerts people that a colour-coding system is in place. Site maps are often effective in showing the system.

Note: Colour-coded building entrances, canopies and railings can introduce a colour-coding scheme. To be effective as colour coding, the colours should be used consistently for signs. They should also be used on features inside the buildings such as for doors and seating, and also on all site maps, and referred to by staff when giving spoken directions.

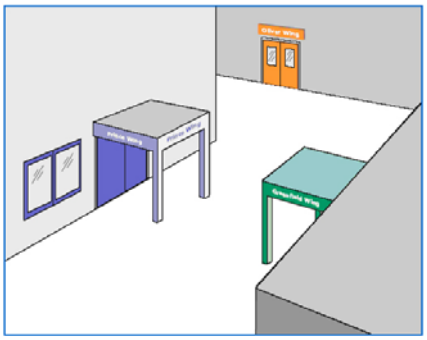


Figure 11

Colour-coded building entrances, canopies and railings can introduce a colour-coding scheme see Figure 11. To be effective as colour-coding, the colours should be used consistently for signs. They should also be used on features inside the buildings such as for doors and seating and also on all site maps and referred to be staff when giving spoken directions.

Things to avoid

- colour-coding departments, rather than geographical areas of your site, because if a department moves location, colours used on signs and architectural features will have to be changed;
- using shades of colour that are similar to each other in the same colour-coding scheme. Shades of colours that can easily be confused with each other when not seen together include:

Yellow	Orange
Pink	Purple
Turquois	Green

Agreeing terminology, abbreviations and multiple languages

3.11 The debate on terminology may never be totally resolved. However, there are terminology issues which need to be considered when developing a wayfinding strategy, and a policy for your site should be agreed.

If first-time visitors can understand the destination names used on your signs, people with some prior knowledge of the site and the terms used on signs will also be able to find their way.

Terms used on signs and other wayfinding information should be understandable to people with no medical background and no prior knowledge of the departments at the site.

Some key factors to consider are:

Issues of confusion

Healthcare facilities are notorious for using medical terms on signs which are difficult to pronounce, to understand, to spell and to remember. There is also confusion between terms which look or sound similar to each other, or to another unrelated word, such as Orthopaedics and Orthodontics, or Paediatrics and Podiatry. Few other facilities would consider using terms that are so difficult to pronounce, understand or remember for a wayfinding system that is primarily aimed at guiding the general public around a site.

Inconsistent use of terms

If staff giving spoken directions refer to a destination by one name, appointment letters refer to it by another and then signs use a different term, people will have real difficulty finding a destination. As part of the wayfinding strategy, the terms to be used for each department, building, specialism etc that will be referred to in wayfinding and patient information should be agreed and used consistently by all staff. Staff must be made aware of the potential wayfinding problems people will have if terms used in appointment letters and spoken directions do not relate to the wayfinding information at the site, including signs, directories and maps.

Changing terms

It is inevitable that medical terminology and the roles of different departments will change as medical knowledge advances. However, it must be recognised that it is not always appropriate to change the terms used on wayfinding information to reflect a change in medical terminology. If a new term is introduced for a department or specialism, you should assume it will take some considerable time for it to replace the previous term used by staff and visitors.

An example of a problem term is ‘Podiatry’, introduced to the UK from the United States in place of the long-established term ‘Chiropody’. Neither term is particularly understandable for people without a medical background, and both may cause confusion. A more suitable term for use on signs could be ‘Foot Clinic’ or ‘Foot Surgery’.

Using two similar terms on signs will inevitably lead to confusion and frustration for visitors as they go to the wrong destination. It will also waste staff time as they direct people to the right destination. An example of this found at one healthcare site involved two departments, one called ‘Physiological Measurements’ and the other called ‘Psychological Medicine’.

Selecting terms for wayfinding information

Signs are not the place for departments to explain differences in professions, show changes in medical terminology or provide the full title of their department. Signs provide wayfinding information which needs to be easy to remember and

to understand and as the evidence outlined below shows, many of the terms regularly used by healthcare sites are very poorly understood. When people need to ask for directions they need to have a term which is easy to pronounce, without embarrassment or possibility of confusion.

Designing dual term signs

Generally dual term signs should only be seen as a last-resort solution, but if it is decided that dual terms would be useful, particularly those terms which have been recently changed, the design of the signs must be given careful consideration. This is discussed in Section 4.

Multiple languages

3.12 An increasing number of sites have a number of users who do not speak or read the language used on signs and in pre-visit information. As part of your wayfinding strategy you should look at how to help these users find their way around your site. In most cases, solutions other than providing multiple-language signs would be more effective and appropriate, such as information in the language they understand, or using symbols which appear on pre-visit information and on signs.

As part of the wayfinding strategy you need to identify any users who may need information in another language, consult these users, and agree what information should be provided.

Designing multiple-language signs

For sites that do find that multiple- language signs are appropriate, the design of the signs and how the languages are differentiated must be considered. The design of multiple- language signs is discussed in Section 4.

Terminology research – some findings

As part of research (IDU 98), staff were asked to suggest any terms that they felt healthcare facilities users were unlikely to understand. From these suggestions we selected 35 terms and abbreviations and carried out a small questionnaire survey specifically for this document, involving 100 potential hospital patients: 65 design and writing students from Coventry University, nine older people from the Milton Keynes branch of the University of the Third Age, and 26 other members of the general public.

We asked these people to tell us:

- what they thought 35 different medical terms (words and abbreviations) meant;
- what other terms, if any, they felt the terms related to;
- whether they felt there was a simpler term that could be used.

Some of the terms listed by staff as problematic

The following terms were listed by staff as problematic at four out of the 12 sites surveyed:

- Cardiology;
- CT Scan;
- Oncology;
- Path Lab;
- Pathology;
- MRI.

The following terms were listed by staff as problematic at two out of the 12 sites surveyed:

- Cardiac;
- ECG;
- Endoscopy;
- Ultrasound.

Even the following relatively common terms were seen as problematic by staff of at least one site, although we would suggest they are suitable for use on signs:

- Ante-natal;
- Audiology;
- Pharmacy;
- Speech Therapy;
- X-ray.

Terms found to cause confusion

The potential patients had trouble with many of the terms they were presented with:

- most people did not understand most of the terms;
- only a third of the terms were understood correctly by more than half of the people surveyed.

The most problematic terms tested, understood by fewer than 15% of the people, were:

- Cytology (understood correctly by 6%);
- Oncology (15%).

The following terms were a little better understood, although still only understood by fewer than 40% of the people:

- Colposcopy (understood correctly by 20%);
- Obstetrics (26%);
- Hysteroscopy (27%);
- Orthoptics (27%);
- Diagnostic imaging (28%);
- Catheterisation (30%);
- Podiatry (30%);
- Endoscopy (37%).

The following terms were better understood, although still only understood by fewer than 55% of the people:

- Pathology (understood correctly by 42%);
- Ophthalmology (43%);
- Paediatric (48%);
- Orthopedics (50%);
- Ultrasound (55%).

Fewer than 75% of the people understood the following terms:

- Radiology (understood correctly by 63%);
- Neurophysiology (66%);
- Psychiatric (66%);
- Mammography (67%);
- Haematology (69%);
- Ante-natal (70%);
- Physiotherapy (70%);
- Orthodontics (71%);
- Cardiography (75%).

Out of the 35 terms and abbreviations we tested, only two were understood correctly by more than 80% of the people:

- Dermatology (understood correctly by 82%);
- Audiology (92%).

Abbreviations found to cause a lot of confusion

Many abbreviated terms are used by the medical profession, and some of these abbreviated forms are used in the public domain in preference to the full title of the department or specialism.

Abbreviations were among the most poorly understood of the terms we tested:

- OPD (understood correctly by 4%);
- CCU (6%);
- EEG (12%);
- MRI (14%);
- R&D (14%);
- ECG (28%);
- ICU (29%);
- CT scan (29%);
- ENT (32%).

These findings suggest that use of medical terminology and abbreviations is likely to cause problems. It is important to use simple terms for optimum understandability and to reduce the possibility of confusion.

Use of symbols to reinforce the meaning of a term

Some sites have attempted to develop symbols for departments and facilities but have generally found it difficult, if not impossible, to design an understandable, simple symbol for all departments. However, some departments deal with a part of the body which is easy to describe with a symbol, and using such a symbol may be found by visitors to be helpful, particularly if a medical term is being used, see Figure 12.

Figure 12

However, using a simple term for the department will make the sign even easier to understand Non-standard symbols must be tested for understandability and legibility at the intended size.

Figure 13

Further guidance on the use of symbols can be found in paragraph 4.29 of this document.

Developing effective pre-visit information

3.13 The information people receive before they visit a site can enable them to prepare for their journey, plan how they will get to the site, estimate how much time they need to allow to get to their destination, and also provide other information about the site or appointment.

However, pre-visit information is only useful if it is clearly presented and links with other information, such as signs that people will see on their way to, and at, your site. The following paragraphs provide guidance and information on four key types of pre-visit information.

Role of pre-visit information

3.14 Pre-visit information should enable people to:

- plan how long to allow to get to the site and then find their destination;
- know how to get to the site and which site entrance to use;
- know in which building their destination is located;
- know where they can be dropped off near their destination;
- know whether they can park at the site, or which buses stop nearby;
- know which building entrance is the nearest to their destination;
- understand any site simplification methods.

Pre-visit information for people with special requirements

3.15 Pre-visit information must be available in a format and design suitable for people with visual impairments and learning difficulties, and people who do not understand the language used for signs at your site.

Site maps should indicate routes without stairs, and building entrances with drop-off points for people with limited mobility.

All pre-visit information must use consistent terminology

3.16 Pre-visit information must use terms for departments and buildings that are consistent with each other and also with the signs and maps at the site.

Staff must realise that if the terms used in appointment letters, written information and spoken directions are not consistent with the signs and other wayfinding aids at the site, people are likely to be confused when they arrive at the site, and to have difficulty finding their way

Appointment letters

3.17 An appointment letter is often the first contact a person will have with a healthcare facility, so the content, clarity and tone of the letter can influence their opinion of the site and how they feel about the visit. It can add to their level

of stress (because they are not sure where they need to go or how long it will take, or whether they will find somewhere to park), or make them more relaxed about the visit (because they feel better informed).

The information content and layout of appointment letters and accompanying information such as site maps and explanations of a treatment, was found to vary dramatically from site to site, and also from department to department at the same site (IDU 98).

The following key information should be included in all appointment letters:

- **when** the appointment is and what it is for?
- **where** the appointment is – which healthcare site and which building?
- **which** department – giving the name that appears on directional signs;
- **who** the appointment is with – the person's name;
- **what** the patient should do if they need to change the appointment – with a direct telephone number if possible;
- **what**, if anything, the patient needs to bring with them.

Consistent terms

3.18 Terms used in appointment letters, and when staff give directions over the phone, must be consistent with those used at the site on signs, maps, etc and by staff at information desks. For example, if a doctor tells someone to go for an X-ray, the appointment letter tells them to go to the Radiology department, and the directional signs and locational signs say Diagnostic Imaging, people will inevitably get confused.

Clear layout

3.19 The layout of appointment letters plays a crucial role in whether people notice, read and remember key information. This can be emphasised in a number of ways, including the use of:

- a **bold** type style used just for key information;
- white space around key information;
- lines to separate information chunks;
- colour, particularly black text on a yellow background.

Large-print and audio information

3.20 Large-print appointment letters should be available for people with visual impairments or deteriorating vision, and sites should provide audio information for those people unable to read large print. (Royal National Institute for the Blind, based in London, can provide guidance.)

Best practice guidelines – appointment letters

Recommendations

- provide all relevant information on the appointment letter and **emphasise** all key information;
- break up the information into manageable self-contained chunks using headings, lines, white space or bold type;
- if there is text on the back, give people a clear indication that they need to turn over;
- use terms that are consistent with the rest of the wayfinding system (signs, maps and directories etc);
- make staff aware of the importance of using the same terms in letters, as they do when they refer to departments and procedures verbally;
- if a department has recently been relocated, mention this in the letter to avoid people going to the wrong place;
- always include the postcode of the building that patients are visiting, as more and more patients are relying on Internet sites for maps and directions, and the use of Satellite Navigation Systems is becoming more widespread.

Things to avoid:

- using a single weight of type for the whole letter (use **bold** type for key information);
- using medical terms that people are unlikely to understand;
- if medical terms have to be used, explain them.

Maps sent with appointment letters

3.22 Some people find maps easy to use, others find them very difficult to use. However, the way the map is drawn and reproduced, and also the information that is included, affect the clarity and understandability of a map, and therefore how easy it is to use. Some key factors to consider are:

- site maps should enable people to create a simple mental model of the site, and the main circulation routes around it, so that people can orientate themselves once at the site. Site entrances, buildings and public entrances and public facilities should always be clearly indicated;
- printed site maps sent with appointment letters are usually smaller than the framed site maps located at the site. It is important to design the map to be legible and understandable at the smallest scale at which it will be reproduced, rather than simply reducing a large map.

Benefits of providing a site map to prepare for a visit

A well-designed map can provide information for people to familiarise themselves with the site layout, and locate site and building entrances and adjacent car parks before their visit. A map can enable people to plan their route and estimate how long it will take.

This is particularly important for:

- people with limited mobility – who are unable to walk long distances, who use a wheelchair or who are pushing a pram and need to know the quickest route without stairs;
- people with impairments – who may want to plan their journey as they may not be able to use certain wayfinding aids at the site;
- people who anticipate being stressed on the day of the visit – who want to plan their route;
- people using taxis – who need to tell the driver where they want to be dropped off and picked up.

A map is not only helpful for people who have never been to the site or destination before, it can also be useful for reassuring people who have not visited the site for some time that things are where they remember them or, if a department has moved, where the department is now. If a department or other location has recently been moved, this should be emphasised in the appointment letter. Thought should also be given to the inclusion of photographs of the destination, as some patients and visitors may rely more heavily on visual clues and images to help them find their way.

Factors that affect the clarity and usefulness of site maps

- the illustrative style used;
- the quality of reproduction;
- the effective use of colour;
- the level of detail, the scale of the map and the size of text;
- the inclusion of landmarks or prominent site features.

One of the key factors influencing how useful people find maps sent with pre-visit information, once they are at the site, is how well the maps link with the actual environment. However, the design of framed site maps, and the terms used on all elements of the wayfinding system, such as maps, signs and spoken directions, also affect the usefulness of maps.

Evidence – use of site maps

Research (IDU 98) found that very few people (fewer than one in ten) said they used a map to find their destination. Of those who had seen a map, more than one in three found it difficult to understand. One in four found the site they were visiting confusing.

We believe that the small number of map users was in part due to the limited usefulness and understandability of the maps available.

We would expect more people to use maps if they were designed to explain the site in clear, simple terms and were easy to use and understand.

Despite their limited current use, sending out a well- designed site map with appointment letters can still contribute to creating a favourable impression, and so promote a more positive expectation that it will be relatively easy for people to find their destination.

Best practice guidelines – maps sent with appointment letters

Recommendations

3.23 Site maps should be designed:

- to be legible and understandable at the smallest scale they will be reproduced at (rather than reducing them from a large map);
- specifically for your site, and should simplify it;
- with the text and map orientated to help people understand the site as they approach it, and consistent with on-site maps;
- in a simple large-print version for people with impaired vision.

Site maps should enable people to create a simple mental model of:

- the layout of the site;
- where the main buildings are located;
- the main routes around the site;
- the routes through the main buildings.

Maps sent with appointment letters should show:

- the location of the site in relation to the nearest town;
- the main public site entrances and the building where the appointment is to take place;
- main public entrances into that building accessible to all site users including people with limited mobility;
- main circulation routes and how many floors there are, and the main public stairs and lifts linking the floors;
- car parks and bus stops;
- any landmark or prominent feature people can use to orientate themselves;
- public facilities such as toilets, café, phones, shop.

Consider producing more than one map. If there is too much information for a single map you could, for example, have one map for use up to the point where people enter the site, and another to help them move around the site; or one map showing the locations of buildings on the site, and others showing the internal layout of the buildings.

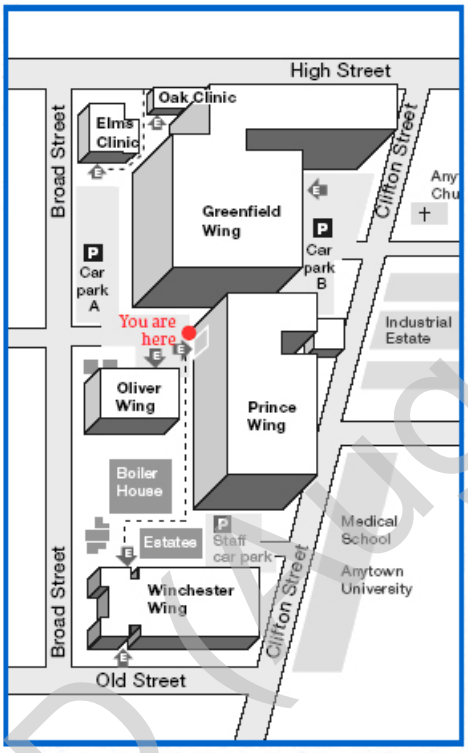


Figure 14: 3D illustration shows the variations in building height. The viewpoint must be carefully selected to avoid obscuring important information

Things to avoid

Do NOT use the following as site maps:

- architects or surveyors plans of the site – they are usually too complex and show a level of detail that is not required for a simple site map;
- Ordnance Survey maps – they also give too much detail;
- poor-quality photocopies of maps.

Note: Avoid using maps with advertising that detracts from the map. If advertising is necessary to fund the printing of the map, the advertising should be clearly separated from the wayfinding information.

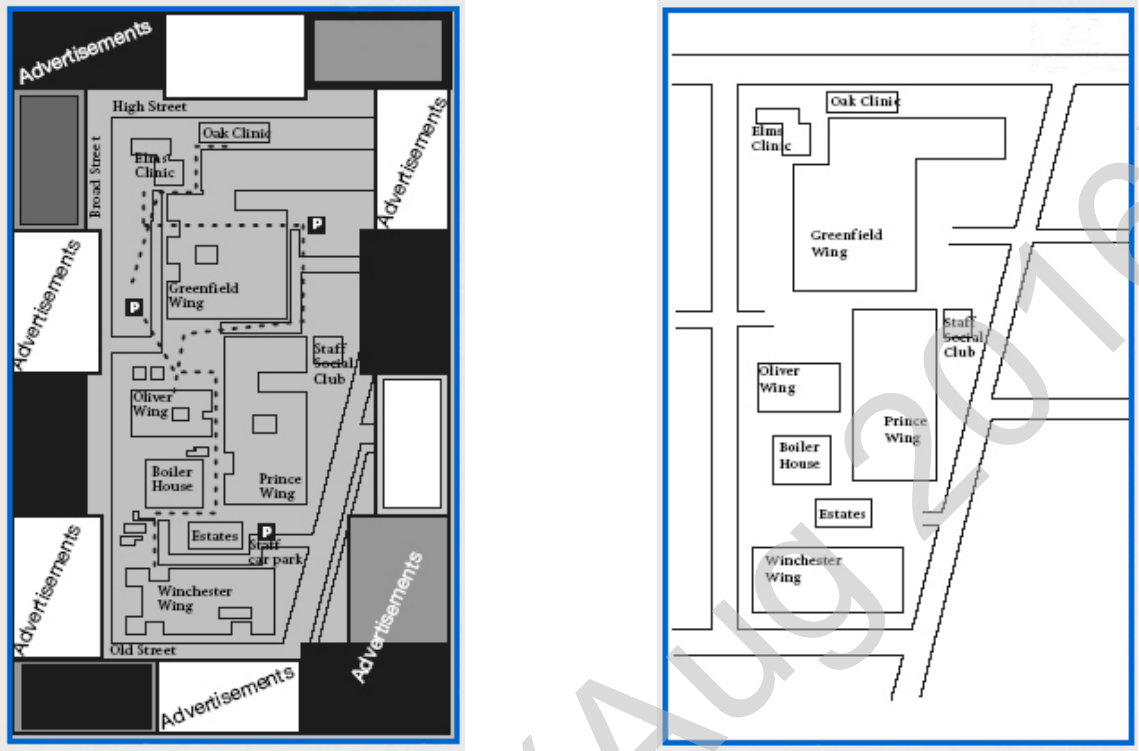


Figure 15: No visual differentiation. Adverts detract from map. Routes and entrances not clearly marked. Not enough detail. No entrances, on-site routes and no road names marked

Spoken directions

3.24 The clarity of the information provided by staff giving spoken directions, both before a visit (by phone) and once people are at the site, is an important part of a wayfinding system. An axiom of wayfinding is that people would much rather ask for directions than use signs, maps or other non-verbal wayfinding aids.

It is therefore essential that staff provide clear directions that correlate with the actual environment and that link with the signs and other wayfinding information that people see. How easy people find it to describe a route, and how easy people find it to follow a described route, are affected by a variety of factors.

Describing a route

How easy people find it to describe a route is affected by:

- the number of decision points along the route;
- the number of changes in direction and floor level along the route;
- whether there are landmarks that can be referred to;
- how familiar the person asking for directions is with the site.

Following a described route

The ease with which people follow a described route is affected by:

- whether the person has visited the site before and so can imagine the route that is being described;
- how easily and quickly the person can create a mental model of the site layout in order to imagine the route that is being described;
- whether landmarks referred to in spoken directions are clearly visible and recognisable from the description used;
- whether directional and locational signs correspond with the spoken directions.

Evidence – spoken directions

Research (IDU 98) found that almost a third of first-time healthcare facilities users (30%) asked for directions when they were at the site, but 42% of these people thought the directions they received were unclear. 16% of people who had visited the site before asked for directions, but 38% thought the directions they received were unclear. When carrying out the site surveys at 12 healthcare sites, there was no official member of staff to ask for direction at 81% of the decision points on the 80 routes followed.

These findings show that a significant number of people, particularly first-time visitors, needed to ask for directions but well over a third were given directions that were unclear or difficult to follow, or experienced some other problem with the directions.

Best practice guidelines – spoken directions

Recommendations

3.25 Provide guidance for staff on how to give spoken directions. This guidance should:

- encourage staff to consider the problems people may have in understanding spoken directions and ensure that they provide directions that are short and simple;
- remind staff of the names that should be used for buildings and departments in letters and on signs and maps at your site;
- remind staff of the names of landmarks around the site that they can use to help people follow their directions;
- ensure that staff know what routes the signing system sends people along to the main destinations;
- give staff helpful strategies, such as breaking up directions into short units based on the decision points along a route, and checking that people have understood and remembered what has been said to them.

Landmarks around the site should be given clear names:

- give landmarks unambiguous names or descriptions that are easy to pronounce and remember and will not be confused with other names used by staff when giving spoken directions. All staff should be encouraged to use one easy-to-understand name for a landmark;
- consider the possibility of creating landmarks to make the route easier to describe, remember and follow.

Consider providing support material for staff responsible for giving spoken directions:

- where the directions are being given over the phone, staff could be provided with standard scripts for directions to the most used locations;
- where directions are being given face-to-face, staff could also be provided with simplified internal route maps for people to take with them to their destination (where they could be collected for re-use).

Things to avoid

People can have the following problems with spoken directions:

- not being able to hear what is said to them;
- not being able to speak the language that is used;
- not knowing what terms mean;
- not recognising terms that they have seen written down, but have never heard pronounced;
- not being able to remember what is said to them.

Unclear spoken directions

The following is a script showing the type of information that is unhelpful and unclear:

"If you stand facing the old infirmary part of the building[1] you'll see there's a kind of paved area over to the left.[2] If you head for that, you'll see there's a sign for Maternity, but if I were you I'd ignore that,[3] because it takes you a long way round and it's better to go through the building opposite. If you head along the main corridor it twists and turns a bit,[4] but you should end up at the entrance to the corridor that links the two buildings.[5]

Go across there, go past the path lab[6] and turn left, then right, carry on a bit, then left again.[7] Or actually, you could go right then left, then right."[8]

[1] Giving a name to a building that is not currently used.

[2] Not giving names to landmarks.

[3] Contradicting the signing system.

[4] Not providing any idea of distance or useful landmarks.

[5] *Giving vague information that is difficult to visualise.*

[6] *Referring to a location that may not be recognisable to a patient.*

[7] *Giving a long series of instructions.*

[8] *Contradicting the previous instructions which will only cause confusion.*

Clear, easy-to-understand spoken directions

The following is a script describing the route to the Ante-natal Clinic in Albert Wing. It shows the type of information that is helpful:

"As you go out of these doors you'll see a large brick building directly in front of you, which is Cavendish Wing.[1] Albert Wing is behind Cavendish Wing. It's a two-minute walk from here, about 400 yards.[2] Go left towards Memorial Garden.[3] When you get to the gardens turn right along the path – you'll see a blue signpost pointing to Albert Wing.[4] You'll pass a seating area on your left [5] and then you'll see a building entrance with blue doors and a sign saying 'Albert Wing'.[6] There will be somebody at the reception desk just inside the doors: they can direct you to the Ante-natal Clinic.[7]

Can you remember all that? So that's out of these doors, left to the Memorial Garden, then right through the garden, past the seating area, and the entrance to Albert Wing is straight ahead.[8] Do you want me to show you on a map?"[9]

[1] *An easily recognisable landmark*

[2] *Giving an idea of time and distance*

[3] *Giving a name to an easy-to-recognise site feature*

[4] *Linking with signs and colour-coding*

[5] *providing a reassuring landmark*

[6] *Giving reassurance of destination*

[7] *Rather than go through a complicated internal route it is better to identify an interim point where further help can be obtained*

[8] *Repeating the main points*

[9] *Providing extra help as required*

Written directions

3.26 Written directions can be especially useful for those people who have difficulty using maps, to provide added reassurance that they have read the map correctly.

Key factors

3.27 People need to be able to quickly see where they have got to in the instructions, and to see what the next instruction is. They may want to refer back to the written directions during their journey, perhaps several times. Dividing the route into separate, clearly defined, logical stages makes this easier to do and also

makes the directions easier to follow and remember. Always consider different site users and how the written directions provided by your site will be used.

Dividing the route into memorable stages

- identify the decision points along the route and define the action to be taken at each decision point (e.g. go left, right, straight on);
- describe any prominent landmarks or features people will go past, using a name that is easily recognisable;
- include an idea of the time it will take and the distance of the overall journey, and for longer routes give an idea of time and distance between key decision points;
- consider naming or numbering the stages;
- include landmarks or features that will indicate to a person that they have gone the wrong way, or have gone too far and have passed their destination.

The importance of a clear layout for written directions

For most routes, making written directions short and simple enough to remember in their entirety is often difficult if not impossible. However, by thinking about how you write down directions given verbally, for example over the phone, and copying this style for the written directions provided by your site, the directions can be clear and effective.

A good layout for written directions will make a major difference to how easy they are to follow. Written directions should have a layout that:

- clearly groups the information into stages;
- emphasises key decision points using bold type, white space, lines etc;
- makes the directions easier to remember, using visual groupings; for longer routes it may be appropriate to consider naming the stages.

Written directions need to be memorable so that lone drivers can remember the stages because they cannot safely read directions whilst driving. And although pedestrians, passengers and people using public transport can safely refer to written directions, they will usually prefer to remember the information rather than having to keep referring back to the written directions.

Case study - Clear written directions

3.28 All the main public buildings at Site D had a ‘Wing’ name. The external directional signs at the site only referred to the ‘Wings’, so people needed to know which Wing their destination was in, before they arrived at the hospital. The appointment letters clearly said which Wing the departments were in, and staff at the site all referred to the Wing names when giving spoken directions.

The following written directions were included as part of an appointment letter:

"The X-ray department is in Albert Wing which is situated to the left of the roundabout when you enter the site through the main gate (look for the blue Albert Wing sign above the main doors into the building). The reception desk is straight ahead."

Best practice guidelines – written directions

Recommendations

3.29 These written directions are for one heavily-used route. The directions:

- include road names which are always helpful;
- assume people could come from either the North or South at the first roundabout;
- include landmarks along the route;
- give an indication of time, both in rush hour and in average traffic;
- give an indication of distance along London Road;
- use bullet points and white space to group and separate information into short stages;
- use lines to divide information;
- use **bold** type to show different levels of information.

Directions to Anytown Hospital by road from the M1 motorway
Exit M1 at junction14 – signposted Anytown
First roundabout – follow sign for Anytown
Next roundabout – go straight on (London Road)
Go along London Road for about 1 mile
Landmarks you will pass - BP petrol station on the right - Anytown Primary School on left - Railway bridge over the road
Small roundabout – go left (Church Street)
Large green gates – go left into Anytown Hospital
Note: If you see a modern grey church on the right you have gone too far
Reception is through the entrance with a green canopy
Parking – there are three public car parks (£1 per day charge)
How much time to allow
We recommend: 20 minutes in average traffic conditions 30 minutes at rush hour

Table 1

Things to avoid

These written directions offer people little reassurance, and will be difficult to use because:

- there are no road names;
- there are no landmarks;
- there is no indication of time;
- there is no indication of distance;
- some of the information is misleading;
- they are laid out as continuous text and the information is not separated into stages.

BY ROAD
LEAVE THE M1 MOTORWAY AT JUNCTION 14. GO SECOND LEFT AT THE FIRST ROUNDABOUT, STRAIGHT ON AT THE NEXT ROUNDABOUT. AT THE NEXT ROUNDABOUT YOU SHOULD GO LEFT AND THE HOSPITAL IS ON THE LEFT.

Table 2

Table 2 above shows only just enough detail, no indication of times, distances, road names or landmarks and no reassurance is given. Upper case letters are more difficult to read and continuous text is difficult to follow for written directions.

By Road
Coming from the North go right and coming from the South go second left at junction 14 off the M1 motorway. You will come to a roundabout and you should go left but not the first left (that goes into a housing estate). Go straight on when you come to another roundabout that is about the same size as the last one but with bushes on it. Go along this road for a while. There is a big road on the left but ignore it. You will eventually come to another roundabout and you should go left and go along that road for a while. You will eventually see a big entrance with black gates on the right. Ignore them and continue until you see another entrance on the left with green gates. This is the hospital. Park wherever you can find a space and come to the main entrance.

Table 3

Table 3 above shows too much unhelpful detail, no indication of times, distances, road names or landmarks and the layout does not show the stages of the journey.

Getting to the site

3.30 Before they can begin finding their way around your site people have to be able to get to the site, and then locate an appropriate public entrance, so it is important to ensure that road signs, signs at site entrances, and pre-visit information all enable people to find the site easily and to identify the most convenient site entrance, whichever method of transport they use.

Mode of transport and wayfinding information

Many people go to healthcare facilities by car – using their own car, getting dropped off by someone else, or by taxi. Others get to the site by public transport (usually bus or train), and some walk. The wayfinding information people need to enable them to get to your site depends on the mode of transport they use.

The four key modes of transport people will use are car, taxi, public transport, or they will come by foot. These are discussed in the following paragraphs.

Factors that affect how easily people get to a site

- the clarity of pre-visit information and how well it relates to the actual environment;
- prior knowledge of where the site is;
- the complexity of the route to the site – the number of changes of direction and decision points (road junctions, roundabouts, one-way systems);
- how identifiable the site entrances are, with prominent locational signs.
- whether the architecture of the site is distinctive and easily identifiable.

By foot

3.31 Pedestrians and pavements need to be given equal consideration to car users and roads. Healthcare sites should do what they can to minimise the distance that pedestrians have to walk and ensure their route is safe. It should be remembered that when pedestrians take a wrong turn, retracing their steps on foot is a much slower process than in a car, and uses much more energy. This can lead to breathlessness, and anxiety as people worry about being late for their appointments.

Key factors

3.32 To ensure pedestrians take the most direct, safe route to their destination you should:

- ensure pre-visit information identifies pedestrian site entrances and the entrance nearest the department to which the visitor is going;
- provide clear directional and locational signs for pedestrians;
- provide well-lit, clearly visible pathways that are separated from the vehicular routes;
- encourage pedestrians to avoid unsafe routes, such as roads used by large delivery vehicles, by providing well-signed alternative pedestrian routes and clearly defined pavements.

Signs and maps for pedestrians

People on foot see things from a different angle, a different height, and a different distance, to people in cars. Directional and locational signs for pedestrians should be designed and located to take this into account, for example by putting locational signs at eye level and by installing fingerpost signs specifically for pedestrian routes.

Pedestrians often start their journeys to healthcare sites from town centres, or from train stations or bus stops. If they do, they will find it helpful to have signs directing them to the site from these locations and at key decision points along the route to the site.

Maps sent to people and those located at your site should differentiate between vehicular and pedestrian routes and indicate the most direct, safe pedestrian routes around your site.

Unofficial pathways

When walking, people quite understandably like to take the shortest, most direct route to their destination. If they can see where they need to go but the pathway does not take them this way, they will create an alternative, unofficial route across grass and through flowerbeds. You should either make them official pathways to avoid accidents with uneven and slippery surfaces or, if the route poses a potential hazard, sites should create actual or visual barriers to deter people from using them.

Best practice guidelines – getting to the site by foot

Recommendations

- locate pathways and pavements to guide people along the most direct and safest route;
- on the site map you should show pedestrian site entrances and routes;
- pre-visit information should state which site and building entrances are nearest to the department sending the information;
- signs should be designed for pedestrians, located at eye level, and legible from a shorter distance than road signs.

Things to avoid

- do not ignore unofficial routes people have created by taking a short cut, these highlight problems with the official pathways;
- do not rely solely on vehicular directional signs to guide pedestrians.

By public transport or by taxi

3.34 Many people will have to rely on public transport to get to your site. It is in the interest of the public transport companies to provide up-to-date information about their services and if this information is included with pre-visit information, more people who are physically able may consider using public transport, particularly if they have experienced difficulties parking on previous visits. Boards should liaise closely with local public transport providers to ensure that accurate and appropriate information, routes and drop-off points are developed.

Many sites have insufficient car parking, which inevitably causes congestion at the site and anxiety for its users, so it is in the interest of these sites to encourage the use of public transport for staff and healthcare facilities users.

People who are not physically able to use public transport may decide to use a taxi, and others may opt for this mode of transport rather than struggle to find a parking place. Taxi ranks and drop-off points should be clearly marked.

Key factors

Using public transport

3.35 Before their journey, people need to know:

- the location of your site and which buses, trains etc go past, or to it;
- where transport goes from, and what times it leaves;
- how long the journey takes by public transport.

During their journey, and on arrival at your site, people need to know:

- where the bus stop or train station nearest to your site is located, and when to get off;
- if they are on a bus, what the site looks like, particularly if the driver does not make any announcements;
- the pedestrian routes from the bus stop or station to your site.

For their return journey, people need to know:

- where the bus stop or station for their return journey is located;
- the frequency of the return service, preferably with timetables at information desks, and at the stop or station.

Using a taxi

People need to know:

- which building entrance they should be dropped off at and picked up from, and where this building is located so they can direct the driver;

- how long the journey will take by taxi – possibly from local landmarks, or from the town centre.

Best practice guidelines – getting to the site using public transport

3.36 ***Recommendations***

- make sure stops and stations at or near your site are clearly identifiable. A locational sign with the site name at the site entrance would provide reassurance;
- if the site entrance is not visible from the bus stop, provide directional information for pedestrians;
- provide clear pathways from bus stops to the site entrance and building entrances;
- ask transport companies to provide timetables and route information at stops and stations.

Pre-visit information

- include information on how to get to the site by public transport, or a phone number for transport information, in pre-visit information;
- make sure all departments are aware of the bus stops and train stations nearest to the site and are able to provide specific public transport information or a phone number for transport information;
- provide details of where the bus stops are for return journeys.

Taxi drop-off and pick-up points

- Sites should provide taxi drop-off and pick-up points at all main building entrances.

By car

3.37 Many people will come to your site by car. Research found that an average of 73% of healthcare facilities users travelled by car to hospital, and at some sites this figure was much higher (IDU 98). Wayfinding systems need to take into account the implications of so many people relying on road signs to find your site and needing to find car parks.

Key factors

Road signs

3.38 These are not the direct responsibility of healthcare facilities, but are the responsibility of local authorities who usually follow the 'Traffic Signs and Regulations, and General Directions 1994' when specifying road signs. However, road signs can affect how easily people get to your site and whether they are late for appointments because they get lost.

Road signs also influence the flow of traffic around your site, as they direct people to certain site entrances, so it is important that the clarity of road signs is considered when carrying out a wayfinding audit and that you work with the local authority to ensure road signs are easy to follow.

The use of the white 'H' on a blue background for hospital sites makes the hospital name much more prominent on road signs than simply the word 'Hospital' (see the 'Best practice guidelines').

When developing a new Wayfinding system or new facility, early consultation with the local authorities over road signage would be beneficial.

Towns with more than one hospital

Many larger towns and cities have more than one hospital. Road signs and local maps must differentiate clearly by showing the hospital name rather than just 'Hospital'. This is especially important when the hospitals are located near each other.

Figure 16

Accident and Emergency departments

Many people will drive to Accident and Emergency (A&E) departments – sometimes referred to as the Emergency Department – and will want to quickly find the site and entrance nearest to A&E. Such people will not have pre-visit information and will be totally reliant on the road signs. If there is more than one hospital in a town, people need to know which one has the Accident and Emergency department. At sites with more than one entrance people need to know which entrance to use.

The use of a white 'H' on a red background on signs for hospitals with A&E departments increases the prominence of the sign and differentiates between hospitals with, or without, A&E facilities.

Figure 17

Pre-visit information for public transport and car users

Pre-visit information should include a map showing local train stations and bus stops, and vehicular routes to and around the site. The letter should specify the most convenient site entrance and car park. If people enter from the wrong side of the site for parking, or for their destination, this can cause frustration, and congestion at the site. If parking at your site is limited, and pre-visit information warns people of this, some may decide to use an alternative method of transport.

Car parking for disabled people

If there is limited public parking at your site, priority should be given to disabled drivers. Parking for disabled people needs to be clearly marked, using the standard symbol.

Figure 18

Off-site parking

It is important that you are aware of the locations where users will park off-site, and do what you can to provide pedestrian directional information from these off-site locations.

Reducing stress and anxiety when driving to the site

3.40 Drivers and their passengers often get stressed and anxious when:

- trying to find a parking space;
- they take a wrong turn and especially when they find they cannot retrace their route because of a one-way system;
- having to travel at driving speed around an unfamiliar site trying to follow signs;
- having to walk from a car park some distance away from their destination;
- they begin to worry about being late for their appointments.

You should provide clear pre-visit information about car parking at your site, including a map showing the location of on- site and off-site car parks and buildings, advice on how far people may have to walk, a warning if car parking is limited, and how long a typical journey will take.

Healthcare facilities users can then make a better-informed decision about how to get to the site, how much time to leave, how near the buildings are to the car parks, and whether to drop off a less mobile person at the building entrance whilst the driver finds a parking space.

Best practice guidelines – car users getting to the site

Road Signs

3.41 ***Recommendations***

- if your hospital has an Accident and Emergency department, make sure that all road signs directing people to the site include a white 'H' on a red background with 'A&E' written underneath;
- for all hospitals without an A&E department, all road signs mentioning the hospital should have a white 'H' on a blue background, to make the hospital more prominent on the sign;
- identify the main routes that people will use to get to the site, and audit the road signs directing people along these routes, particularly from the nearest town or city centre;
- encourage the local authority to install directional signs with the name of the site at all key decision points along all likely approach routes;
- try to position a locational sign with a white 'H' symbol on blue or red on the main approaches to the hospital, close to the site entrance, to make people aware they are almost at the hospital;
- if there is more than one hospital in a town, use the full hospital name as well as the 'H';
- use the precise names and road numbers that are used on the road signs in pre-visit information, and make staff giving spoken directions aware of the importance of using these.

Things to avoid

- avoid positioning the locational sign (white 'H' on blue or red) too far from the site entrance – the hospital site may be confused with other entrances;
- avoid not giving emphasis on road signs to the hospital.

Car Parking

3.42 ***Recommendations***

- give parking priority to disabled drivers and ensure these spaces are clearly signed;
- include details of potential parking problems, and also of the parking charge, in pre-visit information;
- be aware of other nearby car parks people can use, and include details of these in pre-visit information;
- provide up-to-date public transport information to encourage people to use another method of transport;
- consider incentives to encourage staff to share cars or use public transport.

Things to avoid

- do not allow cars to park illegally where they obscure signs, pathways and entrances;
- do not allow staff to park in parking areas for the public, and in the parking spaces adjacent to the main building entrances, which should be reserved for disabled drivers.

Identifying and recognising your site

3.43 People need to be able to identify and recognise a healthcare site in order to know they have completed one stage of their journey, and now need to find a site entrance. They may identify the site by recognising the architecture of the site or a landmark (from a photograph, previous visit, or description given as part of spoken directions), or by seeing and reading a locational sign at the site entrance.

Key factors

Architectural features and landmarks at your site

3.44 Healthcare facilities differ from each other architecturally: most have a variety of building types and there is no single, easily recognised norm for healthcare facility architecture. However, most sites can be described in some way that will enable people to envisage the type of building they need to look out for.

If it is very difficult to describe your site, and there are no landmarks to refer to, it is worth considering ways of making the site more memorable and easier to describe.

People can be given an idea of what the site will look like as they approach it by including in the pre-visit information a photograph or illustration of a prominent building or feature that they will see. This could be part of a site map or information booklet.

Staff should be encouraged to refer to buildings or features at, or near, the site that are easy to describe, when giving spoken directions. For example, they might say, *"it's an eleven storey block, it's the only tall building in the area" or, "there's a large clock tower opposite the main site entrance"* or, *"it's a new red-brick low-level building with a bright blue canopy".*

Architectural features and landmarks also help people find their way around the site.

Locational signs on the buildings

At points where the site can be seen, but not necessarily recognised from the approach, locational signs should be positioned to be legible for both drivers and pedestrians. They should be illuminated to be legible at all times of the day.

They will reassure people that they are at the right place. Prominent locational signs at site entrances show people where to enter the site.

Best practice guidelines – identifying and recognising your site

Architectural features and landmarks

3.45 ***Recommendations***

- assess how visible the site buildings are from approach routes, and look at ways of making the site more visible and identifiable from all directions;
- create, or emphasise, landmarks or features at the main site entrances;
- consider including images of prominent architectural features in pre-visit information;
- if there is one, encourage people to use a prominent building which is easy to describe and unlikely to be confused with somewhere else, when giving spoken directions;
- if it is difficult to describe your site architecturally, consider ways to make it easier to describe, or create landmarks which people can refer to instead.

Things to avoid

- prevent site entrances and prominent features becoming cluttered or obscured (for example by vegetation, road signs or parked cars).

Locational signs

3.46 ***Recommendations***

- locational signs should be positioned at points where the site is visible from main roads, and if possible indicate the direction of the main site entrance;
- at sites with a tall building visible from a distance away, placing a locational sign at the top of the building should be considered. However, it is important to also locate signs near the main building entrance at eye level;
- locational signs should be illuminated.

Things to avoid

- locational signs becoming cluttered or obscured (for example by vegetation, stationary traffic, road signs, parked cars).

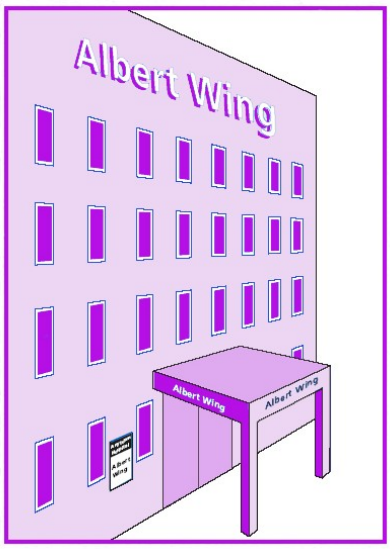


Figure 19

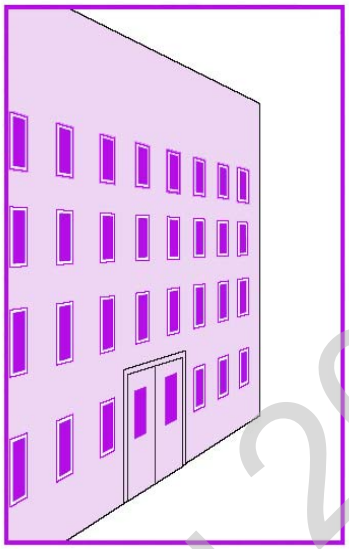


Figure 20

Identifying site entrances

3.47 Once a site has been identified, people need to find an appropriate site entrance – preferably the entrance nearest to their destination or which leads to a main route through the site, or to public parking areas, or is close to public transport links.

Key factors

3.48 Factors that influence how easily people find a public site entrance include:

- the prominence and positioning of the locational signs at the site entrances the angle of approach;
- whether they have visited the site before and recognise the entrance;
- the legibility of the typeface, and the type size in which the site name is written on the locational signs at the site entrance;
- the level of illumination of signs and site entrances;
- if there is a wide road opening and road markings at the site entrance;
- the number of vehicles and people entering and leaving the site, especially ambulances at healthcare facilities – they draw attention to the entrance;
- the number of site entrances from which to choose.

Angle of approach

The angle from which people approach your site entrance will affect how prominent and visible the entrance is. If people approach your site from a particular direction, and there is a site entrance visible, they will tend to enter by this entrance unless they have been advised otherwise in pre-visit information, or the locational sign gives clear information about who and what that particular entrance is for.

Using the most convenient site entrance

Pre-visit information can influence the choice of site entrance, as can locational signs at the site entrances which clearly show which site entrance is most appropriate for which users. By specifying the entrance people should use, the flow of traffic and circulation of people through the site and buildings can be controlled.

The particular site entrance used can make the route people take to a destination easier or more difficult to follow. It can also make the difference between someone having to walk a short or a long distance to their destination, so it is important that healthcare sites do what they can to direct people to the most convenient site entrance for their destination.

Illuminating site entrances

Lighting is an effective method of drawing attention to a feature, entrance or sign, particularly when the amount of natural lighting is reduced. By illuminating the main public site entrance more dramatically than the entrances for services and staff, people are more likely to notice and use the correct entrance.

In particular, the signs, roads, pavements and pedestrian crossings at the site entrance should be sufficiently illuminated to ensure people can see where they need to go, and that they can see a locational sign to reassure them and a directional sign to guide them.

Sites with more than one entrance

The greater the number of entrances to a site, the more likely that there will be a larger number of:

- possible directions of approach to the buildings at the site;
- possible routes through the site and intersections of routes (and therefore more decision points);
- wayfinding aids required.

People would find it helpful to know which of the site entrances is the nearest to their destination or public parking, and also which other site entrances they may pass to get to the one nearest their destination.

At sites with a number of entrances, each one should be clearly identified so that people can identify a particular entrance.

Differentiating between site entrances

Sites with more than one entrance need to differentiate between the site entrances to enable:

- visitors to identify which are public, staff and service entrances;
- staff to refer to a particular entrance when giving spoken or written directions;
- people to use an entrance that leads onto a main route around the site, one that is well signed.

Best practice guidelines – identifying site entrances

3.49 ***Recommendations***

- position locational signs at site entrances so that they are prominent and legible from all possible angles of approach;
- prevent site entrances, and locational signs at entrances, becoming cluttered or obscured (by vegetation, road signs, parked cars etc);
- make sure that site entrances are as visible after dark as they are in daylight. Site entrances and locational signs should normally be illuminated;
- use large enough text on the site entrance signs to be readable from at least 15 metres away at a normal driving speed;
- ensure the site name is in the largest type size on the sign.

Sites with more than one site entrance should:

- give each entrance a name that staff can use when giving directions, and that will help visitors to know at which entrance they have arrived;
- indicate site entrance names clearly on locational signs, site maps and external directional signs;
- create a hierarchy of entrances, with main public entrances made more visually noticeable (with more prominent signs) than those for staff or service;
- tell people which entrance is the nearest to their destination, or the best for public parking.

Things to avoid

- relying on the site logo, rather than having the site name in large text, on locational signs at the site entrances. Include the logo, but also include the name.

Getting around the site

3.50 Once people have entered your site, they need to find somewhere to park their car or get dropped off near their destination. They also need to identify the building they require, find a route to the building, find an entrance into the building, then a route through the building and finally identify their destination.

When developing a wayfinding system, sites should give as much consideration to the environmental factors, such as clearly defined pathways and architecturally prominent entrances, as they do to pre-visit information, signs and maps.

Finding a public car park or drop-off point

3.51 Many healthcare facilities users arrive by car. Many sites have insufficient car parking, especially for peak times. This is not a wayfinding issue, but it has a direct effect on people's wayfinding ability.

On entering the site, people need to be guided to a place where they can park or be dropped off. Drivers need an idea of how many car parks there are, and whether some are better for certain locations than others.

Parking in sight of your destination makes wayfinding easier

3.52 How easily people find their way to their destination will be affected by where the route starts. If people are able to park, or be dropped off, in sight of their destination, they will find their way far more easily than people who have to park, or are dropped off, some distance from the building they need, and which they cannot see.

People who do not have a problem with mobility may opt to park their car and then find their way on foot. However, people need more information, if they have limited mobility, to find the car park or drop-off point nearest to the building entrance they require.

Parking problems add to stress levels and frustration

3.53 If drivers have problems both finding places to park, and also relocating their vehicles, this will inevitably increase their levels of stress, cause frustration and they may subsequently become disorientated. At some healthcare sites people abandon their cars outside authorised spaces, probably as they become late for appointments, adding to parking congestion.

Evidence – parking problems

3.54 Research has found that being unable to park adds to people's stress levels. Comments on patient and visitor questionnaires in response to the question *"How were you feeling when you arrived at the site?"* included:

- "exhausted with driving around";

- "car parking is the most stressful part of the visit";
- "het up about driving round finding a parking space";
- "anxious because I was late for my appointment due to car parking problems".

In addition, 26% found it *"very difficult"* to park, and 9% found it *"difficult"* (IDU 98).

People who have experienced problems parking at your site may consider using public transport if they notice a stop or station at or near the site, and see that up-to-date public transport information is available at the site.

Key factors

3.55 Factors that affect how easily people find a parking space include:

- the size of the site and of the area allocated to parking;
- the number of visitors and patients coming by car;
- the number of staff using cars to travel to and from work;
- the location of parking spaces and the distance people are able, or willing, to walk;
- how easy it is to find the entrances to the car parks;
- whether pre-visit information specifies a particular car park, or whether spaces are reserved for separate departments or clinics;
- whether on-site directional information indicates which car park is near which building;
- whether roads and road markings, as well as directional signs, guide drivers into public car parks.

Car park identification methods

3.56 It is important that individual car parks at your site are identifiable, with an identity that is easy to remember. Methods used to identify car parks include one, or a combination, of the following:

- numbers;
- letters;
- names;
- colours;
- symbols;
- images.

Car park identification can be indicated on directional signs inside the buildings to direct people to the nearest exit. Prominent locational signs in the car parks enable people to remember where they have parked. Site maps showing the

car parks enable people to orientate themselves and use the map to relocate the car park.

Relocating the car park or pick-up point

3.57 When people leave their cars, or get dropped off, they need to notice something which will help them to find the same location on their return. At some sites, the buildings look very similar and people need extra information such as signs and landmarks to help them remember where they have parked, or where they will be picked up.

Best practice guidelines – finding a public car park or drop-off point

Recommendations

3.58 Sites should develop strategies to:

- reduce any parking problems and increase the use of public transport;
- identify car parks with individual, memorable names;
- allocate drop-off areas and disabled parking near building entrances.

Recommendations for pre-visit information

Pre-visit information should inform people of:

- the amount and cost of public parking at, or near, the site;
- the location of the car park(s) nearest to their destination;
- public transport services.

Recommendations for on-site information

External directional signs should indicate:

- the direction of the public car parks, and drop-off points;
- the entrance into the car parks;
- the direction and route from the car parks to people's destinations, or the main building;
- if possible, external circulation routes should direct people to pass main building entrances so they can see where they need to go;
- internal directional signs should direct people to the nearest building exit for each car park;
- framed site maps should show the location of car parks and drop-off points.

Things to avoid

- sending pre-visit information that does not give information about car parks at the site.

Car Park Identification

3.59 ### *Recommendations*

- at sites with more than one car park, individual car parks should be identified and marked with unobstructed locational signs to inform people where they have parked;
- if parking is 'Pay and Display', the payment points are good locations for car park identification signs and other site information, such as maps and directories;
- locational signs must be prominently located in car parks so that people can remember where they have parked.

Things to avoid

- positioning car park locational signs too low where they could be obstructed by parked cars, or too close to vegetation which in spring and summer may obstruct the signs.

Finding the correct building and entrance

3.60 Having arrived at the site and left their vehicle, people need to identify a route to the building they require and find a public entrance into it.

Key factors

Finding the correct building

3.61 Patients and new staff should have information about which building they require and will be looking for a directional sign from the car park, drop-off point, bus stop or site entrance to indicate where that building is. If the building has a clear locational sign, visible as soon as they start to look for information, people will walk directly towards the building. If the locational sign is positioned beside or above an entrance, they will assume this is the public entrance.

Other people, such as visitors, will arrive with only a department or ward name and are reliant on the on-site information to find out which building their destination is located in. This task requires a comprehensive site directory, a site map with an index, or someone to ask for information.

Finding the correct public entrance

Having identified the building, people then need to find a public entrance, preferably one that leads to a main internal circulation route or is near their final destination.

An entrance can be assessed for its identifiability, that is, how easy it is to see it and to tell what building it leads to. The shape, the visual prominence, and the angle of approach all affect how clearly people can see an entrance.

It is not always possible to determine the angle of approach in order to make an entrance more visible, but architectural features can be added to make it prominent from more angles of approach.

Public entrances should be more prominent and noticeable than staff-only and delivery entrances.

Sites with one main public building entrance

If it is better for all visitors to go through one particular building entrance, they can be encouraged to do so by emphasising this entrance and reducing the prominence of other entrances.

People will tend to head for the most prominent building and entrance unless they have other information which tells them they need to go to some other building or entrance. Also, clear pathways that lead directly to the main public entrance will encourage people to go to this entrance.

Sites with building entrances on more than one level

If your site has building entrances on more than one level, people need to be made aware which floor they have entered the building on, so that they can use wayfinding information such as directories and directional signs.

They also need this information to avoid entering at one level and inadvertently leaving on a different level and finding that they are in unfamiliar surroundings and cannot orientate themselves, or relocate their car, drop-off point or bus stop.

Figure 21 : A protruding entrance such as a canopy is particularly identifiable

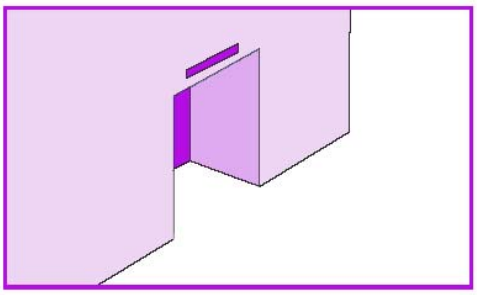


Figure 22: An entrance that is recessed is also identifiable especially if light creates a shadow in the recess

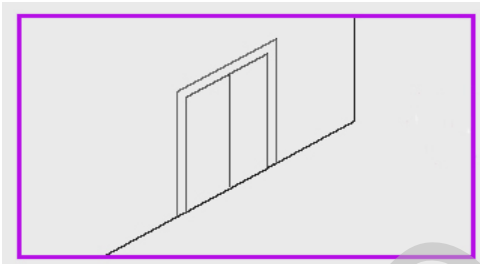


Figure 23: An entrance that is in line with the wall of the building does not attract attention

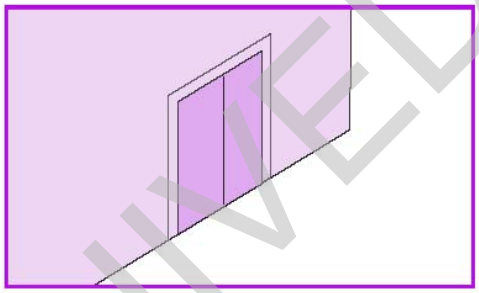


Figure 24: Unless it is painted to create a colour contract with the wall colour

Best practice guidelines – finding the correct building and entrance

Identifying buildings at your site

3.62 ***Recommendations***

- buildings should have locational signs large enough and positioned so that they are legible from all directions of approach;

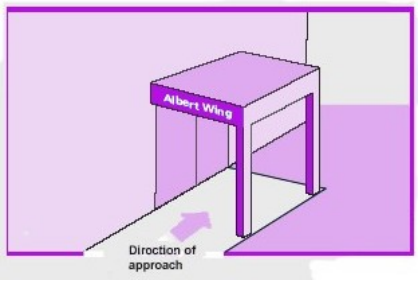


Figure 25

- if buildings at your site have names such as '[Name] Wing' or '[Name] Block', pre-visit information and external on-site information must tell people the name of the building in which their destination is located;
- if buildings at your site look architecturally similar, you should consider ways of distinguishing between them such as using landscaping, colours on entrances and other architectural features, sculptures or other artwork located at the entrance, or large locational signs with distinguishing. names.

Things to avoid

positioning locational signs on buildings so they are:

- too high to be noticed or too low so they are obscured;
- not legible from the direction of approach;
- Avoid creating new buildings so they all look the same. Buildings need to have distinguishing features.

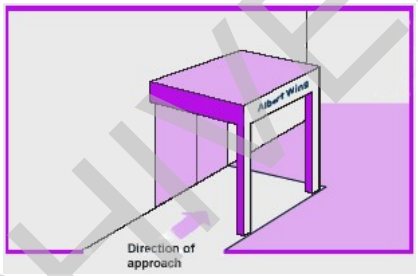


Figure 26

Identifying building entrances

3.63 ***Recommendations***

- public building entrances should be architecturally prominent and have a locational sign large enough to be seen from a distance at night. The sign must also be positioned high enough not to be obscured by parked vehicles;
- smaller locational signs should be positioned next to entrances at eye level (1500 mm) to mark the entrance for pedestrians;
- entrances that people will approach from the side should have a protruding entrance, or at least a protruding locational sign.

Things to avoid

- having public entrances with no locational sign;
- having public entrances that are approached from the side, but that do not protrude from the wall.

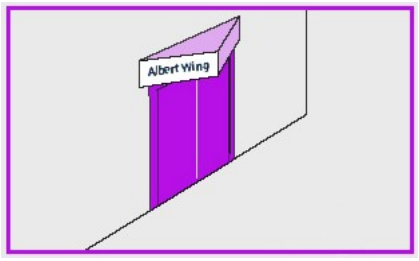


Figure 27

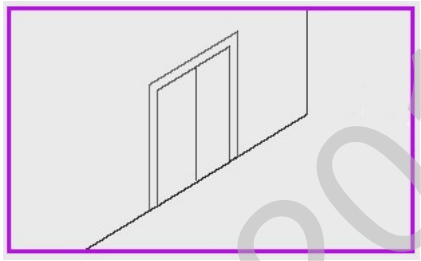


Figure 28

Using landmarks and site features

3.64 Architectural differentiation and environmental features, and natural or man-made landmarks, help people find their way and recognise areas of a site and parts of routes.

It is very difficult to define what a landmark is. It can be many things; something that one person notices and remembers, another person may not see. Commonly, a landmark refers to a feature which is prominent, or is unusual within the environment. A landmark can be created and highlighted as an effective part of a wayfinding system.

Key factors

Landmarks and site features as part of a wayfinding system

3.65 Landmarks and prominent site features can help:

- people to orientate themselves;
- staff refer to a decision point when giving spoken directions;
- visitors recognise a decision point when they reach it;
- reassure visitors they are going in the direction they were advised;
- reassure people they are returning along the same route when they are looking for the site or building exit.

Landmarks often form an important part of people's mental map of a site which they are likely to rely on heavily for repeat visits.

Developing new landmarks or emphasising site features

Landmarks should be positioned at key decision points. New landmarks must be easy to describe and people should not be likely to confuse them with

another feature at the site. They must be noticeable and recognisable from a description given verbally or in writing.

Some sites have features which could be emphasised so as to be more noticeable, be easier to describe, and help people orientate themselves. By creating new landmarks at appropriate locations externally and internally, staff can refer to them and visitors can be reassured by them.

There is no standard type of landmark that all sites should have. Each site has different wayfinding problems to solve, and also different budgets, so the most effective landmark will be different for each site.

Referring to landmarks

Landmarks often acquire a number of names, some more accurately descriptive than others. Sites can encourage the use of a particular name by using it on site maps, directional signs and locational signs and advising staff to use a particular name.

Evidence – landmarks

As part of our research (IDU 98) we asked people to draw sketch maps of the site they were visiting, or working at, and label any landmarks and buildings they would use to direct people or which they thought people notice most. The landmarks they mentioned included:

- a clock tower;
- courtyard;
- covered, raised walkway;
- a large sculpture;
- a fountain;
- shops;
- a café and restaurant;
- an entrance with a brightly coloured canopy;
- a lift area and escalator.

Best practice guidelines – using landmarks and site features

3.66 ***Recommendations***

- find out what visitors and staff refer to when giving spoken or written directions describing the site and routes around the site;
- emphasise the clearest, most helpful names on maps and signs and advise staff to always use these particular descriptions;
- ensure landmarks are easy to visualise, with little chance of anyone misunderstanding what is being referred to;

- ensure prominent buildings have clear locational signs, displaying the same names used in spoken and written directions, to confirm and reinforce the name of the building;
- identify any key decision points which have no distinguishing features, and create landmarks that are easy to describe at these points;
- include key landmarks on site maps;
- consider including key landmarks on directional signs.

Things to avoid

- staff referring to landmarks in a way that can be confused with other features, for example talking about “the red staircase” when all the staircases at the site are red.

Following circulation routes and pathways

3.67 It is often assumed that putting up directional signs will solve the problems caused by illogical, complicated circulation routes – roads, pathways and corridors with many changes in direction and level, dead ends, junctions and decision points. Signs will provide some reassurance, and help to guide people, but the best solution is to have simple, logical circulation routes.

Key factors

Simple circulation routes

3.68 Having a simple circulation route will make wayfinding easier. If people can quickly generate a mental model of the external and internal circulation routes around your site, they will find it much easier to imagine and understand the route they need to take to get to their destination.

Some sites have been well designed, with a simple circulation route layout. These sites should need fewer, less complex directional signs. Site maps can be used to explain circulation route patterns but to be effective they rely on the main circulation routes being simple enough to be explained in a diagram.

Complicated circulation routes

At sites where buildings have been added or extended, often the original circulation routes will have been altered and may have become quite complex. Sites with complicated circulation routes invariably need more directional signs to cope with the changes in direction and level. However, signs at these sites often have too much information and are difficult to follow.

Sites with complicated circulation routes should look at ways to simplify the actual routes, but where this is not possible, they should emphasise the main routes visually. This could be done by naming routes, using artificial lights, varying the colour of surfaces, or similar ways of clearly defining roads, pathways and corridors.

Consideration should be given to the quantity and frequency of signs, particularly along complicated circulation routes. A common complaint from visitors is that signs are sporadic and at times seem to 'disappear' from a route, leading to confusion and frustration.

Planning and explaining circulation routes

Architects and planners should have considered the circulation flow through buildings and sites, but the pattern and therefore the understandability of these circulation routes may not be apparent to site users when they are actually finding their way around. For example, a building may appear to the site user to have a simple, single, linear layout, when in fact it has two parallel corridors which look very similar. Alternatively, site maps may only show one floor while people are not aware there are two or three floors with a similar layout. They may become confused when they are in the right place on a map, but on the wrong floor.

It is important to look at ways to explain the main circulation routes around your site, such as with maps, 3D diagrams (see next page), and information signs, or by making lift areas and stairs prominent, showing there are other floors. Both external and internal routes should be considered when planning or improving a wayfinding system.

Main vehicular circulation routes

Vehicles are generally easier to control than pedestrians, as drivers are used to following rules when they are on the road. If vehicular routes are clearly defined and visually emphasised, there is a very good chance that drivers will follow these routes as intended.

Directing vehicles past the entrances of main buildings will help people to build a mental model of the site, and to identify where they need to go once they have parked. A single circulation route which leads directly from the site entrance to public car parks will reduce congestion and make wayfinding around your site easier and quicker for vehicles.

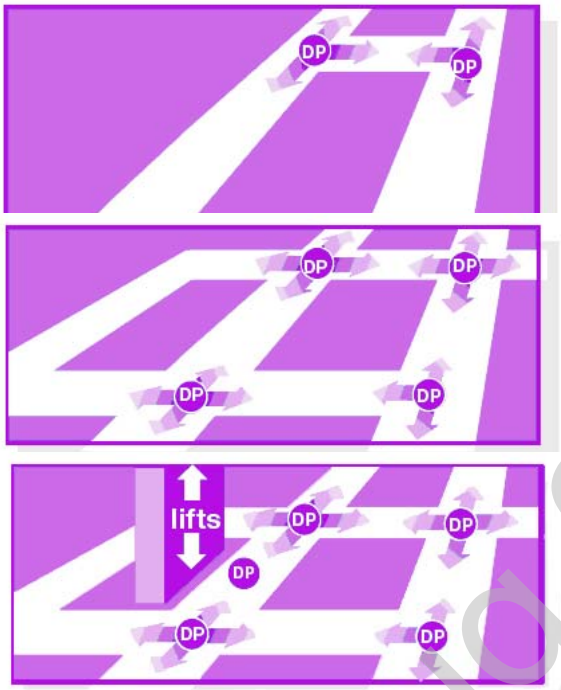


Figure 29: Examples of circulation routes and decision points (DP)

People with limited mobility

3.69 Many people who visit healthcare facilities often have temporary or permanent limited mobility because of an injury, an illness, deterioration of mobility due to aging, or someone using a wheelchair. A person with both a pram and a toddler is also limited by the routes they can take, and so is someone who gets short of breath using stairs.

Sites have to provide clearly marked, accessible and direct routes for all people. A person with limited mobility needs to get to their destination using the most direct route that is accessible for them.

A key issue is changes in level. If people get to a flight of stairs or a steep slope, knowing they need to be on the floor above or below, and cannot see a lift, they will feel frustrated, possibly disorientated, and discriminated against.

Healthcare facilities must ensure that signs, written directions and staff giving spoken directions send people along routes with lifts, not just stairs.

External pedestrian circulation routes

Sites must provide safe pathways for pedestrians. After dark people may prefer to walk next to a road with passing cars and people, but during the day they will take the most direct route, and pathways should reflect this. They should be guided along the shortest, safest route, along well-defined pathways which are especially important for people with visual impairments (contact RNIB for advice, and see Chapter 3 in *Building Sight*).

If a pathway does not appear to lead where people think they want to go, and if they can see a prominent entrance or some other feature which suggests they need to go in a different direction, they will invariably take a short cut, creating an unofficial route. Such routes usually highlight problems with the official pathway routing, just as temporary paper signs can highlight problems with directional and locational signs.

Vegetation along pedestrian routes can be used to guide people, and street lights along pathways guide people after dark.

Internal circulation routes

Once people have found an entrance, they follow internal circulation routes, which are usually corridors between walls, although routes may cross open spaces. It is important to emphasise main circulation routes. Ways of doing this include naming main corridors such as Hospital Street or Blue Corridor (which must use predominantly blue for walls and floor colour); or applying coloured lines to the floor or walls to mark a main route between two points; or using lighting to emphasise a route.

The building layout needs to be explained, to help people to create a mental model of the internal routes, the number of floors and where levels are linked by stairs and lifts. A way of doing this is to provide a simplified site map, possibly drawn in 3D, to show the changes in level, the links between floors, and the pattern of the main routes.

Simple, logical circulation routes will improve safety

In an emergency, many people will not notice signs: most people will try to follow the route they entered by. If this is blocked they will look for a route that they think might lead to safety. However, if they have a mental model of the routes through the building, they are more likely to find a way out more easily and quickly. For safety reasons it is highly desirable that all main circulation routes are logical, understandable, and clearly defined.

Best practice guidelines – following circulation routes and pathways

3.70 ***Recommendations***

- when planning any new developments at your site, consider the pattern of the main circulation routes – both external and internal;
- consider whether your internal circulation routes could be made easier for people to understand – look at ways to emphasise main routes;
- consider producing a diagram to explain circulation patterns, changes in level, and links (lifts and stairs).

Things to avoid

- placing obstructions across circulation routes;

- if building work obstructs a route, ensure an alternative route is clearly signed.

Identifying the destination

3.71 Once people have found the building they require, they need both to find their destination, and to know when they have reached it.

This is an essential element of a successful wayfinding system. So that people know when they have arrived, destinations need to be readily identifiable, with a locational sign or some other distinguishing feature.

Key factors

Distinguishing features

3.72 People have preconceptions of features some destinations often have. Some destinations have in-built distinguishing features:

- a restaurant or café has chairs and tables, and will often have a strong smell of food;
- Accident and Emergency departments often have ambulances parked outside them;
- children's wards may have toys, children's pictures and bright colours near the entrance, and also the sound of children's voices.

Locational signs

Destinations without distinguishing features have to rely on locational signs to show people that they have arrived at their destination. These signs need to be prominently positioned and legible.

Locational signs must link with what people are expecting their destination to be called. For example, if they are looking for 'X-ray' because they have been told to 'Go to X-ray', but all the directional signs say 'Radiology', and the locational sign above the door says 'Radiology', it is possible they will not realise they have arrived at X-ray.

Reception desk

A reception desk usually signals to people that they have arrived at their destination, particularly if it is clearly marked with a locational sign showing the department name. A staffed desk also provides reassurance and enables people to check that they are in the right place.

Best practice guidelines – identifying the destination

3.73 ***Recommendations***

- all destinations should be clearly marked with a prominent locational sign that is located to ensure people know which destination the sign refers to;
- unique features or landmarks at destinations make them easier to refer to and easier for users to recognise when they have arrived at their destination;
- reception desks should have a department locational sign, though staff should be aware that people will often want spoken reassurance that they are at their destination.

Things to avoid

- positioning pedestrian locational signs too high (above doors) – especially signs that do not project from the corridor wall.

4. Developing effective signs – general considerations

General considerations

4.1 When people talk about finding their way they usually think of signs, but signs alone cannot overcome the wayfinding problems caused by a complex, illogical site layout, or inconsistent, conflicting wayfinding information. However, signs do play a key role in any wayfinding system and need to link with the other wayfinding information people will receive. If signs are designed to be understandable for a first-time visitor, and people with visual impairments have been considered, they should be effective for all site users.

Types of sign

4.2 There are three key types of sign commonly used as part of a wayfinding system.

Locational or identity signs

To tell people where they are and when they have arrived

Figure 30

Directional signs

To direct people

Figure 31

Directory signs

To inform people

Figure 32

Number of destinations on a sign

4.3 A general recommendation for directional and locational signs is to have no more than four or five destinations or terms in one list.

Most signs are intended to be used by people moving through an environment, and this movement limits the amount of information they can take in. Therefore the number of destinations on an effective directional sign should be kept to a minimum.

If a directional sign has to have more than five destinations on it, the destinations must be clearly grouped into shorter lists, by direction, function or other logical method of grouping information.

Other types of sign discussed in Section 5 are site maps, safety signs and temporary signs.

The best practice guidelines in this section are appropriate for all types of sign.

Typeface and type style

4.4 There is no single typeface or type style which provides optimum legibility, but certain typefaces are much more appropriate for a signing system than others.

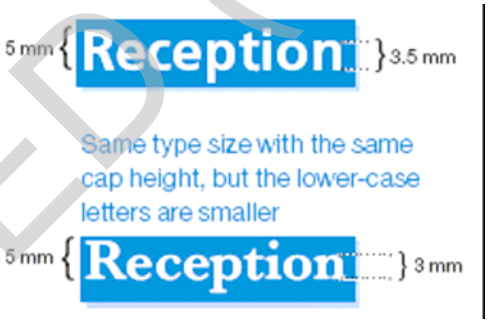


Figure 33: X-Height of a typeface affects overall type size and viewing distance

Upper- and lower-case type

People usually read words quickly by recognising the shape of a word, not by reading letter by letter. Using upper- case for the first letter and lower-case for the rest of the word creates more distinctive word shapes and makes the words easier and quicker to read.

The Royal National Institute for the Blind and the Joint Mobility Unit recommend a ‘clear and uncomplicated’ typeface, with a consistent thickness of stem, using upper-case for the first letter then lower-case for the rest of the word.

Key factors

4.5 When selecting a typeface for a signing system, it is important to consider whether the typeface is appropriate for use on signs. Many typefaces that are

easy to read in books and leaflets, are not legible when used on signs to be read from a distance. For this reason, a corporate typeface that has been chosen for use on letters and other printed information should not automatically be selected for the signs at your site.

There are thousands of typefaces, but they fall into two groups – 'serif' and 'sans serif'. Serifs are the small protrusions at the tops and bottoms of letters. Each typeface has different weights and styles. They also vary in the thickness of the stems of each letter, and the 'x-height' which affects the overall size of the lower-case text.

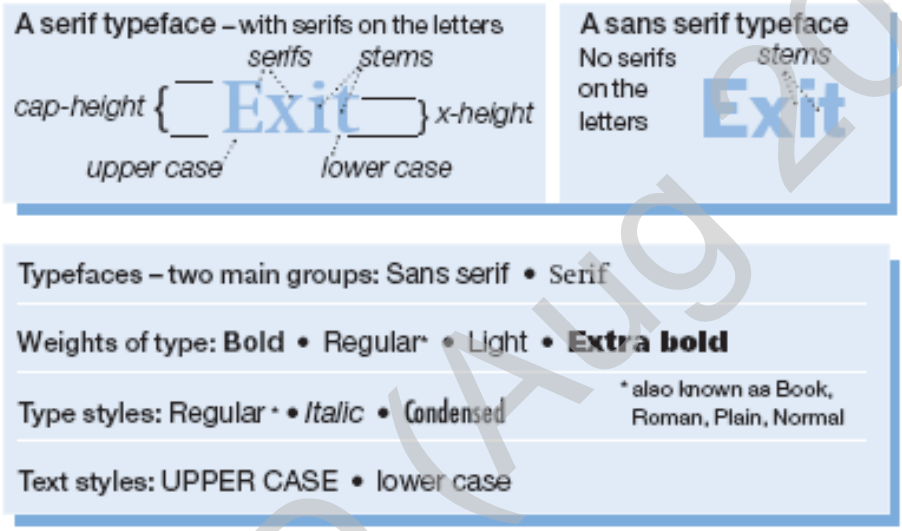


Figure 34

Factors that reduce the legibility of a typeface

- the weight of typefaces – a light weight of typeface is difficult to read from a distance, particularly in reduced lighting levels. A typeface that is too bold (**Extra Bold**) can merge into one block and it can be difficult to distinguish between each letter. A **bold** weight of typeface is recommended, with a regular weight used for secondary information;
- the thickness of the stems of each letter – a typeface with thin stems, or one thin and one thick stem, is less legible on signs than a typeface that has consistently thick stems. A typeface with consistently thick stems is recommended;
- prominent serifs – typefaces with prominent serifs are less legible than sans serif typefaces when used on signs. A sans serif typeface, or a typeface with very small serifs, is recommended;
- a much smaller x-height than cap height – these typefaces are less legible on signs than those with less difference between x-height and cap height. They make the overall size of the text appear much smaller;
- italicising and condensing typefaces reduces the legibility of the typeface and viewing distance. Italic typefaces are especially difficult for people with visual impairments to read, so should be avoided;

- upper-case and lower-case letters – using all upper case can reduce the speed and ease with which a word on a sign can be read. Upper case for the first letter and lower case for rest of the word is recommended;
- reduced levels of natural and artificial lighting, or glare;
- lack of colour contrast between the text and sign background;
- inconsistently or too closely spaced letters.

Best practice guidelines – typeface and type style

Selecting an appropriate typeface for signs

4.6 ***Recommendations***

- select a sans serif typeface (or one with very small serifs) with a large x-height and consistent, thick stems;
- frutiger Bold is the recommended typeface for NHSScotland sites.

Figure 35

Things to avoid

- serif typefaces with prominent serifs;
- italic typefaces (particularly italic serif typefaces);
- typefaces with thin stems and a small x-height.

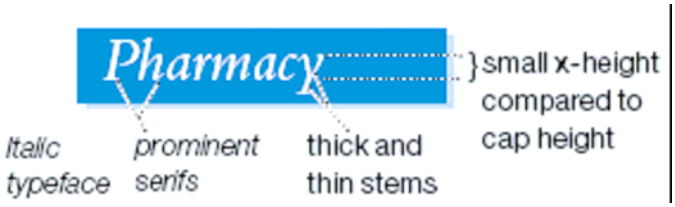


Figure 36

Selecting an appropriate weight and type style

Recommendations

4.7 Each typeface has several different weights and different type styles, and these can affect the legibility, viewing distance and contrast of the typeface.

- bold typefaces provide optimum legibility and contrast, and are readable from further away than lighter weights of typeface;
- regular typefaces can be used for secondary information.

Bold Use for the main text on signs for optimum legibility and contrast,

Regular Use for secondary destinations or to reduce the prominence of non-public destinations. Contrast and viewing distance will be less than with a bolder typeface. Regular typefaces are also referred to as normal, plain, roman or book.

Things to avoid

- italicised, condensed or light weights of type; they reduce the legibility and viewing distance of the text;
- typefaces that are very bold; it can be difficult to differentiate between letters.

Extra bold Using a typeface that is too bold can make the letters merge together when viewed from a distance.

Light When used on signs, the thin stems of light typefaces reduce the contrast and so the viewing distance .

Italic Italic typefaces are generally more difficult to read on signs, especially italic serif typefaces. People with visual impairments find italicised type more difficult to read.

Condensed Condensed typefaces have narrower letters and less space between the letters, which reduces readability.

Selecting upper- or lower-case letters

4.8 ***Recommendations***

- use upper case for the first letter and lower-case letters for the rest of the word – it is easier and quicker to recognise the shape of the words;
- Royal National Institute for the Blind recommend upper case for the first letter and lower-case letters for the rest of the word;
- upper-case letters can be used to emphasise a single destination on a sign, but other ways to emphasise the destination should be considered first.

Things to avoid

- using all upper-case letters, particularly on signs with more than two or three words, as this can reduce the ease with which people recognise the shape of the letters and read the words.

Type size

4.9 Many factors influence the choice of type size used for signs. The key considerations include the distance the sign will be read from; the speed at which the viewer will be reading the sign; the positioning of the sign and the typeface used.

Key factors

4.10 Different types of signs have different intended viewing distances and therefore may require a different type size in order to be legible. For example, the size of text on a directional sign for vehicles travelling at driving speed needs to be much larger than the text on a directory for pedestrians.

Guidance on the respective viewing distance for different x-heights of the Health Alphabet typeface is given in the best practice guidelines, but different typefaces vary considerably in legibility and viewing distance.

Factors that affect the choice of type size used on signs

- typeface and x-height – sans serif typefaces with large x-heights are more legible at a particular type sizes than serif typefaces with small x-heights at the same type size;
- colour contrast – a poor contrast between text and sign colour will decrease the legibility of the typeface and should be avoided. A larger type size would be necessary to achieve the same viewing distance as a high- contrast sign;
- weight of type – for light-weight typefaces a larger type size is required to achieve the same viewing distance as a bold typeface;
- the speed at which the viewer is travelling – signs for drivers need a larger type size than signs for pedestrians;
- the positioning of the sign – signs suspended from the ceiling need to have a larger typeface than those at eye level (see diagram below);
- lighting levels – poor levels of illumination will decrease the legibility. A larger type size would be necessary to achieve the same viewing distance as a sign in a well-lit area.

Factors to be considered when specifying a type size

- the type of sign and the expected viewing distance – directories are intended to be read from a short distance away; directional signs are intended to be viewed from further away; and external locational signs (fascia signs) positioned above building entrances are intended to be viewed from much further away. A type size for each type of sign needs to be specified;
- the legibility of your chosen typeface – different typefaces have different x-heights and viewing distances. It is important to evaluate the legibility of your typeface;

- the visual acuity of the viewers – people with visual impairments should always be considered when evaluating type sizes.

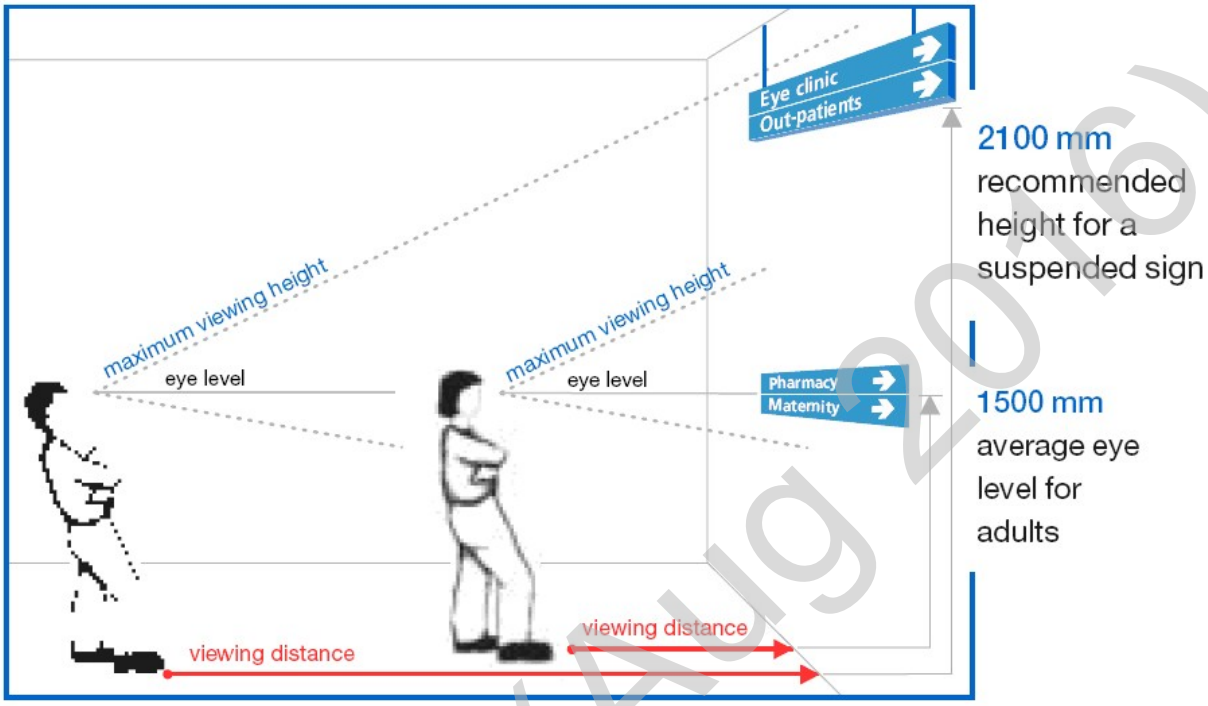


Figure 37: The position of a sign affects the viewing distance and therefore the type size required – ceiling suspended signs should have a large type size

Best practice guidelines – type size

Specifying a type size for signs

4.11 ***Recommendations***

- specify type sizes to be legible at the intended viewing distance;
- consider the method of construction and space available where a sign is to be located, but do not let these factors determine the type size. All text must be legible from the intended viewing distance at the viewing speed;
- use a typeface with a large x-height, to ensure an optimum viewing distance;
- use a high colour contrast between text and sign background, to ensure an optimum viewing distance;
- ensure signs are well lit (with natural and artificial lighting) at all times of the day for good visibility and therefore optimum legibility.

Things to avoid

- using a smaller type size in order to fit a sign into a small space. If the text is not legible from the intended viewing distance, the effectiveness of the sign will be reduced.

BS 5499 - 1:2002 provides guidance on viewing distances for various sign sizes.

Text layout and grouping

4.12 The design and layout of information on signs affects how quickly, easily and accurately people can find the information they require. Sign designers use a variety of graphic devices to group information, to emphasise information, to make a sign eye- catching and to make the intended message of the information clear.

Key factors

4.13 People expect to be able to read signs quickly, glancing at all the information until they see the destination they want. When they cannot find their destination quickly they often look for an alternative source of information.

If this happens, the signs have failed as wayfinding aids.

Long lists of information (more than four or five words) should be avoided on signs other than directories. Where long lists are unavoidable, the destinations need to be grouped together to create shorter lists of words for people to glance through. Important information should be emphasised on the signs.

The ordering and grouping of lists of destinations on signs will influence the sign layout.

Grouping information

Grouping destinations on signs enables the eye to scan the information more quickly. Grouping can be achieved in a number of ways, including using space and lines (shown below) and also by using colour.

Information should always be grouped using a logical method that is consistent for each type of sign at your site and is easy to understand.

Lists of destinations on signs can be ordered and grouped:

- by alphabet;
- by function (such as all wards together);
- by direction on directional signs;
- by floor on directories, which enables people to create a mental model of the vertical layout of the building, but makes it more difficult to find a particular destination than if they were ordered alphabetically, or grouped by function.

Figure 38

Types of text layout that can be used for signs at your site

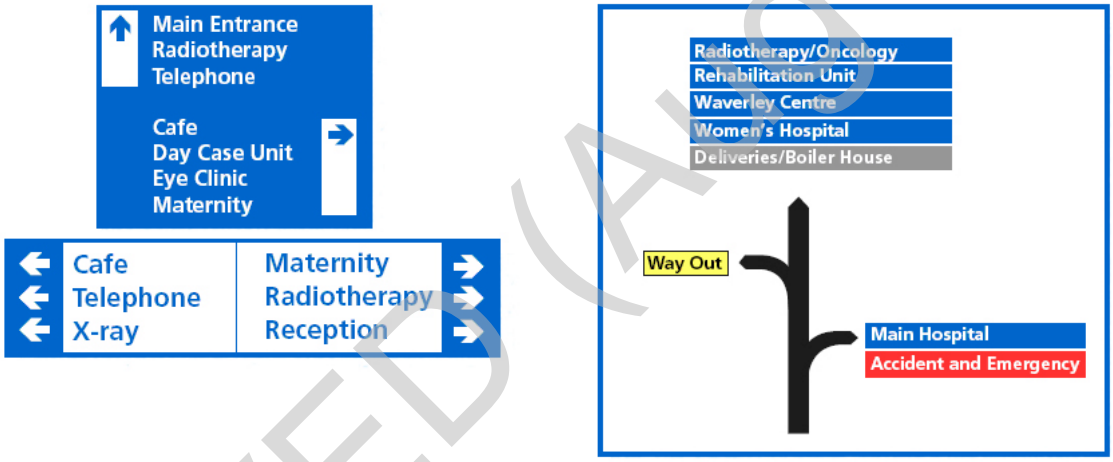


Figure 39: Different sizes of sign with the same information in the same style

Signs with a layout like road signs and motorway signs provide clear directional information for drivers (the construction method allows flexibility in text layout).

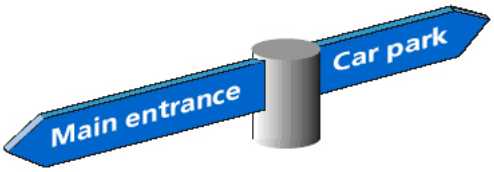


Figure 40

Finger-post signs provide clear directional information for pedestrians (the construction method determines the text layout).

Factors that affect the choice of layout for signs

Issues that need to be considered when designing sign layout include:

- the amount of information on the signs and how it will be grouped;
- the type of information being presented;
- the need to differentiate between types of information (locational and directional signs) while maintaining a consistent style;
- the space available for the signs, which will determine their shape and therefore the layout;
- the number of elements to be included on the signs – text, symbols, arrows, logo;
- the number of colours that will be used;
- the available budget for the signs;
- sign construction methods, particularly with consideration of space limitations, fixings and cost, can influence the layout of the signs;
- whether the sign is likely to need updating regularly.

Best practice guidelines – text layout and grouping

Developing effective sign layouts

4.14 ***Recommendations***

- ideally there should be no more than five destinations in one list;
- ways to reduce the number of destinations on a sign should be considered and should relate to the Pre-Visit Information issued to Visitors. These may include:
- grouping related departments under one name;
- introducing a simplification system at the site;
- consider the cost implications of design layout decisions, but cost should not determine the layout. Consider using more of your budget for key signs, with a cheaper system used for secondary signing;
- the clarity of the information is paramount, and text layouts that provide clear information but are also noticeable and legible should be used.

Things to avoid

- randomly ordering lists of information. It makes it difficult to find the required information;
- when changing sign slats, avoid just putting the new slats where the old ones were, regardless of the words on them and where they should come in the ordered list.

Grouping information on signs

4.15 ***Recommendations***

- lists of destinations or words on signs should be grouped visually, using space, lines, colour etc;
- ways of grouping information include:
- by function (for example public and staff-only destinations, or general facilities, wards and departments);
- by direction, which reinforces the direction people should go in;
- by floor on directories – but this often makes it more difficult to find a particular destination than if they are ordered alphabetically, or grouped by function.
- if reducing the number of destinations or words in a list is not possible, text should be grouped into shorter lists of four or five destinations or terms. The destinations should be listed in a logical order;
- the order destinations are listed in should be consistent, understandable and logical. Alphabetical lists are the easiest to understand, but it may be appropriate to order destinations by another method such as priority (for example Accident and Emergency or Reception first), function (for example all wards together), or direction (for example putting all the destinations located to the right, on the right of the sign).

Things to avoid

- long, ungrouped alphabetical lists on directional signs, as the large number of arrows makes them confusing and easy to mis-read;
- listing destinations in the order in which people will arrive at them, as this system is difficult to understand.

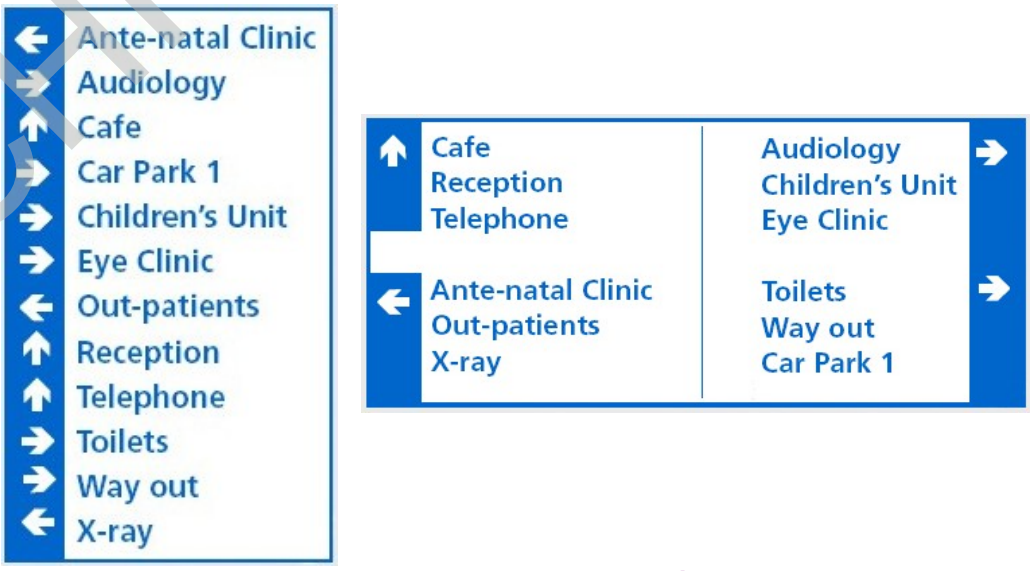


Figure 41

Text and arrow alignment

4.16 Text alignment refers to the way that text is lined up on the vertical axis.

There are four ways text can be aligned – aligned left, aligned right, centred or justified. Justified text is not a suitable option for lists of one or two words, such as appear on signs, because the spacing between the letters is altered, affecting legibility (see below).

The alignment of text on a sign, and the positioning of other elements such as arrows and symbols, affect how easy it is to find particular information on a sign.

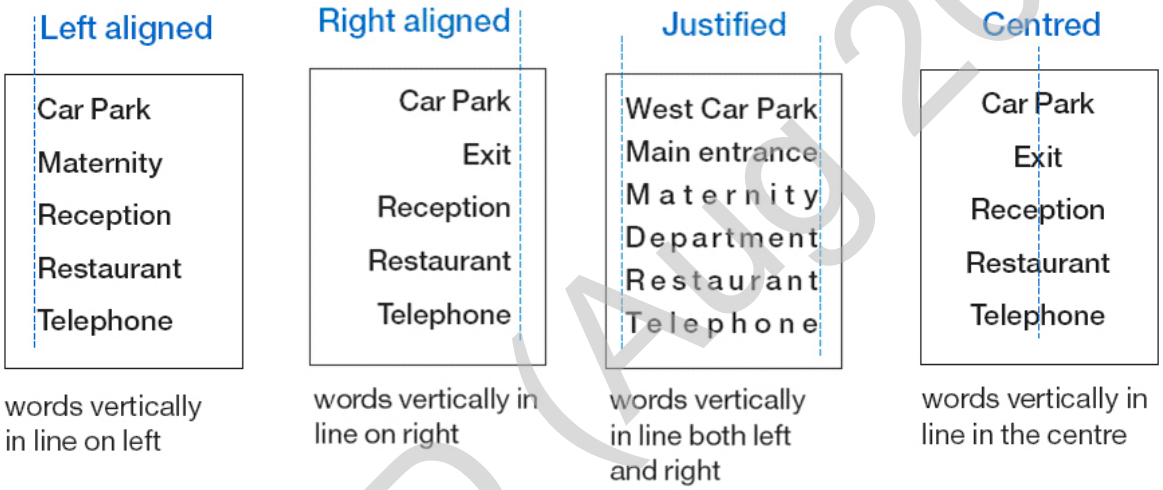


Figure 42

Key factors

4.17 People want to spend as little time as possible finding the destination they want on a sign, so they tend to scan the information. The alignment of text and other elements on the sign can influence how quickly they can find the information they require.

In the Western world, we read text from the left and at the end of a line return to the left, which is why text in many books is aligned left. For the same reason, lists of destinations on a sign should generally be left-aligned to help people to read down the list quickly.

Alignment of a small number of destinations on a sign

Locational signs with only a few destinations or terms can be quickly and easily read and therefore the text can be either aligned left, aligned right or centred. Alignment should be consistent on each type of locational sign.

On a directional sign, destinations to the right are often aligned right to emphasise the way that people need to go. This is acceptable for lists with no more than the recommended number of four or five destinations.

Figure 43

Alignment of a large number of destinations on a sign

Directories usually have more than five destinations, and so do some directional signs. Long lists of destinations on directional signs should be avoided, but where it is unavoidable, destinations should be:

- aligned left;
- ordered consistently on each type of sign, usually alphabetically but possibly by function, priority or location;
- grouped consistently on all signs, into lists of no more than four or five destinations, usually by direction. For lists of more than four or five, consider using white space to create shorter lists, such as by grouping by direction or function, as shown in Figure 44.

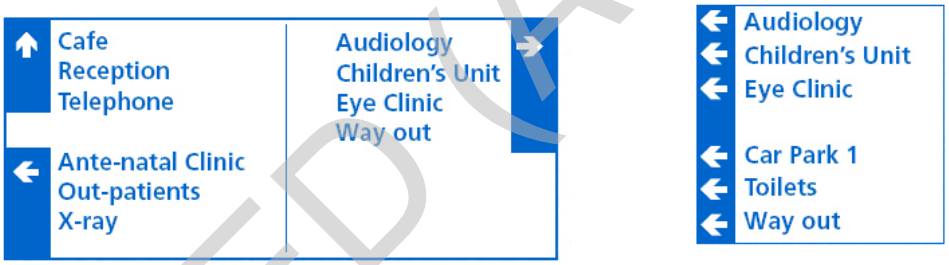


Figure 44

Alignment and positioning of arrows

Signs often include arrows and symbols, as well as words. The positioning of these elements can affect how easy it is to read and understand the sign. Arrows should:

- be clearly linked with the text to which they relate;
- clearly indicate the appropriate direction;
- not have too much white space between the text and arrow;
- be consistently positioned and aligned on all signs.

Best practice guidelines – text and arrow alignment

Aligning text on signs

4.18 ***Recommendations***

- on most signs, lists of fewer than five words, with text aligned left, are recommended;
- on directional signs, text can be aligned right to reinforce the direction, but this can make it slower and more difficult to read through the list of words;
- where longer lists are unavoidable, the destinations should be grouped into shorter lists of up to four or five words.

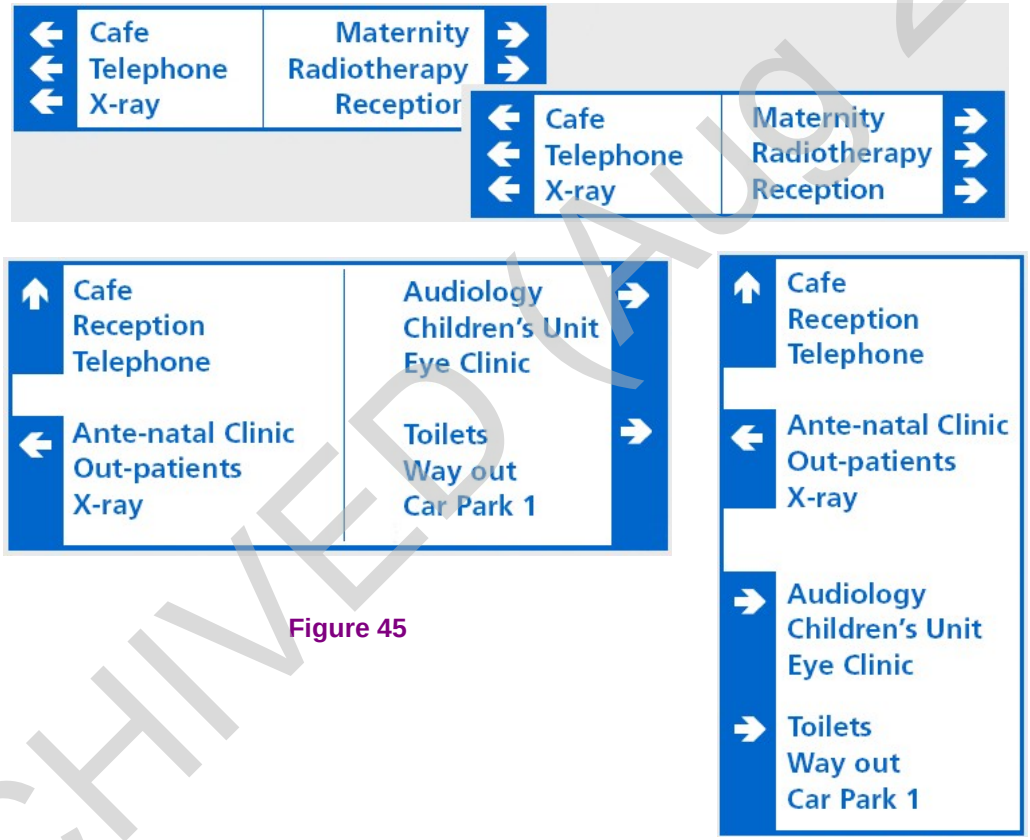


Figure 45

Things to avoid:

- long lists of destinations;
- aligning longer lists of text to the right because this can make it slower and more difficult to read through the list;
- using centred alignment for directional information.

Figure 46

Aligning arrows on signs

4.19 ***Recommendations***

- position arrows consistently on all directional signs
- ensure the relationship between the arrow and text is clear. For some sign designs this may mean the arrows indicating right should be positioned next to the text rather than aligned right. Other sign designs will reinforce the direction visually so the relationship is clear.

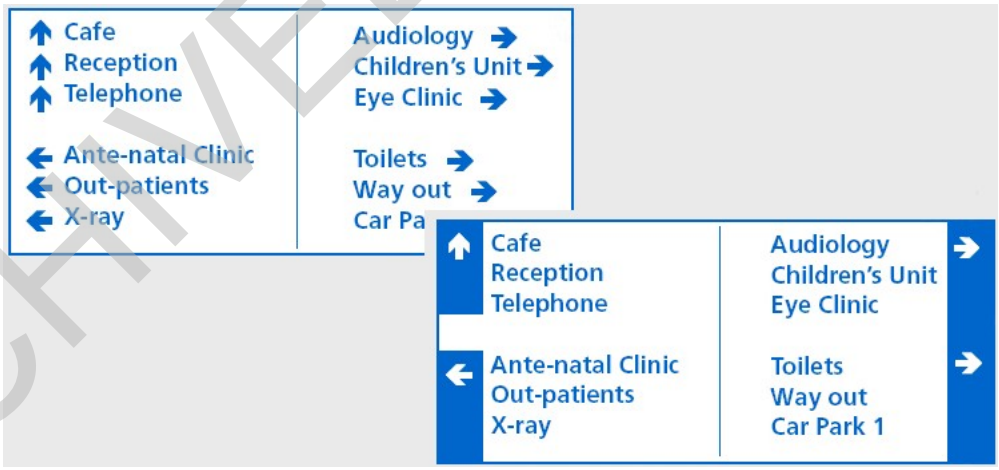


Figure 47

Things to avoid

- leaving too much space between text and arrows;
- positioning arrows so it is difficult to understand which direction should be taken.

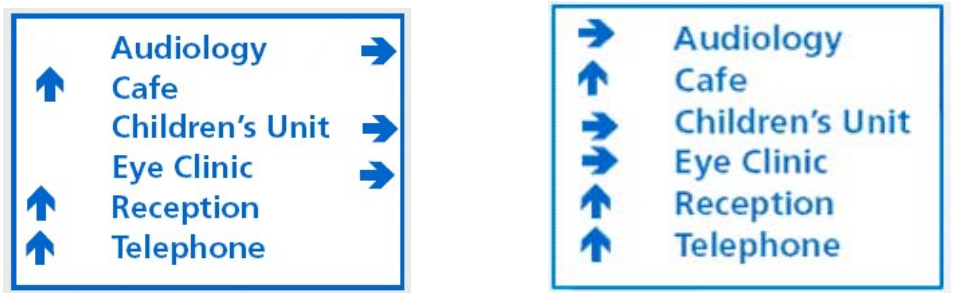


Figure 48

Emphasising information

4.20 At most sites, people often need to find certain destinations – such as Accident and Emergency, the information desk or public toilets – quickly or frequently. Other destinations – such as staff-only or delivery areas – can be less prominent on signs.

There are a number of graphic devices that can be used to emphasise information on signs.

Key factors

4.21 It is important to identify the key decision points and key information required at these points, and also identify the information that does not need to be so prominent on signs, as part of your wayfinding strategy. You should then develop a sign system that shows this hierarchy of information. The key information may change in different parts of the site, but the method for emphasising this information should be consistent.

Methods for emphasising destinations on signs

For key information to be emphasised effectively, the other information needs to be less prominent. For example, if all signs at your site have a bright red background, a destination such as Accident and Emergency will not be more prominent than the other destinations on the sign. If only one destination is in red, and the others are in a less prominent colour, the red destination will be emphasised.

Methods for emphasising information include:

- using a bold typeface to emphasise key information, and a regular weight of type for destinations that can be less prominent;

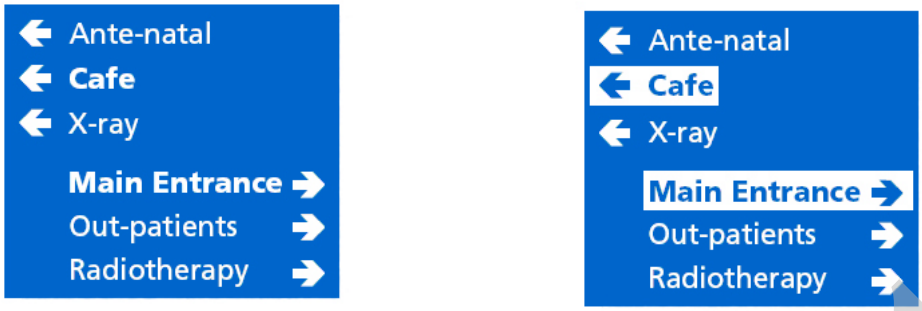


Figure 49

- using a higher contrast between text and background to emphasise key information, and lower contrast for other information. White text on a solid block of black or dark colour, on a white sign will be prominent. Similarly, black or coloured text on a block of white on a coloured sign is prominent (see examples above and below);
- using brighter colours to emphasise information, alongside more subdued, but still high-contrast colours. Red is a particularly prominent colour, which is why it is used on signs for Accident and Emergency departments;

Figure 50

- yellow with black is a high-contrast, prominent colour combination that is used for 'Way Out' signs on the London Underground and is particularly visible for visually impaired people so has been used at some sites to indicate the 'Eye Clinic' on signs. However, yellow and black are also a safety colour combination for hazards, so should be used carefully;
- colour can be used to highlight groupings of information, for example all the public facilities in one colour combination, staff areas in another;
- a larger type size can be used to give important information emphasis;
- symbols usually emphasise the destinations they are next to.

Best practice guidelines – emphasising information

Using colour and contrast to emphasise information on signs

4.22 ***Recommendations***

- decide which is the most important information on the signs at your site;
- the method for emphasising key information must be used consistently on all signs;

- accident and Emergency departments should always be emphasised using red with white text.

Figure 51

Things to avoid

- emphasising too much information on a single sign. This will cause confusion and reduce the prominence of the key information;
- using red for any other departments if there is an Accident and Emergency department at your site.

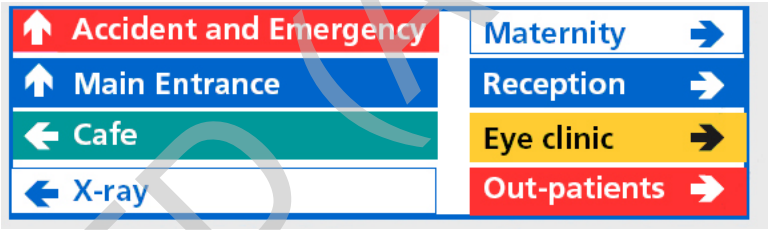


Figure 52

Using type size and weight of type to emphasise information on signs

4.23 ***Recommendations***

- combine the use of bold and regular weights of type to emphasise key information and reduce the prominence of less important information;
- use a larger type size for key information than for the less important information. This is particularly appropriate for locational signs at site entrances. For example, the site name should be more prominent than the site entrance name or site logo.

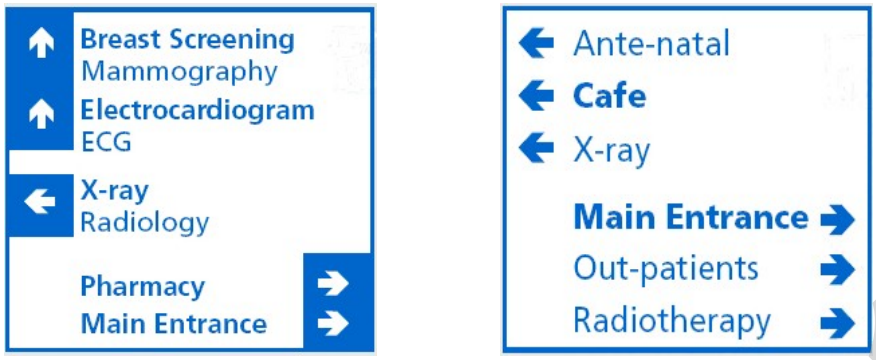


Figure 53

Things to avoid

- using a large type size or bolder typefaces for less important information.

Figure 54

Multiple-language and dual-term signs

4.24 The use of more than one language on signs can make signs look large and complex. The signs will require translations, which increases the overall sign costs.

A second language may be appropriate for signs at some healthcare facilities, but identifying a single second language to use can be difficult, as often many different languages are spoken in areas with a large non-English- speaking population.

Sites should consult non- English-speaking site users to identify other ways of helping them find their way.

Key factors

Multiple-language signs

4.25 In some parts of the UK, it is becoming increasingly common for healthcare facilities to have a large number of users who do not have a good understanding of English, and who would find wayfinding easier if signs were in

their preferred language, as well as in English. However, there are often more effective ways of helping non-English-speaking site users find their way, as multiple-language signs will often look confusing and people may not be used to following signs.

If multiple-language signs are felt to be appropriate for your site users, careful consideration must be given to the layout, the larger space that multiple-language signs take up, and the cost implications of providing in effect multiple sign systems.

Figure 55: Methods for differentiating between languages or terms

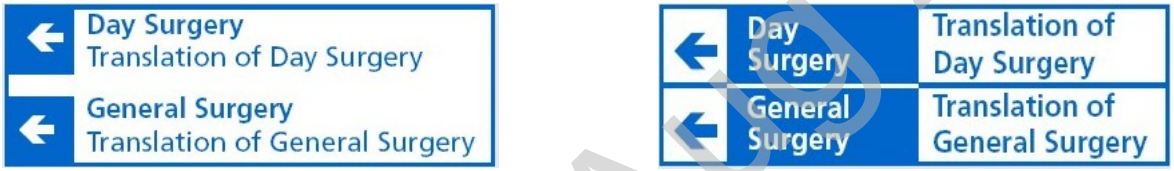


Figure 56: Methods for grouping different languages or terms

Dual-term signs

Some of the terms used by staff at healthcare facilities for departments, specialisms and treatments are very difficult for the general public to understand without explanation, as well as being difficult to remember and hard to pronounce. However there are often alternative and simpler layman's terms which could be used on signs. Signs are wayfinding aids for people unfamiliar with a site, who generally have no medical background, and so sites should not feel that their signs have to reflect the latest precise medical terminology.

In some cases a site may feel that using only a simple term on signs could be misleading and that a dual-term sign – one which includes both a simple and a medical term – should be considered, although this could lead to more confusion and the merits should be carefully considered. Where a new term is being introduced, the layout of the sign should emphasise the term which will eventually be replaced. With time, people will become familiar with the new term and the second term will not be necessary.

Considerations for multiple-language or dual-term signs

- the size of the sign will increase;
- the amount of information on each sign will increase;
- the cost of the signs will increase;
- some languages may prove difficult to produce using certain sign manufacturing techniques. For example, cutting intricate letter forms into

vinyl may not be appropriate, so the sign manufacturing process needs to be considered;

- pre-visit information should be available in the languages used on signs, which will have cost and administration implications;
- ensuring translations are accurate and culturally appropriate may prove difficult for some languages and terms. Translations should always be checked by more than one native speaker;
- which language or term is given prominence on the signs. Giving them equal prominence will almost certainly cause confusion;
- graphic devices need to be used carefully to differentiate between the two languages or terms, whilst also grouping them together.

Consider using a symbol

Symbols can overcome language barriers, and should be considered for destinations as an alternative to using multiple languages or terms, although care should be taken in the selection of symbols as some signs may be considered to be culturally offensive.

Best practice guidelines – multiple-language and dual-term signs

Differentiating between multiple languages or dual terms

4.26 ***Recommendations***

If it is decided that multiple languages or dual terms are to be used on your signs, consideration must be given to the layout of the information so that the additional languages or terms do not cause confusion.

Distinguish between the terms or languages by using:

- different **weights** of typeface;
- different contrasts and colour combinations;
- lines, space or positioning.

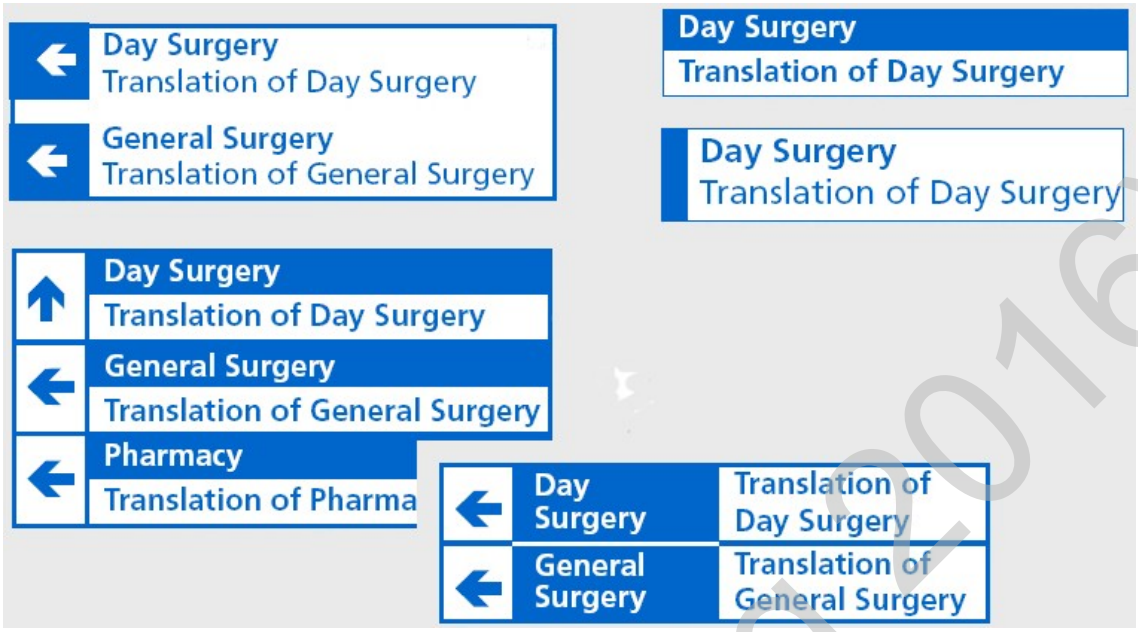


Figure 57

Things to avoid

- using equal spacing between the two languages or terms – related terms or words need to be clearly grouped together and separated from other different terms.

Figure 58

Grouping multiple languages or dual terms

Recommendations

4.27 The languages or terms should be grouped together to produce a visual link between the types of information using:

- space;
- lines;
- another graphic device.

Figure 59

Things to avoid

- long lists of text with no visual grouping or differentiation between terms;
- layouts that create potential confusion between destinations and directions.

Figure 60

Consider using a symbol

4.28 ***Recommendations***

- There are some symbols which are universally recognised and which should be used instead of multiple languages;
- Some departments deal with parts of the body (such as eyes or feet) which are easier to explain with symbols, than departments such as Oncology or X-ray. You should consider designing, testing and using symbols to avoid the need for additional terms on your signs.

Things to avoid

- using symbols with negative meanings in some cultures, that are not easily recognisable, or which have not been tested for understandability.

Symbols

4.29 A symbol or pictogram can often be recognised and understood more quickly than words, but only if the meaning of the symbol is clear, and if the symbol is drawn in a way that is legible from a distance.

Symbols have the potential to be a universal language, but there may be cultural differences in how they are understood. However, some symbols are used so frequently that they are easily understood with little chance of confusion.

Key factors

Types of symbol

4.30 There are two key types of symbol used on signs:

- representational symbols, which have to be recognisable as the object, term or facility they represent;
- abstract symbols, which use a non-representational interpretation of the object, term or facility, are more like a language, and the meaning of the symbol has to be learnt.

Figure 61: A representational BS symbol showing a bottle of pills used for Pharmacy in the UK

Figure 62: An abstract symbol of a green cross commonly used for Pharmacy in the UK

British Standard public information symbols

British Standard BS 8501: 2002, amended February 2007 (related to International Standard ISO 7001:1990) *Public information symbols* describes a standard format for symbols commonly used for public information. It includes pictures of the symbols described, but the standard applies only to the written description; the design of the symbol or pictogram itself can vary. However, where there is a standard symbol that people will recognise, such as those in

the British Standard, including those shown below left, it should be used in preference to developing a new symbol.

Developing non-standard symbols

Some sites have attempted to develop new symbols for departments and facilities, but have generally found it difficult, if not impossible, to design understandable, simple symbols for all departments. However, some departments deal with a part of the body for which it is easier to create a symbol than other departments, and people may find it helpful to have such a symbol alongside the relevant medical term.

Figure 63: Unfamiliar medical terms should be avoided, but if they have to be used, a symbol may help people understand the sign

Note: Non-standard symbols must be tested for understanding and legibility from the intended viewing distance.

Figure 64: British Standard public information symbols that are frequently used. Specified in BS 8501: 2002

Figure 65: Some single letters are recognised as symbols in the UK

Factors which influence the effectiveness of a symbol:

- how familiar users are with the symbol;
- the complexity of the meaning of the symbol;
- the size of the symbol and the distance the symbol is to be viewed from;
- the positioning of the symbol on the signs;
- whether the symbol could be confused with other symbols.

Symbols used to simplify the site

Symbols are used at some sites as part of a simplification system or to provide a system that could be used by non-English-speaking users. Often symbols are used to differentiate between floors and departments, but they can make signs appear more complex.

East Lothian Community Health Partnership has developed a series of symbols to aid Wayfinding at Roodlands Hospital in Haddington for the various clinics in the Outpatients Department, which have proven to be successful with patients and visitors.

Figure 66

Alignment and positioning of symbols

Signs often include arrows and symbols, as well as words.

The positioning of these elements can affect how easy it is to read and understand the sign. Symbols should be clearly linked with the text to which they relate, not have too much white space between the text and symbol, and be consistently positioned and aligned on all signs.

Symbols on multiple-language signs

Symbols can be used as an alternative to using multiple languages or dual terms on signs. However, to be effective, site users must understand the meaning of the symbol, or the system of symbols being used. This could be done by showing the symbol on the appointment letter and explaining that they should follow the symbol on signs at the site. The symbols should be easy to describe so staff can refer to them in spoken directions.

Best practice guidelines – symbols

Using standard symbols and developing non-standard symbols

4.31 ***Recommendations***

- use standard, universally recognised symbols wherever possible;
- all symbols used on signs should be:
- simple;
- solid areas of colour rather than made up of lines;
- legible from the intended viewing distance;
- of high contrast with the background colour of the sign;
- of a similar design style – consistent use of colour, line weight etc.
- the meaning of the symbol must be clear – any non-standard symbols must be evaluated for understandability.

Figure 67: A symbol of an eye, as shown in British Standard BS 5378: Part 3: 1982 as part of the *Emergency eye wash symbol*

Figure 68: A symbol of an eye, developed from the British Standard symbol, using solid areas of colour instead of lines, which may increase the viewing distance

Things to avoid

- using symbols that are too small or too complicated to easily see and understand;
- using symbols that are not easy to recognise;
- using symbols that are badly drawn.

Figure 69

This symbol was used on signs at a hospital to indicate Eye Clinic. It does not look enough like an eye to be understandable, although it is noticeable in black on yellow, and is memorable

Positioning symbols on signs

4.32 ***Recommendations***

- arrows and symbols must be positioned so they clearly link with the term or terms to which they relate;
- symbols can be positioned before or after the text they relate to, but should be consistently positioned on all signs to avoid confusion;
- consider ways to emphasise the symbols.

Figure 70

Things to avoid

- having too much space between the text, symbol and arrow;
- positioning some symbols before the text and some after the text.

Figure 71

Use of colour

4.33 The colours used on signs, and the contrast between the colour of the text and the sign background, will enhance or reduce the noticeability, the viewing distance from which the sign can be read, and the legibility of a sign.

The contrast between the colour of the sign and the predominant colour of the sign's environment – for example, white walls or green trees – affects the visibility and prominence of a sign.

The use of colour is important when the facility is used by older people suffering from dementia, a good contrast in colour between the lettering, the sign and the background is very useful (black on yellow provides the most easily seen colour contrast).

Sites should also give careful consideration to the colours used for internal environment such as floors, walls and doors.

Key factors

4.34 There is no single colour combination that should be used for signs, but some colours are much more suitable for use on signs, whilst other colour combinations do not contrast sufficiently and should be avoided. The colours used for text and sign background should contrast with each other and also with the predominant colours of the environment.

If your site is considering, or has, a colour-coding system, there are a variety of additional factors you need to consider that are discussed in Section 3.

Factors to consider when selecting colours for use on signs

- the contrast between the text and the background colour affects the visibility, noticeability and legibility of the sign. Black and white provides the highest contrast. Other dark colours used with white can provide almost as much contrast. Yellow and black is a high-contrast colour combination and is known to be very visible for people with visual impairments. It is used extensively at some airports;
- never use yellow with white for signs (or pre-visit information);
- it has a very low colour contrast. Other similar, low-contrast colour combinations that should be avoided include white text on: pale grey, pink, pale blue, beige;
- never use black text on dark colours for signs, because there is a very low contrast. Colour combinations to avoid include black text on: blue, green, red, purple, mid grey;
- coloured signs will fade, which will reduce the legibility of the sign, and will make it difficult to match the colour of the signs when they need replacing. Red is particularly prone to fading but should still be used for Accident and Emergency signs. All colours will potentially fade in direct sunlight, though some construction methods are more fade-resistant than others;
- the visibility and noticeability of signs depend on the environmental background they are placed in. The brown sign background specified in the last version of HTM 65 (1984) does not provide an optimum contrast when positioned against brick, stone, or green and brown vegetation;
- using a large number of colours (more than five) may make it difficult to differentiate between them, especially for colour-blind people, or when lighting conditions are poor. It can be particularly difficult to differentiate between similar colours such as light and dark green; orange and brown; and purple and blue;

- consideration must be given to users of your site who are visually impaired. There must be a high colour contrast between text colour, sign colour and background. Additional guidance can be found in BS 8300: 2001;
- safety colours need to be considered when choosing colours for non-safety signs to ensure that the safety signs are prominent, distinguishable and will not be confused with other signs;
- consider the predominant colours in the environment where the signs will be located. If internal signs are usually positioned on white walls, a colour other than white should be selected for the background colour of the signs, or there should be a contrasting border to the signs. Similarly, if external signs are most often going to be positioned in front of vegetation or brickwork, a lighter sign colour should be selected.

Colour in the environment

The careful use of colour is especially important for people with visual impairments. Colour (and lighting) can be used to clearly define corridors, walls, doors and furniture in an environment. There should be:

- a significant difference in the colours used for corridors, walls, doors and furniture;
- a matt finish to surfaces;
- a high contrast between large surfaces (such as walls and floors) and signs, telephone booths and free-standing objects that cause obstructions.

Joint Mobility Unit and Dulux were involved in producing a book called *"A design guide to colour and contrast to improve the built environment for visually impaired people"* which discusses these issues in more detail, based on a research project called 'Project Rainbow'.

Best practice guidelines – use of colour

Selecting appropriate colours for signs

4.35 ***Recommendations***

- use high-contrast colour combinations for text, sign and background;
- use high-contrast colour combinations for different features in the environment such as doors and walls, and floors and walls;
- colour can be used to emphasise destinations;
- colour can be used to differentiate between departments, services, public facilities, or staff-only areas.

Figure 72

Things to avoid

- colours for text and background that have a low contrast;
- using too many colours on one sign;
- do not automatically select your site's corporate colours for signs;
- using safety colours, especially red, for non-safety signs. This may lead to confusion or detract from safety, or the Accident and Emergency department signs;
- using colours which are similar, making it difficult to visually differentiate between the colours.

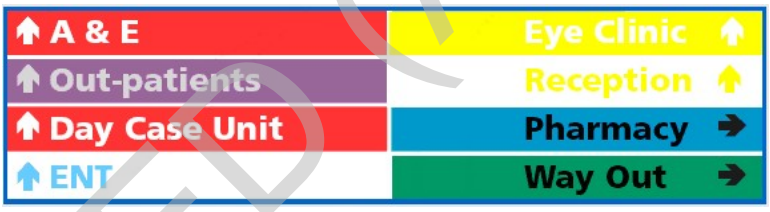


Figure 73

Consider the environment and background colour

Recommendations

4.36 The environment in which the sign is used affects noticeability and legibility.

- the background colour used on signs should contrast with the environment to ensure the sign is prominent;
- if the sign colour contrast is not sufficient, place a contrasting border around the sign.

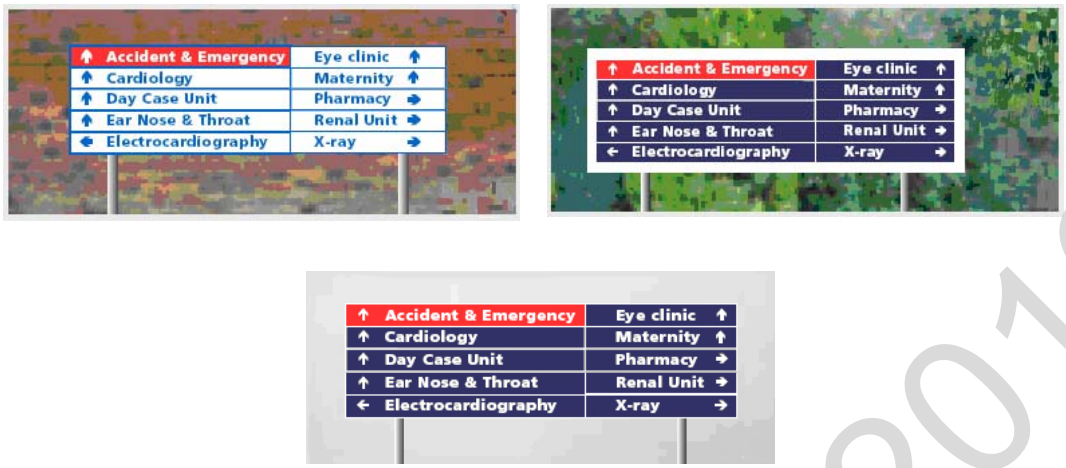


Figure 74

Things to avoid

- having a low contrast between the sign colour and the environment – this will reduce the noticeability of the signs.

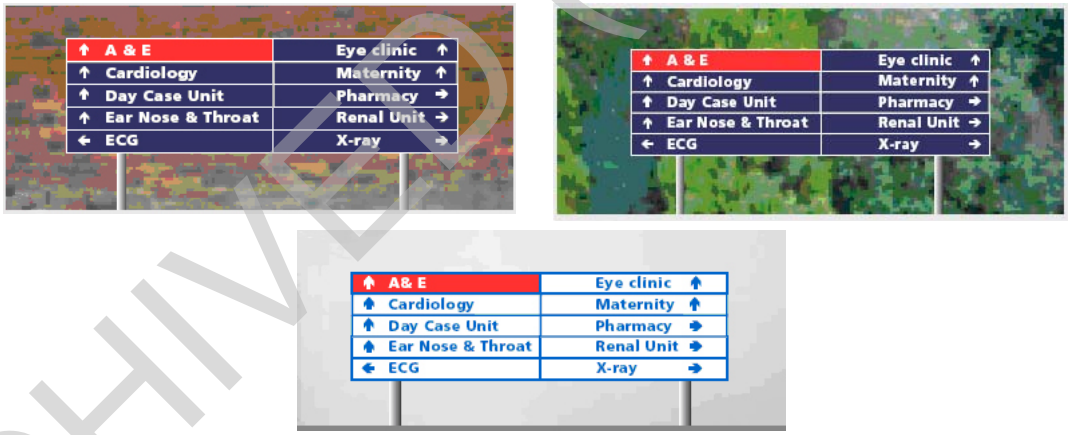


Figure 75

Positioning of signs

4.37 The height and location of a sign affects people's ability to notice a sign, to be able to read it from an appropriate distance, from the direction of approach, at the speed they are travelling.

It is also important to position a sign at the points where people are going to make a wayfinding decision and will need the information on the sign to decide which way to go.

Key factors

4.38 Signs can be positioned too high up so that they are too far above eye level to be comfortable to read, or so low down that they are easily obscured.

Careful consideration needs to be given to the positioning of signs, as it can greatly influence the noticeability, visibility, and legibility of the text on the sign, and the effectiveness of the wayfinding system as a whole.

Each type of sign should be positioned consistently where possible so that people know where to find each type of information.

Factors to consider when positioning signs

- height or space restrictions where signs are to be positioned;
- possible obstructions where the signs are to be positioned;
- potential illumination problems where there is insufficient light to ensure optimum legibility of signs;
- viewing distance from which the sign is intended to be read;
- viewing speed at which the user will be travelling when reading the sign. If the information is intended for a driver or pedestrian to read without stopping, the sign must be positioned so it is prominent and noticeable, and also be simple in layout and message;
- directions from which users will be approaching and viewing the sign;
- positioning of complex information such as directories, or maps, that people need to study, must allow for them to be able to stop without causing an obstruction.

Appropriate positioning of different types of sign

Each type of sign (internal and external, locational and directional signs, directories, maps, safety signs etc) should be positioned consistently such as on posts beside an external door, or on finger-posts, or at eye level on walls. This enables people to know where to look for particular types of information at your site.

Positioning signs near to eye level (from 1,400 mm to 1,700 mm from the ground) is usually the most effective height for pedestrians. The needs of wheelchair users should be considered, with a recommended height of 1,000 mm to 1,100 mm, as outlined in BS 8300: 2001. Vehicular signs are generally viewed from further away and can therefore be positioned higher up, but use a larger typeface to be legible from further away.

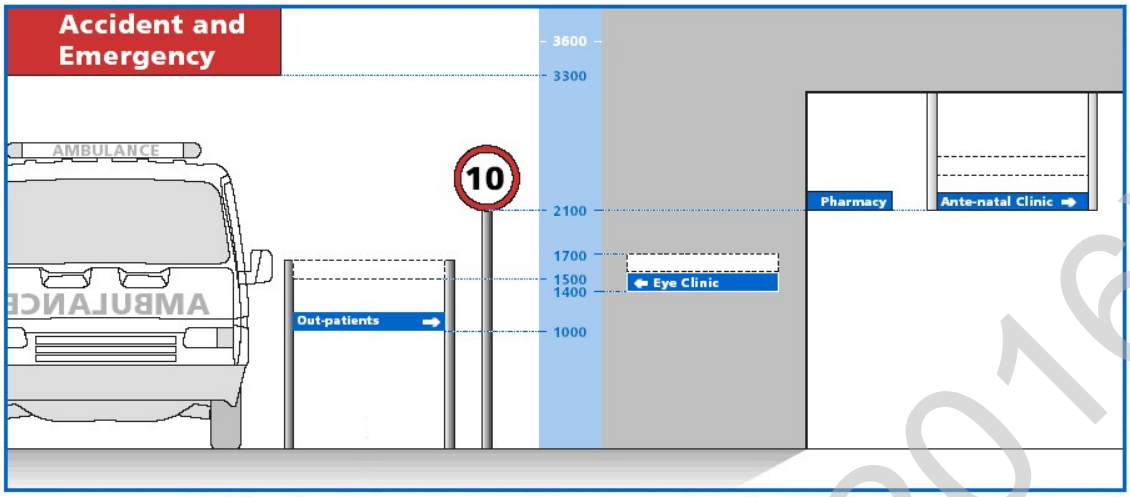


Figure 76

This diagram gives general guidance on the suggested height for positioning different types of sign, determined by the intended use of the sign (all dimensions are given in millimetres.

It is also important to take into consideration the needs of older patients, especially those who may have a cognitive impairment, therefore consideration should be made to situating signs at about 1200 mm as older people who may be stooped and anxious will see the signs easily.

Note: Position external signs that are likely to be obscured by passing or parked vehicles at least 1,500 mm from the ground. Signs that are located away from possible obstructions can be positioned lower.

Positioning signs for people with visual impairments

The Royal National Institute for the Blind and the Joint Mobility Unit recommend positioning all signs at eye level (1500 mm), including tactile (embossed) and Braille signs.

If posts are used for fixing signs, or signs are free-standing, they must contrast with the environment so they are visible for people with visual impairment.

Best practice guidelines – positioning of signs

4.39 ***Recommendations***

- signs should be positioned so that they are:
- visible and readable from all directions of approach;
- not obscured or surrounded by clutter (for example vegetation, vehicles, building features, or posters and non-wayfinding information);
- not too high for people to read comfortably;

- not too low so that they are easily obscured;
- placed consistently so people know where to look for the information they require.
- external, locational signs at building entrances need to be noticeable and visible from a distance and therefore have to be positioned high enough not be obscured by vehicles such as ambulances, and should also use a large enough type size to be legible;
- signs which contain large amounts of information (for example directories and maps) need to be positioned with enough space around them to allow a number of people to stop and read the information without causing an obstruction;
- vehicular signs should be positioned consistently next to the vehicular route, where drivers can see and read the information at driving speed and from all possible directions of approach;
- pedestrian signs should be positioned near eye level, so that people notice them, and can see and read them from all possible directions of approach;
- if signs will be approached from more than one angle, consider double-sided or multiple-sided signs so that they are visible and readable from all angles.

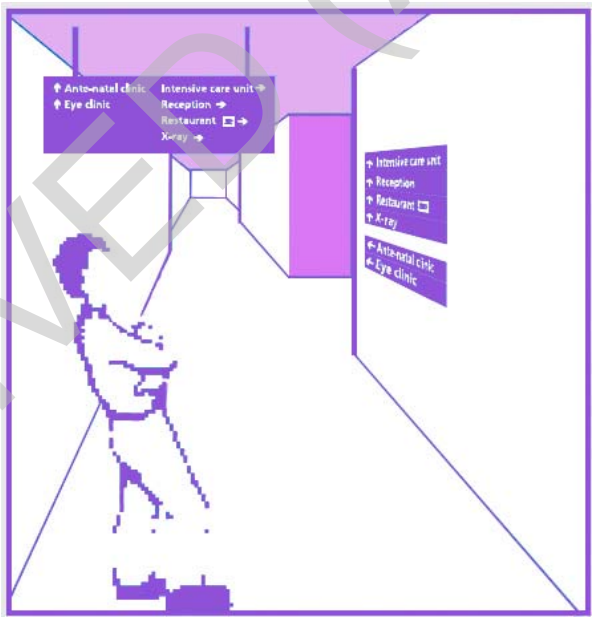


Figure 77: Ceiling- suspended sign visible from the angle of approach and a second sign positioned near eye level, with no visual clutter

Things to avoid

- positioning signs so that they are:
- too high above eye level to be comfortable to read;
- too low so they are easily obscured or not noticed;

- inconsistently positioned so the user has difficulty finding the required information;
- not legible at the required viewing distance;
- not visible from the angle of approach;
- positioning signs in front of windows or other bright light sources. There will be glare from behind that will make it difficult to see and read the signs.

Figure 78: Sign positioned too low down, well below eye level, beneath a window, and is not visible from the angle of approach

Methods of sign construction

4.40 Selecting appropriate methods for producing your signs is a complex process. There are many materials, printing processes and production methods for producing signs. Often, sign manufacturers specialise in particular products and printing methods.

You may find it appropriate to allocate more of your budget to key signs and use a cheaper construction method for other signs.

It is important that you work with sign designers and sign manufacturers to ensure the most effective use of your budget.

Applying text to signs

4.41 There are many methods and processes that can be used to apply text and images to a sign. Some methods produce text that is very durable and resistant to fading. Other methods are cheaper and easier to update; they include applying vinyl, screen printing, and using vitreous enamel.

The material onto which text is applied affects the processes available and the durability and cost of the sign.

Sign manufacturers will advise you on the different printing methods and materials available and provide costs.

You should work with a sign designer and sign manufacturers to select appropriate materials and printing methods for different types of sign at your site to ensure the most cost- effective use of your budget.

Key factors

4.42 There are four key types of fixing for signs, but there are many variations in design and size within each type.

Suspended – usually hung from ceilings. Only for use in buildings with ceilings of 2500 mm and above

Projecting – often used to identify rooms or departments along a straight corridor

Wall fixed – used internally and externally at various sizes for all kinds of information

Post fixed – used externally for locational signs and directional signs

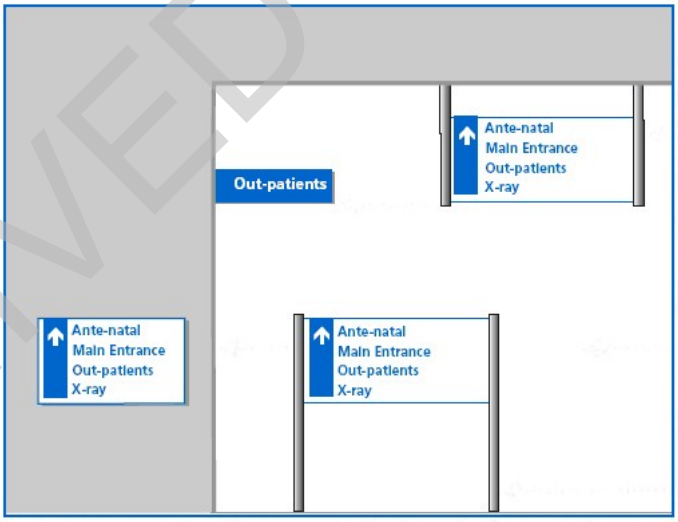


Figure 79

Types of sign and fixing

4.43 ***Factors that influence the type of sign and fixing used***

- whether the sign is to be positioned internally or externally;
- the type and amount of information to be included on the sign;
- whether the sign needs to be easy to change;

- the angle of approach from which the sign needs to be visible;
- the viewing distance(s) from which the sign needs to be legible;
- the recommended heights for the different types of sign;
- how often the signs will need to be changed or updated;
- the available budget and the number of signs required.

Environmental factors that influence the type of sign and fixing used

- the amount of space available at the intended position for the sign;
- the height of the ceiling will determine whether the sign can be suspended;
- potential obstructions such as vegetation and vehicles;
- existing signs that the new signs need to fit with.

Factors that influence the cost of signs

- the size and number of signs;
- the materials used to construct the signs;
- the printing method;
- the number of colours and whether a specific colour is required (this may limit the printing methods available).

Key sign construction methods

4.44 There are many sign construction methods using a variety of materials. Three key types of sign used regularly at healthcare sites are single panel, slat systems and finger-posts.

Single panel

Advantages:

- allows more freedom in design layout than slats;
- can be cheaper than slats, depending on materials used;
- can be used for all types of sign;
- can be any size.

Disadvantages:

- the whole sign has to be replaced if any part of the information on the sign needs changing.

Figure 80: Single Panel

Slat system

Advantages:

- easy to change individual slats if items of information on the sign need changing;
- can be used for all types of sign.

Disadvantages:

- the slat size influences the type size and design layout of the sign;
- matching existing colours when replacing slats can be a problem, especially if the colours have faded;
- there is a limited number of standard slat heights.

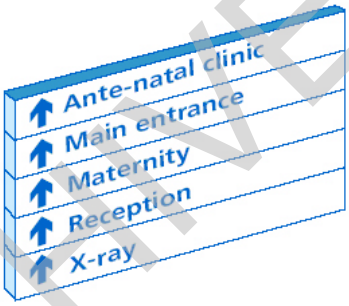


Figure 81: Slat system

Finger-post

Advantages:

- easy to change individual slats if the information on the sign needs changing;
- immediately identifiable as a directional sign for pedestrians.

Disadvantages:

- the slat size can influence the layout of the sign and the type size used

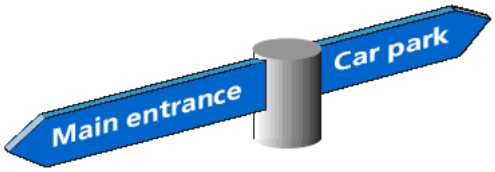


Figure 82

Best practice guidelines – methods of construction

Selecting an appropriate type of sign

4.45 ***Recommendations***

- discuss your sign requirements with a number of sign manufacturers and find out about the advantages and disadvantages of each of their products;
- prioritise the signs to make best use of your available budget. It may be appropriate to use a cheaper construction method for secondary signs, and signs which are likely to need updating regularly;
- before selecting a sign construction method, you need to consider:
- where the signs are to be located – internally or externally – and any restrictions on the amount of space available;
- the type and amount of information on the signs ;
- how the signs will be viewed, and the distances and angles from which they need to be visible and legible;
- whether the signs will need to be frequently altered or updated;
- the number of colours to be printed on each sign (will affect the cost);
- the type of colours to be printed – sign manufacturers generally work with BS and RAL colours but can usually match any colour. However, if non-standard colours are specified for signs this may limit the printing methods available and affect the cost of the signs.

Things to avoid

- reducing the type size just so the sign can be smaller, particularly if this reduces the legibility and viewing distance of the sign;
- adding a new slat next to an old slat that has faded, especially if you have colour-coded signs, as this could cause confusion, and will not look good;
- removing temporary notices until you know who put them up and why – they may indicate a need for a permanent sign.

Illuminating signs

4.46 The level of illumination in an environment affects the legibility and noticeability of signs. Lighting must be considered when designing and positioning signs.

Lighting is also an important aspect of your wayfinding system as a whole, and can be used to encourage people to use certain circulation routes, and also to emphasise entrances, decision points and site features.

Lighting is a complex and specialised field, and people with experience and expertise need to be involved when developing lighting systems to ensure optimum levels of illumination at all times of day around your site.

Refer to 'Lighting and colour for hospital design: a report on an NHS Estates-funded research project' (Dalke et al, TSO, 2004).

Key factors

4.47 Artificial light needs to be provided around your site to ensure signs are noticeable and legible at all times of the day. You need to be aware of the variations in natural lighting level in all areas of your site, at different times of day, throughout the year to be able to develop an effective lighting system.

You should also consider how artificial illumination can be used to support your wayfinding system as a whole.

Factors to consider when developing a lighting system

- it is dark from mid-afternoon in the winter in the UK and therefore you cannot rely on natural light as the only source of illumination, for both external and internal signs;
- weather conditions affect the natural lighting levels and therefore the legibility of signs;
- a glossy surface on a sign can severely affect how well people with visual impairments can read it because of the increased likelihood of glare and reflections from both natural and artificial light. Signs should be produced with a matt finish, or a semi-matt finish with a gloss factor of no more than 15%, to avoid glare, and direct light sources must be positioned carefully;
- positioning a sign in front of a window or a similar source of direct bright light will make the sign difficult to read;
- signs which are internally lit are very legible when the internal light is illuminated, but are often not legible if the internal light is not working;
- artificial lighting must be well maintained to ensure all routes and signs are kept well-illuminated, so all sites must have a system for reporting lighting problems.

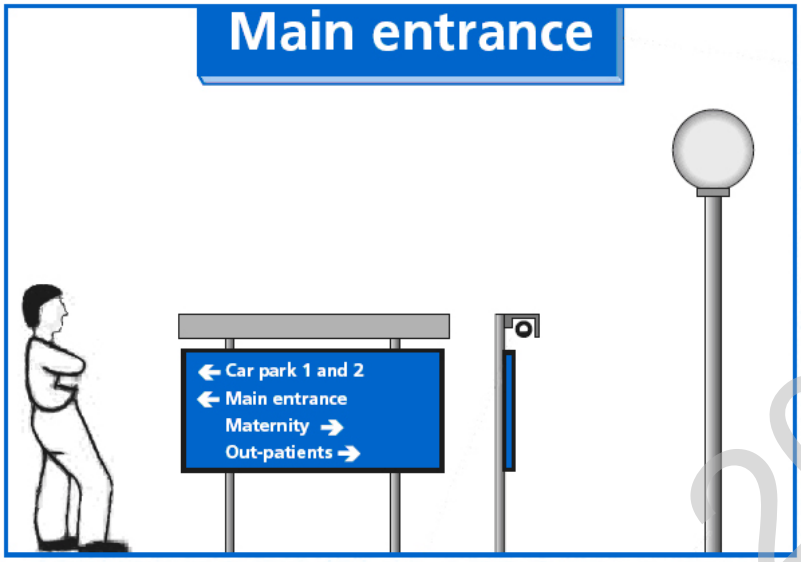


Figure 83: Artificial illumination methods used for external signs

Illuminating circulation routes, decision points, site features, and entrances

People are generally attracted to bright sources of light. Artificial lighting can act as a wayfinding aid by highlighting your site entrances, defining key pathways and corridors, and attracting people to key decision points where wayfinding information is located.

Vehicular and pedestrian external routes to main building entrances must be well-lit after dark not only for safety reasons but also so people can clearly see the route. Lighting can also be used to draw people's attention to a main building entrance, site features and landmarks, or an information desk.

Illuminating your environment for people with visual impairments

People with visual impairments, including older people whose eyesight is gradually deteriorating, need good, uniform lighting levels for wayfinding.

Bright lights with hard edges, including bright sunlight, and dark shadows can create visual illusions and therefore problems for people with visual impairments. Lighting should gradually fade at the edges.

However, brightly illuminated features, such as a spotlit clock or well-lit reception desk, can be used as an orientation point, even if people cannot see them clearly.

Avoid signs with a glossy finish, because they often produce glare and reflections.

For advice contact the Royal National Institute for the Blind, and see chapter 6 of their book 'Building Sight'.

Best practice guidelines – illuminating signs

Selecting appropriate illumination methods

4.48 ***Recommendations***

- use a lighting specialist to assess the lighting levels throughout your site and to provide advice on cost-effective, economic lighting methods appropriate to your site;
- ensure there are consistent lighting levels at all times of the day, throughout the year to maintain optimum legibility of signs;
- use artificial lighting to emphasise site features, and to guide people along routes leading to key decision points and entrances;
- ensure all artificial lighting effectively increases the legibility of signs and does not produce glare;
- signs that are internally lit must be well-maintained to ensure the text is legible;
- use a matt finish on signs, or a gloss factor of not more than 15% to reduce glare and reflections.

Things to avoid

- lighting signs with spotlights, especially signs with a glossy surface. Spotlights can produce glare if positioned too close to the sign;
- placing signs directly in front of windows. When bright light shines through the window the sign becomes very difficult to read.

5. Developing effective signs – special considerations

Special considerations

5.1 Each type of sign has features or uses which need to be considered in addition to the general issues discussed in Section 3.

For example, directional signs have to clearly indicate direction in some way, and safety signs have to comply with standards for safety colours and sign layout in order to be effective.

Directional signs

5.2 Directional signs indicate the direction of a destination by means of a text message and an arrow.

Directional signs are a key part of a wayfinding system and are used extensively to provide important wayfinding information.

Many factors affect how easily people are able to follow directional signs to successfully reach their destination.

Key factors

5.3 A directional sign differs from other signs in that it has an arrow or other directional indicator that shows people which way they need to go. Directional signs must link with other wayfinding aids at your site. People will have difficulty using directional signs if:

- pre-visit information uses different names for departments and buildings;
- locational signs use non-descriptive building names, such as Albert Wing, while the directional signs refer to department names;
- staff giving spoken directions use different names to those on the directional signs, or direct people along a different route to the one that the directional signs point to.

Factors that reduce the effectiveness of directional signs

The effectiveness of directional signs is affected by:

- arrows that do not indicate clearly the direction that people should go in
- arrows on a sign that are positioned too far from the text they refer to lack of regular updating, to ensure all information is correct;

- inconsistent design, so that people do not know what style of sign to look for;
- inconsistent positioning, so that people do not know where to look for directional information, for example where some signs are high up (suspended from the ceiling), and others are lower down (attached to walls).

Different sizes of directional sign

5.4 The size of a directional sign depends on the intended viewing distance and the speed people using the signs will be moving at. Both factors will influence the type size that you need to use on the sign. For example, internal signs for pedestrians can be much smaller than signs for vehicles moving at driving speed, or signs identifying a main entrance which need to be visible from across a car park.

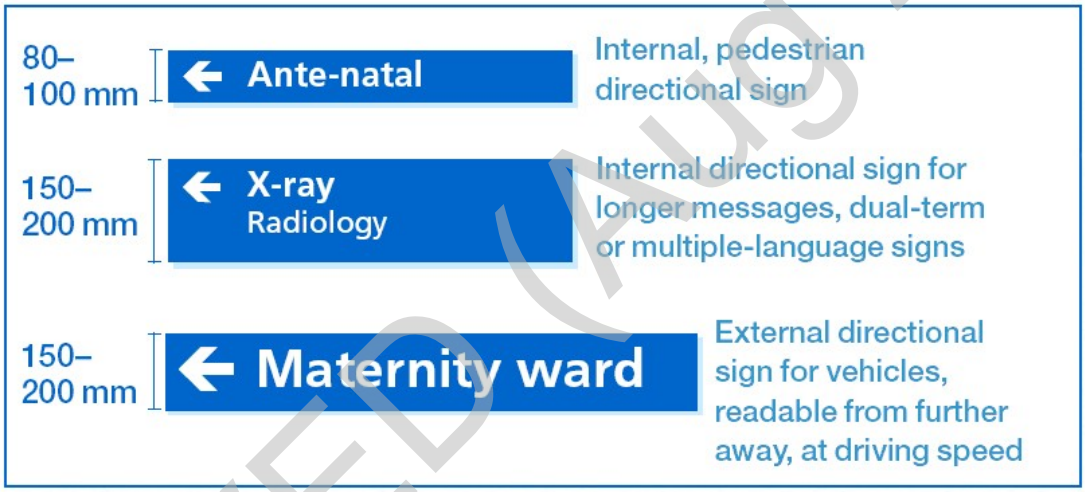


Figure 84

Positioning of arrows on directional signs

5.5 When positioning arrows on a sign, it is important that the arrow links clearly to the appropriate text. It is important that there is no room for confusion about the direction a destination is in, especially as people often only glance at signs.

There is a standard position and meaning for arrows on signs specified in the British Standard for Graphical Symbols and Signs – Safety Signs, including fire safety signs (BS 5499: Part 1: 2002). These are shown in the best practice guidelines below. The appropriate angle of arrow should be used to indicate the intended direction.

The design of the arrow can vary, but it is important that directional arrows are positioned at the appropriate angle to indicate the standard meaning for each direction.

Number of destinations on one directional sign

5.6 If the sign is to be effective the number of destinations in one list on a directional sign must be kept to a minimum. You should consider ways of reducing the information on directional signs, while still providing enough information for the sign to direct people to their destination.

To enable people to quickly scan the sign there should be no more than four or five destinations or terms in one list on a sign. On directional signs with destinations in more than one direction, destinations can be grouped into shorter lists of destinations in each direction. If longer lists cannot be avoided, it is essential to visually group the destinations or terms into shorter lists using graphic devices.

Best practice guidelines – directional signs

5.7 ***Recommendations***

- directional signs must have clear direction indicators – usually arrows;
- the direction the arrow is indicating should be easy to understand, and easy to relate to the actual environment;
- arrows should be positioned consistently, and you should use the standard positioning shown below, on all directional signs at your site;
- directional signs should be consistently positioned so people know where to look for the information;
- the destinations on directional signs should be consistently listed in a logical order, such as alphabetical, or by type of destination;
- there should be a directional (or locational) sign at each key decision point;
- the direction shown by the arrow should relate to the actual environment. If a route is not visible from a directional sign, additional reassurance signs may be necessary until the indicated route is visible.

Figure 85: Use graphic devices such as lines and space to group destinations in one direction

Things to avoid

- using unclear or misleading arrows which may cause confusion;

- trying to direct people back the way they have come. The types of arrow used to convey this message are often difficult to understand. See Figure 1.86;

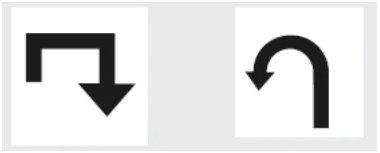


Figure 86

- listing too many destinations on one sign;
- leaving too big a gap between the text and arrow:

Figure 87

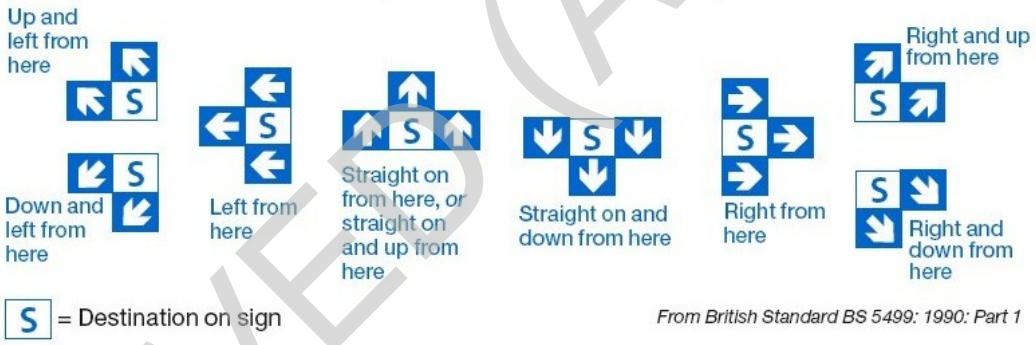


Figure 88: Standard positioning of arrows and their meanings - The arrow should be located consistently on all signs. Use only one arrow per destination

Note: Only one of the arrow alternatives shown next to the 'S' should be used on a single sign

Locational signs

5.8 Locational signs are used to identify a location. They tell people where they are, or that they have arrived at their destination.

As with directional signs, the intended viewing distance and related type size determine the size of the sign.

The sizes of locational signs range from very small door identity signs to very large external locational (fascia) signs to mark external main building entrances.

Factors that influence the effectiveness of locational signs

- the legibility of the typeface;
- the type size used;
- the colour contrast between text and background;
- the contrast between the colour of the sign and the environmental background on which the sign is to be placed;
- the amount of information on the sign and the speed at which people reading it are traveling;
- the level of lighting where the sign is positioned.

Key factors

5.9 When trying to find their way, people need to:

- know when they have arrived at the site they are looking for;
- find the correct building entrance;
- recognise locations referred to in directional signs and spoken directions;
- know when they have arrived at their destination.

Locational signs enable people to do this. They should clearly identify site and building entrances, and all destinations at your site.

Different sizes of locational sign

5.10 The size of a sign depends on the type size needed for the intended viewing distance and the position of the sign. The measurements shown here are intended only as a guide.

Figure 89

Differentiating between locational signs and other signs

5.11 Locational signs need to be easily distinguishable from other signs and information, so that people know where they are, or know that they have arrived

at their destination. Effective ways to make a distinction between locational and directional signs include:

- positioning and fixing locational signs differently to directional signs;
- using different colours or styles for locational signs;
- using the same two colours but using light text on a dark background for one, and dark text on a light background for the other.

Positioning locational signs

5.12 If a sign is positioned too high, people may not notice it; if it is positioned too low, it will be more easily obscured. If, as far as is practical, you always position locational signs in the same place – such as at eye level to the right of doorways, or jutting out from the wall, or suspended from the ceiling – people will quickly learn where to look for locational signs. As with directional signs, people have to notice a locational sign, and then be able to see and read it as they approach.

Best practice guidelines – locational signs

5.13 ***Recommendations - External locational signs***

- locational signs should be positioned so they are visible from all directions of approach;
- locational signs should be visible and legible for both pedestrians and vehicles;
- it may be necessary, particularly with large signs positioned on canopies, to position a smaller sign carrying the same information at eye level for pedestrians;
- external signs need to be artificially illuminated to ensure they are visible at all times of the day.

Figure 90

The large locational sign is positioned high enough to be visible for drivers and people entering the site. There are also signs on the canopy and at eye level to reassure pedestrians

Things to avoid

- having only a large locational sign, positioned high up, and not providing locational information for pedestrians.

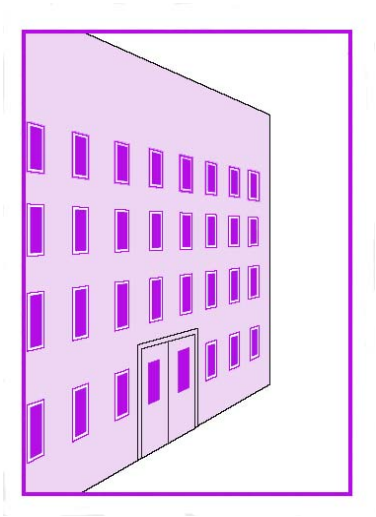


Figure 91

The locational sign is positioned high so drivers can see the information from a distance, but no consideration has been given to pedestrians who will also need the information

Recommendations - Internal locational signs

- for illuminating internal signs, standard internal lighting should be sufficient if there is a high contrast between text and sign background;
- locational signs need to be positioned so they are clearly linked with the location to which they refer;
- locational signs need to be positioned so they are visible and legible from all directions of approach by all site users.

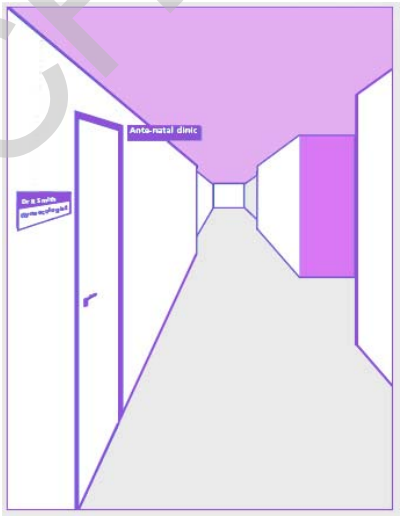


Figure 92

'Door signs' should be positioned to one side of the door, at eye level, rather than on the door

Protruding locational signs along straight corridors increase the noticeability and visibility of the signs

Things to avoid

- positioning locational signs so that it is unclear which entrance the sign refers to;
- positioning locational signs inconsistently – people learn where to look for specific information.

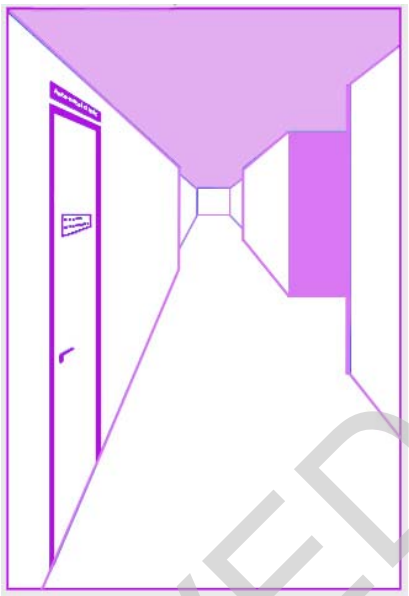


Figure 93

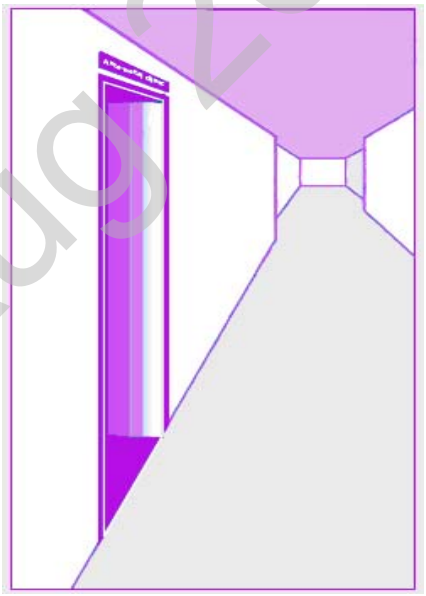


Figure 94

Directories

5.14 People generally use directories to see whether their destination is located in the building they are in, and if so, which floor it is on. Directories are often positioned outside lifts or at building entrances.

It is essential that directories show which floor the directory is located on, so that people reading them know whether they have to change floors.

Once people have seen from a directory that they need to get to a different floor, they should be able to see where a lift or staircase is located.

If a lift or staircase is not clearly visible from the location of the directory, there should be a directional sign visible from the directory pointing to them.

Key factors

5.15 In large, multi-level buildings, directories are an important part of the wayfinding system. The amount of information on a directory is determined by the number of floors, and the departments on each floor. How easily people can find a destination is affected by the way in which the information on the directory is ordered, and whether graphic devices have been used effectively to group information.

If departments are often being relocated at your site, you should ensure that a flexible construction method is used for directories so that signs are as easy and inexpensive to update as possible.

Layout, grouping and ordering of directory information

5.16 Directories at healthcare facilities are most often grouped by floor, but most people are usually referring to the directory to find out which floor they need. Therefore, grouping the destinations by floor means that people will have to read through a number of lists of destinations before they find the destination they need. Grouping destinations by floor does enable people to see how many floors there are in the building and create a mental model of the building, seeing what is on each floor, but will often make it more difficult to quickly find out whether a destination is listed.

Ordering the destinations alphabetically would usually make finding a destination quicker and easier. However, it may be appropriate to order destinations by function, such as all wards grouped together, all departments together and all public facilities together. Clear headings above each grouping would explain the grouping method.

The layout of directories can vary, but they must always clearly show which floor the directory is located on, and there should not be too much space between the destination and floor number.

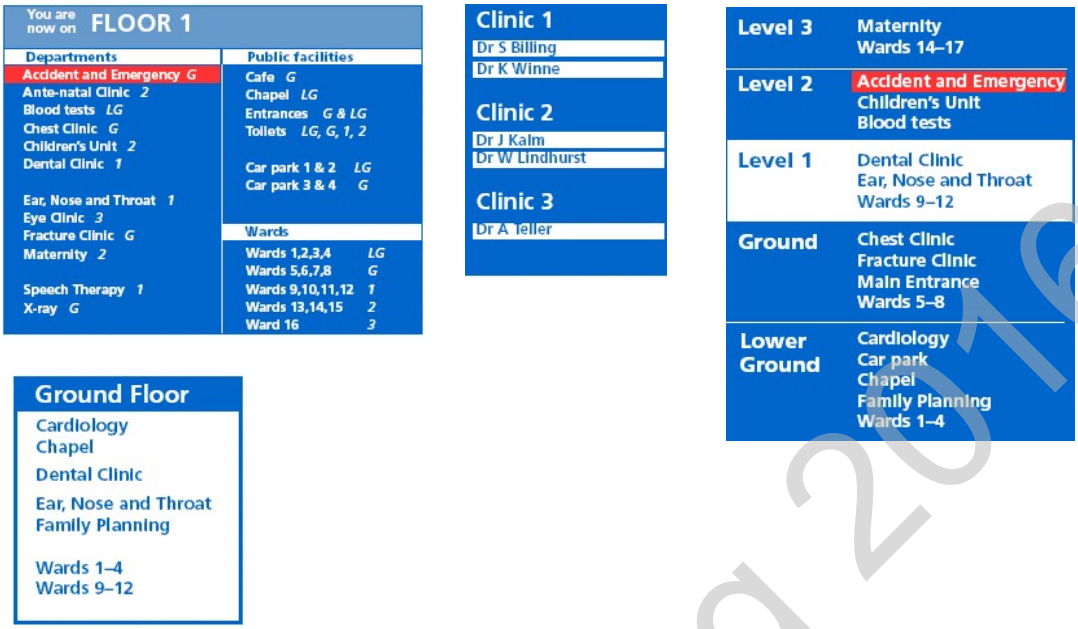


Figure 95

Positioning directories

5.17 Unlike directional signs, which are intended to be viewed by people on the move, a directory usually contains much more information which people have to stop and read through to find their destination. For this reason, directories must be positioned where there is enough room for people to stand and read them without causing obstructions.

Directories should be positioned:

- at key decision points, particularly at the start of a route through a building, such as at main building entrances and reception areas;
- outside lifts and near staircases, where people are considering changing levels;
- inside lifts, to provide reassurance as to which floor to get out at.

Best practice guidelines – directories

5.18 ***Recommendations***

- ensure the layout and spatial grouping of information on directories makes the relationship between the destination and the relevant floor number clear;
- reduce the amount of space between the text and the floor number, to make it easier to see which floor the destination is located on;
- use the same style and design, and also the same ordering system, for the information on all directories;

- ensure that the floor level a directory is located on is always prominently shown on the directory;
- group destinations on a directory in a consistent and logical way, appropriate to the information included in the directory;
- position directories in areas where there is enough room for people to stop and read the information without causing an obstruction;
- position directories consistently so people know where to find this type of information.

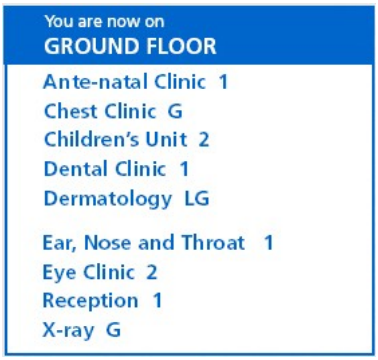


Figure 96: Clearly shows the floor that the directory is on. A small gap between the department and its floor number makes it easier for the eye to link the two pieces of information

Things to avoid

- large or inconsistent spacing between the name of the department and the floor level will lead to people reading the information incorrectly;
- when using an alphabetical ordering system, do not add prefixes to key locations, such as:
- listing destinations under 'M' for Main (for example 'Main Out- patients', 'Main Entrance/Exit' or 'Main Reception'), rather than under the more relevant letter for example 'O' for 'Out-patients';
- listing destinations under 'T' for 'The', for example 'The William Jones Unit' or 'The Coffee Shop';
- listing wards under a non-descriptive name or new name, rather than under a list heading of "Wards", especially when a descriptive name or older name may have been used in spoken directions.
- positioning directories in locations that are busy or narrow, and where people stopping to read the directory will cause an obstruction.

Figure 97: A large gap between the department and its floor number makes it difficult for the eye to scan across from the department name to the floor number.

Site maps

5.19 Framed maps located around your site are an important part of your wayfinding system.

A well-designed, framed map can help site users to identify where they need to be and plan the best route to their destination. It is especially important for people with disabilities such as limited mobility to be able to identify the most direct route.

Though some people find maps easy to use, others find them difficult to understand. The usefulness of a framed map is affected by how closely it relates to the actual environment, how it is drawn and reproduced, and whether it relates to pre-visit information.

Key factors

5.20 Site maps should enable people to create a simple mental model of the site and the main routes around it, so that they can orientate themselves and visualise the route that will get them to their destination.

Framed maps located around your site should relate directly to maps sent with pre-visit information. However, framed maps are usually much larger than the printed maps sent out, so your site map should be designed to be legible and easy to use at both sizes. A map that is either too complex, or over-simplified, can be hard to understand.

Factors that affect the clarity and therefore the usefulness of framed maps

- whether 'you are here' is clearly marked;
- the illustrative style;
- the quality of reproduction;
- the effective use of colour;
- the level of detail, the scale of the map and the size of text;
- the inclusion of landmarks or prominent site features;
- the level of illumination where the map is located.

Factors that affect how many people use maps at your site

- whether the maps are noticeable, unobstructed and legible;
- whether the maps are located at appropriate points (decision points) along all public circulation routes;
- whether the maps are orientated so they relate to the actual environment.

Orientation of maps

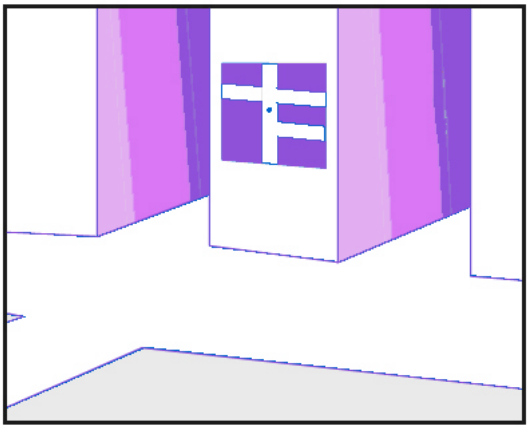


Figure 98: This map is orientated to relate to the environment in which it is located

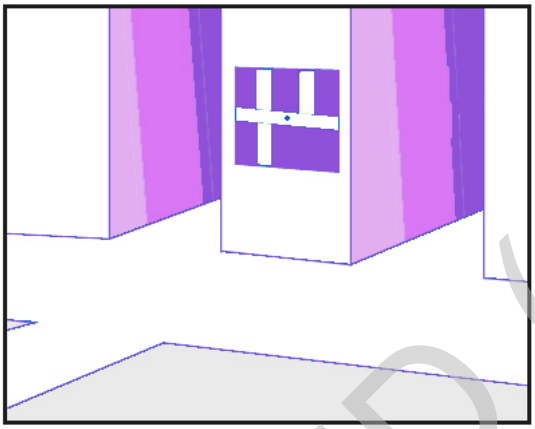


Figure 99: This map is much more difficult to relate to the environment in which it is located

5.21 The orientation of framed site maps should be considered when positioning them. It is not usually feasible to redraw maps for different locations, so when positioning them, try to orientate the maps as in Figure 98 to avoid the confusion.

Amount of detail on maps

5.22 It is important that you identify how maps are used as part of your wayfinding system, where they will be positioned, and what information people need to be able to get from maps. Your site map should then be designed to provide an appropriate level of detail.

An over-simplified map can be hard to understand. Similarly, a map that is too detailed and cluttered with information is often difficult to understand. A map should be designed to provide all information relevant to the user. At some sites, more than one map may be needed to avoid producing a site map that is cluttered.

If there are a variety of building styles and heights, and entrances on different floors, you could consider using a 3D diagram to explain the different levels of the buildings. It could also be used to show buildings as visual landmarks, particularly if some are prominent.

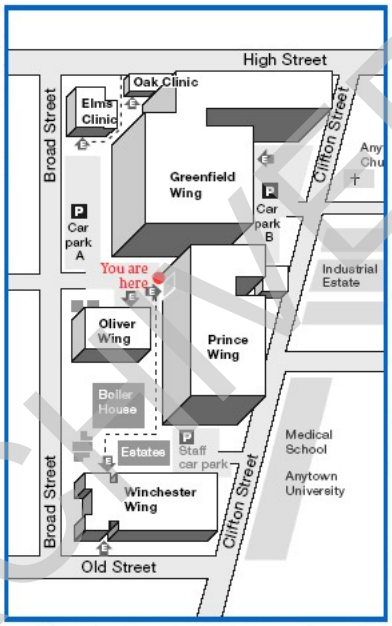


Figure 100

Maps with advertising

5.23 Many healthcare sites use framed site maps with advertising around the edges. Sites can be offered incentives to accommodate such advertising on their maps, which is obviously a budgetary consideration.

Advertising around a site map usually detracts from the map, and always alters the message projected by the map, changing it from being solely a wayfinding aid, to an advertisement with a map. If these advertising maps have to be used

for funding reasons, the advertising should be clearly separated from the wayfinding information.

Best practice guidelines – site maps

5.24 ***Recommendations***

- framed site maps should always show the location of the person looking at the map (by a prominent dot, or an arrow, or the words 'you are here');
- site maps should correlate with printed maps sent to people before they visit your site, such as with appointment letters;
- all maps should:
- use names that are consistent with signs, directories and names used by staff when giving spoken directions;
- use an illustrative style that differentiates visually between buildings, routes and other features;
- reflect any colour-coding system (where possible, maps should be produced in colour to show the colour-coding).
- if advertising is necessary to fund the printing of the map, the advertising should be clearly separated from the wayfinding information;
- consider the orientation of framed site maps when positioning them. Ensure they are aligned in a way that will not cause confusion;
- consider producing a simple, large-print map for people with visual impairments. A tactile (embossed) map may also be appropriate if you have a lot of site users with severe visual impairments.

Site maps should enable people to create a simple mental model of:

- the layout of the site;
- the location of the main public buildings;
- the main routes around the site and through the main buildings.

Site maps positioned externally should mark clearly:

- the main public site entrances;
- the public buildings and the main entrances into the buildings;
- main circulation routes around the site;
- public car parks and bus stops;
- landmarks and prominent features.

Site maps positioned internally should show clearly:

- the main public stairs and lifts linking the floors;
- the main reception and information desks;

- public facilities (such as toilets, café, phones, shop, cash dispenser);
- the number of floors, particularly if there are entrances or key facilities on more than one floor (consider a 3D map).

Things to avoid

- using architects or surveyors plans of the site – they are usually too complex and show a level of detail that is not required for a simple site map;
- using colours on maps that conflict with the colour- coding system, if your site has one;
- using maps with advertising that is more visually prominent than the map.

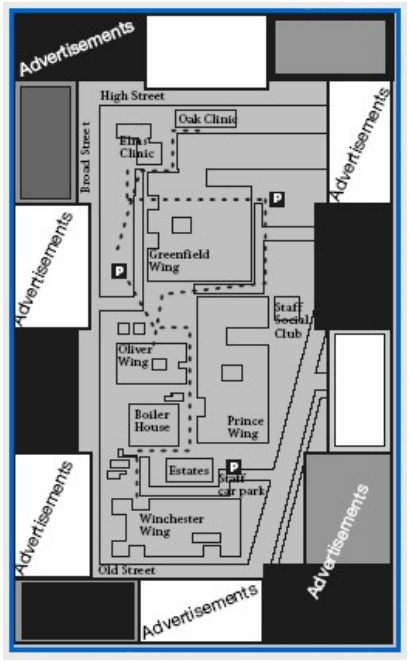


Figure 101: Advertising is more visually prominent than the map, and there is no you-are here

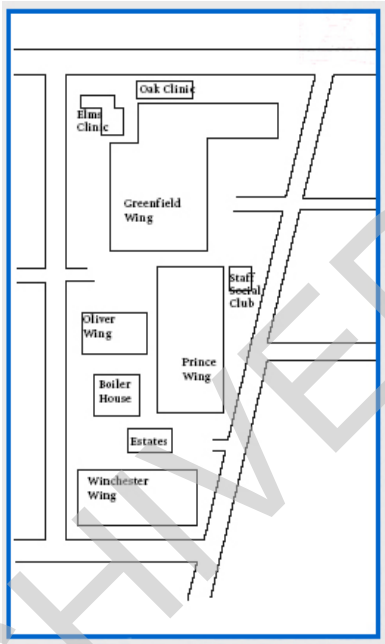


Figure 102: Not enough detail , no road names, no building entrances and no 'you-are-here'.Safety signs

5.25 Safety signs provide warnings and safety messages and inform people of emergency procedures. All healthcare facilities should have planned and practised evacuation procedures. They are required by law to provide information to warn people of potential hazards, to inform them of necessary precautions, and to guide them to where they will be safe in an emergency.

There are standard signs for most types of safety and warning message. Mandatory fire and safety regulations ensure that all sites provide adequate safety systems, including signs.

However, you should be aware that simply putting up a mass of brightly-coloured safety signs to comply with safety regulations will not necessarily make your site safe.

Key factors

5.26 It is essential that the intended meaning of a safety sign is quick and easy for all site users to understand.

Factors to consider when installing safety signs

Having completed an assessment of your site and identified the safety messages required, you should:

- use the appropriate colour for the safety message and ensure that the colour used for symbols and text is high-contrast (black on yellow signs, and white on blue, green or red signs);
- use the appropriate sign shape for the safety message;
- use standard symbols that have been tested for understandability. If you need a symbol for which there is no standard design, you must test the suggested design to ensure it is easy to understand for all site users;
- never use the incorrect safety colour, sign shape or symbol for a safety message for which it is not intended, as this will cause confusion;
- consider the positioning of safety messages in the environment to ensure signs are noticeable, legible and there is no possibility of confusion;
- consider the positioning of arrows on safety signs to ensure the direction for safe areas or emergency equipment is clear and relates to the actual environment.

The meaning of safety colours and sign shapes

5.27 There are standard safety colours, sign shapes with a specific meaning, and well-recognised symbols specified in BS 5378 (1980) and BS 5499 (1990) that should be used for all safety signs and information to ensure that a clear safety message is provided, with little scope for confusion.

Colours	Meaning	Examples of use	Sign shape
Red *with white*	Stop, prohibited	Prohibition signs, stop signs, fire-fighting equipment and emergency shutdown devices	
Yellow *with black*	Caution, risk of danger	Warning signs, indication of hazards, danger identification	
Blue *with white*	Mandatory action	Mandatory sign, obligation to wear personal safety equipment	
Green *with white*	Safe conditions	Emergency exit signs, safe condition signs, first-aid posts, rescue points	

Unclear meaning of standard safety signs and symbols

5.28 It is essential that safety messages are clear and specific, and that people know what action or precaution to take if necessary. All British Standard symbols have been extensively tested for understandability, but in some cases bad positioning of safety signs can cause confusion, and there are a few standard safety signs and symbols that do not provide a clear safety message, including these general signs that have no specific safety message:

Figure 103: Always use these signs with additional text or a symbol to provide a specific message

Standards for safety signs

5.29 Standard colours, sign shapes, and symbols should always be used for safety signs and safety information to ensure the intended message is clear. The standards are specified in:

- Graphical Symbols and Signs - Safety Signs, including Fire Safety Signs. Signs with Specific Meanings. (BS 5499: 2002)
- Safety Signs and Colours. (BS 5378: 1980: Part 2)
- Health and Safety (safety signs and signals) Regulations 1996 (Statutory Instrument 341) for which the Health and Safety Executive have produced a guide called Safety signs and signals. The Health and Safety (safety signs and signals) Regulations 1996. Guidance on Regulations

Prohibition sign

No smoking

Fire equipment signs

Phone to be used in fire emergencies

Fire hose reel

Fire extinguisher

Foam inlet

Fire alarm call point

Safe condition exit signs

Externally illuminated exit sign*

Internally illuminated exit sign*

Text sign to supplement the symbol

Directional exit sign with text and arrow

Mandatory signs

Overshoes must be worn

Face mask must be worn

Caps must be worn

Gloves must be worn

Wash hands

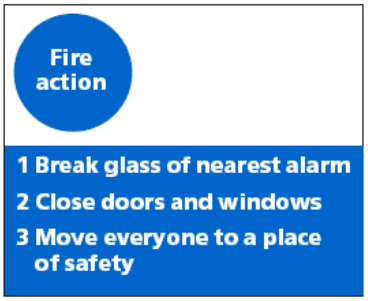
Use telephone

Gowns must be worn

Fire safety mandatory signs

Fire door keep shut

Fire escape keep clear



Fire safety notice

Safe condition signs

First aid point

Eye wash

Resuscitation equipment

Defibrillator

Right directional arrow

Left directional arrow

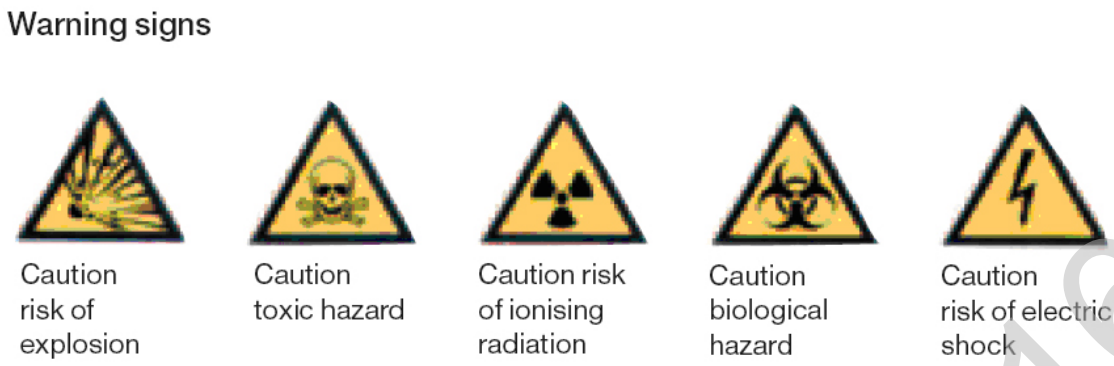


Figure 104: Examples of British Standard safety signs and symbols

Wayfinding in an emergency

5.30 Consideration should be given to all aspects of how people find their way. Sites should not rely only on safety signs to get people to safe areas in an emergency, as people do not initially follow signs. They will follow other people, or spoken directions, or most likely they will try and retrace their steps along a route they are familiar with, even if it is leading them to an unsafe area.

If people cannot retrace their route they will then try to find an exit that looks like it will lead to safety, such as a glass door through which they can see outside. If there is no such exit visible, only then will they use other information such as safety signs.

To provide a safe environment, your site should have, in addition to safety signs, information that:

- orientates people;
- enables people to create a mental model of the building shape so they know what part of the building they are in;
- enables people to create a mental model of the main circulation routes through the building;
- makes them aware of how many main exits there are and where they are located.

Some buildings have been designed to help people gather this information visually, but most have not, so other forms of information are necessary such as clear site maps and logical wayfinding systems.

Differentiating between safety information and wayfinding information

5.31 With the use of bright colours and specific shapes, safety signs have been designed to look different from general information or wayfinding information. It is important for people to be able to differentiate between safety information and wayfinding information, but to still be able to see, read and understand all types of information at your site.

It is important to consider the positioning of safety signs so they work alongside the wayfinding system, rather than against it. Some healthcare sites were found to have positioned Fire Exit signs so they obscured a directional or locational sign; other signs had obscured safety information with directional information (IDU 98).

Wayfinding information should differ in design and colour from the safety information at your site.

Major accident signs

5.32 The number of times a healthcare facility deals with major accidents, or major incidents, depends on its size and location. Some sites have detailed major accident plans and practise these procedures regularly. Others have rarely experienced a major accident and will be much less prepared.

All healthcare facilities should have a detailed major accident wayfinding plan specifically for their site, which includes information about:

- which buildings and rooms will be utilised in an emergency, and which are the best routes to these locations;
- major accident directional signs that direct people to the appropriate buildings and rooms. The signs should look different to the normal directional signs to reduce confusion for people unaware of the accident;
- major accident locational signs that identify the appropriate buildings and rooms;
- how signs will be positioned and fixed, who is responsible for putting up the major accident signs, and where they are stored.

Many sites will already have a major accident signing system, but you should evaluate your major accident signs and wayfinding system and update them as necessary.

Temporary directional, locational and information signs are needed by sites that have facilities for dealing with major accidents.

Major accident signs should:

- be more visually prominent than your permanent signs;
- be quick and simple to fix into position, and it should be someone's role to ensure that they are clear and correctly positioned;
- warn other hospital users that your site is dealing with a major accident, and inform them of any changes that will affect them;
- clearly direct different site users (ambulances, staff, voluntary workers, police, press, patients, relatives and friends) to a central enquiry point or specific location.

There should be a central enquiry point where people can get information without interfering with the hospital procedures. Designated, trained staff should direct people paragraph 2.4 All sites should have a major accident plan. You should refer to: *'Planning for major incidents. The NHS guidance'* (NHS Executive, November 1998)

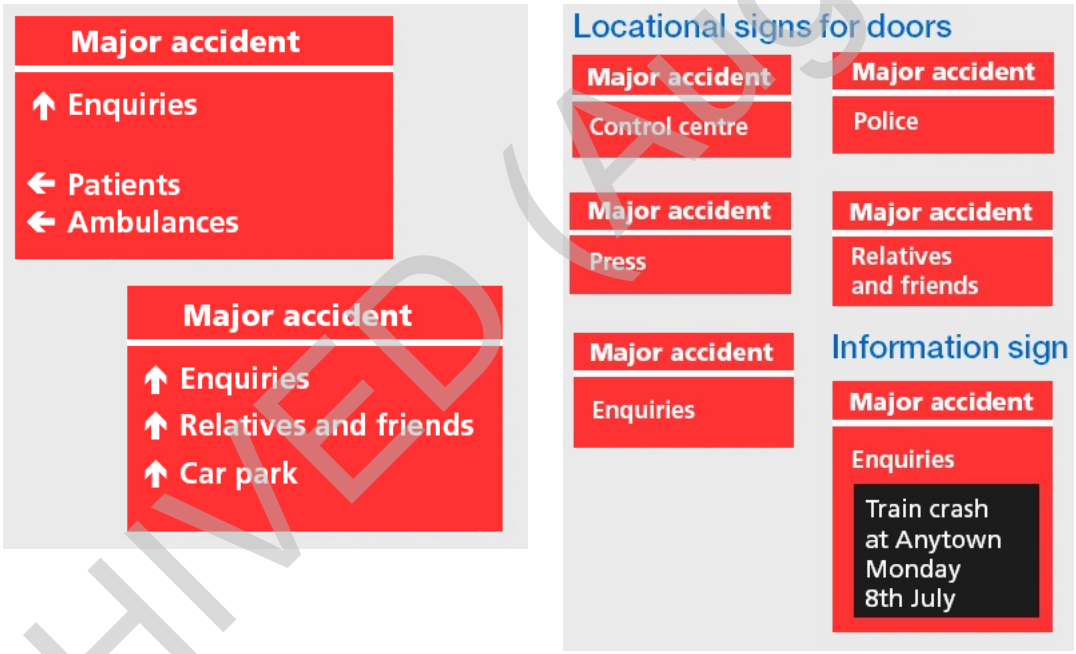


Figure 105

6. Tools

To produce a more effective wayfinding system for your site, you need to evaluate the current system. By identifying the wayfinding problems your site users have, and the areas particularly in need of attention, you will then be able to improve your wayfinding system.

The tools in this section are designed to help with this task and can be photocopied for use. Where necessary they should be modified to suit your site's requirements. When using questionnaires you must distribute them with great care, as it is very easy to influence the answers that people will give.

The following tools will enable you to:

- carry out a questionnaire survey of healthcare facility users
- test different elements of your wayfinding aids – such as symbols, typeface, type size, and colour combinations
- survey your site – this should be carried out by people unfamiliar with your site and by disabled people
- check that you have considered all the issues that are important for an effective wayfinding system.

Healthcare facility user questionnaire

Finding your way around this site

6.1 We are looking at how people find their way around our site. We would be very grateful if you could fill in this questionnaire. Your answers will help us to improve our signing and wayfinding system. We are not asking for your name, so your answers will be completely anonymous.

1. How did you get here today?

□ Car – go to question 2

□ Bus – go to question 3

□ Taxi – go to question 4

□ Walked – go to question 4

□ Ambulance – go to question 4

□ Other – go to question 4

2a. If you came by car, was it easy to find somewhere to park?

□ Yes, it was easy to park

□ No, it was difficult to park

2b. Where did you park?

.....

□ Not sure

2c. Do you think it took a long time to get from the car park to where you wanted to go?

□ Yes, a very long time

□ Yes, quite a long time

□ No, not a long time

3a. If you came by bus, was it easy to find the correct bus stop to get off at?

□ Yes

□ No

3b. What bus stop did you get off at?

.....

□ Not sure

3c. Do you think it took a long time to get from the bus stop to where you wanted to go?

□ Yes, a very long time

□ Yes, quite a long time

□ No, not a long time

4. What building and department did you want to go to when you got here today?

.....

□ Not sure

5a. Before you came today, were you given any directions or information to help you find your way?

□ Map

□ Spoken directions

□ Written directions

□ Other

5b. Was the information received before your visit useful and easy to understand?

□ Yes, it was useful and easy to understand

□ No, it was not useful or easy to understand

6a. How did you find getting to where you wanted to go?

□ Very easy

□ Easy

□ Difficult

□ Very difficult

6b. How many wrong turnings did you take?

□ None

□ One wrong turning

□ 2 or 3 wrong turnings

□ More than 3 wrong turnings

6c. Was the building entrance clearly marked?

□ Yes

□ No

□ Can't remember

6d. Did you ask anyone for directions?

□ Yes, and their directions were clear

□ Yes, but their directions were not clear

□ No

6e. Who did you ask for directions?

.....

7a. Did you notice any of the following things around the site?

□ Signs

□ Maps

□ Directories

7b. Did you use any of these to find your way?

□ Signs

□ Maps

□ Directories

8a. If you used the signs, what did you think of them?

□ Very easy to follow

□ Easy to follow

□ Difficult to follow

□ Very difficult to follow

8b. What do you think about the number of signs?

□ Too many signs

□ The right number of signs

□ Not enough signs

8c. How did you find reading the signs?

□ Very easy to read

□ Easy to read

□ Difficult to read

□ Very difficult to read

8d. Did you notice any colour-coding used on the signs or buildings?

□ Yes

□ No

8e. Did you notice any symbols on the signs?

□ Yes

□ No

Please describe or draw the ones you can remember:

.....

9a. Have you seen a map of the site?

□ Yes

□ No

9b. What did you think of the map?

□ Very difficult to understand

□ Difficult to understand

□ Easy to understand

□ Very easy to understand

10. How were you feeling when you arrived at the site?

□ Very worried

□ Quite worried

□ Happy

□ Relaxed

□ Other:

11. How would you describe this site?

□ Very confusing

□ Quite confusing

□ Cramped

□ Open

□ Friendly

□ Other:

12. Before today, how many times have you been to this site in the last year?

□ None

□ Once

□ 2 or 3 times

□ More than 3 times

13a. It will help us if you can tell us something about yourself.

How old are you?

□ Under 18

□ 18–30

□ 31–50

□ 51–65

□ Over 65

13b. Why are you here?

□ I am an in-patient

□ I am an out-patient

□ I am visiting a patient

□ Other reason:

13c. Do you have any impairments that affected your ability to get to your destination?

.....

Thank you for your help. Please now hand your completed questionnaire back to the person who gave it to you.

Tally sheet - Healthcare facility user questionnaire

Collecting the data from the questionnaires

6.2 Completed questionnaires will need to be analysed. Database software is very useful for this, but if this is not available, this tally sheet can be used to collate the responses.

Simply photocopy these pages and go through each questionnaire marking the answers on the tally sheet. Put a total at the end of each answer. Then refer to the next page to find out which parts of this book you should refer back to.

		Tally	Total
1.	Car		
	Bus		
	Taxi		
	Walked		
	Ambulance		
	Other		

		Tally	Total
2a.	Yes		
	No		
2b.	Where they parked		
	Not sure		
2c.	Yes, a very long time		
	Yes, quite a long time		
	No, not a long time		

		Tally	Total
3a.	Yes		
	No		
3b.	Bus stop:		
	Not sure		
3c.	Yes, a very long time		
	Yes, quite a long time		
	No, not a long time		

		Tally	Total
4.	Building and Department		

		Tally	Total
5a.	Map		
	Spoken directions		
	Written directions		
	Other:		
5b.	Yes		
	No		

		Tally	Total
6a.	Very easy		
	Easy		
	Difficult		
	Very difficult		
6b.	None		
	One		
	2 or 3		
	More than 3		

		Tally	Total
7a.	Noticed signs		
	Maps		
	Directories		
7b.	Used signs		
	Maps		
	Directories		

		Tally	Total
8a.	Very easy		
	Easy		
	Difficult		
	Very difficult		
8b.	Too many		
	The right number		
	Not enough		
8c.	Very easy		
	Easy		
	Difficult		
	Very difficult		
8d.	Yes		
	No		
8e.	Yes		

No

Symbols:

		Tally	Total
9a.	Yes		
	No		
9b.	Very difficult		
	Difficult		
	Easy		
	Very easy		

		Tally	Total
10.	Very worried		
	Quite worried		
	Happy		
	Relaxed		
	Other:		

		Tally	Total
11.	Very confusing		
	Quite confusing		
	Cramped		
	Open		
	Friendly		
	Other:		

		Tally	Total
12.	None		
	Once		
	2 or 3 times		
	More than 3 times		

		Tally	Total
13a.	Under 18		
	18-30		
	31-50		
	51-65		
	Over 65		
13b.	In-Patient		
	Out-Patient		
	Visiting a patient		
	Other reason:		
13c.	Disabilities		

Any comments written on the questionnaire:

.....

.....

.....

.....

Analysis of results – Healthcare facility user questionnaire

Analysing the results of the questionnaire

6.3 When all the data has been collected, you should analyse the results to discover which aspects of your wayfinding system need developing or improving. The information below will help you to find the sections of this book appropriate to the wayfinding problems at your site.

1. How people travel to your site will affect a variety of wayfinding elements which should be considered:

   car: **see 3.37**

   bus/taxi: **see 3.34**

   foot: **see 3.31**

2a. If a large number of the people answered 'No', this suggests that it took a long time to find somewhere to park: **see 3.51**

2b. If people are not using the correct car park: **see 3.51**

2c. If people feel that it took a long time to get from the car park to their destination: **see 3.60**

3a. If a large number of the people answered "No", this suggests that it was difficult to find the correct bus stop to get off at: **see 3.34**

3b. If people are getting off the bus at the wrong bus stop: **see 3.34**

3c. If people felt that it took a long time to get from the bus stop to their destination: **see 3.60**

4. The department which the person is visiting may be providing its own wayfinding information. If people visiting a particular department or area at your site are getting lost, this could say something about this information, or about that part of the site.

5. If the information which people receive was thought to be unclear, see the appropriate section:

   maps: **see 3.22**

   spoken directions: **see 3.24**

   written directions: **see 3.26**

6. The answers given to questions 6a and 6b provide general indications of how people found wayfinding at your site

6c. If a large number of people say 'No, the entrance was not clearly marked': **see 3.47**

6d. If the spoken directions were used but were found to be unclear: **see 3.24**

7. Question 7 will show you which wayfinding methods people are using at your site: signs, maps or directories.

8. If people feel the signs are difficult to follow or there are too many or not enough: **see 4.37**

8c. If people found the signs difficult to read: **see 4.4**

8d. If people did not notice the colour-coding used with the system: **see 3.9**

8e. If people did not notice any symbols, but there are some used within the system: **see 4.29**

9. How people feel when they arrive at your site will affect their wayfinding ability. If a large number of people say that they were worried: **see 2.12**

10. If people found your site confusing: **see 3.6**

11. If people did not notice a map at your site or found them difficult to understand: **see 5.19**

12. The number of times people have visited the site can make a difference to how easy it is for them to find their way around the site.

    People who have not visited the site before, or not for some time, are more likely to have problems finding their way than people who have visited the site a few times. This should be taken into consideration when analysing the results of this questionnaire.

13. These questions ensure that a broad cross-section of the healthcare facility users have been asked about your site. The data which is collected here can be used as additional information when analysing the results.

    All disabled people must be considered when developing your wayfinding system. You may gather some useful information yourself, though ideally site evaluations (using the tool in 5.3) should be carried out by disabled people: **see 2.6**

Testing graphic elements

6.4 If you are considering a new graphic element for your wayfinding system, or if you think that a graphic element of a particular wayfinding aid is causing problems, it should be tested to find out whether it is noticeable, legible, and understandable, from the intended viewing distance. This tool for testing graphic elements aims to provide the basis of a testing procedure which can be applied to a variety of wayfinding aids, such as signs, symbols and maps. The flowchart takes you through a procedure which can be adapted to suit the element which requires testing. See paragraph 6.9 for guidelines on using this tool.

Graphic elements which could be tested:

- type legibility;
- colour combinations;
- maps;
- directional arrows;
- symbols;
- sign design and layouts.

Generating different possibilities

6.5 Produce sample information panels, using different variations of the element you want to test. For example, if testing typeface legibility, produce two or three examples of the same information, at the same type size, using the intended typeface.

Possible criteria

6.6 **Glance legibility** – will the element be recognised and understood if seen for a brief period of time (particularly relevant if the information is to be used on road signs)?

Noticeability – will the element gain the attention of the user?

Viewing distance – will the information be seen, read and acted upon from the required viewing distance?

Understandability – will the element communicate the intended message?

In-situ trial of the element

6.7 When the element has met the chosen criteria, where appropriate it should be tested in one area of the site, possibly a single department.

Refine

6.8 The in-situ trial may lead to one or more rounds of refining the solution, before the element can be used throughout the wayfinding system.

Using this graphic element testing tool

Guidelines on how to use this graphic element testing tool

6.9 Limit the number of different graphic elements that you test at one time. If you change more than one element, you will find it difficult to tell which element people are reacting to or commenting on.

Reduce any environmental factors that may affect your results. For example, if you are testing sign layouts make sure the illumination of the signs does not vary, and that the viewing angle and viewing distance are the same for each person.

Identifying wayfinding elements which need testing

6.10 Elements that may need testing for noticeability, legibility or ease of understanding include:

- the colour combinations used on signs;
- the typeface used on signs;
- the type size and viewing distance of signs;
- symbols;
- the design and positioning of arrows on directional signs;
- styles and complexity of site maps.

Generating different possibilities to test

6.11 The types of material that need to be produced for testing depend on the types of testing that you use.

The corridor method for testing signs or maps. This method involves placing mocked-up versions of the sign or map, containing the element to be tested, on a wall in a corridor or other central location. Healthcare facility users and staff passing the sign or map are asked questions you have devised to get responses to a particular criterion.

Table discussion method for testing all elements, particularly symbols. This method involves collecting a few people together (six is a good number) round a table, showing them signs, maps or other graphic elements, and probing their reactions to them. The signs or maps can be the real thing, or simply versions of them on paper or card.

Survey method for testing all elements. This involves talking to people individually, as they are walking round the site, or sitting waiting for an appointment, and showing them materials and asking them questions. Questionnaires can also be used, although they need to be distributed with great care, as it is very easy to influence the answers that people will give (this can also be a problem with face-to-face surveys).

Creating and producing the test materials. Depending on your in-house facilities, you may need to work with a design company or reproduction house to develop suitable test materials.

Choosing the appropriate criteria for testing elements

Glance legibility

6.12 The amount of information people can take in at a glance (which is often all they give a sign) makes a difference to how effective a sign is going to be.

How you could test glance legibility

Using the table discussion method, show people cards carrying different versions of the element you are testing. Show the cards one at a time, for the same length of time each – about one second. After each card is shown, ask people to write down their impressions of the element, and what they understood from the information on the card.

Noticeability

People have to notice signs and maps before they can use them.

How you could test noticeability

Using a simple corridor test, put up a test sign or map in a corridor, then stop people who have passed it, and ask them what (if anything) they noticed. You can also gain some useful information by just watching people walking past a sign and seeing how many look at it, or seeing how many people go up to a directory.

Viewing distance

Different wayfinding elements need to be viewed at different distances, so it is important to know the intended use and viewing distance for a particular graphic element.

How you could test viewing distances

Using a corridor test, put up a panel containing the element you are testing in a variety of sizes. Stop people quite a distance from the panel, and walk with them towards it, asking them to tell you as each different-sized element

becomes clear. Marks on the floor make it easy to record the distance from the panel.

Understandability

It is essential that users understand the information conveyed by every element of the wayfinding system, and that what is communicated is the intended message. This is of particular importance with symbols.

How you could test whether the element is understandable

Using the table discussion method, show people the wayfinding element being tested and ask them what they think it means.

In-situ trials

6.13 Before spending money installing a complete system throughout your site, or implementing a change to your existing system wholesale, it is advisable to try it out in a small area first, to see if it works. This will allow you to consider environmental features, and see how the element works within the system at your site.

How you could test wayfinding elements in situ

Install the signing system (or map) which includes the element in a small area, and assess what people think of it. This could be done by stopping people and asking them a set of specific questions about the system installed, or you could ask them to complete a questionnaire.

Site survey tool

6.14 Valuable information can be gathered by getting a variety of people who are unfamiliar with your site to follow routes around the site and make notes on the wayfinding aids.

Carrying out site surveys using this tool should highlight key problem areas and ineffective wayfinding aids.

Guidelines on how to use this site survey tool

Identify the routes to be surveyed

6.15 These may be routes that you know people have problems following, or heavily-used routes such as the main public car park to Out-patients, or the most commonly-used bus stop to Maternity.

Photocopy the site survey tool

The person surveying your site will need a copy of the following two pages for each point where they make a decision as to which way to go next. This could be a corridor junction, inside a building entrance or outside a lift.

Six copies of the two pages per route to be surveyed should be sufficient, though the number will vary depending on the length and complexity of the route, so include a few extra copies.

Who should carry out the surveys of your site

People who are unfamiliar with your site will provide the most helpful information when carrying out a site survey, as they have no prior knowledge of the site and its layout. However, you will find it useful to survey routes around your site yourself, though be aware that people who are first-time visitors may make different decisions along the route from those you make, with your knowledge of the site.

The Disability Discrimination Act (DDA) requires your site to be accessible to all users. Disabled people should be asked to carry out site surveys to find out what they use to find their way, and to see whether they rely more heavily on different wayfinding aids and site features than people without disabilities. These site users should include people with visual, hearing or mobility impairments and people who use a wheelchair. It is important that people with all types of impairment who visit your site are considered and consulted to ensure your site is accessible for all site users.

The needs of people of all ages should be considered, and ideally, they should all be asked to carry out site surveys, including older people and people with toddlers and pushchairs. Also, people who do not speak the language used on signs should be consulted, although it would prove difficult for them to fill in the site survey sheets unless they are translated.

Ask the person surveying your site to note their observations

By filling in the site survey sheets people will notice the various wayfinding aids at your site and evaluate them as a site user. People with visual impairments would usually need someone to fill in the pages for them, and other people such as older site users may also find it difficult to follow the route whilst taking notes.

Talk-aloud site surveys

An alternative way of recording people's comments is to ask them to talk aloud whilst they follow the routes and either make notes, or use a tape recorder to record their comments.

Using information from the site surveys

Read through the survey sheets, follow the routes that were surveyed and identify the key problem areas that the people surveying your site experienced. Use the information from the site surveys to improve your wayfinding system for all site users.

Site survey

Surveying your site

6.16 Complete these pages at each decision point along the route you are surveying.

Completed by: time: date:

Route followed from:

to:

Is the decision point: □ internal □ external

Describe where you are, or mark it on a map:

.....

.....

.....

.....

Survey sheet/decision point number

1. Mode of transport

□ Car □ Bus/taxi

□ Foot □ Train

2. Obstructions and visual clutter

Are there elements making it difficult to see the route or sign system?

□ No visual clutter

□ Yes, elements are distracting and obscuring the route/sign

If yes, please indicate the obstruction:

□ Trees

□ Other signs

□ Vehicles

□ People

□ Buildings

□ Other, *please specify*

.....

.....

3. Landmarks

Are there any prominent landmarks that people may use to remember a location or route?

□ No

□ Yes *If yes, please describe*

.....

.....

.....

4. Entrances

Is there a building or department entrance clearly identifiable from this decision point?

□ No

□ Yes

If yes, which entrance(s) is/are identifiable?

.....

.....

5. Directional signs

Is there a directional sign visible at this decision point?

□ Yes

□ No *go to question 6*

Is the text legible from this decision point?

□ Yes

□ No

Is your destination mentioned?

□ Yes

□ No

Is the direction indicated clearly?

□ Yes

□ No

Is the sign positioned in an appropriate location where the information is needed?

□ Yes

□ No

Comments

.....

.....

.....

6. Locational signs

Is there a locational sign visible at this decision point?

□ Yes

□ No *go to question 7*

Is the text legible from this decision point?

□ Yes

□ No

Is it clear which building or location the sign is referring to?

□ Yes

□ No

Is the sign positioned in an appropriate location where the information is needed?

□ Yes

□ No

Comments

.....

.....

7. Maps

Is there a map visible at this decision point?

□ Yes

□ No *go to question 8*

Does the map show where you are?

□ Yes

□ No

Does the map make the site or building easy to understand?

□ Yes

□ No

Is your destination mentioned on the map?

□ Yes

□ No

Is the map positioned in an appropriate location where the information is needed?

□ Yes

□ No

Comments

.....

.....

.....

.....

8. Directory

Is there a directory visible at this decision point?

□ Yes

□ No *go to question 9*

Is the text legible from this decision point?

□ Yes

□ No

Is your destination mentioned?

□ Yes

□ No

Is it easy to find the destination on the directory?

□ Yes

□ No

Is the sign positioned in an appropriate location where the information is needed?

□ Yes

□ No

Comments

.....

.....

.....

.....

9. Staff assistance

Is there a member of staff at this decision point to ask for directions?

□ No

□ Yes

If yes, ask for directions:

.....

.....

Are the directions given clear and easy to follow?

□ Yes

□ No

Did staff offer to escort you to your destination?

□ Yes

□ No

Comments

.....

.....

.....

Use the available wayfinding information to find the route to your destination and, at each point you need to make a decision about which way to go, complete another survey sheet.

Auditing your site checklist

6.17 You can use this tool as a checklist to ensure you consider the many aspects of wayfinding when auditing the wayfinding system at your site.

Developing a wayfinding strategy

6.18 ***Considering your site layout***

□ Is your site visually accessible? Can people see where they need to go?

□ Are there distinctive architectural styles of building at your site?

□ Are the circulation routes complicated or simple?

□ Do you have a simplified site layout from which people can create a simple mental map of the site?

Simplifying your site layout

□ Does your site have a complex layout that could be simplified?

□ Are there any methods currently used to simplify your site? If so, have they been evaluated to see whether they are effective?

□ Can people formulate a simple mental model of your site?

Considering colour-coding

- □ Do you have an existing colour-coding system at your site?
- □ Is it used consistently on all wayfinding information?
- □ Is it mentioned in appointment letters?
- □ Is it shown on all site maps?
- □ Has it ever been evaluated to find out whether people notice it?
- □ If your site does not have a colour-coding system, will a new colour-coding system make it easier for people to find their way around your site?

Agreeing terminology and abbreviations

- □ Can people with no medical knowledge understand the terms used on signs and pre-visit information?
- □ How were the terms used on your signs agreed? Were the terms tested to see whether people understand them?
- □ When giving spoken directions, do staff use terms that differ from those used on the signs, which may cause confusion?
- □ In pre-visit information, are terms used that differ from those which people will see on the signs at your site, which may cause confusion?

Pre-visit information

Appointment letters

- □ Are the appointment letters sent out by all departments at your site consistent with each other, and with the other elements of the wayfinding system? Do they give a positive image of the site?
- □ Do people often forget to bring the appointment letter and the items specified in it?
- □ Could the layout of appointment letters sent out by your site be improved? Is key information emphasised?

Maps sent with appointment letters

- □ When was your site map last updated? Are your maps properly reproduced or are they poor-quality photocopies? How easy will it be for people to read them?
- □ Do most visitors live locally, or do you need to provide a map showing nearest motorways and A-roads?
- □ Do you need more than one map, perhaps one to show routes to the site and another for the site layout?

Spoken directions

- □ How clearly do staff at your site direct people by phone?
- □ How clearly do staff direct people from the main information or reception desk at your site?
- □ How accurate and complex are the spoken directions?
- □ What landmarks do staff refer to?
- □ Where do people commonly ask for directions to?
- □ Are some routes more difficult to describe than others? Would adding landmarks or changing names make them easier to describe?
- □ What age of people ask for directions most often at your site? Are these people able to understand and follow the directions they are given?

Written directions

- □ Are the written directions sent out by departments at your site up to date, easy to understand and follow?
- □ Do the written directions sent by your site use the same terms and names that appear on signs and maps?
- □ Are the directions broken up into clearly separated steps?
- □ Do the directions contain any ambiguous, unhelpful or unnecessary information or descriptions?
- □ Will people following the directions know whether they have gone wrong, and know how to correct their mistakes?

Getting to the site

By foot

- □ Are pathways at your site clearly identifiable and well lit?
- □ Have any unofficial pedestrian routes been created at your site?
- □ Does pre-visit information from your site include directions for pedestrians and directions from the nearest town?

By public transport or by taxi

- □ Does your pre-visit information include details of local public transport services?
- □ Does your site have limited parking space which makes it more important to encourage people to use public transport?
- □ Are the pathways from public transport stops to site and building entrances clearly identifiable and well lit?
- □ Does your site have taxi drop-off and pick-up points at each building entrance?
- □ Do you encourage people to use public transport to get to your site?

By car

- □ Do departments send out information about how to get to your site by road? If they do, is this information clear, accurate and up to date?
- □ Do you have sufficient public parking at your site? Are the parking areas identifiable from the vehicular routes around the site?
- □ Does pre-visit information tell people where they can park, which car park is nearest their destination and how much it will cost?
- □ Does your site have sufficient car parking? If not, does your site encourage visitors and staff to use an alternative mode of transport, by displaying information about public transport at your site, or sending information with appointment letters?

Identifying and recognising the site

- □ Is your site visible from approach roads?
- □ Are the site entrances visible and prominent from the main directions of approach?
- □ Does your site have any identifiable, prominent features?

- □ Does your site have any architectural features which are easy to describe and unlikely to be confused with other buildings nearby?
- □ Do you include an image of a feature of the site or main buildings in pre-visit information?
- □ Are there prominent locational signs at site entrances?

Identifying site entrances

- □ How many site entrances are there, for pedestrians and vehicles?
- □ How visually prominent are your site entrances approaching the entrance at driving speed, from the road?
- □ How visually prominent are your site entrances approaching along the pavement, and from bus stops?
- □ How visually prominent are your site entrances in various lighting levels at different times of the day?
- □ Are the site entrances clearly differentiated? Does each have a name that is easy to refer to and that is unlikely to cause confusion?

Getting around the site

Finding a public car park or drop-off point

- □ Are car parks and drop-off points at your site individually and clearly identified?
- □ Are there locational signs in each car park? Are they visible from all areas of the car park?
- □ Do written directions and site maps include information about public car parks and drop-off points?

Finding the correct building and entrance

- □ Can people find out which building their destination is in once they have arrived at your site?
- □ Are different buildings at your site clearly identifiable? Do they have locational signs that are visible from all directions of approach?
- □ Are the public entrances to the buildings clearly visible, and identifiable as public entrances?
- □ Do any buildings have public entrances on more than one level?
- □ Are people aware of which level they are entering or leaving on?

Using landmarks and site features

- □ What landmarks or site features do staff refer to when giving spoken directions at your site?
- □ Are the features or landmarks referred to by staff noticeable?
- □ Can the features referred to by staff be confused with other features in different parts of the site?
- □ Do all staff use the same name for the features they refer to?
- □ Are there any features of your site which could be further emphasised visually?
- □ Are there any prominent or unusual landmarks at your site? Are they shown on maps or indicated on directional signs?
- □ Are there any key decision points that have no distinguishing features? Could a landmark be created to make the decision point easier to describe or remember?

Following circulation routes and pathways

- □ Are vehicular and pedestrian routes through your site well defined and clearly marked?
- □ Do pathways guide people along the most direct routes?

Identifying the destination

- □ Are destinations at your site clearly identifiable?
- □ Can people tell when they have arrived at their destination?

Developing effective signs – general considerations

Typeface

- □ How was the typeface that is used on signs at your site selected?
- □ Has the typeface been tested for legibility from the intended viewing distances?
- □ Are both upper-case and lower-case letters used?
- □ Is there a high colour contrast between the text and sign background colour used on your signs?

Type size

- □ Are the signs at your site well illuminated to ensure optimum viewing conditions?
- □ Are type sizes for each type of sign used consistently?
- □ Do signs suspended from the ceiling have a larger type size than those positioned at eye level?
- □ Have people with visual impairments been considered when selecting the type size and positioning of signs?
- □ Have the type sizes used on your signs been determined by the size of a standard slat rather than viewing distance? If so, have the type sizes used on your signs been evaluated for legibility?

Text layout and grouping on signs

- □ Have the signs at your site been evaluated for clarity and understandability, and ease of use?
- □ Could the design of the signs be improved to make them more effective?
- □ How much information is included on each type of sign?
- □ Can the amount of information on each sign be reduced?
- □ Can the information on signs with more than five destinations be grouped into shorter lists to make the signs easier to use?
- □ Is the layout of each sign type consistent?
- □ Can the different types of sign and information be easily identified?

Text alignment on signs

- □ Are all the signs at your site consistently aligned?
- □ Is it easy to scan through the lists on your signs?
- □ Is it clear which direction the arrows on your signs are indicating?
- □ Is the relationship between text and arrow clear on all directional signs at your site?

Emphasising information on signs

- □ Do you have a system for emphasising key information on signs?
- □ Can visitors quickly see the direction of services and facilities they may want to find in a hurry, such as the toilets, lifts, information desks and telephones?
- □ Are staff-only areas given as much prominence on signs as public areas?

Multiple languages and dual terms

- □ Does your site need to consider using multiple languages or dual terms on signs?
- □ If multiple languages or dual terms are used on signs at your site, has a hierarchy been developed to prioritise and differentiate between the types of information?

Symbols

- □ Have symbols used at your site been tested for understandability?
- □ Are the symbols legible from the intended viewing distance?
- □ Are the symbols positioned consistently on all signs?

Use of colour on signs

- □ How were the colours used on signs at your site selected?
- □ Do the colours on your signs provide optimum visibility and legibility?
- □ Is the sign colour system used consistently throughout your site?
- □ Are safety signs clearly visible?
- □ Are any of the safety sign colours used on the directional or locational signs?

Positioning signs

- □ Are different types of sign positioned consistently at your site?
- □ Are the signs free of any visual clutter, such as vegetation, vehicles, trolleys, general notices?
- □ Are the signs visible and legible from where they will be viewed?
- □ Have any signs been positioned too high, so they are above comfortable reading height?
- □ Have any signs been positioned too low and are they easily obscured?
- □ Is each type of sign positioned consistently?

Methods of construction

- □ Are you developing a complete new signing system?
- □ What budget is available, and how many new signs will you need?
- □ How many colours will be used on the new signs?
- □ Do you have any existing signs that you need to match?
- □ Are you aware of the different construction methods available from sign manufacturers?
- □ Have you worked closely with sign designers and manufacturers to identify the most appropriate and cost-effective sign construction and fixing methods?

Illuminating signs

- □ Have the signs at your site been assessed at different times of day to check that they are always adequately illuminated?
- □ Have the signs been tested for their legibility in different weather conditions?
- □ Are all the main site entrances, building entrances, and the locational signs located at the entrances, well illuminated for optimum visibility and legibility at all times of the day?
- □ Has a matt finish been used on signs to reduce the chance of glare from both natural and artificial lighting? If signs at your site have a glossy finish, are there any reflections or glare that reduce the legibility of the signs?
- □ Do you have a system at your site for staff to report any problems with illumination levels?

Developing effective signs – special considerations

Directional signs

- □ Are the directional signs at your site easy to follow? Have you asked people who are not familiar with the site to find their way around using only the directional signs?
- □ Are the arrows on your signs clearly linked with the appropriate text?
- □ Are the directional signs at your site audited and updated regularly?

Locational signs

- □ Are the locational signs at your site prominent?
- □ Can people differentiate between locational and directional signs?
- □ Are the locational signs positioned consistently?
- □ Are the locational signs visible from all main directions of approach?

Directories

- □ Are the directories at your site positioned at strategic points, such as key entrances, car parks, and in areas where people will be changing levels?
- □ Are the directories used at your site flexible enough to change as departments move or change names?
- □ Is the information presented on the directories grouped, and then listed alphabetically within each group, so it is easy for the user to scan the information? Are people made aware of what floor they are on?
- □ Are the directories positioned where people can stop and read the information without causing an obstruction?

Maps

□ Is your site map simple and easy to understand?

□ Are maps located at key decision points at your site, and are they well lit?

□ Do you need more than one map of your site for different users?

Specifying signs

6.24 One way of minimising the time spent maintaining a wayfinding system is to ensure you have a detailed specification for all key elements of the system.

A specification sheet can be used to brief a sign manufacturer for new signs, or when existing signs need changing or relocating.

The key issues to consider when specifying signs are shown here.

Sign reference *(number or letter):*

Sign location *(describe or mark on map):*

Text on sign:

Sign type:

□ directional □ locational □ directory □ map

Sign fixing:

□ wall-mounted □ on posts □ ceiling-suspended

□ screw fixed □ adhesive fixed □ other:

Size of sign:

___ cm width ___cm height ___cm depth ___mm height from ground

Typeface

Typeface name:

□ bold □ regular □ other:

□ both upper and lower case □ all upper □ all lower

Alignment of text

□ all left □ all right □ other:

Type size

Main text: x-height ___ mm ***Secondary text:*** x-height ___ mm

Colours

Background colour(s): Text colour(s):

Post/pole colour:

□ site logo – colours: □ colour coding

Printing method

□ applied vinyl □ screen printed □ other:

□ printed both sides □ printed one side

□ non reflective □ reflective text □ reflective sign

Construction method and material

□ slat system □ flat sheet □ cut-out letters □ other:

Symbols – describe and attach a drawing to this page

Layout of sign – *attach a drawing of the layout to this page*

Illumination

□ internally lit □ external lighting □ lighting sufficient

Appendices

Appendix 1: Books and research papers about wayfinding

Research report (IDU 98)

Miller C and Lewis D (1998). **Key findings and guidelines: NHS Estates wayfinding research project.** Information Design Unit Ltd, Newport Pagnell, UK.

Books

Arthur P and Passini R (1992). **Wayfinding: People, signs, and architecture.** McGraw-Hill, New York.

Barker P, Barrick J and Wilson R (1995). **Building Sight.** TSO in association with Royal National Institute for the Blind (RNIB), London, UK.

Barker P and Fraser J (2000). **Sign Design Guide – a guide to inclusive signage.** JMU Access Partnership and Sign Design Society, UK.

Better by design – Pursuit of excellence in healthcare buildings. (1994) TSO.

Carpman J and Grant MA (1998). **Design that cares: Planning health facilities for patients and visitors. American Hospital Association, Chicago**.

Dalke H, Littlefair PJ and Loe DL (2004**). Lighting and colour for hospital design – a report on an NHS Estates-funded research project**. The Stationery Office.

Evans GW (1982). **Environmental Stress**. Cambridge University Press, New York.

Lynch K (1960). **The image of the city**. MIT Press, Cambridge, Mass.

Karatza M (1995). **The use of colours in the environment for the elderly.** Akontes Publishing, Knegsel, The Netherlands.

Regnier V and Pynoos J (Eds) (1987). **Housing the Aged: design directives and policy considerations.** Elsevier, New York *(out of print).*

Bright K, Joint Mobility Unit and ICI Paints. **A design guide to colour and contrast to improve the built environment for visually impaired people.** Available from the Royal National Institute for the Blind (RNIB), London, UK.

Zwaga H, Boersema T and Hoonhout H (Eds) (1999). **Visual information for everyday use.** Taylor and Francis Ltd, London, UK.

British Standards

BS 5378: 1980. Safety signs and colours. Part 2: *Specification for colorimetric and photometric properties of materials*

BS 5499: 1990. Fire safety signs, notices and graphic symbols. Part 1: *Specification for fire safety signs* Part 2: *Specification for self-luminous fire safety signs* Part 3: *Specification for internally-illuminated fire safety signs*

BS 5499-5: 2002. Graphical symbols and signs. Safety signs, including fire safety signs. Signs with specific safety meanings

BS 8501: 2002. Graphical symbols and signs. Public information symbols

Note: British Standards can be obtained from BSI Customer Services, 389 Chiswick High Road, London, W4 4AL, or on the web at http://bsonline.techindex.co.uk

Over a hundred books, articles and research papers were reviewed as part of the research on which this book is based. A selection of the references is included here for further reading about wayfinding.

Research papers

Brugger C (1994). **Public information symbols: a comparison of ISO testing procedures.** Public Graphics Conference Proceedings, Luntern, The Netherlands.

Butler DL et al (1993). **Wayfinding by newcomers in complex buildings.** Human Factors 35(1): pp 159–173.

Dewar R (1994). **Design and evaluation of graphic symbols.** Public Graphics Conference Proceedings, Luntern, The Netherlands.

Foster JJ (1990). **Standardizing public information symbols: proposals for a simpler procedure**. Information Design Journal 6(2): pp 161–168.

Gärling T, Böök A et al (1986). **Spatial orientation and wayfinding in the designed environment.** Journal of Architectural and Planning Research 3: pp 55–64.

Hiatt LG (1987). **Designing for the vision and hearing impairments of the elderly**. In *Housing the Aged: design directives and policy considerations*, Regnier V and Pynoos J (Eds). Elsevier, New York.

Levine M (1982). **You-are-here maps: Psychological considerations.** Environment and Behaviour (14): pp 221–237.

Levine M, Marchon I et al (1984). **The placement and misplacement of you-are-here maps**. Environment and Behaviour 16(2): pp 139–159.

Makett-Stout J and Dewar R (1981). **Evaluation of Symbolic Public Information Signs.** Human Factors 23(2): pp 139–151.

NHS Estates (1994). **Better by Design: Pursuit of excellence in healthcare buildings.** HMSO, London, UK.

O'Neill MJ (1991). **Effects of signage and floor plan configuration on wayfinding accuracy.** Environment and Behaviour 23(5): pp 553–574.

O'Neill MJ (1991). **Evaluation of a conceptual model of architectural legibility.** Environment and Behaviour 23(3): pp 259–284.

Peponis J, Zimring C et al (1990). **Finding the building in wayfinding**. Environment and Behaviour 22: pp 555–590.

Simlinger P (1980). **Designing public information symbols.** Information Design Journal 1: pp 182–190.

Weisman GD (1981). **Evaluating architectural legibility: wayfinding in the built environment.** Environment and Behaviour 13: pp 189–203.

Weisman GD (1987). **Improving wayfinding and architectural legibility in housing for the elderly.** In *Housing the Aged: design directives and policy considerations*, Regnier V and Pynoos J (Eds), pp 399–440.

Zimring CM (1981). **Stress and the designed environment**. Journal of Social Issues (37): pp 145–171.

Zimring C and Templer J (1994). **Wayfinding and orientation by the visually impaired**. Journal of Environmental Systems 13(3): pp 333–353.

Zwaga H (1989). **Comprehensibility estimates of public information symbols; their validity and use.** Human Factors Society 33rd Annual Meeting.

Zwaga H and Easterby R (1984). **Developing effective symbols for public information.** In *Information Design*, Easterby R and Zwaga H (Eds), pp 277–297. John Wiley, UK – out of print.

Appendix 2: Survey Sites

The Information Design Unit of Enterprise IG Ltd would like to thank the following sites for their help with the research that formed the basis for this book

Wayfinding Research Project

Our research involved initially studying 12 healthcare and eight non- healthcare sites, selected to represent different wayfinding problems and solutions. A further seven healthcare sites were surveyed at a later date to look specifically at internal wayfinding issues and examples of new signing systems.

Healthcare survey sites

The healthcare sites were all hospitals, in both urban and rural settings, and ranged from the small (11 acres with 190 beds) to the large (over 35 acres with 1300 beds):

Airedale Hospital, Steeton, West Yorkshire

Birmingham Children's Hospital, Birmingham

Brighton General Hospital, Brighton

Burnley General Hospital, Lancashire

University Hospital of Wales, Cardiff

Frimley Park Hospital, Surrey

Furness General Hospital, Cumbria

The Horton General Hospital, Banbury

John Radcliffe and The Churchill Hospitals, Oxford

Northampton General Hospital, Northampton

Papworth Hospital, Cambridgeshire

Poole Hospital, Dorset

Queen Elizabeth Hospital, Birmingham

Queen Elizabeth II Hospital, Welwyn Garden City

Selly Oak Hospital, Birmingham

St James's University Hospital, Leeds

St Thomas' Hospital, London

Treliske Hospital, Cornwall

Walsgrave Hospital, Coventry

Non-healthcare survey sites

- three international transport terminals – airport, railway station, coach station
- two large arts centres
- one large events and conference centre
- two large shopping centres.

We surveyed these non-healthcare sites because we anticipated they would have some similar wayfinding problems to healthcare sites, but would have solved them using more expensive, consistent wayfinding aids. This expectation was confirmed to some extent, but wayfinding was not always found to be easy despite the presence of consistently designed signs.

The Barbican, London

The Metro Centre, Gateshead

NEC, Birmingham

Queensgate Shopping Centre, Peterborough

Royal Festival Hall, London

Schipol Airport, Amsterdam

Victoria Coach Station, London

Waterloo Rail Station, London

Over 1000 questionnaires

As well as reviewing each site, we carried out questionnaire surveys of 885 patients and visitors, to probe how they found getting around the site and the wayfinding aids they used to help them. We also surveyed 247 staff, to collect their views on the wayfinding systems at their sites, and how they saw patients and visitors reacting to them. This book can therefore to some extent be seen as an evidence-based approach to wayfinding.

Appendix 3: Expert Panel

Expert opinions and advice

The research also drew on the advice of an expert panel of 22 people with wide-ranging experience in wayfinding, including academics, designers, sign manufacturers, architects, and people involved in NHSScotland management. The expert panel provided valuable input, but the opinions expressed in this book are those of the authors.

We would especially like to thank the following people who provided detailed comments and additional information:

- Gerry Coles Northampton General Hospital *(Estates Manager)*
- Jan Ivan-Duke Millennium Management (Access and Special Needs Co-ordinator)
- Frank Landa DaimlerChrysler Aerospace *(Information Systems Manager)*
- Mark Rose Joint Mobility Unit *(Sign Consultant)*
- Piet Venemans EST (Wayfinding Consultancy), The Netherlands *(Consultant)*
- Dr Karel van der Waarde Van der Waarde Graphic Design-Research, Belgium *(Consultant)*
- Dr Harm Zwaga Psychonomics Dept, Utrecht University, The Netherlands *(Research Officer)*

We would also like to thank the following people:

- Lance Bohl The Foundry (Graphic Design Consultant)
- Richard Dragun BDP Design (Head of Graphics)
- June Fraser Fraser/Cull Design (Design Consultant)
- Rosemary Glanville South Bank University (Head of Medical Architecture Research Unit)
- Barry Gray Railtrack Architecture & Design (Design and Signing Manager)
- Dr John R Hayes Carnegie Mellon University, USA (Professor of Psychology)
- Paul Hazell University College Worcester (Senior Lecturer)
- John Haworth Powell Moya Partnership (Managing Director – architect)
- Dr Michael J O'Neill Herman Miller Inc, USA (Director of Knowledge Management)
- Mark Shaw-Smith Modulex Worldwide (General Manager – architect)

- Prof. David Sless Communication Research Institute of Australia *(Research Director)*
- John Wells-Thorpe South Downs Health NHS Trust *(Chairman)*
- Ian Wright The Jenkins Group *(Design Director)*
- Prof. Patricia Wright School of Psychology, Cardiff University

Appendix 4: Useful addresses

Royal National Institute for the Blind (RNIB)

105 Judd Street London WC1H 9NE tel: 020 7388 1266 http://www.rnib.org

Joint Mobility Unit (JMU)

105 Judd Street London WC1H 9NE tel: 0207 391 2002
http://www.jmuaccess.org.uk

Sign Design Society Limited

66 Derwent Road Kinsbourne Green Harpenden Hertfordshire AL5 3NX tel: 01582 713556 http://www.signdesignsociety.co.uk

The SDS meets every two months in London to discuss signing and wayfinding issues. They produce a publication called 'Directions'.

Royal National Institute for Deaf People (RNID)

19–23 Featherstone Street London EC1Y 8SL tel: 0808 808 0123 textphone: 0808 808 9000 http://www.rnid.org.uk

The British Sign & Graphics Association (BSGA)

5 Orton Enterprise Centre Orton Southgate Peterborough PE2 6XU tel: 01733 230033 http://www.bsga.co.uk

The BSA produce a publication called 'Sign Directions'.

The Information Design Unit of Enterprise IG (IDU)

Old Chantry Court 79 High Street Newport Pagnell Buckinghamshire MK16 8AB tel: 01908 210060 http://www.enterpriseidu.com

IDU advise hospitals on wayfinding and sign design issues, and run courses for the NHSScotland and other organisations on wayfinding.

Acknowledgements

The original Wayfinding document produced by NHS Estates has been reviewed in conjunction with Fair For All – Disability organisation. Findings from a series of questionnaires, workshops and consultations have, where appropriate and applicable, been considered and incorporated within this guidance. A wide range of user groups have been included in this process and we would like to thank the following organisations for their valuable time and input: Badenoch and Strathspey Access Panel, Diabetes UK, Dumfries and Galloway Disability Access Panel, Fife Society for the Blind, Grampian Society for the Blind, Perth and Kinross Access Panel, Renfrewshire Access Panel and Scottish Dementia Working Group.