

Wayfinding

2nd edition 2005

STATUS IN WALES

Applies

When followed in conjunction with relevant policy documents and regulatory requirements

The following should be borne in mind when applying this guidance:

- NHS Wales comes under the Welsh Government's Welsh Language Act and there are measures that set out what is required in terms of signage.
- All Health Boards and Trusts in Wales have Welsh Language Schemes that refer to signage and the bilingual requirements and this often comes under Corporate Identity.
- Signage in all areas need to be bilingual with Welsh situated first and both Welsh and English equal in terms of size, equality, legibility and prominence.
- Hospital Patient Environment (HPE) assessments take place in Wales to report on the patient environment rather than PEAT inspections in England.
- Wales Shared Services Partnership – Procurement Services advises on the purchase of signage for NHS Wales.
- NHS Wales Shared Services Partnership – Specialist Estates Services advises on facilities management for NHS Wales.
- Read more on the Welsh Language Standards below.

The Welsh Language Measure of 2011 (WLWM 2011)

The [Welsh Language \(Wales\) Measure 2011](#) (WLWM 2011) modernised the existing legal framework regarding the use of the Welsh language in the delivery of public services.

It includes provision about the official status of the Welsh language and establishes the office of [Welsh Language Commissioner](#) which has replaced the Welsh Language Board.

The Commissioner's principal aim is to promote and facilitate the use of the Welsh language and, amongst other things, he or she is to work towards ensuring that the Welsh language is treated no less favourably than the English language. The Commissioner also has the power to investigate alleged interferences with individuals' freedom to use Welsh in certain circumstances. The Commissioner is supported by an advisory panel.

WLWM 2011 makes provision for the development and delivery of standards of conduct relating to the Welsh language which have replaced the previous system of Welsh Language schemes provided by the Welsh Language Act of 1993.

Organisations named or who fall within a category listed in WLWM 2011 are required to comply with the legislation which are set out within the standards. The Welsh Ministers have set out a range of standards that an organisation must comply with in the regulations. Which standards an organisation has to comply with are set out in the organisation's individual Compliance Notice, which is issued by the Welsh Language Commissioner. The Compliance notice also sets by when the organisation must comply.

All NHS Organisations within Wales have been served with a Compliance Notice on the 30th of November 2019, and as of the 30th of May 2019 every Health Board and Trust and associated NHS Organisations are required to comply with the standards. Third party contractors are also required to ensure that they are compliant with the Welsh Language Standards.

Welsh Language Standards

With regards to Wayfinding specifically, the Welsh Language Standards clearly state that signage in public or internal operational areas where staff have access must be in Welsh and English at all times, whether the signage is permanent or temporary.

Signage in public spaces/areas

Service Delivery Standard 47

When you:

- a) erect a new sign or renew a sign (including temporary signs); or
- b) publish or display a notice;

any text displayed on the sign or notice must be displayed in Welsh (whether on the same sign or notice as you display corresponding English language text or on a separate sign or notice); and if the same text is displayed in Welsh and English, you must not treat the Welsh language text less favourably than the English language text.

Service Delivery Standard 48

When you:

- a) erect a new sign or renew a sign (including temporary sign); or
- b) publish or display a notice;

which conveys the same information in Welsh and in English, the Welsh language text must be positioned so that it is likely to be read first.

Service Delivery Standard 49

You must ensure that the Welsh language text on signs and notices is accurate in terms of meaning and expression.

It is therefore advised that machine translate such as Google Translate, Bing Translate and other similar machine translate services are not used for the purpose of translating signage it is recommended that any third party contractor on the all Wales Framework for Specialist Estates Services use repeatable translators through the Society of Welsh Translators: www.cyfieithwyr.cymru/en/ the cost of translation is approximately 0.05pence/0.06pence per word. Contractors should include the price when bidding within the Invitation to Tender.

Signage in staffed/operational spaces/areas

Operational Standard 111

When you:

- a) erect a new sign or renew a sign in your workplace (including temporary signs); or
- b) publish or display a notice in your workplace any text displayed on the sign or notice must be displayed in Welsh (whether on the same sign or notice as the corresponding English language text or on a separate sign or notice), and if the same text is displayed in Welsh and English you must not treat the Welsh language text less favourably than the English language text.

Operational Standard 112

When you:

- a) erect a new sign or renew a sign in your workplace (including temporary signs); or
 - b) publish or display a notice in your workplace;
- which conveys the same information in Welsh and English, the Welsh language text must be positioned so that it is likely to be read first.

Operational Standard 113

You must ensure that the Welsh language text on signs and notices displayed in your workplace is accurate in terms of meaning and expression.

It is therefore advised that machine translate such as Google Translate, Bing Translate and other similar machine translate services are not used for the purpose of translating signage it is recommended that any third party contractor on

the all Wales Framework for Specialist Estates Services use repeatable translators through the Society of Welsh Translators: www.cyfieithwyr.cymru/en/ the cost of translation is approximately 0.05pence/0.06pence per word. Contractors should include the price when bidding within the Invitation to Tender.

Announcements and/or recorded messages over a public address system
(including announcements in lifts) in public spaces/areas

Service Delivery Standard 64

When you announce a recorded message over a public address system, you must make that announcement in Welsh, and if the announcement is made in Welsh and in English the announcement must be made in Welsh first.

Announcements and/or recorded messages over a public address system
(including announcements in lifts) in staffed/operational areas

Operational Standard 114

When you make a recorded announcement in the workplace using audio equipment, that announcement must be made in Welsh, and if the announcement is made in Welsh and English, the announcement must be made in Welsh first.

Useful Welsh translations

English	Welsh
Accessible	Hygyrch
Accident and Emergency	Damweiniau ac Achosion Brys
Ambulances	Ambiwlansys
Audiology	Awdioleg
Blood tests	Profion Gwaed
Blue Badge Permit Holders Parking Only	Parcio i Ddeiliaid Trwyddedau Bathodyn Glas yn Unig
Breast Screening / Mammography	Sgrinio'r Fron / Mamograffeg
Cafe	Caffi
Cardiology	Cardioleg
Car park 1 and 2	Maes Parcio 1 a 2
Car Park / Site Map	Maes Parcio / Map o'r Safle
Chapel	Capel
Chest Clinic	Clinig y Frest
Children's Unit	Uned Plant
Clinic	Clinig
Control centre	Canolfan reoli
Day Case Unit	Uned Achosion Dydd
Day Surgery	Meddygfa Dydd
Deliveries / Boiler House	Man derbyn nwyddau / Boelerdy
Dental Clinic	Clinig Deintyddol
Departments	Adrannau
Dermatology	Dermatoleg
Ear Nose & Throat (ENT)	Clust, Trwyn a Gwddf (ENT)
Electrocardiography (ECG)	Electrocardiograffeg (ECG)
Entrances	Mynedfeydd
Entrance	Mynedfa
Main Entrance	Prif Fynedfa
Enquiries	Ymholiadau
Exit	Allanfa
Eye Clinic	Clinig Llygaid
Family Planning	Cynllunio Teulu
Fire action 1 Break glass of nearest alarm 2 Close doors and windows 3 Move everyone to a place of safety	Os bydd tân 1 Torrwch wydr y larwm agosaf 2 Caewch y drysau a'r ffenestri 3 Symudwch bawb i fan diogel
Fire door keep shut	Drws tân Cadwch ar gau
Fire escape keep clear	Dihangfa dân Cadwch yn glir
Fire exit	Allanfa Dân
Foam inlet	Ewyn Diffodd Tân
Foot Clinic	Clinig Traed
Fracture Clinic	Clinig Toriadau Esgyrn
General hospital	Ysbyty cyffredinol
General Surgery	Llawdriniaeth Gyffredinol
Ground	Llawr
Gynaecologist	Gynaecolegydd
Information	Gwybodaeth
Intensive care unit	Uned gofal dwys

Level	Lefel
Lifts	Lifft
Lower Ground	Llawr Gwaelod
Main Entrance / Entrance	Prif Fynedfa / Mynedfa
Main Hospital	Prif Ysbyty
Major accidents	Damweiniau Mawr
Maternity / Antenatal clinic	Clinig Mamolaeth / Cyn Geni
Morrison Hospital Entrance Access to visitors' car parks	Mynediad i Feysydd Parcio i Ymwelwyr Ysbyty Treforys
Ophthalmologist	Offthalmolegydd
Ophthalmology	Offthalmoleg
Orthodontics	Orthodonteg
Oncology	Oncoleg
Orthopaedics	Orthopaedeg
Orthoptics	Orthopteg
Out-patients	Cleifion Allanol
Patients	Cleifion
Pharmacy	Fferylliaeth
Physiotherapy	Ffisiotherapi
Podiatry	Podiatreg
Police	Heddlu
Press	Gwasgwch
Public Parking	Parcio i'r Cyhoedd
Radiotherapy	Radiotherapi
Rehabilitation Unit	Uned Adsefydlu
Reception	Derbynfa
Relatives and friends	Perthnasau a ffrindiau
Restaurant	Bwyty
Renal Unit	Uned Arennol
Speech Therapy	Therapi Lleferydd
Staff Parking	Parcio i Staff
Stairs	Grisiau
Telephone	Ffôn
Toilet / Toilets	Toiled / Toiledau
Ward /Wards	Ward / Wardiau
Waverley Centre	Canolfan Waverley
Way Out	Ffordd Allan
Welcome to Llandough Hospital	Croeso i Ysbyty Llandochau
Women's Hospital	Ysbyty i Fenywod
X-ray / Radiology	Pelydr-X / Radioleg
You are now on Floor 1	Rydych chi nawr ar Lawr 1
Ysbyty Aneurin Bevan Hospital	Ysbyty Aneurin Bevan
Ysbyty Aneurin Bevan Hospital, Lime Avenue, Ebbw Vale	Ysbyty Aneurin Bevan, Rhodfa Calch, Glynebwy
Ysbyty Glan Clwyd North Entrance	Mynedfa'r Gogledd Ysbyty Glan Clwyd
You are now on Floor 1	Rydych chi nawr ar Lawr 1

A to Z of hospital departments

English	Welsh
Accident and Emergency (A&E)	Damweiniau ac Achosion Brys (A&E)
Allergy services	Gwasanaethau alergedd
Anaesthetics	Anaestheteg
Breast screening	Sgrinio'r fron
Cardiology	Cardioleg
Chaplaincy	Caplaniaeth
Children's & Adolescent Services	Gwasanaethau Plant a Phobl Ifanc
Critical care	Gofal critigol
Dentistry and Orthodontics	Deintyddiaeth ac Orthodonteg
Dermatology	Dermatoleg
Diabetic Clinic	Clinig Diabetig
Diagnostic imaging	Delweddu diagnostig
Dietetics	Deieteg
Discharge lounge	Lolfa Ryddhau
Ear nose and throat (ENT)	Clust, trwyn a gwddf (ENT)
Elderly services department	Adran Gwasanaethau i'r Henoed
Emergency Department	Adran Achosion Brys
Endocrinology and Metabolic Medicine	Endocrinoleg a Meddygaeth Fetabolaidd
Gastroenterology	Gastroenteroleg
General surgery	Llawdriniaeth gyffredinol
Genito-urinary medicine	Meddygaeth genhedlol-wrinol
Geriatric Medicine	Meddygaeth Geriatrig
Gynaecology	Gynaecoleg
Haematology	Haematoleg
Infectious Diseases	Clefydau Heintus
Interventional Radiology	Radioleg Ymyriadol
Maternity departments	Adrannau mamolaeth
Microbiology	Microbioleg
Mental Health Adults	Iechyd Meddwl Oedolion
Mental Health Child and Adolescent	Iechyd Meddwl Plant a'r Glasoed
Neonatal unit	Uned babanod newydd-anedig
Nephrology	Arenneg
Neurology	Niwroleg
Nutrition and dietetics	Maetheg a Deieteg
Obstetrics and gynaecology units	Unedau obstetreg a gynaecoleg
Occupational therapy	Therapi galwedigaethol
Oncology	Oncoleg
Ophthalmology	Offthalmoleg
Orthopaedics	Orthopaedeg
Orthotics and Prosthetics	Orthoteg a Phrostheteg
Outpatients	Cleifion allanol
Palliative Medicine	Meddygaeth Liniarol
Pain management clinics	Clinigau rheoli poen
Pharmacy	Fferyllfa
Physiotherapy	Ffisiotherapi
Podiatry	Podiatreg
Radiotherapy	Radiotherapi
Renal unit	Uned Arennol

Respiratory Medicine	Meddygaeth Anadlol
Rheumatology	Rheumatoleg
Sexual health (genitourinary medicine)	Iechyd rhywiol (meddygaeth genhedlol-wrinol)
Stroke Rehabilitation Unit	Uned Adsefydlu Strôc
Urology	Wroleg
Vascular	Fasgwlaidd

MRI Safety Signs

Safety must be of paramount importance in MRI departments. The hazards present with MRI can quickly cause death or serious injury if not properly managed. To minimise risk, the MHRA recommends that MRI departments have control of access of personnel and equipment to the MR environment by having an MR Controlled Access Area and that suitable safety signage is in place.

Welsh and English signs are available for download [here](#).



Wayfinding

supersedes HTM 65 'Signs'



Wayfinding

**EFFECTIVE WAYFINDING
AND SIGNING SYSTEMS**

GUIDANCE FOR HEALTHCARE FACILITIES

(supersedes HTM 65 'Signs')

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efm-standards



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Executive summary

The focus of this document is 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 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.

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 NHS corporate identity for wayfinding are discussed, and the guidelines support this initiative.

Acknowledgements

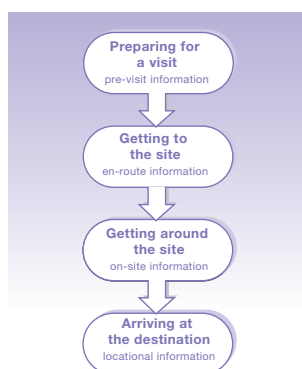
We would like to thank all the healthcare and non-healthcare facilities that allowed us to survey their wayfinding systems as part of the research on which this document is based.

We would also like to thank all the members of the expert panel who contributed to our research, and Alison Sherlock who assisted in the production of this document.

And finally, we would like to thank The Information Design Unit of Enterprise IG not only for the extensive research which is the foundation of this document, but for the writing and design as well.

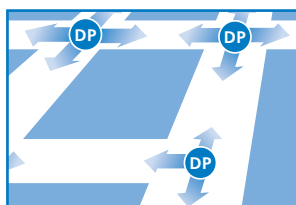
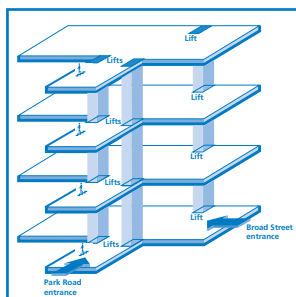
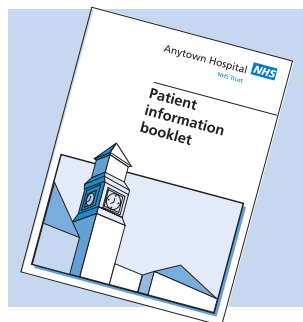
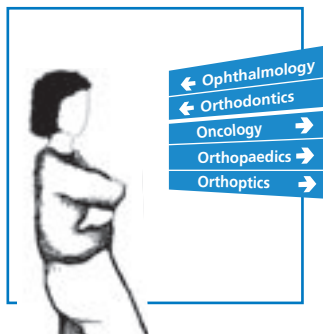
0 Introduction

- 0.1 Guidance from the NHS 10
- 0.2 The focus of this document 10
- 0.3 Wayfinding is not just signs 11
- 0.4 Wayfinding systems for all users 11
- 0.5 The NHS corporate identity project 11
- 0.6 Research-based approach to wayfinding 12



1 What is wayfinding?

- 1.1 How people find their way 14
 - 1.1.1 Wayfinding is a problem-solving process 14
 - 1.1.2 A typical journey 15
- 1.2 Factors that affect wayfinding 16
 - 1.2.1 People factors 16
 - 1.2.2 Environmental factors 16
 - 1.2.3 Information factors 17
- 1.3 Wayfinding is a multi-sensory task 18
 - 1.3.1 The four senses used for wayfinding 18
- 1.4 Wayfinding with impairments 19
 - 1.4.1 Inclusive design for wayfinding systems 19
 - 1.4.2 People with visual impairments 19
 - 1.4.3 People who are deaf or hearing impaired 20
 - Best practice guidelines 21*
- 1.5 The impact of a poor wayfinding system 22
 - 1.5.1 Stress and resentment of patients and visitors 22
 - 1.5.2 Inefficient and ineffective use of staff time 22
 - 1.5.3 Inaccessibility for people with disabilities 22
 - 1.5.4 Comments and case studies 23
- 1.6 Stages of a wayfinding project 24
- 1.7 Building a wayfinding business case 25



2 Developing an effective wayfinding system

2.1 Developing a wayfinding strategy 28

- 2.1.1 What is a wayfinding strategy? 28
- 2.1.2 Wayfinding as a multi-disciplinary task 29
- 2.1.3 Considering site users 30
- 2.1.4 Considering wayfinding information 31
- 2.1.5 Considering your site layout 32
- 2.1.6 Simplifying your site layout 34
- 2.1.7 Considering colour-coding 36
- 2.1.8 Agreeing terminology, abbreviations and multiple languages 38

2.2 Developing effective pre-visit information 41

- 2.2.1 Appointment letters 42
- 2.2.2 Maps sent with appointment letters 44
- 2.2.3 Spoken directions 46
- 2.2.4 Written directions 48

2.3 Getting to the site 51

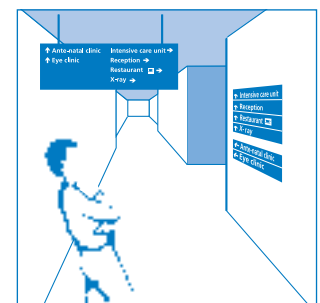
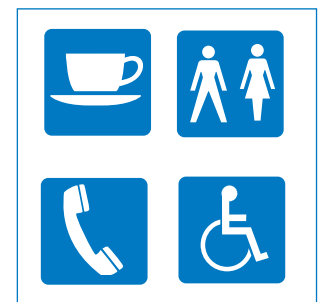
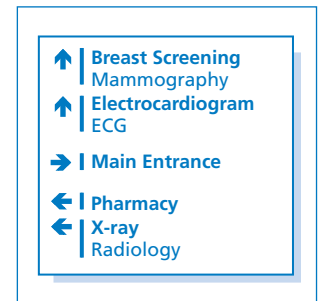
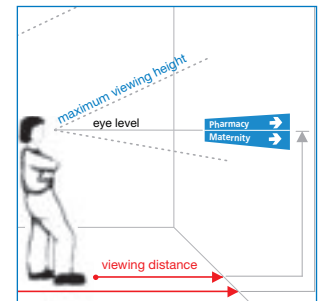
- 2.3.1 By foot 52
- 2.3.2 By public transport or by taxi 53
- 2.3.3 By car 54
- 2.3.4 Identifying and recognising your site 56
- 2.3.5 Identifying site entrances 58

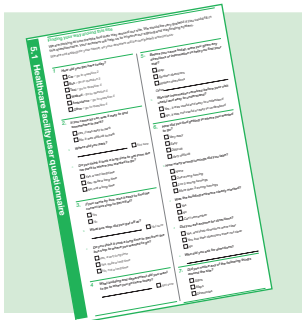
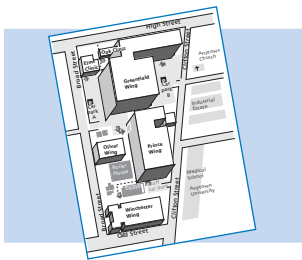
2.4 Getting around the site 61

- 2.4.1 Finding a public car park or drop-off point 62
- 2.4.2 Finding the correct building and entrance 64
- 2.4.3 Using landmarks and site features 66
- 2.4.4 Following circulation routes and pathways 68
- 2.4.5 Identifying the destination 70

3 Developing effective signs – general considerations

- 3.1 Typeface and type style 72
- 3.2 Type size 74
- 3.3 Text layout and grouping 76
- 3.4 Text and arrow alignment 78
- 3.5 Emphasising information 80
- 3.6 Multiple-language and dual-term signs 82
- 3.7 Symbols 84
- 3.8 Use of colour 86
- 3.9 Positioning of signs 88
- 3.10 Methods of sign construction 90
- 3.11 Illuminating signs 92





4 Developing effective signs – special considerations

- 4.1 Directional signs 96
- 4.2 Locational signs 98
- 4.3 Directories 100
- 4.4 Site maps 102
- 4.5 Safety signs 104

5 Tools

- 5.1 Healthcare facility user questionnaire 108
 - 5.1.1 Tally sheet 110
 - 5.1.2 Analysis of results 112
- 5.2 Testing graphic elements 115
 - 5.2.1 Using this graphic element testing tool 116
- 5.3 Site survey tool 119
- 5.4 Auditing your site checklist 123
- 5.5 Specifying signs 131

Appendices

- Appendix 1 Books and research papers about wayfinding 135
- Appendix 2 Survey sites 137
- Appendix 3 Expert panel 139
- Appendix 4 Useful addresses 141

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.

About this section

This section outlines the aims of this document and the research it is based on.

-
- 0.1 [Guidance from the NHS](#)

 - 0.2 [The focus of this document](#)

 - 0.3 [Wayfinding is not just signs](#)

 - 0.4 [Wayfinding systems for all users](#)

 - 0.5 [The NHS corporate identity project](#)

 - 0.6 [Research-based approach to wayfinding](#)

0.1 Guidance from the NHS

HTM 65 'Signs'

Some readers of this document will be familiar with the 1984 edition of HTM 65 'Signs', which this publication replaces. That book was published for a centrally controlled NHS and so the book was prescriptive, outlining the single system for hospital signing which was to be used at all NHS 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. [▶ 0.3](#)

Changes in the NHS

When NHS trusts were created in 1991, many took the opportunity to upgrade or develop new signs, as part of the implementation of their new trust corporate identity and logo.

At some sites these changes led to improvements, but not everywhere. The NHS has now moved towards a consistent visual identity again, to build a sense of one national modern health service, and there is now a single NHS corporate identity that should be used on all external signs. [▶ 0.5](#)

With the Private Finance Initiative (PFI) new builds, visual identity remains an important issue. The healthcare facilities, though they may be managed by a private company, are still NHS buildings, and the exterior signs need to reflect this. Similarly, the new Foundation Trusts should also use the NHS logo.

Wayfinding

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 trust, 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 NHS users, downloaded from the Knowledge and Information Portal) and used to evaluate your site.

The Knowledge and Information Portal (KIP)

NHS staff are able to download NHS Estates 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>.

0.2 The focus of this document

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

The book 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

It is important to develop a wayfinding strategy for your site, and this is discussed in [section 2.1](#). 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 3 and 4](#).

0.3 Wayfinding is not just signs

This document takes a rather broader perspective on helping people find their way round healthcare sites than the earlier HTM 65 'Signs'.

It is only by paying attention to the many factors that affect wayfinding (discussed in 1.2), rather than just focusing on signs, that it is possible to understand what is going on when people move around your site, and to do something to influence, or even better control, people's behaviour.

What is wayfinding?

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

Section 1 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](#).

0.4 Wayfinding systems for all users

Disability Discrimination Act (DDA)

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. ▶ 1.4

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'*.

0.5 The NHS corporate identity project

The National Health Service (NHS) has a strong identity – the NHS 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 NHS brand can help to reassure and guide healthcare premises users and the public, especially by signposting access to NHS services.

It is therefore important that the NHS brand is represented consistently and prominently on all main signage for all NHS organisations. Specific guidelines giving direction on how to apply the NHS corporate identity to main signage have been developed to ensure that your signs have clarity and impact. They can be accessed via the NHS identity website at <http://www.nhsidentity.nhs.uk/> and further advice is available from the NHS Identity Helpline on 020 7972 5261.

Key elements of the NHS identity

- The NHS logo



Available on disk
from the NHS
Identity Helpline
on 020 7972 5261

- The NHS blue: Pantone 300
- The NHS typeface: **Frutiger**

Standard NHS identity signs

For more information on sign standards, visit:

<http://www.nhsidentity.nhs.uk/signage/>

0.6 Research-based approach to wayfinding

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

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

A list of the healthcare sites involved in this research is included in [Appendix 2](#).

Non-healthcare survey sites

A list of the non-healthcare sites involved in this research is included in [Appendix 2](#).

Expert opinions and advice

The members of the expert panel are listed in [Appendix 3](#).

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.

About this section

This section introduces “wayfinding”, and outlines how people find their way and what factors affect their ability to complete a journey successfully.

By reading through this section first, you will gain an understanding of how people find their way, before you begin evaluating or developing your own wayfinding system.

1.1 How people find their way

- 1.1.1 Wayfinding is a problem-solving process
- 1.1.2 A typical journey

1.2 Factors that affect wayfinding

- 1.2.1 People factors
- 1.2.2 Environmental factors
- 1.2.3 Information factors

1.3 Wayfinding is a multi-sensory task

- 1.3.1 The four senses used for wayfinding

1.4 Wayfinding with impairments

- 1.4.1 Inclusive design for wayfinding systems
- 1.4.2 People with visual impairments
- 1.4.3 People who are deaf or hearing impaired

1.5 The impact of a poor wayfinding system

- 1.5.1 Stress and resentment of patients and visitors
- 1.5.2 Inefficient and ineffective use of staff time
- 1.5.3 Inaccessibility for people with disabilities
- 1.5.4 Comments and case studies

1.6 Stages of a wayfinding project

1.7 Building a wayfinding business case

1.1

How people find their way

Many factors affect how people orientate themselves and find their way, but wayfinding is essentially a series of interrelated decisions influenced by personal and environmental factors and also the availability and understandability of information.

1.1.1 Wayfinding is a problem-solving process

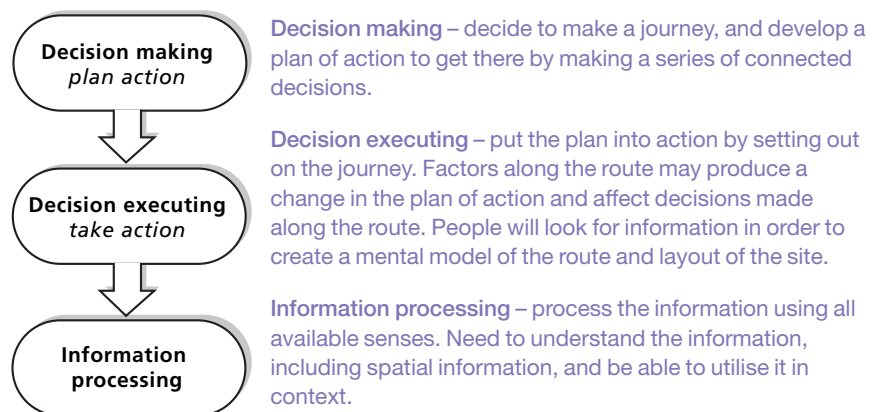
People make a series of decisions when wayfinding. The first is the decision to make a journey to a particular destination; the second and third are how they are going to get there (by car, bus, taxi, etc), and the route they will take. The subsequent decisions are based on a variety of factors relating 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:



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.

▶ 4.4

Providing information, such as a schematic plan or map of the site, enables people to create a simple mental image. ▶ 2.2.2

“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”

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

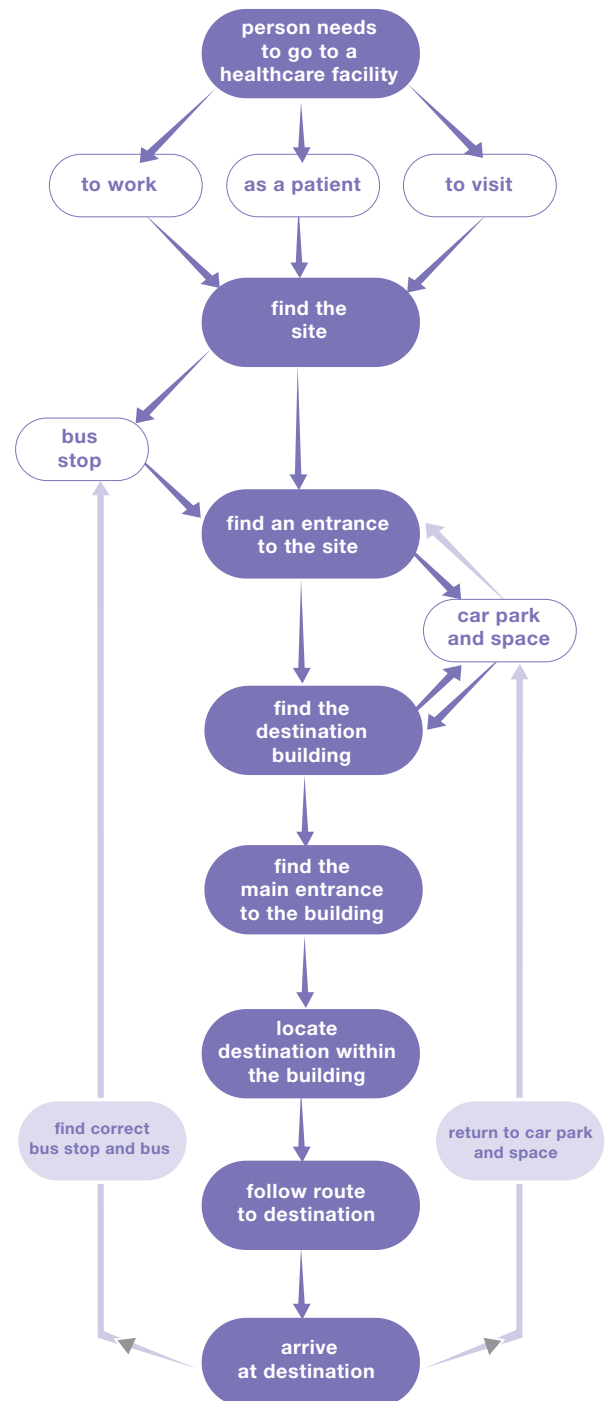
Information processing is more difficult when there are a lot of elements which are not relevant. This can lead to information overload, when people reduce their intake of information so they can cope. They then become unable to see the information they require even if they are looking at it.

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.

1.1.2 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 the diagram below.

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



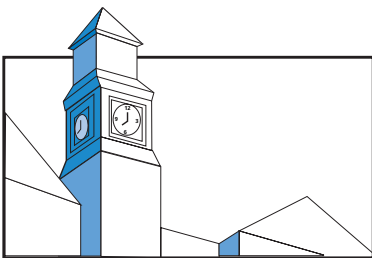
1.2

Factors that affect wayfinding

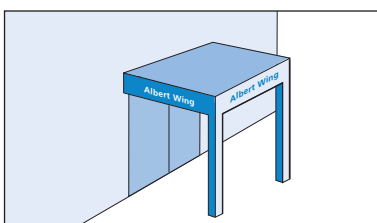
A large number of factors influence how easily people find their way. They can be loosely grouped into three different types – people factors, environmental factors and information factors.

All these factors can affect people's ability to find their way to their destination, and equally importantly, to know they have arrived.

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



...and identifiable building entrances



1.2.1 People factors

The knowledge, experience and ability of the person making a journey affect what decisions they will make and how easily they will probably 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 ▶ 2.3
- sensory acuity, particularly visual and hearing acuity ▶ 1.3.1
- 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 ▶ 4.4
- ability to hear and remember spoken directions ▶ 2.2.3
- sense of direction and ability to create an effective mental model of the site layout ▶ 1.1.1
- preconceived image of the site, and how far this correlates with the actual environment and the wayfinding aids located in it.

1.2.2 Environmental factors

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 ▶ 2.1.5
- recognisability and memorability of the site, routes and buildings from a previous visit ▶ 2.3.4
- identifiability of the site entrance from all directions of approach ▶ 2.3.5
- 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 ▶ 1.1.1
- difference in areas and buildings at the site – in the architectural style, colour, size etc ▶ 2.4.2
- identifiability of building entrances ▶ 2.4.2
- visibility of an information desk on entering the building
- number of changes in direction along each route ▶ 2.1.5
- level of visual clutter detracting from, or obscuring, entrances and signs
- clearly defined pedestrian pathways, externally and internally ▶ 2.4.4
- prominent landmarks for people to notice, remember and recognise, internally and externally. ▶ 2.4.3

1.2.3 Information factors

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 ▶ 2.2.1
- site map sent with pre-visit information ▶ 2.2.2
- spoken directions ▶ 2.2.3
- written directions. ▶ 2.2.4

En-route information – getting to the site

The information people use to get to the site includes:

- road signs ▶ 2.3.3
- site entrance signs ▶ 2.3.5
- environmental information. ▶ 1.2.2

On-site information

The information people use to get around the site includes:

- signs ▶ Section 3
- directories ▶ 4.3
- site maps located at the site ▶ 4.4
- environmental information ▶ 1.2.2
- spoken directions. ▶ 2.2.3

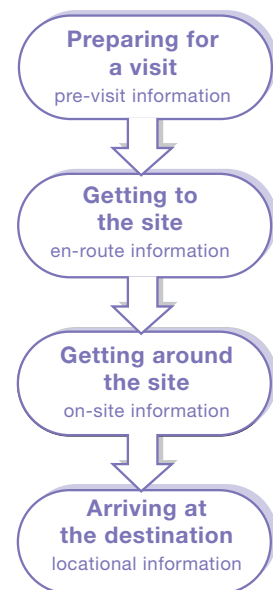
Locational information

The success of a wayfinding system is judged by how easily a person gets to their destination, and knows that they have arrived. ▶ 2.4.5

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 ▶ 4.2
- distinguishing environmental features such as toys at the entrance to a children's ward, or coffee smells and tables and chairs at a café ▶ 2.4.3
- 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.

Four types of information that enable people to complete all stages of their journey successfully



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

1.3

Wayfinding is a multi-sensory task

When people are finding their way to a destination they use four of their senses – sight, sound, touch, 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.

1.3.1 The four senses used for wayfinding

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. ▶ [1.4.2](#)

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.



What a person with normal sight will see



What a short-sighted person without their glasses might see



What a person with macular degeneration might see



What a person with cataracts might see

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. ▶ [2.2.3](#)

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. ▶ [1.4.3](#)

1.4.1 Inclusive design for wayfinding systems

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.

1.4.2 People with visual impairments

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.

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 3 and 4](#)
- pre-visit information is available in large-print and audio formats.

■ Use the survey tool in [section 5](#) to find out what problems people with visual impairments have at your site [► 5.2](#)

1.4

Wayfinding with impairments

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.

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.

Further information

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

► [Appendix 4](#)

1.4 continued

Wayfinding for people with impairments

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 directories
- 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 3](#) and [4](#) 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 (advice from RNID)

Further information

For further advice contact the Royal National Institute for Deaf People (RNID) in London. [▶ Appendix 4](#)

1.4.3 People who are deaf or hearing impaired

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.

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.

■ [Use the survey tool in section 5](#) to find out what problems people who are deaf or hearing impaired have at your site [▶ 5.2](#)



Best practice guidelines – wayfinding aids for people with sensory impairments

Improving wayfinding for people who are visually impaired

✓ Recommendations

The following recommendations are relevant to all users and are covered in detail in [sections 3 and 4](#), 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)
- 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

✓ Recommendations

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](#)).

Potentially dangerous situations for people with sensory impairments

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.

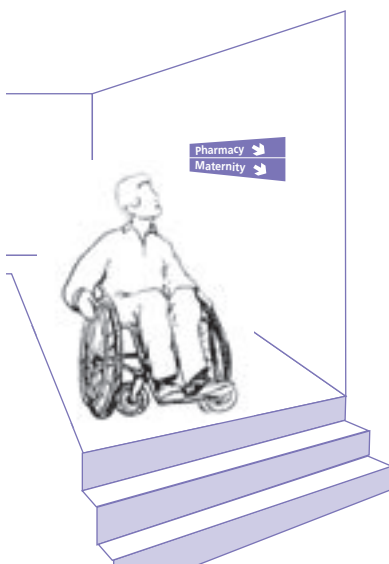
1.5

The impact of a poor wayfinding system

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's not likely to get talked about. People do not tend to notice a good wayfinding system; they simply use it.



1.5.1 Stress and resentment of patients and visitors

People visiting healthcare facilities are often worried or anxious. Research at 12 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.

1.5.2 Inefficient and ineffective use of staff time

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 inefficient use of their time, especially at larger sites, but for some healthcare facility 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 escorts.

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. ▶ [2.2.3](#)

1.5.3 Inaccessibility for people with disabilities

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. ▶ [0.4](#)

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. ▶ [2.4.4](#)

The importance of clear pre-visit information

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. ▶ [2.2](#)

1.5.4 Comments and case studies

Questionnaires filled in by over 1000 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.

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. [▶ 2.1.3](#)

■ Use questionnaires and site surveys to gather information [▶ 5.1 and 5.3](#)

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”

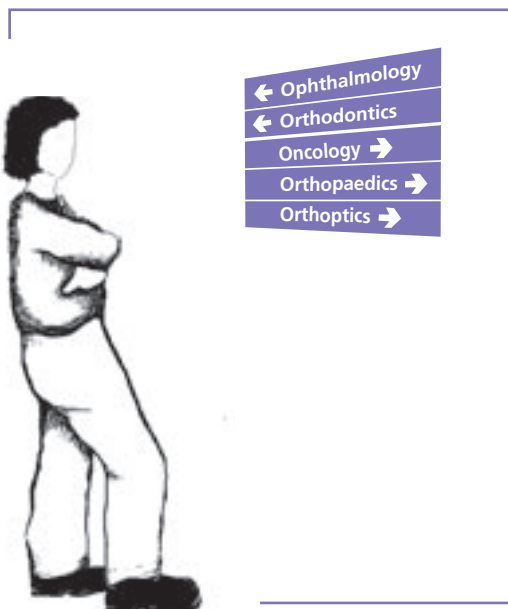
“anxious because I was late for my appointment due to car parking problems”

“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 [▶ 2.1.8](#)

Using confusing terminology on signs and other wayfinding information inevitably leads to problems

Case studies

Inconsistent building names

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.

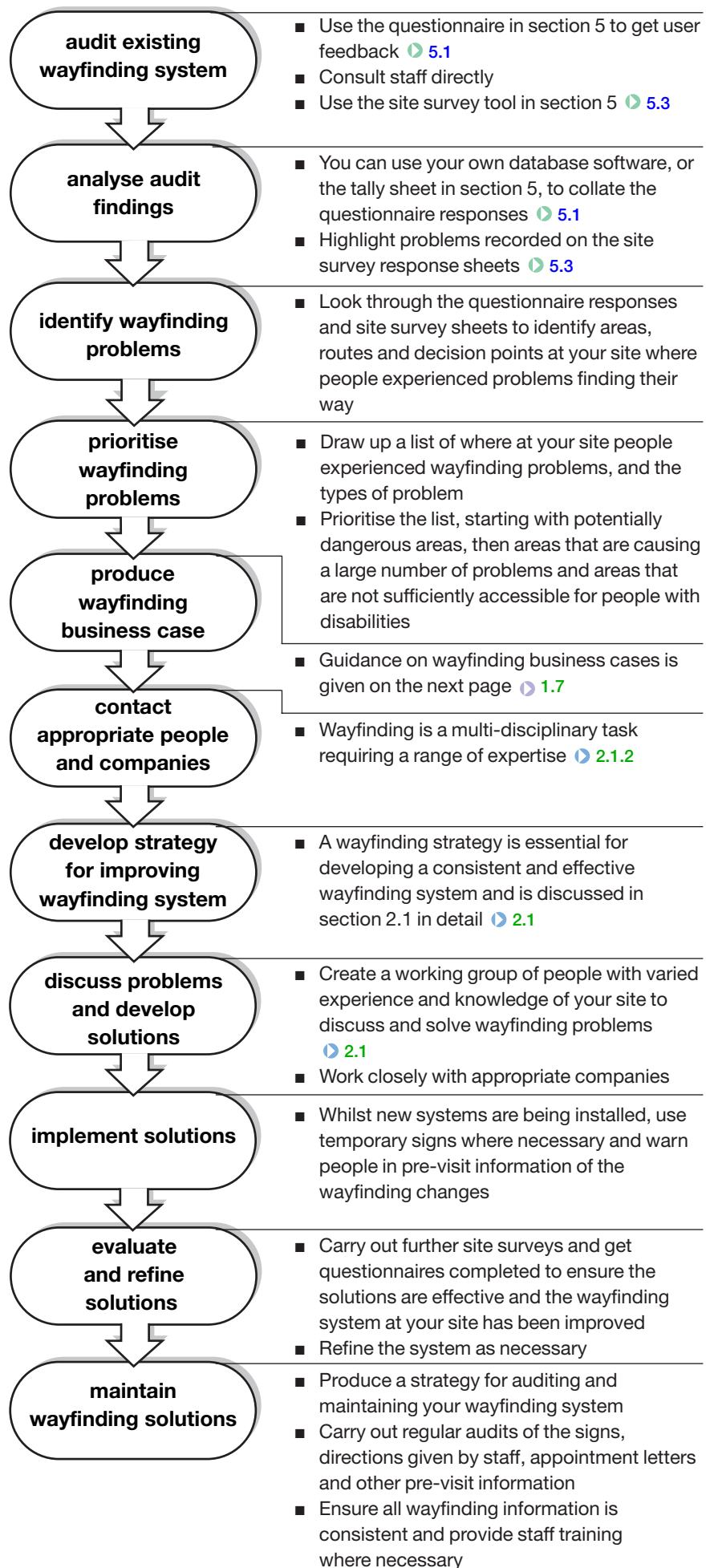
1.6

Stages of a wayfinding project

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 then important to get together the relevant people to develop a workable wayfinding strategy and then effective wayfinding solutions for your site, within your budget.

Typical stages of a wayfinding project



Building a wayfinding business case

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 [▶ 5.3](#)
- evidence such as questionnaires or complaints forms showing that visitors have strongly negative feelings about your site. [▶ 5.1](#)

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.

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

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:

- 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).

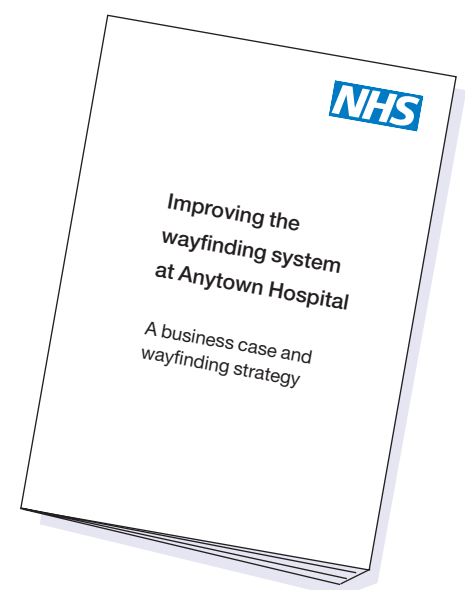
The indirect costs, which a well-thought-out and well-designed wayfinding system will reduce, are likely to include:

- 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.

1.7

Building a wayfinding business case

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.



Developing an effective wayfinding system

Section 1 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.

About this section

This section 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.

2.1 Developing a wayfinding strategy

- 2.1.1 What is a wayfinding strategy?
- 2.1.2 Wayfinding as a multi-disciplinary task
- 2.1.3 Considering site users
- 2.1.4 Considering wayfinding information
- 2.1.5 Considering your site layout
- 2.1.6 Simplifying your site layout
- 2.1.7 Considering colour-coding
- 2.1.8 Agreeing terminology, abbreviations and multiple languages

2.2 Developing effective pre-visit information

- 2.2.1 Appointment letters
- 2.2.2 Maps sent with appointment letters
- 2.2.3 Spoken directions
- 2.2.4 Written directions

2.3 Getting to the site

- 2.3.1 By foot
- 2.3.2 By public transport or by taxi
- 2.3.3 By car
- 2.3.4 Identifying and recognising your site
- 2.3.5 Identifying site entrances

2.4 Getting around the site

- 2.4.1 Finding a public car park or drop-off point
- 2.4.2 Finding the correct building and entrance
- 2.4.3 Using landmarks and site features
- 2.4.4 Following circulation routes and pathways
- 2.4.5 Identifying the destination

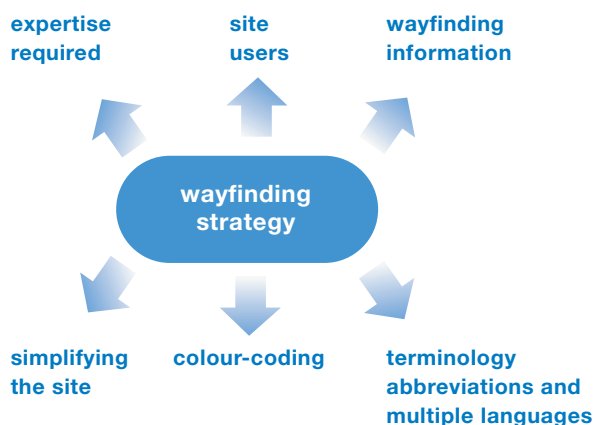
2.1

Developing a wayfinding strategy

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.

“Specific information from each department must be consistent with the general wayfinding information at your site”



2.1.1 What is a wayfinding strategy?

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. [▶ 2.1.2](#)

■ 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. [▶ 2.1.3](#)

■ 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. [▶ 2.1.4](#)

■ 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. [▶ 2.1.5](#)

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. [▶ 2.1.6](#)

■ 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. [▶ 2.1.7](#)

■ 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 facility users. Terminology, abbreviations and languages should be used consistently on all wayfinding information throughout your site. [▶ 2.1.8](#)

■ 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. [▶ section 3](#)

■ 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. [▶ 3.7](#)

2.1.2 Wayfinding as a multi-disciplinary task

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 facility users receive clear, consistent information that gives a positive image of the site.

■ **Site users – the people using the information**

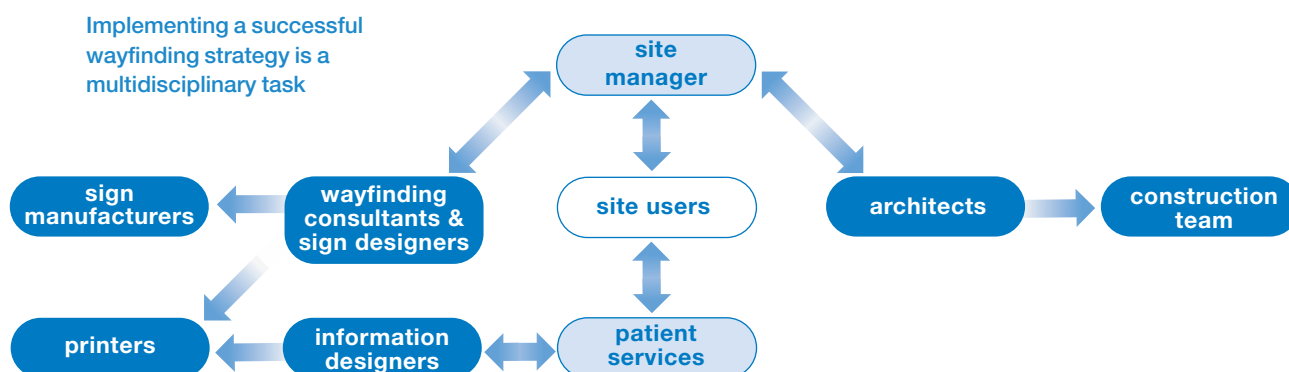
It is crucial that you discuss your intended wayfinding system with the many different people who will be using it to find out whether they can understand the system, and whether they would use the planned information. This ensures the most cost-effective use of available budget on appropriate wayfinding aids. Consulting all types of site user when developing the wayfinding strategy will also identify any special considerations, particularly for disabled people. ▶ 1.4

Creating an effective multi-disciplinary team

Your working group for wayfinding should include:

- site management
- people who work closely with site users
- people with disabilities
- people who work with site users who do not understand the language used on signs

“It is crucial to discuss your intended wayfinding system with the people who will be using it”



2.1 continued

Developing a wayfinding strategy

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

Healthcare facility user questionnaires can provide valuable information

5.1 Healthcare facility user questionnaire

Finding your way around this site
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.

- 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
- 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
 Where did you park? Not sure
 - 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
- If you came by bus, was it easy to find the correct bus stop to get off at?
 - Yes
 - No
 What bus stop did you get off at? Not sure
 - 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
- What building and department did you want to go to when you got here today? Not sure
- Before you came today, were you given any directions or information to help you find your way?
 - Map
 - Spoken directions
 - Written directions
 Other: _____
 - 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
- How did you find getting to where you wanted to go?
 - Very easy
 - Easy
 - Difficult
 - Very difficult
 How many wrong turnings did you take?
 - None
 - One wrong turning
 - 2 or 3 wrong turnings
 - More than 3 wrong turnings
 Was the building entrance clearly marked?
 - Yes
 - No
 - Can't remember
 Did you ask anyone for directions?
 - Yes, and their directions were clear
 - Yes, but their directions were not clear
 - No
 Who did you ask for directions? _____
 - Did you notice any of the following things around the site?
 - Signs
 - Maps
 - Directories

2.1.3 Considering site users

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
- your site has a complex layout that is difficult to create a mental model of
- 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 ▶ 2.4.4
- people with cognitive impairments and learning difficulties
- people with sensory impairments (including people who are visually or hearing-impaired) ▶ 1.4
- people who do not understand the language used for signs and other wayfinding information. ▶ 3.6

■ 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. ▶ 5.1

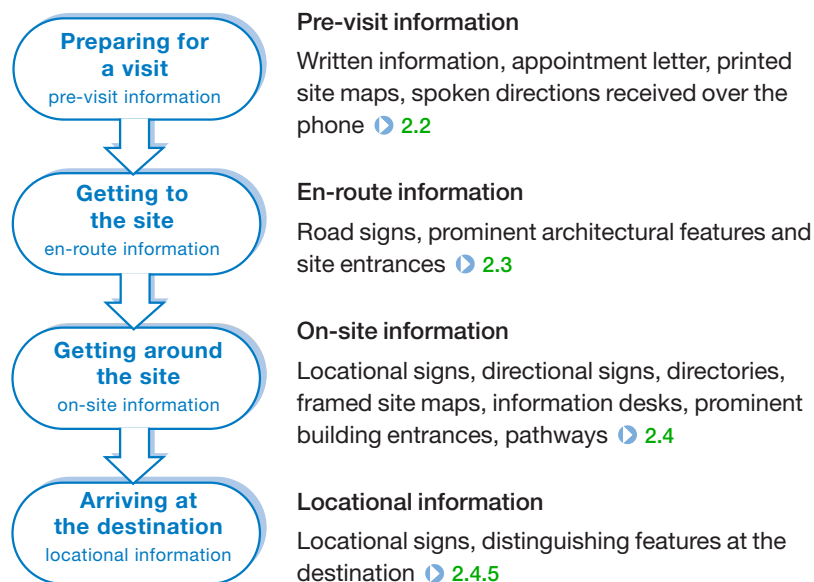
■ Consulting staff

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.

2.1.4 Considering wayfinding information

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.



“It is important that all wayfinding information is developed together, as part of the overall wayfinding strategy, to ensure the information is consistent”

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. ▶ 3.3

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. ▶ 2.1.8

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. ▶ 3.6

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. ▶ section 3

NHS corporate signing strategy

A standard design for all NHS branded material, such as signs and letters, should be used.

Wherever a person goes, they should encounter a familiar look and style to signs, publications, letters and vehicles. It will also help the NHS to save money on design and acquisition.

Sites should consider this when commissioning new signs, and the guidelines in this book and the NHS Identity website should be used.

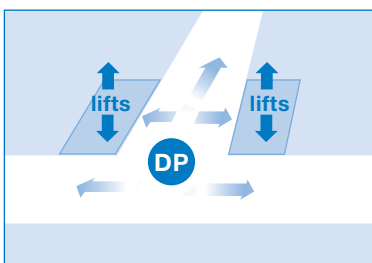
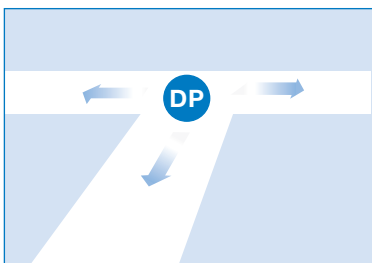
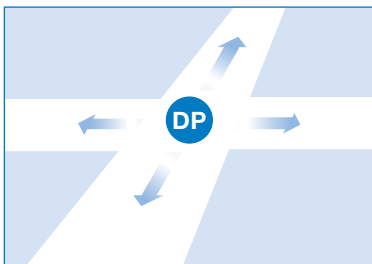
Further information about the NHS corporate identity and the NHS corporate signing strategy is available from <http://www.nhsidentity.nhs.uk/> or from the NHS Identity Helpline on 020 7972 5261

2.1 continued

Developing a wayfinding strategy

“Many 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”

Examples of decision points (DP)



2.1.5 Considering your site layout

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

Key factors

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. [▶ 2.1.6](#)

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. [▶ 2.1.7](#)

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. [▶ 2.1.6](#)

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.

Agree 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 what floor a lift has stopped at. 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.

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 therefore 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.

Auditing your site

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?

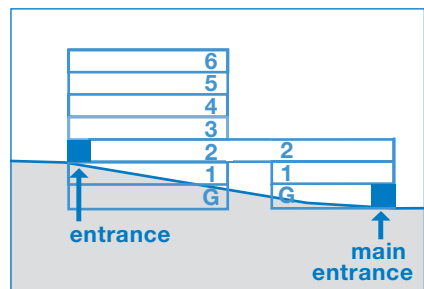
Do you have a simplified site layout from which people can create a simple mental map of the site?

■ Use the site survey sheet to survey your site [5.3](#)

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 theirs 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. [5.2](#)

2.1 continued

Developing a wayfinding strategy

“The complexity of a site’s layout, and the routes around and through it, will inevitably affect how easily people can formulate a mental model of the site, and retrace their steps after their visit”

Simplification methods must be consistently referred to in all wayfinding information



2.1.6 Simplifying your site layout

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.

Key factors

Consider 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:

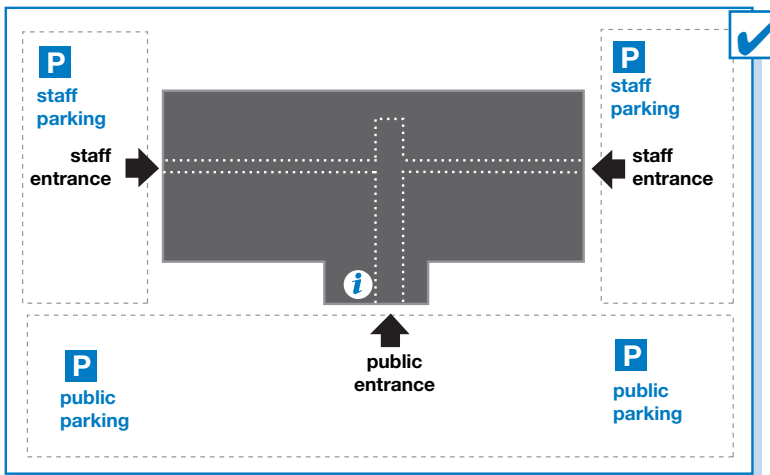
- naming separate buildings “Wings” or “Blocks”, with non-descriptive names such as Victoria Wing and Albert Wing, or A-Block and B-Block
- naming separate buildings using general, non-descriptive names such as Bamber and Greenfield
- dividing a large main building into “Wings”, with names such as North 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

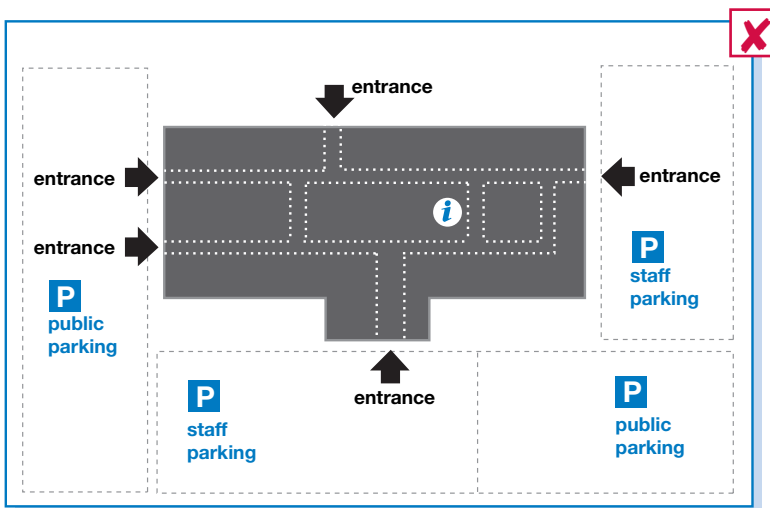
An effective simplification system can:

- 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.

Factors that affect the complexity of a site layout



Example of a simple external and internal site layout, single public entrance, information desk at the entrance and simple internal circulation route



Example of the same type of site but with illogical parking allocation, undifferentiated entrances, information desk not located near the entrance and complex internal circulation routes

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.

? Auditing your site

Has your site got a complex layout?

Are there any methods currently used to simplify your site? If so, have they been evaluated to see if they are effective?

Can people formulate a simple mental model of your site?

- Use the site survey tool to evaluate the effectiveness of your simplification system, or to see whether your site needs to be simplified [5.3](#)

Case studies

Effective simplification system

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.

Ineffective simplification system

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).

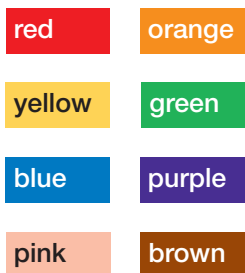
Problems arose because the simplification system had been implemented inconsistently, and had only been used on external signs and one site map. Other key elements of the wayfinding system had not changed in conjunction with the new signs.

2.1 continued

Developing a wayfinding strategy

“Research has found that two out of three people did not notice colour-coding at healthcare sites with a colour-coding system”

Eight colours are suitable for colour-coding systems



The NHS corporate colour is **Pantone 300**

This colour should be avoided as part of a colour-coding system at NHS sites.

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.

2.1.7 Considering colour-coding

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.

Key factors

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 (▶ 3.8). 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. ▶ 3.10
- 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.

? Auditing your site

Do you have an existing colour-coding system at your site?

Is it used consistently on all wayfinding information?

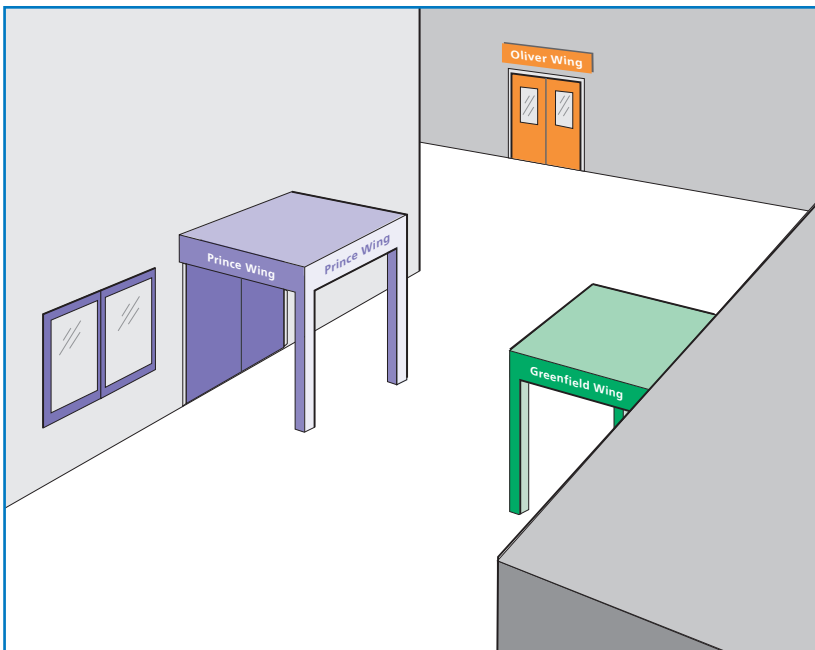
Is it mentioned in appointment letters?

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?

- Use the site survey tool to evaluate the effectiveness of your colour-coding system ▶ 5.3



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.

✓ 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.

✗ Things to avoid

- 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.
- Avoid 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:

orange	yellow
purple	pink
turquoise	green

2.1 continued

Developing a wayfinding strategy

“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”



Using medical terms that look or sound similar will inevitably cause confusion

2.1.8 Agreeing terminology, abbreviations and multiple languages

The debate on terminology may never be totally resolved. However, there are terminology issues which need to be considered when developing the 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.

Key factors

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 3. [▶ 3.6](#)

? Auditing terminology used on signs

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 that people will see on the signs at your site, which may cause confusion?

- Use the evaluation tool in section 5 for testing the understandability of names and terms used at your site [▶ 5.2](#)

Terminology research – some findings

As part of our research (IDU 98), staff were asked to suggest any terms that they felt healthcare facility users were unlikely to understand. From these suggestions we selected 35 terms and abbreviations and carried out a small questionnaire survey specifically for this book, 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	

Multiple languages

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 3. [▶ 3.6](#)

2.1 continued

Developing a wayfinding strategy

“The most problematic terms tested were “Cytology” (understood correctly by 6%) and “Oncology” (understood correctly by 15%)”

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:



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.

■ Use the evaluation tool in section 5 to test the understandability of symbols [5.2](#)

2.1.8 Agreeing terminology, abbreviations and multiple languages *continued*

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%)	Catheterisation (30%)
Hysteroscopy (27%)	Podiatry (30%)
Orthoptics (27%)	Endoscopy (37%)
Diagnostic imaging (28%)	

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

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

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

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

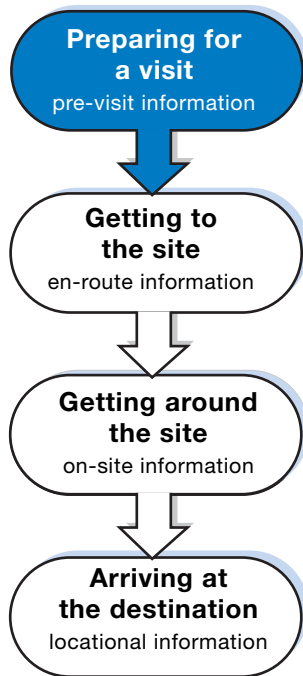
Abbreviations found to cause a lot of confusion

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%)	ECG (28%)
CCU (6%)	ICU (29%)
EEG (12%)	CT scan (29%)
MRI (14%)	ENT (32%)
R&D (14%)	

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.



About this section

This section provides guidance and information on four key types of pre-visit information.

2.2.1 Appointment letters

2.2.2 Maps sent with appointment letters

2.2.3 Spoken directions

2.2.4 Written directions

Pre-visit information for people with special requirements

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

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.



2.2

Developing effective pre-visit information

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.

Guidance on the NHS corporate identity

Visit <http://www.nhsidentity.nhs.uk> or ring 020 7972 5261.

Role of pre-visit information

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. [▶ 2.1.6](#)

2.2 continued

Developing effective pre-visit information

“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”



Example of how colour and a bold typeface can be used to emphasise key information, such as the date and time of an appointment

2.2.1 Appointment letters

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).

Key factors

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

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. ▶ 2.1.8

Clear layout

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

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.)

? Auditing your site

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?

- Evaluate the clarity of appointment letters sent by the different departments at your site.

Best practice guidelines – appointment letters

Information and layout for 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.

Key information emphasised using bold type and separated using lines

Anytown Hospital NHS Trust

Out-patients department
Anytown Hospital
Church Street
Anytown
AT1 3DR
Tel: 01506 844000
Fax: 01508 844222

Mrs G Rigby
12 Pagnell Road
Anytown
AT12 3YZ

Your Reference Number:
SR/3429

Your appointment
We have made an appointment for you to see Dr Susan Robinson, Consultant Gastroenterologist, who will investigate your stomach complaint on:
Friday 27 August at 10.20 am

Changing your appointment
If this time is not convenient, please call us on (01506) 844113. Please quote your Reference Number (shown above).

How to get to Anytown Hospital
Anytown Hospital is located on Church Street, Anytown. The site entrance is off Church Street. A map showing how to get to the hospital site is included with this letter.
 ■ **By bus:** 1, 23, 56, 78 stop outside the hospital gates.
 ■ **By car:** Car parking costs £1 a day. The nearest car park to the Out-patients Department is Car Park 4. There is a drop-off point outside the entrance with the blue canopy.

Where to go
Please go to the Out-patients Department, in the General Hospital building (the tall, red brick building in the middle of the site with the blue canopy over the building entrance).

What to bring
Please bring with you:
 ■ any medicines, tablets or ointments you are currently using
 ■ a urine sample (you can get a container from your GP or any chemist)
 ■ this letter – please fill in the details below

Information we need
Please fill in the details below and bring this letter with you
Your GP's name and address
Your NHS number (from your medical card)

Things to avoid

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

Key information is not emphasised and all text is the same weight

List of things to bring is written as continuous text, making it more difficult to check off the items



THE ANYTOWN HOSPITALS NHS TRUST
Anytown Hospital • Church Street • Anytown • AT1 3DR • Telephone (01506) 844000

Reference
SR/3429
31 July 1999

Mrs G Rigby
12 Pagnell Road
Anytown
AT12 3YZ

Dear Mrs Rigby

An appointment has been made for you to see Dr Robinson, Consultant Gastroenterologist, on Friday 27 August at 10.20 am in the Outpatients Department.
 Bring any medicines, tablets or ointments you are currently using, a urine sample (you can get a container from your GP or any chemist), your GP's name and address, your NHS Number and this letter.
 If you are unable to attend, let us know so we can give someone else your appointment and make you a new one.

Yours sincerely

Mrs Jones
(Secretary to Dr Robinson)

2.2 continued

Developing effective pre-visit information

“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 and people with impairments who may not be able to use certain wayfinding aids at the site”

Evidence – use of site maps

Our 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.

2.2.2 Maps sent with appointment letters

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.

Key factors

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 it will be reproduced at, 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.)

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 how useful the maps are.

? Auditing your site

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?

- Collect examples of maps being sent out by different departments at your site and evaluate them for clarity and understandability.

Best practice guidelines – maps sent with appointment letters

Recommendations

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.

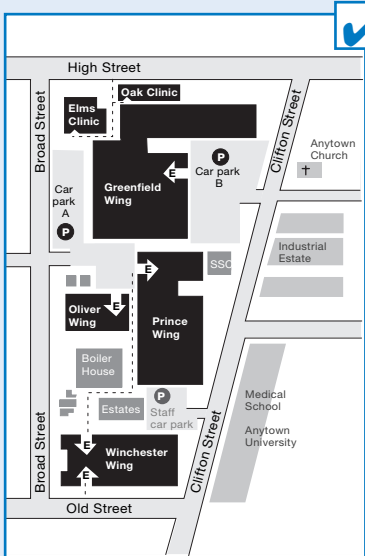
Maps sent with appointment letters should show:

- 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.

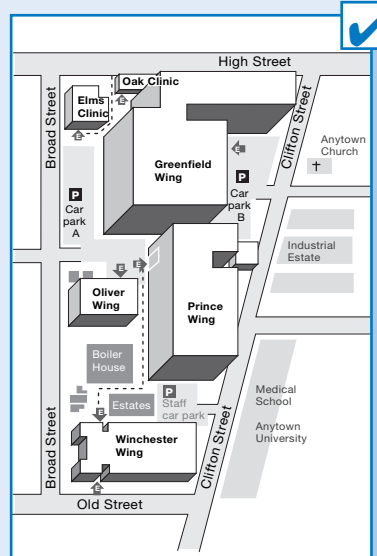
Consider producing more than one map

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.

Visually differentiate between buildings, roads, pedestrian pathways, car parks. Clearly show building entrances.



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

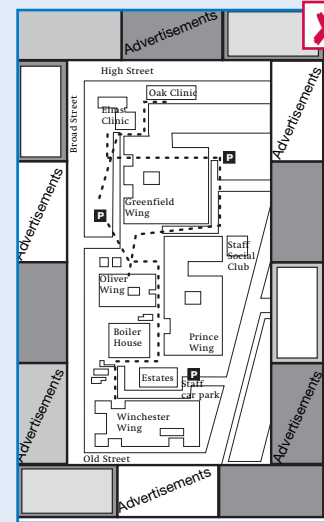


Things to avoid

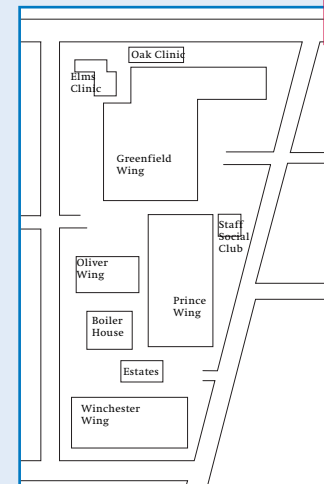
Do NOT use the following as site maps:

- 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.
- 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.

No visual differentiation. Adverts detract from map. Routes and entrances not clearly marked.

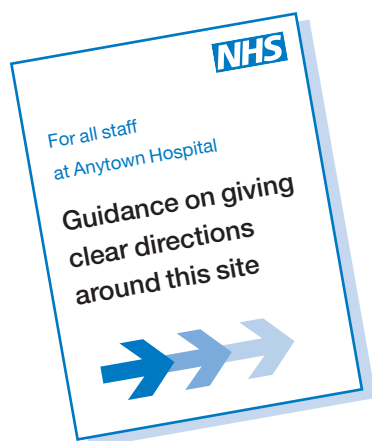


Not enough detail. No entrances, on-site routes, road names marked.



2.2 continued

Developing effective pre-visit information



Consider providing advice for staff to ensure that visitors receive clear spoken directions at your site

Evidence – spoken directions

Our research (IDU 98) found that almost a third of first-time healthcare facility 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.

2.2.3 Spoken directions

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.

Key factors

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.

? Auditing your site

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 are the spoken directions?

How complex are the 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 are the people who ask for directions most often at your site? Are these people able to understand and follow the directions they are given?

- Phone your site and ask for directions to the hospital and to a particular department or clinic
- Use the questionnaire in section 5 to find out what healthcare facility users think of the spoken directions they have received from staff at your site

▶ 5.2

Best practice guidelines – spoken directions

Recommendations

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).

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 left⁵ 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

Things to avoid

Potential problems

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 building¹ 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 lab⁶ 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

2.2 continued

Developing effective pre-visit information

“Dividing the journey into separate, clearly defined logical stages makes following written directions easier”

Case study

Clear written directions

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.”

2.2.4 Written directions

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

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 (eg 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.

? Auditing your site

Are the written directions sent out by departments at your site up-to-date, and easy to understand and follow?

Do the written directions sent out 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?

✓ Best practice guidelines – written directions

✓ Recommendations

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 junction 14 – signposted Anytown
- First roundabout – follow the 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

! 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
35 minutes at rush hour

✗ 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.

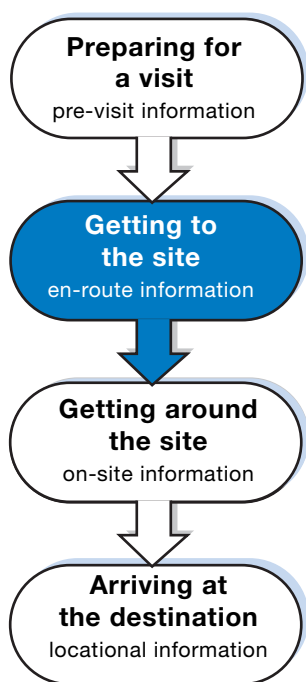
Only just enough detail, no indication of times, distances, road names or landmarks, and no reassurance is given. Upper case letters are more difficult to read. Continuous text is difficult to follow for written directions.

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.

Too much unhelpful detail, no indication of times, distances, road names or landmarks, and the layout does not show the stages of the journey.



2.3

Getting to the 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.

About this section

This section discusses the key issues to be considered to ensure people can find your site and identify a site entrance without difficulty, whatever mode of transport they use. Most people will use one of four key modes of transport.

2.3.1 By foot

2.3.2 By public transport or by taxi

2.3.3 By car

When people get near your site they will find the need for:

2.3.4 Identifying and recognising your site

2.3.5 Identifying site entrances

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. They are discussed in this section.

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.

2.3 continued

Getting to the site

“Healthcare sites should do what they can to minimise the distance that pedestrians have to walk and ensure their route is safe”

? Auditing your site

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?

2.3.1 By foot

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

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.

2.3.2 By public transport or by taxi

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.

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 facility 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.

“Many sites have insufficient car parking ... it is in the interest of these sites to encourage the use of public transport for staff and healthcare facility users”

Key factors

Using public transport

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.

? Auditing your site

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?

✓ Best practice guidelines – getting to the site using public transport

✓ 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.

2.3 continued

Getting to the site

“Road signs influence the flow of traffic around your site, as they determine which site entrances people are directed to”

Reducing stress and anxiety when driving to the site

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 facility 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.

2.3.3 By car

Many people will come to your site by car. Our research found that an average of 73% of healthcare facility 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. ▶ 2.4.1

Key factors

Road signs

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”).

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.



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.

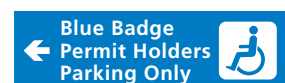


Pre-visit information for public transport and car users

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.



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. ▶ 2.4.1

? Auditing your site

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?

- Evaluate public car parking at your site, and the pedestrian routes from car parks. If parking is a problem at your site, look at ways to encourage people, particularly staff, to use alternative modes of transport.

✓ Best practice guidelines – car users getting to the site

Road signs

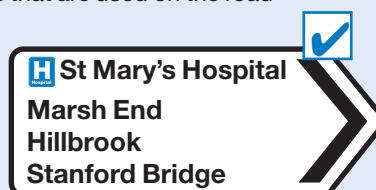
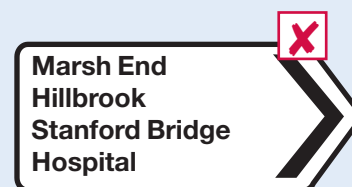
✓ Recommendations

- 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

✓ Recommendations

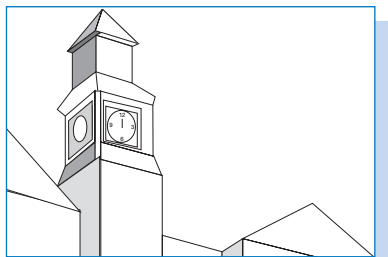
- Give parking priority to disabled drivers and ensure these spaces are clearly signed
- Include details of potential parking problems, and also of the parking charge, in pre-visit information
- Be aware of other nearby car parks people can use, and include details of these in pre-visit information
- 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.

2.3 continued

Getting to the site



Staff should be encouraged to refer to buildings or features at, or near, the site that are easy to describe, such as a clocktower, when giving spoken directions



Prominent locational signs at site entrances show people where to enter the site

2.3.4 Identifying and recognising your site

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

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. ▶ [2.4.3](#)

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. ▶ [2.3.5](#)

? Auditing your 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?

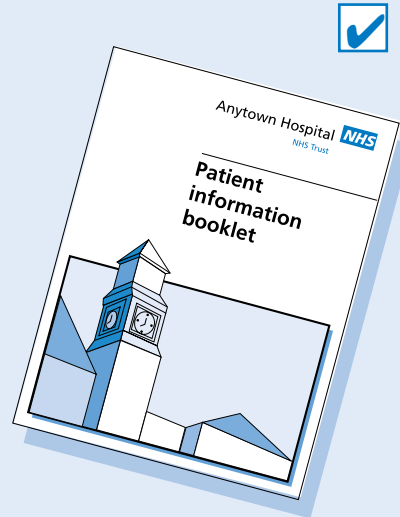
■ Use the site survey sheet in section 5 to find out how identifiable and recognisable people find your site ▶ [5.3](#)

Best practice guidelines – identifying and recognising your site

Architectural features and landmarks

✓ 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.



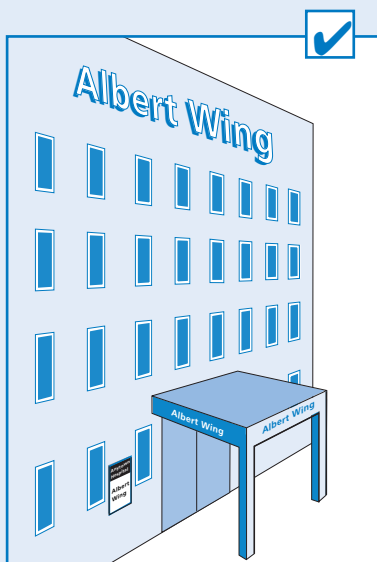
✗ Things to avoid

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

Locational signs

✓ 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.

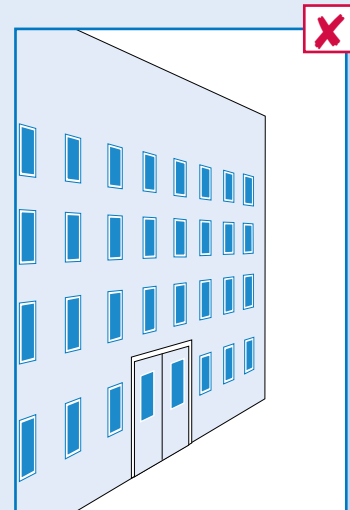


Locational signs can be positioned at the top of a tall building where they can be read when approaching the site, but should also be positioned at a lower level for people nearer the building

✗ Things to avoid

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

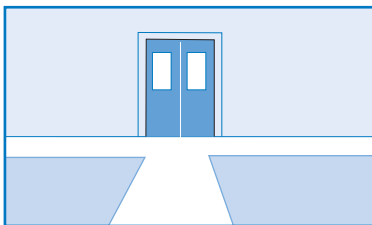
No locational signs, no canopy and no colour contrasting door



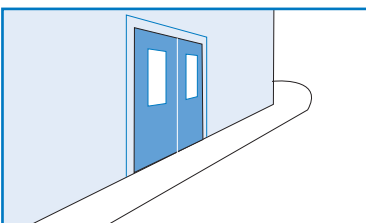
2.3 continued

Getting to the site

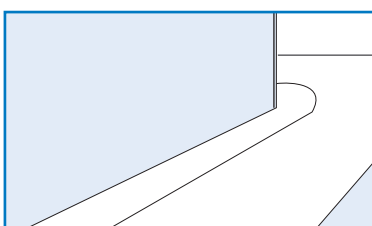
“If people approach your site from a particular direction, and there is a site entrance visible, they will tend to enter by this entrance unless they have been advised otherwise”



Approaching an entrance from the front



Approaching an entrance from the side



Approaching indirectly so the site entrance is not visible

2.3.5 Identifying site entrances

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.

Key factors

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

- the prominence and positioning of the locational signs at the site entrances
▶ 4.2
- the angle of approach (see below)
- 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 ▶ 3.1
- the level of illumination of signs and site entrances ▶ 3.11
- 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 to choose from.

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.

? Auditing your site

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?
- approaching along the pavement, and from bus stops?
- in various lighting levels at different times of the day?

Are the site entrances clearly differentiated? Have they each got a name that is easy to refer to and that is unlikely to cause confusion?

- Use the site survey sheet in section 5 to find out how easily people can find an entrance into your site ▶ 5.3



Clear site entrance sign with prominent site and entrance names

✓ Best practice guidelines – identifying site entrances

✓ 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 which entrance they have arrived at
- 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

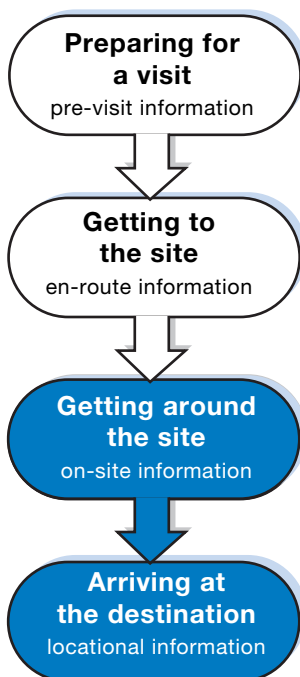
- Avoid relying on the site logo, rather than having the site name in large text, on locational signs at the site entrances. Include the logo, but also include the name.

2.4

Getting around the site

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.



About this section

This section discusses the key stages of a journey that an effective wayfinding system enables people to complete successfully.

2.4.1 Finding a public car park or drop-off point

2.4.2 Finding the correct building and entrance

2.4.3 Using landmarks and site features

2.4.4 Following circulation routes and pathways

2.4.5 Identifying the destination

2.4 continued

Getting around the site

“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”

Evidence – parking problems

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”.

26% found it “very difficult” to park, and 9% found it “difficult” (IDU 98).

2.4.1 Finding a public car park or drop-off point

Many healthcare facility 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

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

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 – see *Evidence*. At some healthcare sites people abandon their cars outside authorised spaces, probably as they become late for appointments, adding to parking congestion. 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

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

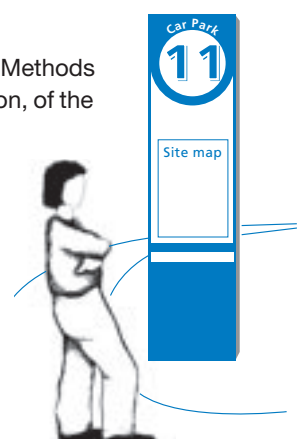
- the size of the site and of the area allocated to parking
- the number of visitors and patients coming by car
- the number of staff using cars to travel to and from work
- the location of parking spaces and the distance people are able, or willing, to walk
- how easy it is to find the entrances to 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

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

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.

? Auditing your site

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?

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

✓ Recommendations

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.

✓ Recommendations for car park identification

- 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

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

✗ Things to avoid

- 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.

2.4 continued

Getting around the site

2.4.2 Finding the correct building and entrance

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

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. ▶ 2.4.4

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

Sites with one main public building entrance

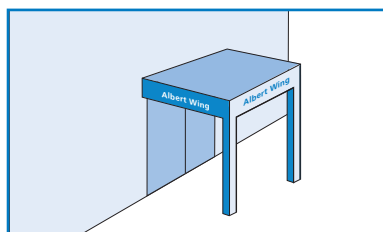
If it is better for all visitors to go through one particular building entrance, they can be encouraged to do so by emphasising this entrance and reducing the prominence of other entrances.

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.

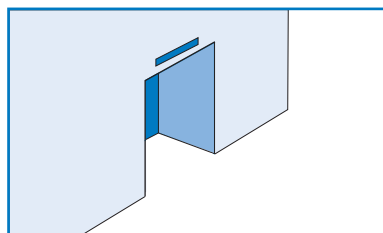
Sites with building entrances on more than one level

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.

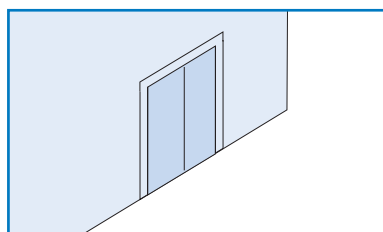
They also need this information to avoid entering at one level and inadvertently leaving on a different level and finding that they are in unfamiliar surroundings and cannot orientate themselves, or relocate their car, drop-off point or bus stop.



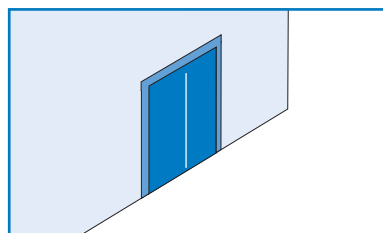
A protruding entrance, such as a canopy, is particularly identifiable



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



An entrance that is in line with the wall of the building does not attract attention ...



... unless it is painted to create a colour contrast with the wall colour

? Auditing your site

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?

- Use the site survey sheet in section 5 to find out how easily people can find the building they require at your site ▶ 5.3

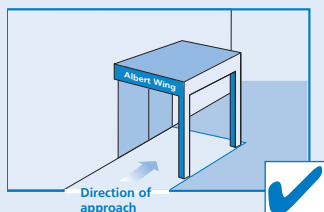
“People who arrive with only a department name are reliant on the on-site information to find out which building their destination is located in. This task requires a site directory, a site map with an index, or someone to ask”

✓ Best practice guidelines – finding the correct building and entrance

Identifying buildings at your site

✓ Recommendations

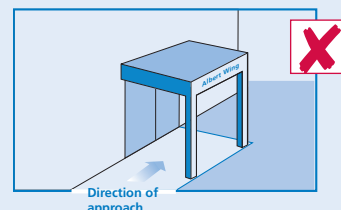
- Buildings should have locational signs large enough and positioned so that they are legible from all directions of approach:



- 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

- 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.

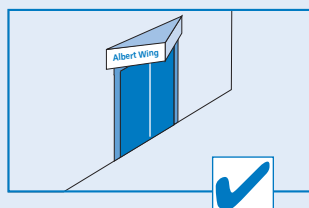


- Avoid creating new buildings so they all look the same. Buildings need to have distinguishing features.

Identifying building entrances

✓ Recommendations

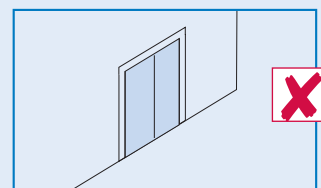
- Public building entrances should be architecturally prominent and have a locational sign large enough to be seen from a distance at night. The sign must also be positioned high enough not to be obscured by parked vehicles
- Smaller locational signs should be positioned next to entrances at eye level (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:



Protruding entrance signs and doors painted in a colour that contrasts with the wall draw attention to the entrance

✗ Things to avoid

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



2.4 continued

Getting around the site

2.4.3 Using landmarks and site features

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

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.

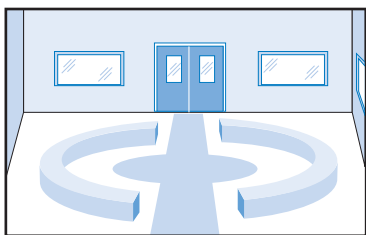
Developing new landmarks or emphasising site features

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.

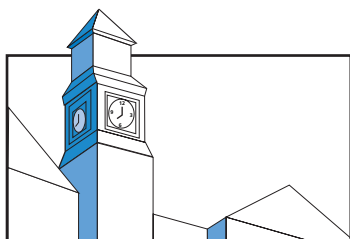
Some sites have features which could be emphasised so as to be more noticeable, be easier to describe, and help people orientate themselves.

By creating new landmarks at appropriate locations externally and internally, staff can refer to them and visitors can be reassured by them.

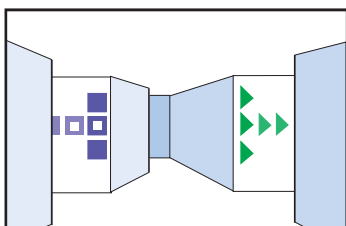
There is no standard type of landmark that all sites should have. Each site has different wayfinding problems to solve, and also different budgets, so the most effective landmark will be different for each site.



An open area such as a courtyard can be a noticeable feature



A clock tower or tall building is a prominent landmark



Landmarks can be created at key decision points

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.

? Auditing your site

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 names 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?

■ Use the site survey sheet in section 5 to find out what site features and landmarks people refer to at your site ▶ 5.3

“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”

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
- a courtyard
- a 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

✓ 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

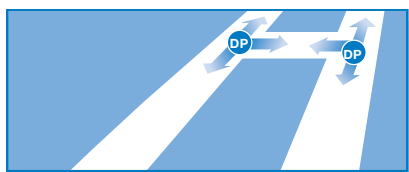
- Avoid staff referring to landmarks in a way that can be confused with other features, for example talking about “the red staircase” when all the staircases at the site are red.

2.4 continued

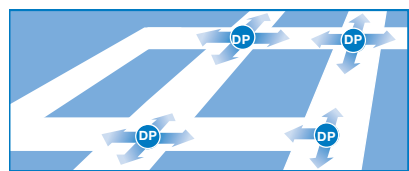
Getting around the site

“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”

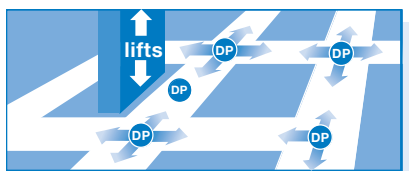
Examples of circulation routes and decision points (DP)



Simple circulation route



Complex circulation route



Complex circulation route with vertical circulation increasing the number of decision points

2.4.4 Following circulation routes and pathways

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

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.

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.

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

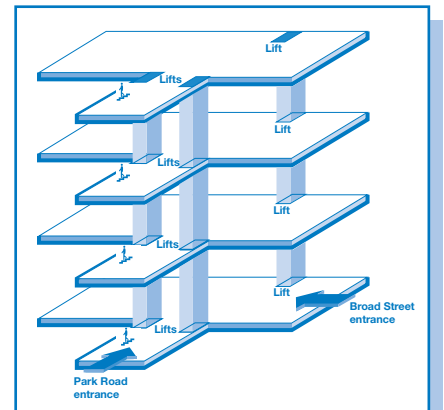
Once people have found an entrance, they follow internal circulation routes, which are usually corridors between walls, although routes may cross open spaces. It is important to emphasise main circulation routes. Ways of doing this include naming main corridors such as Hospital Street or Blue Corridor (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. ▶ 4.5

3D diagram showing the changes in level and the links between floors in relation to the main entrances



? Auditing your site

Are vehicular and pedestrian routes through your site well defined and clearly marked?

Do pathways guide people along the most direct routes?

- Use the site survey sheet in section 5 to find out if the routes around your site are easy to follow and clearly marked ▶ 5.3

✓ Best practice guidelines – following circulation routes and pathways

✓ Recommendations

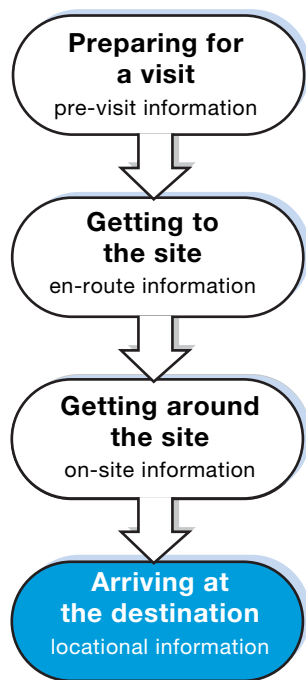
- When planning any new developments at your site, consider the pattern of the main circulation routes – both external and internal
- Consider whether your internal circulation routes could be made easier for people to understand – look at ways to emphasise main routes
- Consider producing a diagram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

✗ Things to avoid

- Avoid placing obstructions across circulation routes. If building work obstructs a route, ensure an alternative route is clearly signed.

2.4 continued

Getting around the site



2.4.5 Identifying the destination

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

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.

? Auditing your site

Are destinations at your site clearly identifiable? Can people tell when they have arrived at their destination?

- Use the site survey sheet in section 5 to see if people find destinations at your site clearly marked ▶ 5.3

✓ Best practice guidelines – identifying the destination

✓ 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

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

Developing effective signs

General considerations

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.

About this section

General issues which relate to all types of sign are discussed in this section, and issues specific to each different type of sign are discussed in [section 4](#).

This section provides information on the factors that affect the legibility and effectiveness of all types of sign. There are four parts to each topic:

- an introduction
- key factors to be considered
- questions about your site
- best practice guidelines, with recommendations and details of what to avoid.

3.1 Typeface and type style

3.2 Type size

3.3 Text layout and grouping

3.4 Text and arrow alignment

3.5 Emphasising information

3.6 Multiple-language and dual-term signs

3.7 Symbols

3.8 Use of colour

3.9 Positioning of signs

3.10 Methods of sign construction

3.11 Illuminating signs

Types of sign

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

1 Locational or identity signs to tell people where they are and when they have arrived

Pharmacy

2 Directional signs to direct people

Pharmacy →

3 Directory signs to inform people

Physiotherapy	G
Pharmacy	2
X-ray	4

Other types of sign discussed in [section 4](#) are site maps, safety signs and temporary signs.

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

Number of destinations on a sign

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. ▶ [3.4](#)

3.1

Typeface and type style

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. However, the NHS corporate font, Frutiger Bold, is recommended.

X-height of a typeface affects overall type size and viewing distance

20 pt type, 5 mm cap-height and 3.5 mm x-height

5 mm { **Reception** } 3.5 mm

Same type size with the same cap height, but the lower-case letters are smaller

5 mm { **Reception** } 3 mm

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.

Maternity

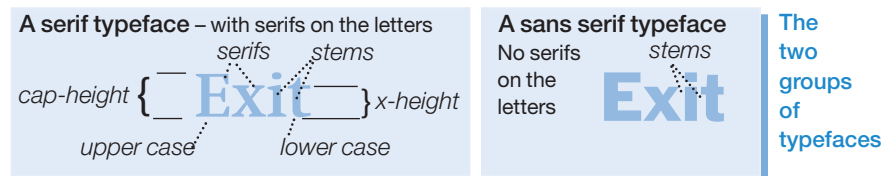
MATERNITY

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

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.



Typefaces – two main groups: Sans serif • Serif

Weights of type: **Bold** • Regular* • Light • **Extra bold**

Type styles: Regular* • *Italic* • **Condensed**

* also known as Book, Roman, Plain, Normal

Text styles: UPPER CASE • lower case

Weights and styles of typeface and text

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 [▶ 3.11](#)
- lack of colour contrast between the text and sign background [▶ 3.8](#)
- inconsistently or too closely spaced letters.

? Auditing your site

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 background colour used on your signs?

- Use the evaluation tool in section 5 to evaluate the legibility of the typeface used on signs at your site [▶ 5.2](#)

Best practice guidelines – typeface and type style

Selecting an appropriate typeface for signs

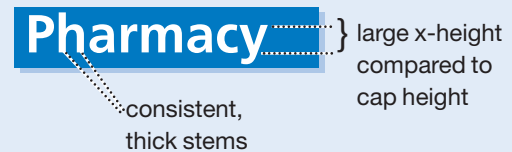
Recommendations

- 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 NHS sites

The kinds of typeface suitable for use on signs include:

- Franklin Gothic**
- Frutiger**
- Health Alphabet**
- Helvetica**
- Univers**

The key characteristics of typefaces recommended for a signing system



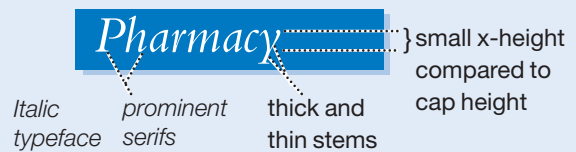
Things to avoid

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

The kinds of typeface to avoid include:

- Bodoni**
- Bembo**
- Baskerville**
- Times**
- Walbaum**

The key characteristics of a typeface that should not be used for a signing system



Selecting an appropriate weight and type style

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

Recommendations

- 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

- Avoid italicised, condensed or light weights of type – they reduce the legibility and viewing distance of the text
- Avoid 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

Recommendation

- 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 (see 3.5).

Things to avoid

- 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.

3.2

Type size

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.

Measuring type size

cap height { **A**abg } x-height

The height of the upper-case letters is called the “cap height”.

The height of the lower-case letters is called the “x-height”.

The x-height compared to cap height varies for different typefaces.

Type size is usually measured in millimetres for signs, and in points for paper documents.

Key factors

Different types of sign 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.

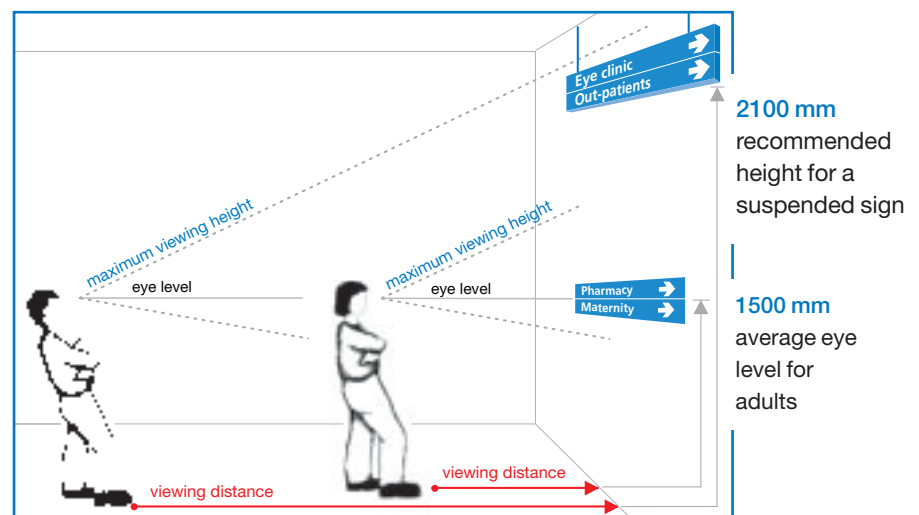
Factors that affect the choice of type size used on signs

- 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 ▶ 3.1
- 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 ▶ 3.8
- weight of type – for light-weight typefaces a larger type size is required to achieve the same viewing distance as a bold typeface ▶ 3.1
- 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) ▶ 3.9
- 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. ▶ 3.11

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.

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



? Auditing your site

Have the type sizes used on your signs been determined by the size of a standard slat rather than by viewing distance? If so, have the type sizes used on your signs been evaluated for legibility from the intended viewing distances?

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?

■ Use the evaluation tool in section 5 to evaluate the legibility of the typeface and type sizes used for signs at your site ▶ 5.2

✓ Best practice guidelines – type size

Specifying a type size for signs

✓ 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 (see 3.8)
- 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

- 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.

The viewing distances for the typeface “Health Alphabet”, specified in HTM 65 (1984)

X-height	Viewing distance with normal vision (6/9 acuity)	Viewing distance registered partially sighted (6/60 acuity) ¹	Suggested sign type
15 mm	up to 7.5 m	no more than 0.5 m	directories
30 mm	up to 15 m	no more than 1 m	door identity signs
40 mm	up to 20 m	no more than 1.5 m	internal location & direction signs
60 mm	up to 30 m	no more than 2 m	internal and external signs
90 mm	up to 45 m	no more than 3 m	external location & direction signs
120 mm	up to 60 m	no more than 4 m	location signs
200 mm	up to 100 m	no more than 7 m	fascia signs

- *These figures should only be used as a rough guide to the viewing distances for these type sizes*
- *Many factors affect the type size required (see opposite)*
- *The figures for people with visual impairments suggest that increasing the type size on signs is often not an appropriate way of producing suitable wayfinding aids for people with visual impairments.*

1. Data for people with visual impairments provided by the Joint Mobility Unit, London, UK

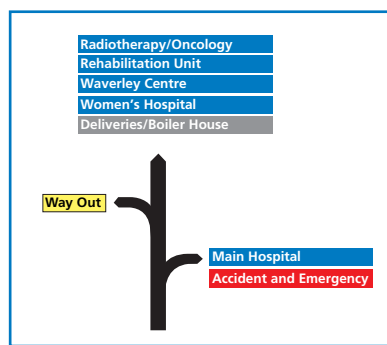
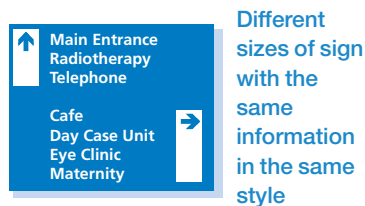
3.3

Text layout and grouping

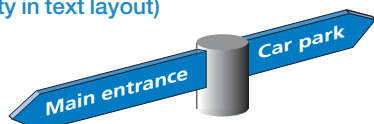
The design and layout of information on signs affects how quickly, easily and accurately people can find the information they require.

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.

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



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



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

Key factors

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. ▶ 3.5

The ordering and grouping of lists of destinations on signs will influence the sign layout. ▶ 3.4

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. ▶ 3.8

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 ▶ 4.1
- 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. ▶ 4.3

Non-grouped text listed alphabetically

Car Park G
Maternity 2
Reception G
Restaurant 1
Speech Therapy 2
Telephone G
Toilet G, 1, 2
X-ray 1

Text grouped by function, using space

Maternity 2
Speech Therapy 2
X-ray 1

Reception G
Telephone G
Toilet G, 1, 2
Restaurant 1

Car Park G

Text grouped by function, using lines

Maternity 2
Speech Therapy 2
X-ray 1

Reception G
Telephone G
Toilet G, 1, 2
Restaurant 1

Car Park G

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 ▶ 3.7
- the number of colours that will be used ▶ 3.8
- 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 ▶ 3.11
- whether the sign is likely to need updating regularly.

🔍 Auditing your site

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?

■ Use the site survey sheet in section 5 to assess the effectiveness of the signs at your site ▶ 5.3

✔ Best practice guidelines – text layout and grouping

Developing effective sign layouts

✔ 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. These may include:
 - grouping related departments under one name
 - introducing a simplification system at the site (see 2.1.6)
- 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.

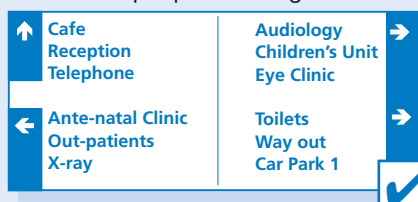
✘ Things to avoid

- 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

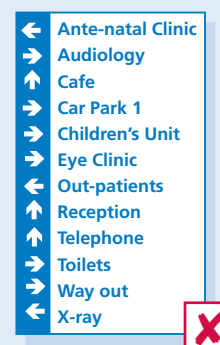
✔ Recommendations

- 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

- Avoid long, ungrouped alphabetical lists on directional signs, as the large number of arrows makes them confusing and easy to mis-read



- Avoid listing destinations in the order in which people will arrive at them, as this system is difficult to understand.

3.4

Text and arrow alignment

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.

Left aligned

Car Park
Maternity
Reception
Restaurant
Telephone

words vertically in line on left

Right aligned

Car Park
Exit
Reception
Restaurant
Telephone

words vertically in line on right

Centred

Car Park
Exit
Reception
Restaurant
Telephone

words vertically in line in the centre

Justified

West Car Park
Main entrance
Maternity
Department
Restaurant
Telephone

words vertically in line both left and right

Key factors

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.

← Cafe	Maternity	→
← Telephone	Radiotherapy	→
← X-ray	Reception	→

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 below:

↑ Cafe	Audiology	→
Reception	Children's Unit	
Telephone	Eye Clinic	
	Way out	
← Ante-natal Clinic		
Out-patients		
X-ray		

← Audiology	
← Children's Unit	
← Eye Clinic	
← Car Park 1	
← Toilets	
← Way out	

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. ▶ 4.1

? Auditing your site

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?

■ Use the site survey tool to assess the effectiveness of your signs. ▶ 5.3

Best practice guidelines – text and arrow alignment

Aligning text on signs

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.

A single arrow for groups of destinations can be used, or each destination can have an individual arrow

Left-aligned text is quicker and easier to scan through

Destinations grouped by direction and function

Things to avoid

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

Text not aligned is difficult to scan

Text aligned right produces a jagged reading edge, which is slower to read through

Too much white space

Not aligned, a long continuous list with no grouping, ordered by direction

Aligning arrows on signs

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.

Things to avoid

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

Too much white space between arrows and text

Unclear which direction should be taken

3.5

Emphasising information

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

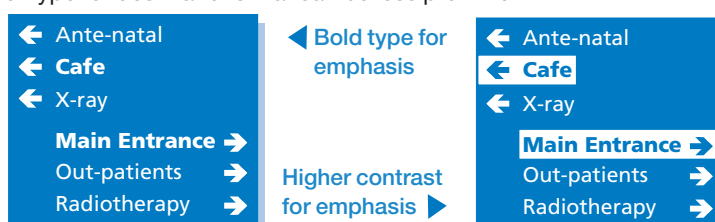
It is important to identify the key decision points and key information required at these points, and also identify the information that does not need to be so prominent on signs, as part of your wayfinding strategy. You should then develop a sign system that shows this hierarchy of information. The 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

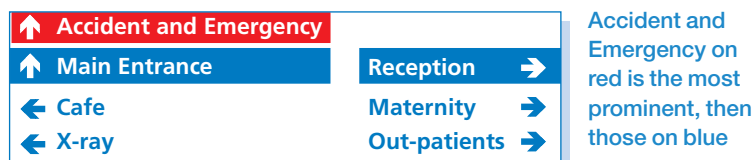
For key information to be emphasised effectively, the other information needs to be less prominent. For example, if all signs at your site have a bright red background, a destination such as Accident and Emergency will not be more prominent than the other destinations on the sign. If only one destination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



- 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) ▶ 3.8
- 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:



- 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 ▶ 4.5
- 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. ▶ 3.7

? Auditing your site

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?

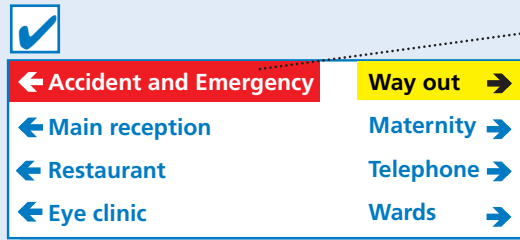
- Use the site survey sheet in section 5 to assess the effectiveness of the signs at your site ▶ 5.3

Best practice guidelines – emphasising information

Using colour and contrast to emphasise information on signs

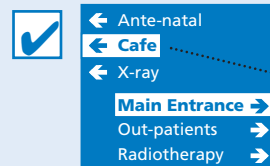
Recommendations

- 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.



Way out and Accident and Emergency emphasised using colour

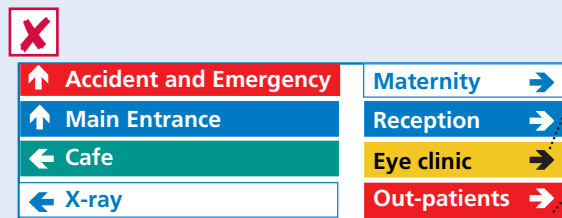
Other destinations are less prominent but still legible and high-contrast



Key public areas emphasised using contrast

Things to avoid

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



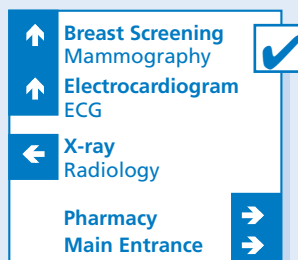
Too many colours, so nothing is emphasised

Do not use red for locations other than Accident and Emergency

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

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.



Site name and entrance name in largest type size so they are prominent

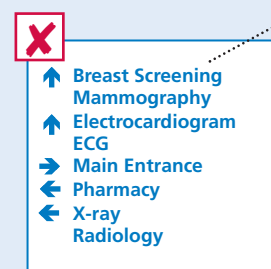
Bold type emphasises destinations

Things to avoid

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



Site name is the smallest type size but is key information. Site logo given most prominence, but people may not be familiar with the logo.



No emphasis or clear grouping of dual terms

3.6

Multiple-language and dual-term signs

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.

Methods for differentiating between languages or terms

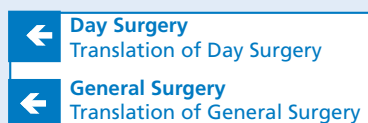


Different weight of type



Different colour combination

Methods for grouping different languages or terms



Lines and space group words



Spatial grouping of languages

Key factors

Multiple-language signs

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.

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. But 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. 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. [▶ 3.7](#)

? Auditing your site

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 two types of information?

If your site uses multiple languages or dual terms on signs, are they easy to understand and follow?

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

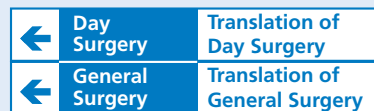
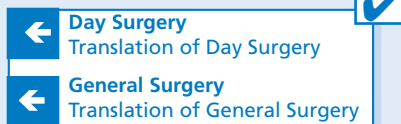
Differentiating between multiple languages or dual terms

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.

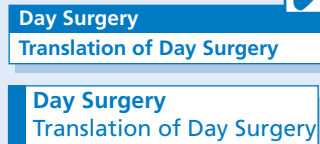
Recommendations

- Distinguish between the terms or languages by using:
 - different weights of typeface
 - different contrasts and colour combinations
 - lines, space or positioning.

Directional signs

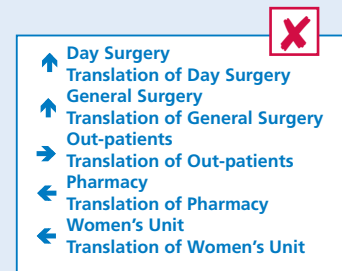


Locational signs



Things to avoid

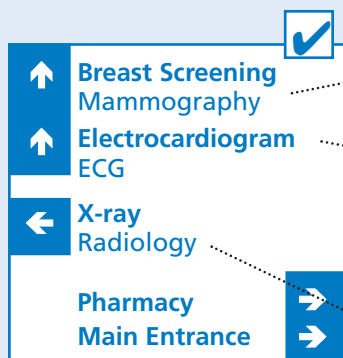
- Avoid using equal spacing between the two languages or terms – related terms or words need to be clearly grouped together and separated from other different terms.



Grouping multiple languages or dual terms

Recommendations

- The languages or terms should be grouped together to produce a visual link between the types of information using:
 - space
 - lines
 - another graphic device (see 3.3).



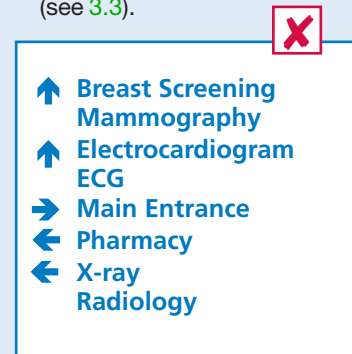
Terms grouped together by spacing

Bold typeface for the main department name and a regular weight used for the additional terms or abbreviations

Divided from other destinations using space

Things to avoid

- Avoid long lists of text with no visual grouping or differentiation between terms
- Avoid layouts that create potential confusion between destinations and directions (see 3.3).



Consider using a symbol

Recommendations

- There are some symbols which are universally recognised and which should be used instead of multiple languages (see 3.7)
- 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 (see 5.2).

Things to avoid

- Avoid using symbols with negative meanings in some cultures, that are not easily recognisable, or which have not been tested for understandability (see 5.2).

3.7

Symbols

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.

British Standard public information symbols that are frequently used

Specified in BS 8501: 2002



Cafe



Restaurant



Stairs



Telephone



Toilets



Accessible

Some single letters are recognised as symbols in the UK



Parking



Hospital



Information

Extracts from British Standards are reproduced with the permission of BSI under licence number PD\1999 0509. You should make sure you have complete and up-to-date standards.

Key factors

Types of symbol

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.



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



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

British Standard public information symbols

British Standard BS 8501: 2002 (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.

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



- Non-standard symbols must be tested for understandability and legibility from the intended viewing distance ▶ 5.2

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.

A healthcare site in the north of England has represented departments on the ground floor by simple symbols of plants and animals that live on the ground; the departments on the first floor have simple symbols of plants and animals that live in the sea; and the departments on the second floor are represented by simple symbols of birds and other features connected with the sky. Using symbols in this way needs careful design and planning so the user is aware of the symbols, and they support rather than undermine the wayfinding system.

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. ▶ 3.4

? Auditing your site

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 the evaluation tool in section 5 to assess the understandability of the symbols used on signs at your site ▶ 5.2

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

✓ 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.



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



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

The symbols would need to be evaluated for understandability before being used

✗ Things to avoid

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

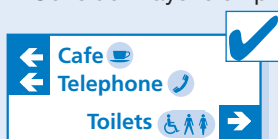


This symbol was used on signs at a hospital to indicate Eye Clinic. It does not look enough like an eye to be understandable, although it is noticeable in black on yellow, and is memorable

Positioning symbols on signs

✓ 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.



✗ Things to avoid

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



3.8

Use of colour

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.

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

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".

Key factors

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 2.

▶ 2.1.7

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:



- Never use black text on dark colours for signs, because there is a very low contrast. Colour combinations to avoid include black text on:



- 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 ▶ 3.10
- 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
- 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 ▶ 4.5
- 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.

Auditing your site

How were the colours used on signs at your site selected? Do the colours 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?

Best practice guidelines – use of colour

Selecting appropriate colours for signs

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

↑ Accident and Emergency	Way Out ↑
↑ Out-patients	Eye Clinic ↑
↑ Day Case Unit	Pharmacy →
	Reception →

Pantone 300 or a similar mid blue is recommended by the NHS corporate identity project (see 0.5)

Black and white are high-contrast colours. Dark shades of other colours such as blue with white are also acceptable.

Yellow and black is the preferred colour combination for people with visual impairments. It is also a safety colour combination (see 4.5)

Red and white should always be used for Accident and Emergency departments

Things to avoid

- Avoid colours for text and background that have a low contrast
- Avoid using too many colours on one sign
- Do not automatically select your site's corporate colours for signs
- Avoid 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
- Avoid using colours which are similar, making it difficult to visually differentiate between the colours.

↑ A & E	Eye Clinic ↑
↑ Out-patients	Reception ↑
↑ Day Case Unit	Pharmacy →
↑ ENT	Way Out →

Abbreviations such as A&E and OPD should be avoided on signs

Red should not be used for destinations other than Accident and Emergency (A&E). It will cause confusion and reduce the prominence of the A&E and safety signs

Low-contrast colour combinations should be avoided

Yellow with white should always be avoided

Dark-coloured text on a brightly-coloured or dark background should be avoided

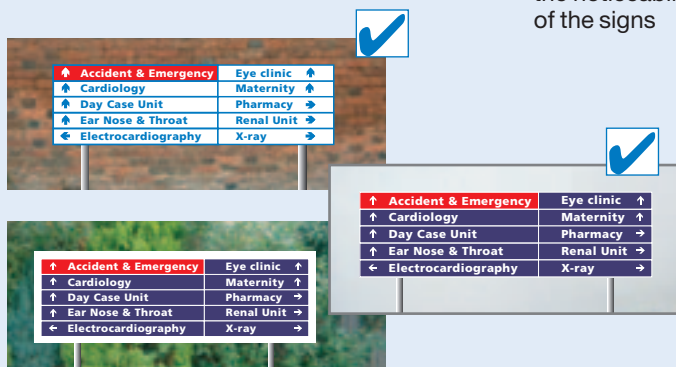
Some colours can be difficult to differentiate between, such as blue and green

Consider the environment and background colour

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

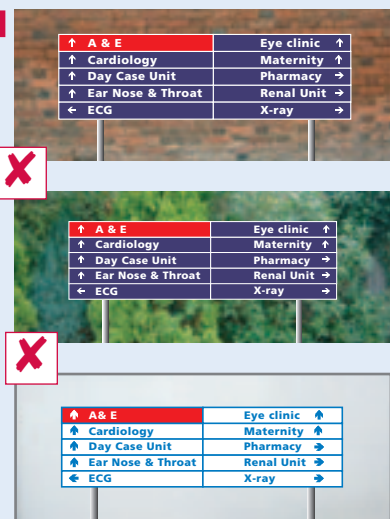
Recommendations

- 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



Things to avoid

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



3.9

Positioning of signs

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

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

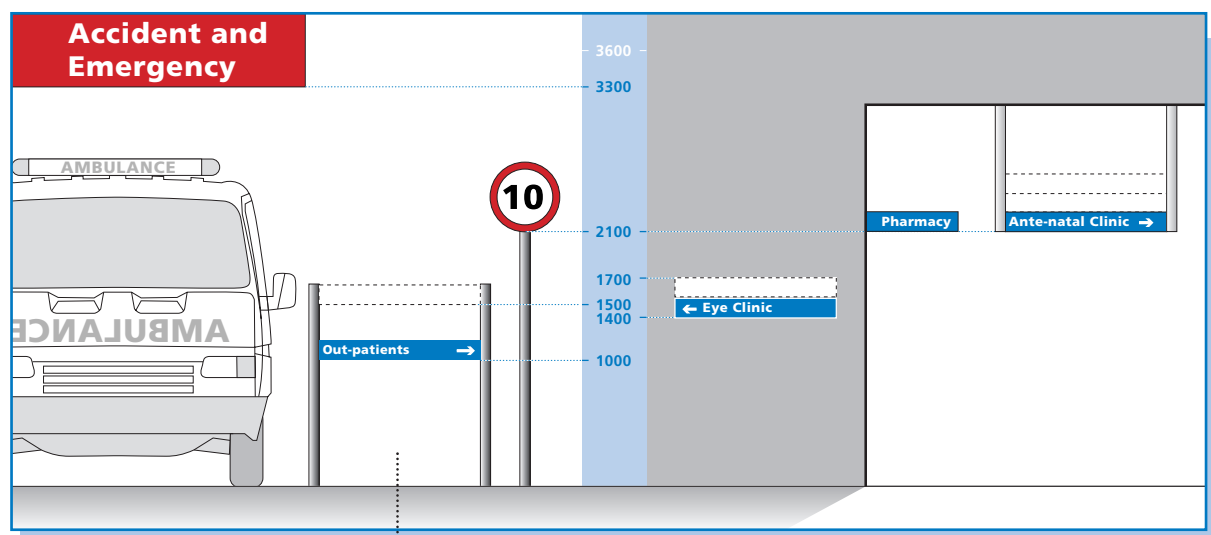
- height or space restrictions where signs are to be positioned
- possible obstructions where the signs are to be positioned
- potential illumination problems where there is insufficient light to ensure optimum legibility of signs ▶ 3.11
- viewing distance from which the sign is intended to be read ▶ 3.2
- 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 1400 mm to 1700 mm from the ground) is usually the most effective height for pedestrians. 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. ▶ 3.2

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)



NOTE: Position external signs that are likely to be obscured by passing or parked vehicles at least 1500 mm from the ground. Signs that are located away from possible obstructions can be positioned lower.

? Auditing your site

- 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 easily obscured?
- Is each type of sign positioned consistently?

■ Use the site survey sheet in section 5 to assess the positioning of signs at your site ▶ 5.3

Positioning signs for people with visual impairments

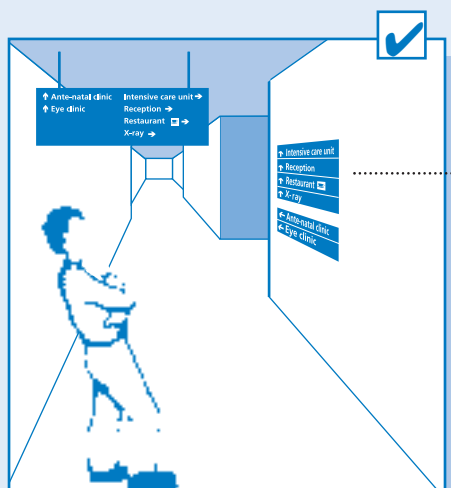
The Royal National Institute for the Blind and the Joint Mobility Unit recommend positioning all signs at eye level (1500 mm), including tactile (embossed) and Braille signs.

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

✓ Recommendations

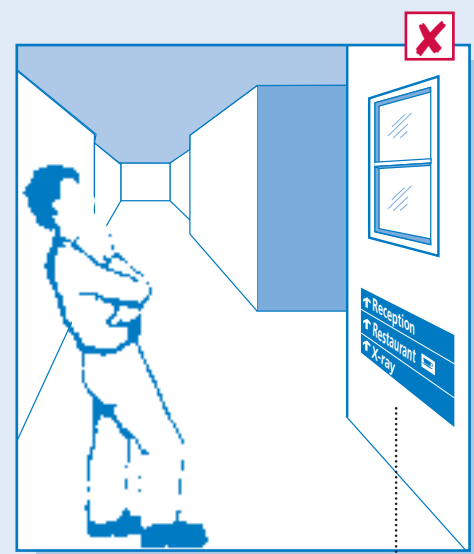
- Signs should be positioned so that they are:
 - visible and readable from all directions of approach
 - not obscured or surrounded by clutter (for example vegetation, vehicles, building features, or posters and non-wayfinding information)
 - not too high for people to read comfortably
 - not too low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



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

✗ Things to avoid

- 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
- Avoid 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.



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

3.10

Methods of sign construction

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

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.

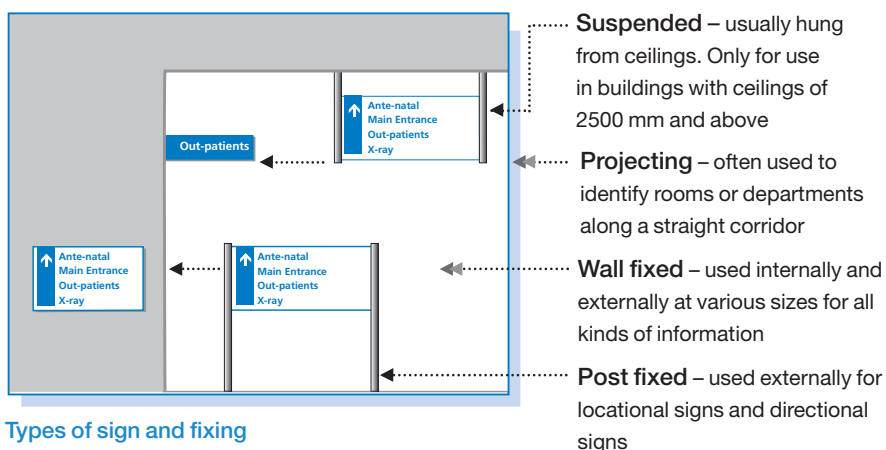
The material onto which text is applied affects the processes available and the durability and cost of the sign.

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

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



Types of sign and fixing

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

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 ▶ 3.9
- 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).

? Auditing your site

Are you developing a complete new signing system? What budget is available for the new signs?

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?

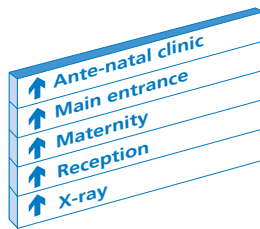
Key sign construction methods

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:



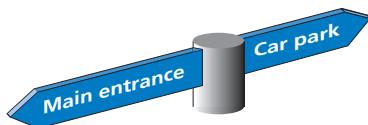
Single panel

- 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



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



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

Best practice guidelines – methods of construction

Selecting an appropriate type of sign

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

- Avoid reducing the type size just so the sign can be smaller, particularly if this reduces the legibility and viewing distance of the sign
- Avoid 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
- Avoid removing temporary notices until you know who put them up and why – they may indicate a need for a permanent sign.

3.11

Illuminating signs

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

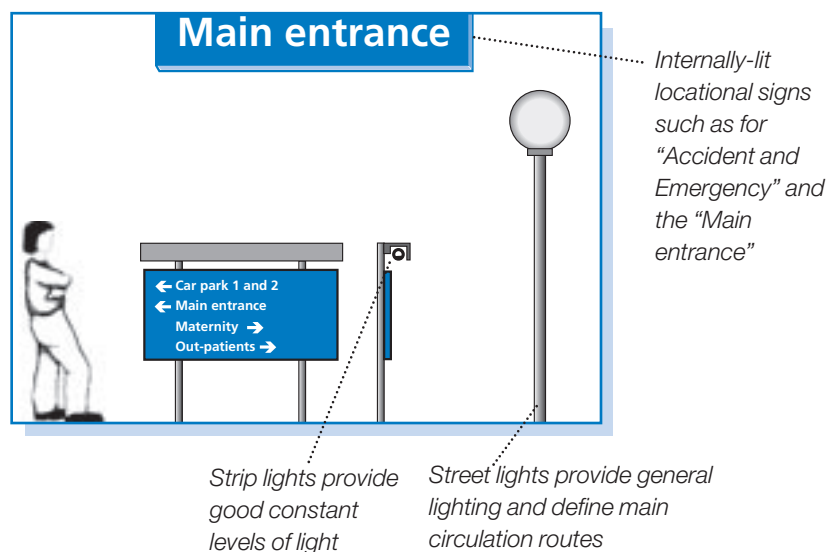
Artificial light needs to be provided around your site to ensure signs are noticeable and legible at all times of the day. You need to be aware of the variations in natural lighting level in all areas of your site, at different times of day, throughout the year to be able to develop an effective lighting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

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.

? Auditing your site

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?

- Use the site survey sheet in section 5 to assess the illumination and legibility of signs at your site ▶ 5.3

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 spotlight 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

✓ 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%,¹ to reduce glare and reflections.

✗ Things to avoid

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

¹ Recommended by Joint Mobility Unit, London, UK

Developing effective signs

Special considerations

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.

About this section

This section provides information on the specific factors that affect the legibility and effectiveness of each of the main types of sign. These should be considered in conjunction with the general considerations discussed in section 3. There are four parts to each topic:

- an introduction
- key factors to be considered
- auditing your site
- best practice guidelines, with recommendations and details of what to avoid.

4.1 Directional signs

4.2 Locational signs

4.3 Directories

4.4 Site maps

4.5 Safety signs

4.1

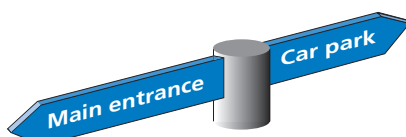
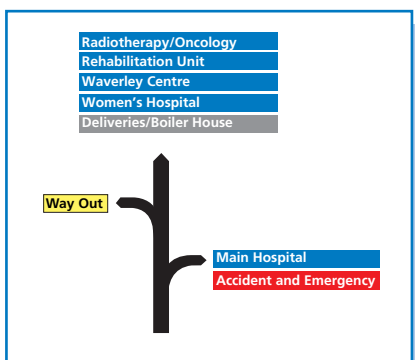
Directional signs

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.

Different ways to indicate direction



Key factors

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

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.

80–100 mm	← Ante-natal	Internal, pedestrian directional sign
150–200 mm	← X-ray Radiology	Internal directional sign for longer messages, dual-term or multiple-language signs
150–200 mm	← Maternity ward	External directional sign for vehicles, readable from further away, at driving speed

Positioning of arrows on directional signs

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 fire safety signs, notices and graphic symbols (BS 5499: Part 1: 1990). These are shown in the best practice guidelines opposite. 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

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. ▶ 3.3

? Auditing your site

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?

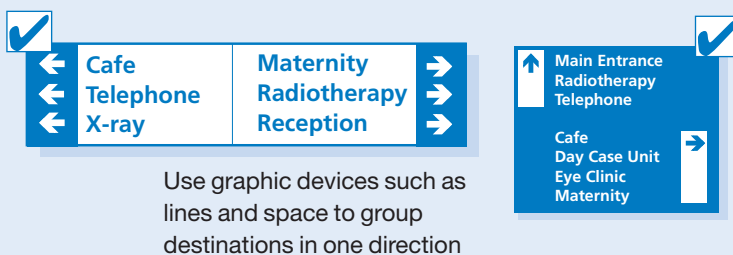
Are the directional signs at your site audited and updated regularly?

■ Use the site survey tool in section 5 to audit the signs at your site ▶ 5.3

✓ Best practice guidelines – directional signs

✓ 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.

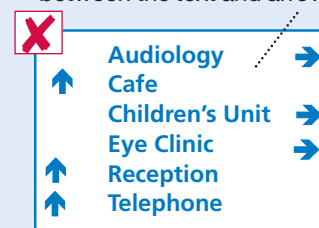


✗ Things to avoid

- Avoid using unclear or misleading arrows which may cause confusion
- Avoid trying to direct people back the way they have come. The types of arrow used to convey this message are often difficult to understand:



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



Standard positioning of arrows and their meanings

The arrow should be located consistently on all signs. Use only one arrow per destination



S = Destination on sign

From British Standard BS 5499: 1990: Part 1

Only one of the arrow alternatives shown next to the “S” should be used on a single sign

4.2

Locational signs

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 travelling
- the level of lighting where the sign is positioned.

Key factors

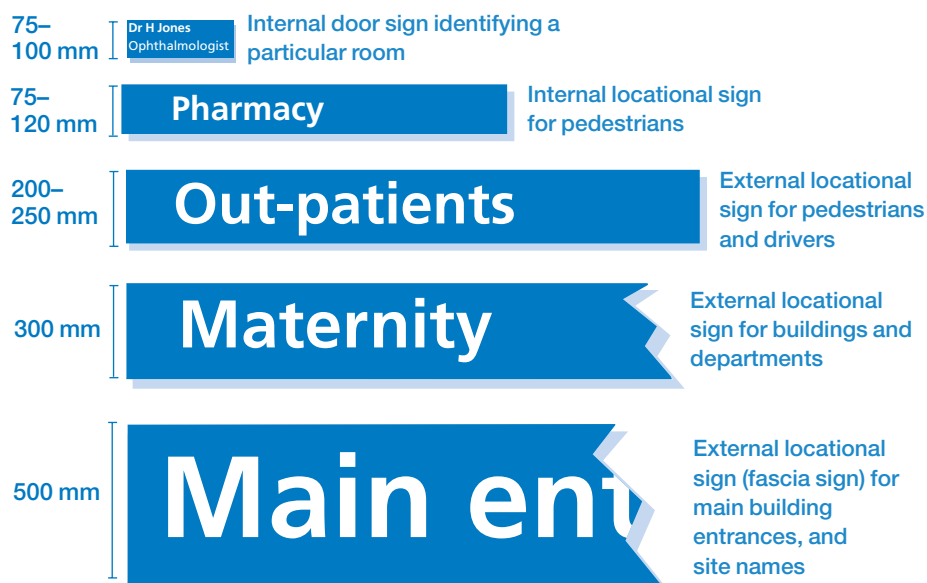
When trying to find their way, people need to:

- 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

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.



Differentiating between locational signs and other signs

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 [▶ 3.8](#)
- 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

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. [▶ 3.9](#)

Auditing your site

Are the locational signs at your site prominent?

Can people differentiate between locational and directional signs?

Are the locational signs positioned consistently? Are they visible from all main directions of approach?

- Use the site survey tool in section 5 to audit the signs at your site [▶ 5.3](#)

Best practice guidelines – locational signs

External locational signs

Recommendations

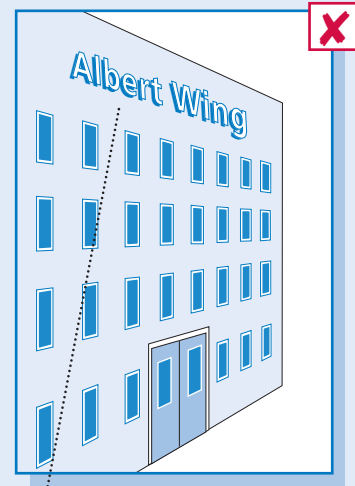
- Locational signs should be positioned so they are visible from all directions of approach
- Locational signs should be visible and legible for both pedestrians and vehicles. It may be necessary, particularly with large signs positioned on canopies, to position a smaller sign carrying the same information at eye level for pedestrians
- External signs need to be artificially illuminated to ensure they are visible at all times of the day.



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

- Avoid having only a large locational sign, positioned high up, and not providing locational information for pedestrians.

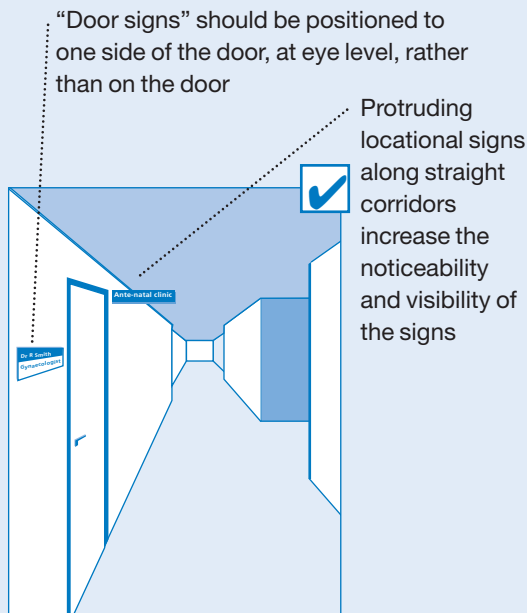


The locational sign is positioned high so drivers can see the information from a distance, but no consideration has been given to pedestrians who will also need the information

Internal locational signs

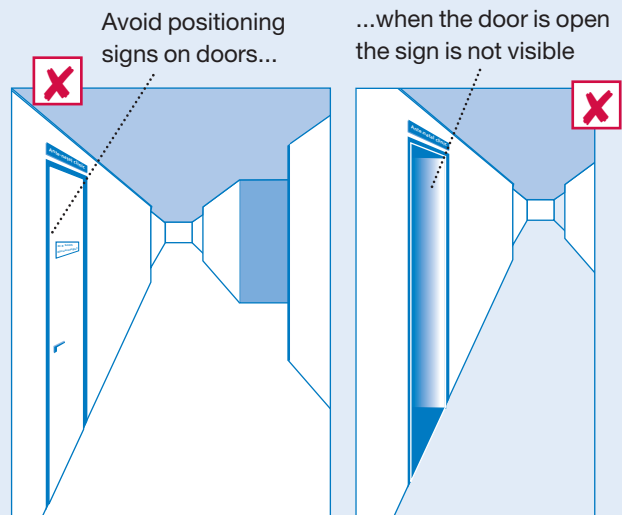
Recommendations

- 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.



Things to avoid

- Avoid positioning locational signs so that it is unclear which entrance the sign refers to
- Avoid positioning locational signs inconsistently – people learn where to look for specific information.



4.3

Directories

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

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. ▶ 3.3

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. ▶ 3.10

Layout, grouping and ordering of directory information

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.

You are now on FLOOR 1	
Departments	Public facilities
Accident and Emergency G	Cafe G
Ante-natal Clinic 2	Chapel LG
Blood tests LG	Entrances G & LG
Chest Clinic G	Toilets LG, G, 1, 2
Children's Unit 2	Car park 1 & 2 LG
Dental Clinic 1	Car park 3 & 4 G
Ear, Nose and Throat 1	
Eye Clinic 3	Wards
Fracture Clinic G	Wards 1,2,3,4 LG
Maternity 2	Wards 5,6,7,8 G
Speech Therapy 1	Wards 9,10,11,12 1
X-ray G	Wards 13,14,15 2
	Ward 16 3

Destinations grouped by function using appropriate headings

Clinic 1
Dr S Billing
Dr K Winne
Clinic 2
Dr J Kalm
Dr W Lindhurst
Clinic 3
Dr A Teller

Directory of clinics with changeable names

Level 3	Maternity Wards 14–17
Level 2	Accident and Emergency Children's Unit Blood tests
Level 1	Dental Clinic Ear, Nose and Throat Wards 9–12
Ground	Chest Clinic Fracture Clinic Main Entrance Wards 5–8
Lower Ground	Cardiology Car park Chapel Family Planning Wards 1–4

Destinations grouped by floor

Ground Floor
Cardiology
Chapel
Dental Clinic
Ear, Nose and Throat
Family Planning
Wards 1–4
Wards 9–12

Destinations listed alphabetically and grouped into shorter lists

Positioning directories

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.

? Auditing your site

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?

■ Use the site survey tool to audit the directories at your site ▶ 5.3

✓ Best practice guidelines – directories

✓ 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.

Clearly show the floor that the directory is on

You are now on GROUND FLOOR	
Ante-natal Clinic	1
Chest Clinic	G
Children's Unit	2
Dental Clinic	1
Dermatology	LG
Ear, Nose and Throat	1
Eye Clinic	2
Reception	1
X-ray	G

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
- Avoid positioning directories in locations that are busy or narrow, and where people stopping to read the directory will cause an obstruction.

You are now on GROUND FLOOR	
Ante-natal Clinic	1
Chest Clinic	G
Children's Unit	2
Dental Clinic	1
Dermatology	LG
Ear, Nose and Throat	1
Eye Clinic	2
Reception	1
X-ray	G

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

4.4

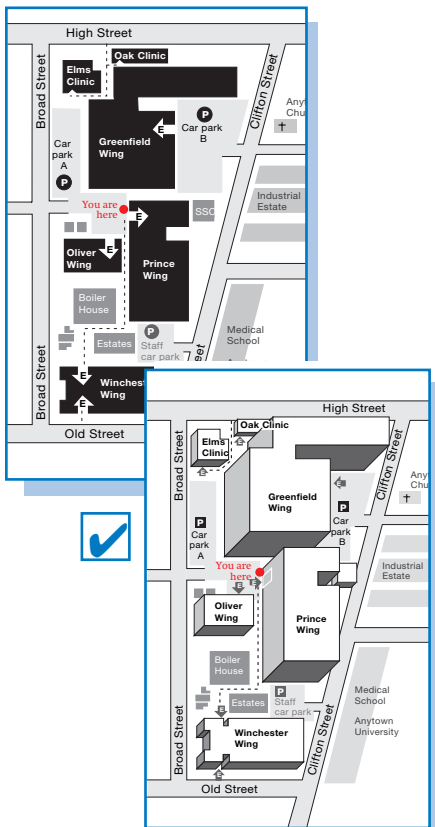
Site maps

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

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.

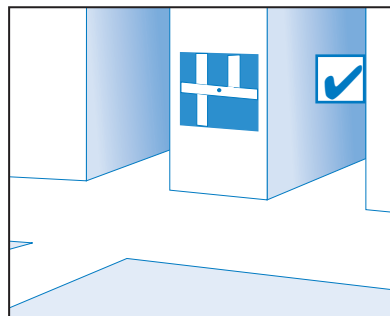
Factors that affect the clarity and therefore the usefulness of framed maps

- 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.

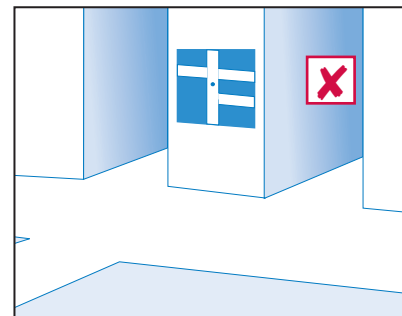
Factors that affect how many people use maps at your site

- 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



A This map is orientated to relate to the environment in which it is located



B This map is much more difficult to relate to the environment in which it is located

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 example A to avoid the confusion.

Amount of detail on maps

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.

Maps with advertising

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.

? Auditing your site

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?

■ Use the site survey tool in section 5 to audit the maps at your site ▶ 5.3

✓ Best practice guidelines – site maps

✓ 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:

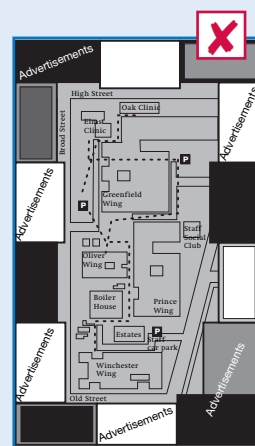
- the main public site entrances
- the public buildings and the main entrances into the buildings
- main circulation routes around the site
- public car parks and bus stops
- landmarks and prominent features.

Site maps positioned internally should show clearly:

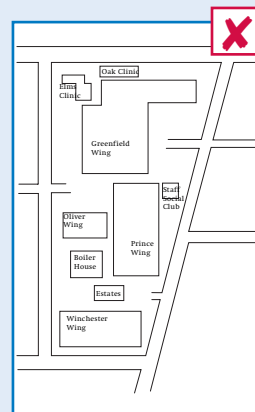
- the main public stairs and lifts linking the floors
- the main reception and information desks
- public facilities (such as toilets, café, phones, shop, cash dispenser)
- the number of floors, particularly if there are entrances or key facilities on more than one floor (consider a 3D map).

✗ Things to avoid

- 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
- Avoid using colours on maps that conflict with the colour-coding system, if your site has one
- Avoid using maps with advertising that is more visually prominent than the map.



Advertising is more visually prominent than the map, and there is no you-are-here



Not enough detail, no road names, no building entrances and no you-are-here

4.5

Safety signs

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

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

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

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:



Always use these signs with additional text or a symbol to provide a specific message

Examples of British Standard safety signs and symbols

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 signs



First aid point



Eye wash



Resuscitation equipment



Defibrillator



Right directional arrow



Left directional arrow

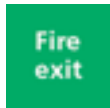
Safe condition exit signs



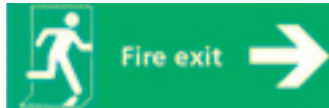
Externally illuminated exit sign*



Internally illuminated exit sign*



Text sign to supplement the symbol



Directional exit sign with text and arrow

* There is also a version with flames next to the door. The person in the symbol should be running in the direction of the exit

Warning signs



Caution risk of explosion



Caution toxic hazard



Caution risk of ionising radiation



Caution biological hazard



Caution risk of electric shock

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

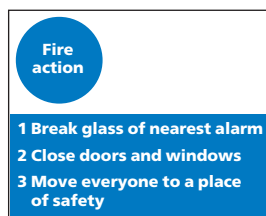
Fire safety mandatory signs



Fire door keep shut



Fire escape keep clear



Fire safety notice

Standards for safety signs

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:

- **Safety signs and colours** (BS 5378: 1980)
- **Fire safety signs, notices and graphic symbols** (BS 5499: Part 1: 1990)
- **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*

British Standards can be obtained by post from BSI Customer Services, 389 Chiswick High Road, London, W4 4AL.

Extracts and symbols from British Standards are reproduced with the permission of BSI under licence number PD\1999 0509. You should make sure you have complete and up-to-date standards.

Major accident signs

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.

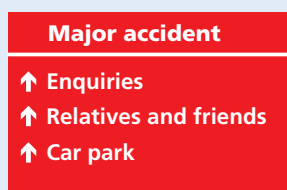
There should be a central enquiry point where people can get information without interfering with the hospital procedures.

Designated, trained staff should direct people (see 2.2.3).

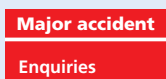
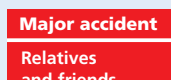
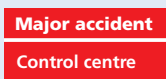
All sites should have a major accident plan. You should refer to:

'Planning for major incidents. The NHS guidance' (NHS Executive, November 1998)

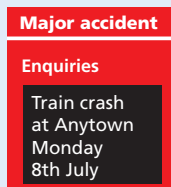
Directional signs



Locational signs for doors



Information sign



Wayfinding in an emergency

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

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

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.

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.

About this section

This section contains four tools which can be used to evaluate your site and also a sample sign specification sheet.

The healthcare facility user questionnaire, and the site survey tool, were designed, tested, and used in the research study (IDU 98) that forms the basis for this book.

5.1 Healthcare facility user questionnaire

- 5.1.1 Tally sheet
- 5.1.2 Analysis of results

5.2 Testing graphic elements

- 5.2.1 Using this graphic element testing tool

5.3 Site survey tool

5.4 Auditing your site checklist

5.5 Specifying signs

Finding your way around this site

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

2_a 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

b Where did you park?

..... Not sure

c 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

3_a If you came by bus, was it easy to find the correct bus stop to get off at?

- Yes
- No

b What bus stop did you get off at?

..... Not sure

c 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

5_a Before you came today, were you given any directions or information to help you find your way?

- Map
- Spoken directions
- Written directions

Other

b 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

6_a How did you find getting to where you wanted to go?

- Very easy
- Easy
- Difficult
- Very difficult

b How many wrong turnings did you take?

- None
- One wrong turning
- 2 or 3 wrong turnings
- More than 3 wrong turnings

c Was the building entrance clearly marked?

- Yes
- No
- Can't remember

d Did you ask anyone for directions?

- Yes, and their directions were clear
- Yes, but their directions were not clear
- No

e Who did you ask for directions?

.....

7_a 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

8 a **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

b **What do you think about the number of signs?**

- Too many signs
- The right number of signs
- Not enough signs

c **How did you find reading the signs?**

- Very easy to read
- Easy to read
- Difficult to read
- Very difficult to read

d **Did you notice any colour-coding used on the signs or buildings?**

- Yes
- No

e **Did you notice any symbols on the signs?**

- Yes
- No

Please describe or draw the ones you can remember:

.....
.....
.....

9 a **Have you seen a map of the site?**

- Yes
- No

b **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

13 **It will help us if you can tell us something about yourself**

a **How old are you?**

- Under 18
- 18–30
- 31–50
- 51–65
- Over 65

b **Why are you here?**

- I am an in-patient
- I am an out-patient
- I am visiting a patient
- Other reason:

c **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

If you have any queries about this questionnaire, or if you wish to return your completed questionnaire anonymously, please contact:

Collecting the data from the questionnaires

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 two 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.

1	<i>Car</i>		TOTAL		
	<i>Bus</i>				
	<i>Taxi</i>				
	<i>Walked</i>				
	<i>Ambulance</i>				
	<i>Other</i>				
<hr/>					
2	a <i>Yes</i>				
	<i>No</i>				
	b <i>Where they parked</i>				
	<i>Not sure</i>				
	c <i>Yes, a very long time</i>				
	<i>Yes, quite a long time</i>				
	<i>No, not a long time</i>				
<hr/>					
3	a <i>Yes</i>				
	<i>No</i>				
	b <i>Bus stop:</i>				
	<i>Not sure</i>				
	c <i>Yes, a very long time</i>				
	<i>Yes, quite a long time</i>				
	<i>No, not a long time</i>				
<hr/>					
4	<i>Building and department</i>				
	<i>Not sure</i>				
<hr/>					
	5	a <i>Map</i>			TOTAL
		<i>Spoken directions</i>			
		<i>Written directions</i>			
		<i>Other:</i>			
	b <i>Yes</i>				
	<i>No</i>				
<hr/>					
	6	a <i>Very easy</i>			
		<i>Easy</i>			
		<i>Difficult</i>			
		<i>Very difficult</i>			
	b <i>None</i>				
		<i>One</i>			
		<i>2 or 3</i>			
		<i>More than 3 wrong turnings</i>			
	c <i>Yes</i>				
		<i>No</i>			
		<i>Can't remember</i>			
	d <i>Yes, were clear</i>				
		<i>Yes, but not clear</i>			
		<i>No</i>			
<hr/>					
	7	a <i>Noticed signs</i>			
		<i>Maps</i>			
		<i>Directories</i>			
	b <i>Used signs</i>				
		<i>Maps</i>			
		<i>Directories</i>			

	TOTAL
8a <i>Very easy</i>	
<i>Easy</i>	
<i>Difficult</i>	
<i>Very difficult</i>	
b <i>Too many</i>	
<i>The right number</i>	
<i>Not enough</i>	
c <i>Very easy</i>	
<i>Easy</i>	
<i>Difficult</i>	
<i>Very difficult</i>	
d <i>Yes</i>	
<i>No</i>	
e <i>Yes</i>	
<i>No</i>	
<i>Symbols:</i>	

9a <i>Yes</i>	
<i>No</i>	
b <i>Very difficult</i>	
<i>Difficult</i>	
<i>Easy</i>	
<i>Very easy</i>	

10 <i>Very worried</i>	
<i>Quite worried</i>	
<i>Happy</i>	
<i>Relaxed</i>	
<i>Other:</i>	

	TOTAL
11 <i>Very confusing</i>	
<i>Quite confusing</i>	
<i>Cramped</i>	
<i>Open</i>	
<i>Friendly</i>	
<i>Other:</i>	

12 <i>None</i>	
<i>Once</i>	
<i>2 or 3 times</i>	
<i>More than 3 times</i>	

13a <i>under 18</i>	
<i>18–30</i>	
<i>31–50</i>	
<i>51–65</i>	
<i>Over 65</i>	
b <i>In-patient</i>	
<i>Out-patient</i>	
<i>Visiting a patient</i>	
<i>Other reason</i>	
c <i>Disabilities</i>	

Any comments written on the questionnaire:

.....

.....

.....

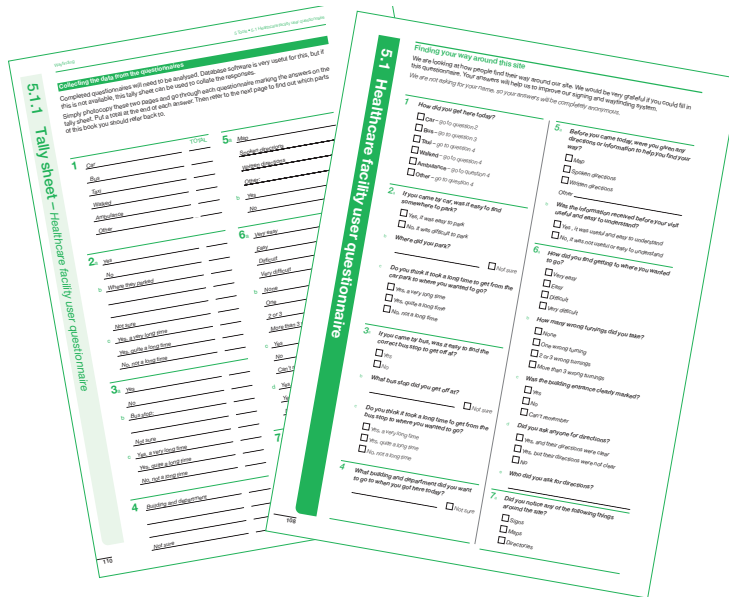
.....

.....

.....

Analysing the results of the questionnaire

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 [▶ 2.3.3](#)
 - bus/taxi [▶ 2.3.2](#)
 - foot [▶ 2.3.1](#)
- 2a** If a large number of the people answered “No”, this suggests that it took a long time to find somewhere to park:

see [▶ 2.4.1](#)

 - b** If people are not using the correct car park:
see [▶ 2.4.1](#)
 - c** If people feel that it took a long time to get from the car park to their destination:
see [▶ 2.4.2 – 2.4.5](#)
- 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 [▶ 2.3.2](#)

 - b** If people are getting off the bus at the wrong bus stop:
see [▶ 2.3.2](#)
 - c** If people felt that it took a long time to get from the bus stop to their destination:
see [▶ 2.4.2 – 2.4.5](#)
- 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 [▶ 2.2.2](#)
 - spoken directions [▶ 2.2.3](#)
 - written directions [▶ 2.2.4](#)

6 The answers given to questions 6a and 6b provide general indications of how people found wayfinding at your site

- c If a large number of people say “No, the entrance was not clearly marked”:

see ▶ 2.3.5

- d If the spoken directions were used but were found to be unclear:

see ▶ 2.2.3

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 ▶ 3.9

- c If people found the signs difficult to read:

see ▶ 3.1 – 3.10

- d If people did not notice the colour-coding used with the system:

see ▶ 2.1.7

- e If people did not notice any symbols, but there are some used within the system:

see ▶ 3.7

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 ▶ 1.5.1

10 If people found your site confusing:

see ▶ 2.1.6

11 If people did not notice a map at your site or found them difficult to understand:

see ▶ 4.4

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:

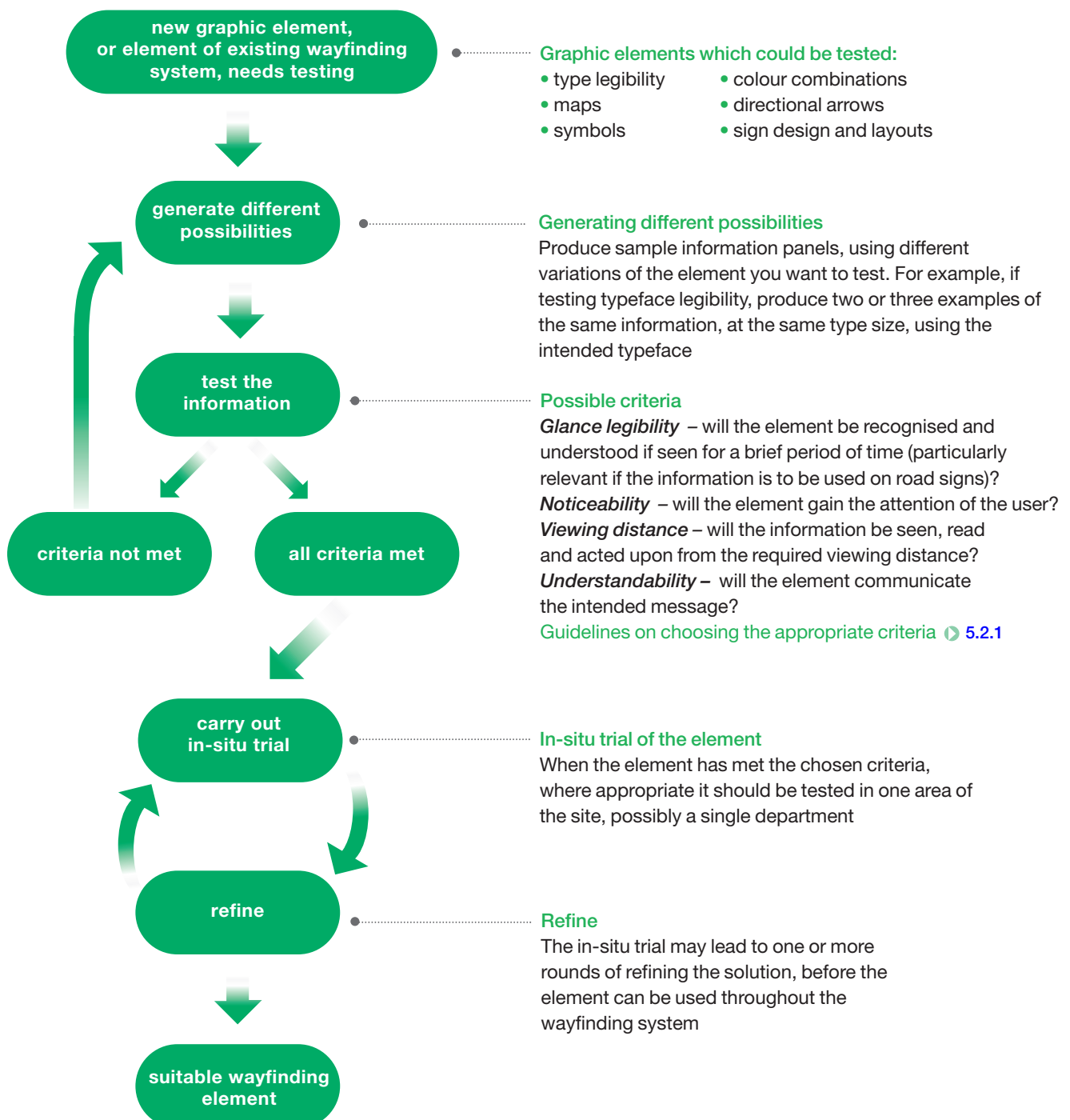
see ▶ 1.4

5.2

Testing graphic elements

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 5.2.1 for guidelines on using this tool.

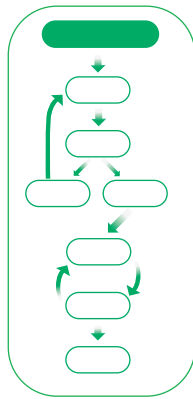


5.2.1 Using this graphic element testing tool

Guidelines on how to use this graphic element testing tool

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.

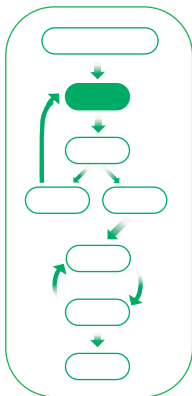
Reduce any environmental factors that may affect your results. For example, if you are testing sign layouts make sure the illumination of the signs does not vary, and that the viewing angle and viewing distance are the same for each person.



Identifying wayfinding elements which need testing

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

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

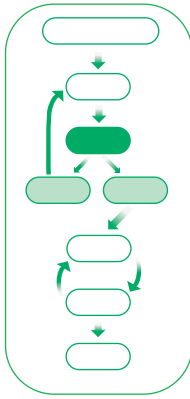
This method involves collecting a few people together (six is a good number) round a table, showing them signs, maps or other graphic elements, and probing their reactions to them. The signs or maps can be the real thing, or simply versions of them on paper or card.

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

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

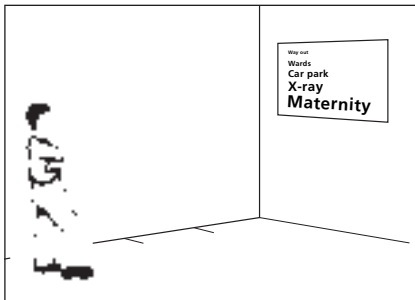
Using the table discussion method, show people cards carrying different versions of the element you are testing. Show the cards one at a time, for the same length of time each – about one second. After each card is shown, ask people to write down their impressions of the element, and what they understood 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

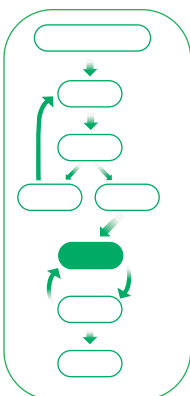
Using a corridor test, put up a panel containing the element you are testing in a variety of sizes. Stop people quite a distance from the panel, and walk with them towards it, asking them to tell you as each different-sized element becomes clear. Marks on the floor make it easy to record the distance 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

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.

Guidelines on how to use this site survey tool

Identify the routes to be surveyed

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. [1.4](#)

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.

5.3

Site survey tool

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.

Surveying your site

Complete these two 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.

Developing a wayfinding strategy

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?

5.4

Auditing your site checklist

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.

5.4 continued

Auditing your site checklist

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?

5.4 continued

Auditing your site checklist

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?

*Developing effective signs – general considerations continued***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

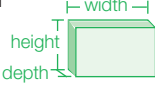
- Are the locational signs at your site prominent?
- Can people differentiate between locational and directional signs?
- Are the locational signs positioned consistently?
- Are the locational signs visible from all main directions of approach?

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?

Sign reference (number or letter):	
Sign location (describe or mark on map):	
Text on sign:	
Sign type:	
<input type="checkbox"/> directional	<input type="checkbox"/> locational <input type="checkbox"/> directory <input type="checkbox"/> map
Sign fixing:	
<input type="checkbox"/> wall-mounted	<input type="checkbox"/> on posts <input type="checkbox"/> ceiling-suspended
<input type="checkbox"/> screw-fixed	<input type="checkbox"/> adhesive-fixed <input type="checkbox"/> other:
Size of sign:	
<input type="text"/> cm width	<input type="text"/> cm height <input type="text"/> cm depth
<input type="text"/> mm height from ground	
Typeface	
Typeface name:	
<input type="checkbox"/> bold	<input type="checkbox"/> regular <input type="checkbox"/> other:
<input type="checkbox"/> both upper and lower case	<input type="checkbox"/> all upper <input type="checkbox"/> all lower
Alignment of text	
<input type="checkbox"/> all left	<input type="checkbox"/> all right <input type="checkbox"/> other:
Type size	
Main text: x-height <input type="text"/> mm	Secondary text: x-height <input type="text"/> mm
Colours	
Background colour(s):	Text colour(s):
Post/pole colour:	
<input type="checkbox"/> site logo – colours:	<input type="checkbox"/> colour coding
Printing method	
<input type="checkbox"/> applied vinyl	<input type="checkbox"/> screen-printed <input type="checkbox"/> other:
<input type="checkbox"/> printed both sides	<input type="checkbox"/> printed one side
<input type="checkbox"/> non-reflective	<input type="checkbox"/> reflective text <input type="checkbox"/> reflective sign
Construction method and material	
<input type="checkbox"/> slat system	<input type="checkbox"/> flat sheet <input type="checkbox"/> cut-out letters
<input type="checkbox"/> other:	
Material(s):	
Symbols – describe and attach a drawing to this page	
Layout of sign – attach a drawing of the layout to this page	
Illumination	
<input type="checkbox"/> internally lit	<input type="checkbox"/> external lighting required
<input type="checkbox"/> lighting sufficient	

5.5

Specifying signs

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. Sample pages from a sign specification document are shown [overleaf](#).

Sign numbers 21 & 22

Map location no: 21 and 22
Nearest building: General Hospital
Type of signs: Large locational
Material: Stove enamelled aluminium. Single panel.
Fitting: 21 & 22 are attached to end walls, at least 2000 mm off ground
Printing: Printed one side, vinyl.
Colours: green (Pantone 335), reflective white text
Graphics: As shown.
Typeface: Frutiger Bold, 120 mm x-height

sign number 21

sign number 22

Scale 1:20

Walsgrave external signage
Specification Document - Final Version (3)
 March 4th 1997
 Designed by HealthCare Information Design (01908) 210060.
 Signs produced by Focal Signs (0181) 640 7878.

Sign number 6

Map location no: 6
Nearest building: Women's Hospital.
Type of sign: Vehicle directional.
Material: Stove enamelled aluminium. Single panel.
Fitting: Round posts (existing).
Printing: Printed one side, semi-gloss vinyl
Colours: black, yellow (process), green (Pantone 335), purple (Pantone 266)
Graphics: As shown.
Typeface: All text Frutiger Bold 50 mm x-height
 Coloured boxes = 120 mm

Scale 1:20

Walsgrave external signage
Specification Document - Final Version (3)
 March 4th 1997
 Designed by HealthCare Information Design (01908) 210060.
 Signs produced by Focal Signs (0181) 640 7878.

Appendix 1

Books and research papers about wayfinding

Appendix 2

Survey sites

Appendix 3

Expert panel

Appendix 4

Useful addresses

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.** HMSO 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) Her Majesty's Stationery Office.

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

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>

Appendix 1

Books and research papers about wayfinding

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.

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

Appendix 2

Survey sites

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.

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 NHS 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:

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Mark Rose	Joint Mobility Unit <i>(Sign Consultant)</i>
Piet Venemans	EST (Wayfinding Consultancy), The Netherlands <i>(Consultant)</i>
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Barry Gray	Railtrack Architecture & Design <i>(Design and Signing Manager)</i>
Dr John R Hayes	Carnegie Mellon University, USA <i>(Professor of Psychology)</i>
Paul Hazell	University College Worcester <i>(Senior Lecturer)</i>
John Haworth	Powell Moya Partnership <i>(Managing Director – architect)</i>
Dr Michael J O'Neill	Herman Miller Inc, USA <i>(Director of Knowledge Management)</i>
Mark Shaw-Smith	Modulex Worldwide <i>(General Manager – architect)</i>
Prof. David Sless	Communication Research Institute of Australia <i>(Research Director)</i>
John Wells-Thorpe	South Downs Health NHS Trust <i>(Chairman)</i>
Ian Wright	The Jenkins Group <i>(Design Director)</i>
Prof. Patricia Wright	School of Psychology, Cardiff University

Appendix 3

Expert panel

